

DEENDAYAL PORT AUTHORITY
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EG/WK/4751/Part (Ro-Pax)/ 108

Dated: 04/12/2025

To,
The Deputy Director General of Forests (C),
Ministry of Environment, Forest & Climate Change,
Integrated Regional Office, Gandhinagar,
A wing- 407 & 409, Aryan Bhawan,
Near CH-3 Circle,
Sector 10 A, Gandhinagar – 382 010.

Sub: Bifurcation (600 mt waterfront out of total 4800 mt) of Environmental and CRZ clearance issued to M/s Essar Bulk Terminal Limited for Expansion of Port Facility at Hazira, Surat, Gujarat - **Submission of Compliance Report of Stipulated Conditions reg.**

Ref.: 1. Bifurcation (600 mt water front out of total 4800 mt) of Environmental and CRZ Clearance issued to M/s Essar Bulk Terminal Limited for expansion of port facility at Hazira, Surat, Gujarat by the MoEF&CC, GoI vide letter F. No. 11-46/2011 - IA III dated 4/4/2022.
2. Environmental and CRZ Clearance for the expansion of port facility at Hazira, Surat, Gujarat by M/s Essar Bulk Terminal Ltd by the MoEF&CC, GoI vide letter F. No. 11-46/2011 - IA III dated 06/05/2014
3. DPT Letter no. EG/WK/4751/Part (Ro-Pax)/156 dated 05/08/2022
4. DPA letter no. EG/WK/4751/Part (Ro-Pax)/347 dated 07/08/2023
5. DPA letter no. EG/WK/4751/Part (Ro-Pax)/35 dated 18/03/2024
6. DPA letter no. EG/WK/4751/Part (Ro-Pax)/180 dated 02/12/2024
7. DPA letter no. EG/WK/4751/Part (Ro-Pax)/64 dated 08/05/2025
8. DPA letter no. EG/WK/4751/Part (Ro-Pax)/71 dated 30/09/2025

Sir,

It is requested to kindly refer above cited reference for the said subject.

In this regard, it is to state that, the MoEF&CC, GoI, New Delhi vide above mentioned letter dated 4/4/2022 cited at Reference 1 had issued Bifurcation of Environmental and CRZ Clearance accorded to M/s Essar Bulk Terminal Limited vide letter of even number dated 6th May, 2014 in the name of Deendayal Port Trust for **"Development of 600 m Waterfront and 24 ha. Back up Area at Hazira, Surat by Deendayal Port Trust (Now: Deendayal Port Authority)"**.

In the said letter dated 4/4/2022, the MoEF&CC, GoI under Para 8 has mentioned that, Deendayal Port Authority shall comply with all the specific & general conditions stipulated in the EC & CRZ Clearance of even no. dated 6th May, 2014 cited at Reference 2.

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Accordingly, we are submitting herewith compliance report in the PARIVESH 2 PORTAL for the period April, 2025 to September, 2025. Further we are also submitting the Monitoring Report in Data Sheet.

This is for your kind information and record please

This has the approval of Chief Engineer, Deendayal Port Authority.

Yours faithfully,

Encl.: As above



XEN (EMC)
Deendayal Port Authority

Annexure –I

Half Yearly Compliance Report**2025****01 Dec(01 Apr - 30 Sep)****Acknowledgement**

Proposal Name	Bifurcation (600 mt waterfront out of total 4800 mt) of Environmental and CRZ Clearance issued to M/s ESSAR Bulk Terminal Limited for expansion of Port facility at Hazira, Surat, Gujarat		
Name of Entity / Corporate Office	Deendayal Port Authority		
Village(s)	N/A		
District	SURAT		
Proposal No.	IA/GJ/MIS/167825/2020	Category	INFRA-2
Plot / Survey / Khasra No.	N/A	Sub-District	N/A
State	GUJARAT	Entity's PAN	*****EQUIRED
MoEF File No.	F. No. 11-46/2011-IA.III	Entity name as per PAN	Deendayal Port Authority

Compliance Reporting Details**Reporting Year** 2025**Remarks (if any)****Reporting Period** 01 Dec(01 Apr - 30 Sep)**Details of Production and Project Area****Name of Entity / Corporate Office** Deendayal Port Authority

	Project Area as per EC Granted	Actual Project Area in Possession
Private	0	0
Revenue Land	0	0
Forest	0	0
Others	24	24
Total	24	24

Production Capacity

Sr. no	Product Name	units	Valid Upto	Capacity	Production last year	Capacity as per CTO
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Conditions**Specific Conditions**

Sr.No.	Condition Type	Condition Details
1	Statutory compliance	Consent for Establishment shall be obtained from Gujarat Pollution

		Control Board under Air and Water Act and a copy shall be submitted to the Ministry before start of any construction work at the site.
PPs Submission: Complied As directed in the Bifurcated EC and CRZ Clearance issued by the MoEFCC, GoI dated 4/4/2022, DPA also obtained Consent to Establish (CTE-55353) (after obtaining Environmental Clearance), vide dated 24/6/2022 from the Gujarat Pollution Control Board (under Water Act 1974 and Air Act 1981) in the name of DPA for development of 600 m waterfront and 24 ha back up area. A copy of the same was submitted in the earlier compliance report.		Date: 27/11/2025
2	Statutory compliance	Project Proponent shall appoint a consultant to look after and advice on the transportation of dangerous chemicals. Sensors for early detection of leakage of propylene and butadiene shall be provided at berths along with water sprinklers.
PPs Submission: Complied N/A. DPA developed Ro-Ro/Ro-Pax facility at Hazira which is being used for public conveyance and also for trailer, trucks, cars etc.		Date: 13/11/2025
3	Marine/Coastal	Project Proponent shall ensure proper flushing/free flow of tidal water to the mangroves.
PPs Submission: Complied The GMB had allotted land of 24 Hectares to Deendayal Port Authority devoid of Mangroves. However, due care is being taken for proper flushing/free flow of tidal water to the mangroves in surrounding areas.		Date: 13/11/2025
4	Statutory compliance	Project Proponent shall submit once in 12 months the latest satellite imagery to MoEF and CC to ensure that mangroves are remains fully intact. Any shrinkage in mangrove area noticed either in the satellite imaginary or during site visit, shall be taken as violation.
PPs Submission: Complied N/A. The GMB had allotted land of 24 Hectares to Deendayal Port Authority devoid of Mangroves.		Date: 13/11/2025
5	Statutory compliance	The Project Proponent shall get third party inspection carried out once in a year preferably by NEERI to ensure compliance of all the Environmental Clearance (EC) conditions.
PPs Submission: Agreed to Comply It is assured that third party will be engaged for inspection to ensure compliance of all the applicable EC conditions.		Date: 13/11/2025
6	Marine/Coastal	There shall be no encroachment of project activities in the mangrove area. The various referral distances/latitudes/ longitudes as indicated in the enclosed map (Annexure-II) shall be maintained for the conservation of this mangrove area within the port limit.
PPs Submission: Complied N/A. The GMB had allotted land of 24 Hectares to Deendayal Port Authority devoid of Mangroves.		Date: 13/11/2025
7	AIR QUALITY MONITORING AND PRESERVATION	Stock yard on northern side (Hazira Village side) shall be provided with bund and wind screen of atleast 15 mt height with well-designed water spray fogging arrangement along with three rows of trees in canopy formation.
PPs Submission: Complied N/A. DPA developed Ro-Ro/Ro-Pax facility which is being used for public conveyance and also for		Date: 13/11/2025

	trailer, trucks, cars etc.	
8	AIR QUALITY MONITORING AND PRESERVATION	The height of coal stack yard shall be at least 2 feet below the height of wind curtain.
PPs Submission: Complied N/A. DPA developed Ro-Ro/Ro-Pax facility which is being used for public conveyance and also for trailer, trucks, cars etc.		Date: 13/11/2025
9	GREENBELT	Green belt shall be provided all along stack yard and in the premises.
PPs Submission: Complied DPA had already developed required planation (area of about 7000 m2) within the Ro-Ro/Ro-Pax Terminal area.		Date: 13/11/2025
10	AIR QUALITY MONITORING AND PRESERVATION	The existing coal conveyor from berth to stock yard shall be closed with cover since the present water spray appears to be inadequate.
PPs Submission: Complied N/A. DPA developed Ro-Ro/Ro-Pax facility which is being used for public conveyance and also for trailer, trucks, cars etc.		Date: 13/11/2025
11	AIR QUALITY MONITORING AND PRESERVATION	The transportation in the proposed facility shall be in closed conveyor only.
PPs Submission: Complied N/A. DPA developed Ro-Ro/Ro-Pax facility which is being used for public conveyance and also for trailer, trucks, cars etc.		Date: 13/11/2025
12	Marine/Coastal	Natural drainage system shall be maintained so that there is free flow to the existing mangroves. Mangrove plantation in 500 ha of land in consultation with GEC/Forests Department, Government of Gujarat.
PPs Submission: Complied The GMB had allotted land of 24 Hectares to Deendayal Port Authority devoid of Mangroves. However, due care is being taken so that Natural Drainage System will be maintained. As per the directions of the GCZMA and MoEFCC, GoI, to date, DPA has undertaken a Mangrove Plantation in an area of 1600 Hectares since the year 2005. The details have already been communicated with the earlier compliance reports submitted. Deendayal Port Authority (DPA) has undertaken a total of 1650 hectares of mangrove plantation from 2005-06 to date, incurring a cumulative cost of Rs. 539.7 lakhs. (Annexure 1)		Date: 27/11/2025
13	Marine/Coastal	There shall be no disposal of wastes in to the coastal areas.
PPs Submission: Complied It is assured that no disposal of wastes will be made in to the coastal areas.		Date: 13/11/2025
14	Statutory compliance	Hazardous chemicals except the permissible Petroleum products shall not be stored within CRZ area. All the construction, storage shall be as per the CRZ Notification, 2011.
PPs Submission: Complied N/A. DPA developed Ro-Ro/Ro-Pax facility which is being used for public conveyance and also for		Date:

	trailer, trucks, cars etc.	13/11/2025
15	Statutory compliance	All the conditions/recommendations stipulated by Gujarat Coastal Zone Management Authority (GCZMA) No.ENV-10- 2011-877-E dated 01.06.2013 shall be complied with.
PPs Submission: Complied The compliance of the conditions/recommendations stipulated by GCZMA vide letter dated 01/06/2013 applicable to this project is attached herewith as Annexure 3.		Date: 13/11/2025
16	Statutory compliance	Oil spill Contingency plan shall be put in place.
PPs Submission: Complied No oil handling is envisaged in proposed RoRo/RoPax development. Oil spill can happen only during bunkering and collision of vessels. Hence, the oil spill scenario will be considered as Tier 1 (less than 700 tons). RoRo/RoPax operation is proposed and oil spill can occur only if there is any accident.		Date: 14/11/2025
17	Statutory compliance	Hydrocarbon monitors with provision for alarms set at specific concentrations shall be installed at strategic locations on the berth and around storage tanks as per ISGOTT and OISD.
PPs Submission: Complied N/A. DPA developed Ro-Ro/Ro-Pax facility which is being used for public conveyance and also for trailer, trucks, cars etc.		Date: 14/11/2025
18	Risk Mitigation and Disaster Management	On site Emergency Management plan shall be put in place.
PPs Submission: Complied A copy of Disaster Management plan has already been communicated with the compliance report dated 05/08/2022.		Date: 14/11/2025
19	Statutory compliance	All the recommendation of the EMP, Risk Assessment and DMP shall be complied with letter and spirit. All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan shall be submitted to MoEF along with half yearly compliance report to MoEF-RO.
PPs Submission: Complied Point Noted for compliance. A copy of EMP prepared for the Development of Ro-Ro/Ro-Pax Facility at Hazira by Deendayal Port Authority and copy of Risk assessment and disaster management plan already been communicated with the compliance report dated 05/08/2022.		Date: 18/11/2025
20	Statutory compliance	The port shall ensure that the ship under operation follows the MARPOL convention regarding discharge or spillage of any toxic, hazardous or polluting material like ballast water, oily water or sludge, sewage, garbage etc. The emission of NOx and SOx shall remain within the permissible limits.
PPs Submission: Complied Currently ferry is operated by ISPL. ISPL stated that, In Compliance. No ballast handling. Engine room Bilges and slops are disposed ashore in certified reception facilities		Date: 18/11/2025
21	WASTE MANAGEMENT	The hazardous wastes generated shall be collected and disposed as per rules, disposable wastes shall be sent to authorized TSDF. MoU in this regard shall be submitted to the Ro, MoEF along with the six monthly monitoring report.

PPs Submission: Complied Currently ferry is operated by ISPL. ISPL stated that, In compliance The Hazardous Waste and ships galley refuse will be transferred ashore to authorized reception facilities for proper disposal.		Date: 27/11/2025
22	WASTE MANAGEMENT	The dredging materials shall be utilized for reclamation and excess shall be disposed at the site identified by CWPRS.
PPs Submission: Complied No dredging carried out during this period		Date: 18/11/2025
23	Human Health Environment	A study to determine the reasons for increase in cancer patient in the vicinity shall be carried out.
PPs Submission: Complied N/A. DPA developed Ro-Ro/Ro-Pax facility which is being used for public conveyance and also for trailer, trucks, cars etc.		Date: 18/11/2025
24	Statutory compliance	A separate Environment Monitoring Cell shall be set up especially for this plant and details shall be submitted to the Ministry prior to the commencement of operation.
PPs Submission: Complied DPA is already having Environment Management cell. Further, DPA has also appointed expert agency for providing Environmental Experts from time to time. DPA appointed M/s Precitech Laboratories, Vapi for providing Environmental Experts vide work order dated 4/10/2024 (Copy of work order is attached herewith as Annexure 4). In addition, it is relevant to submit here that, DPA has appointed a Chief Manager (Environment and Safety) and two Managers (Environment and Safety) on contractual basis for the period of 3 years and further extendable to 2 years (Copy of duty report is attached herewith as Annexure 5)		Date: 21/11/2025
25	WASTE MANAGEMENT	Controlled cutter suction dredging shall be used along with the enclosure to contain the turbidity.
PPs Submission: Complied Point noted for compliance		Date: 18/11/2025
26	PUBLIC HEARING	The responses/commitments made during public hearing shall be complied with letter and spirit.
PPs Submission: Complied N/A.		Date: 18/11/2025
27	Statutory compliance	CSR activities shall cover the villages within 10 km radius. CSR for fishermen shall be carried out as committed.
PPs Submission: Complied As per the CSR Guidelines issued from time to time by the MoPSW, GoI, DPA since the year 2011-12 had carried out various CSR activities (Annexure 6).		Date: 21/11/2025
28	Marine/Coastal	There shall be no ground water drawl within CRZ area
PPs Submission: Complied Point Noted for compliance.		Date: 18/11/2025
29	WASTE MANAGEMENT	Sewage shall be treated and the Treatment Facility shall be provided in accordance with the Coastal Regulation Zone

		Notification, 2011. The disposal of treated water shall confirm the regulation of State Pollution Control Board.
PPs Submission: Complied Septic Tanks has already been provided for treatment of sewage.		Date: 18/11/2025
30	WASTE MANAGEMENT	Solid Waste Management shall be as per Municipal Solid (Management and Handling) Rules, 2000.
PPs Submission: Complied Point Noted for compliance.		Date: 18/11/2025
31	MISCELLANEOUS	The project shall be executed in such a manner that there shall not be any disturbance to the fishing activity.
PPs Submission: Complied The Ro-Ro Ro-pax facility is under operation. However, due care is taken to avoid hindrance to the fishing activity, along with ensuring regular operations.		Date: 26/11/2025
32	MISCELLANEOUS	It shall be ensured that there is no displacement of people, houses or fishing activity as a result of the project.
PPs Submission: Complied Not Applicable. The Ro-Ro Ro-pax facility is under operation. The GMB had allotted 600 m water front and 24 Hectares land to Deendayal Port Authority.		Date: 18/11/2025
33	Marine/Coastal	No construction work other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.
PPs Submission: Complied Currently, the Ro-Ro Ro-pax facility is under operation.		Date: 18/11/2025
34	Statutory compliance	The project proponent shall set up separate environmental management cell for effective implementation of the stipulated environmental safeguards under the supervision of a Senior Executive.
PPs Submission: Complied DPA is already having Environment Management cell. Further, DPA has also appointed expert agency for providing Environmental Experts from time to time. DPA appointed M/s Precitech Laboratories, Vapi for providing Environmental Experts vide work order dated 4/10/2024 (Copy of work order is attached herewith as Ref-Annexure 4). In addition, it is relevant to submit here that, DPA has appointed a Chief Manager (Environment and Safety) and two Managers (Environment and Safety) on contractual basis for the period of 3 years and further extendable to 2 years (Copy of duty report is attached herewith as Ref-Annexure 5)		Date: 21/11/2025
35	Statutory compliance	The funds earmarked for environment management plan shall be included in the budget and this shall not be diverted for any other purposes.
PPs Submission: Complied The allocation made under the scheme of Environmental Services and Clearance thereof other related Expenditure during RBE 2024-2025 is Rs. 585 Lakhs.		Date: 27/11/2025
General Conditions		

Sr.No.	Condition Type	Condition Details
1	WATER QUALITY MONITORING AND PRESERVATION	Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality.
PPs Submission: Complied Currently, the Ro-Ro Ro-pax facility is under operation.		Date: 18/11/2025
2	Statutory compliance	Full support shall be extended to the officers of this Ministry/ Regional Office at Bhopal by the project proponent during inspection of the project for monitoring purposes by furnishing full details and action plan including action taken reports in respect of mitigation measures and other environmental protection activities.
PPs Submission: Complied It is assured that full support will be extended to the officers of this Ministry/ Regional Office at Bhopal/Gandhinagar during inspection of the project for monitoring purposes by furnishing full details and action plan including action taken reports in respect of mitigation measures and other environmental protection activities.		Date: 18/11/2025
3	Statutory compliance	A six-Monthly monitoring report shall need to be submitted by the project proponents to the Regional Office of this Ministry at Bhopal regarding the implementation of the stipulated conditions.
PPs Submission: Complied DPA has assigned the work of monthly environmental monitoring to GEMI, Gandhinagar for a period of 3 years vide work order dated 18/04/2023. The work is in progress, and the latest monthly monitoring report submitted by GEMI, Gandhinagar, is attached herewith as Annexure 6.		Date: 21/11/2025
4	Statutory compliance	Ministry of Environment and Forests or any other competent authority may stipulate any additional conditions or modify the existing ones, if necessary in the interest of environment and the same shall be complied with.
PPs Submission: Complied Point Noted.		Date: 20/11/2025
5	MISCELLANEOUS	The Ministry reserves the right to revoke this clearance if any of the conditions stipulated are not complied with the satisfaction of the Ministry.
PPs Submission: Complied Point Noted.		Date: 20/11/2025
6	Statutory compliance	In the event of a change in project profile or change in the implementation agency, a fresh reference shall be made to the Ministry of Environment and Forests.
PPs Submission: Complied Point Noted.		Date: 20/11/2025
7	Statutory compliance	The project proponents shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of land development work.

PPs Submission: Complied The Board of Deendayal Port Authority vide resolution no. 101 in its meeting held on 16/1/2021 had accorded approval to the project (Copy of Board Resolution has already been communicated with the compliance report dated 05/08/2022). Accordingly, DPA issued work order to the contractor M/s Marymatha Infrastructure Pvt. Ltd., JV M/s BMS Projects Pvt. Ltd., Cochin vide letter no. CN/WK/1600/Pre-Bid/10 dated 15/4/2021 (Copy of work order has already been communicated with the compliance report dated 05/08/2022.). Currently, the Ro-Ro Ro-pax facility is under operation.		Date: 20/11/2025
8	Statutory compliance	A copy of the clearance letter shall be marked to concern Panchayat/local NGO, if any, from whom any suggestion/representation has been made received while processing the proposal.
PPs Submission: Complied N/A.		Date: 20/11/2025
9	Statutory compliance	Gujarat Pollution Control Board shall display a copy of the clearance letter at the Regional Office, District Industries Center and Collector's Office/Tehsildar's office for 30 days.
PPs Submission: Complied -		Date: 20/11/2025
10	Statutory compliance	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 (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification 1994, including the amendments and rules made thereafter.
PPs Submission: Complied Point Noted.		Date: 20/11/2025
11	Statutory compliance	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.
PPs Submission: Complied Point Noted for compliance.		Date: 20/11/2025
12	Statutory compliance	The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental and CRZ Clearance and copies of clearance letters are available with the Gujarat Pollution Control Board and may also be seen in the website of the Ministry.
PPs Submission: Complied Deendayal Port Authority had already given advertisement in two newspapers i.e. GUJARAT SAMACHAR (Surat Edition (In Gujarati)) dated 07/04/2022 and THE TIMES OF INDIA (Surat Edition (In English)) dated 08/04/2022, w.r.t. bifurcation of EC and CRZ Clearance accorded by the MoEFCC, GoI dated 4/4/2022. The copies of the above advertisement given had already been informed to the integrated Regional Office, MoEFCC, GoI, Gandhinagar vide letter dated 23/4/2022 (Copy has already been communicated with the compliance report dated 05/08/2022)		Date: 20/11/2025
13	MISCELLANEOUS	This clearance is subject to final order of the Hon'ble Supreme

		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.
PPs Submission: Complied Point Noted.		Date: 20/11/2025
14	MISCELLANEOUS	Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
PPs Submission: Complied Point Noted.		Date: 20/11/2025
15	Statutory compliance	Status of compliance to the various stipulated environmental conditions and environmental safeguards will be uploaded by the project proponent in its website.
PPs Submission: Complied DPA had already uploaded compliance report submitted dated 5/8/2022 to the Integrated Regional Office, MoEFCC, GoI, Gandhinagar. However, for subsequent period also, it is assured that w.r.t. subject project, the status of compliance to the various stipulated environmental conditions will be uploaded by DPA in website www.deendayalport.gov.in.		Date: 20/11/2025
16	Statutory compliance	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad/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.
PPs Submission: Complied A copy of Bifurcation of EC and CRZ Clearance accorded by the MoEFCC, GoI dated 4/4/2022 had already been uploaded in the website of DPA i.e. www.deendayalport.gov.in.		Date: 20/11/2025
17	Statutory compliance	The proponent shall upload the status of compliance of the stipulated Clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF and CC, the respective Zonal Office of CPCB and the SPCB.
PPs Submission: Complied The status of compliance to the various stipulated environmental conditions are being uploaded by DPA in website www.deendayalport.gov.in (DPA had already uploaded compliance report submitted dated 5/8/2022 to the Integrated Regional Office, MoEFCC, GoI, Gandhinagar) and will also be updated the same periodically. Further, the same will be sent to the Regional Office, MoEFCC, Gandhinagar and to the CPCB, Vadodara and GPCB, Gandhinagar.		Date: 20/11/2025
18	Statutory compliance	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF and CC, the respective Zonal Office of CPCB and the SPCB
PPs Submission: Complied DPA had already uploaded compliance report submitted dated 05/08/2022 to the Integrated Regional Office, MoEFCC, GoI, Gandhinagar. However, for subsequent period also, it is assured that w.r.t. subject project, six monthly reports on the status of compliance to the various stipulated Clearance conditions including results of monitoring data will be submitted to the Regional Office, MoEFCC,		Date: 20/11/2025

Gandhinagar and to the CPCB, Vadodara and GPCB, Gandhinagar.		
19	Statutory compliance	The environmental statement for each financial year ending 31" 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 Clearance conditions and shall also be sent to the respective Regional Office of MoEF and CC by e-mail.
PPs Submission: Complied Point noted. The Ro-Ro Ro-pax facility is under operation. As per bifurcated EC and CRZ Clearance dated 4/4/2022 issued by the MoEFCC, GoI, DPA has obtained CCA (PCB Id: 88242) from GPCB vide Order dated 10/07/2023 with validity up to 26/07/2027. A copy of the same was submitted in the earlier report.		Date: 27/11/2025
Visit Remarks		
Last Site Visit Report Date:		N/A
Additional Remarks:		
Note: This acknowledgement is as per the details submitted by project proponent. In no way is this document to be considered as conclusion on any action on the compliance of the project. This is strictly for the project proponent's reference purpose.		

ANNEXURE- 1

FINAL REPORT
for the Project entitled
Mangrove Plantation in an area of 50 Hectares for Deendayal Port Authority, Kandla
(As per EC & CRZ Clearance Dt.01.01.2024. Annexure-B, Specific condition No.7)

DPA Work order No. EG/WK/4751/Part (Revamping-EC onwards)/69. Dt. 10.06.2024



Submitted by



Gujarat Institute of Desert Ecology
Mundra Road, Bhuj-370 001
Dist: Kachchh, Gujarat, India

Submitted to



Deendayal Port Authority
Gandhidham- 370201
Dist: Kachchh, Gujarat-, India

February
2025



Gujarat Institute of Desert Ecology

Certificate

This is state that the Final Report for project entitled "Mangrove Plantation in an area of 50 Hectares for Deendayal Port Authority, Kandla" has been prepared in line with the Work order issued by the Deendayal Port Authority Vide: Ref. No. EG/WK/4751/Part (Revamping-EC onwards)/69. Dt.10.06.2024. In order to comply with the stipulated condition of the EC & CRZ Clearance dated 1/1/2024 read with CRZ Recommendation dated 25/8/2022 - Condition no.7.

The work order is for a period of Nine months (10.06.2024 - 09.03.2025) for the above-mentioned study.

Authorized Signatory

DIRECTOR

Gujarat Institute of Desert Ecology
Bhuj - Kachchh.



Project Team

Project Coordinator: Dr. V. Vijay Kumar, Director

Project Personnel

Principal Investigator

Dr. B. Balaji Prasath, Senior Scientist

Co-Investigator

Dr. Kapilkumar Ingle, Project Scientist-II

Team Members

Dr. L. Prabhadevi, Advisor

Mr. Dayesh Parmar, Senior Scientific Officer

Mr. Ketan Kumar Yogi, Junior Research Fellow

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Snapshot of the Project," Mangrove Plantation in an area of 50 Hectares for Deendayal Port Authority, Kandla"

S.No	Components of the Study	Remarks
1	Deendayal Port letter sanctioning the project	EG/WK/4751/Part (Revamping-EC onwards)/69, dated 10.06.2024
2	Duration of the project	Nine months (10.06.2024 - 09.03.2025)
3.	Location of Mangrove Plantation Site	The location finalized for mangrove plantation is shown in Figure 1. Suitable site was selected based on water and sediment quality, intertidal fauna, and propagules.
4.	Total Area	50 Hectares
5.	EC & CRZ Clearance Reference	As per EC & CRZ Clearance Dt. 01.01.2024, Annexure-B, Specific condition No. 7
6	Field Studies	
6a	Site Overview	Inspection to understand site conditions and potential risks (e.g., grazing).
6b	Geographical Patterns	Study existing mangrove species to determine their distribution and identify suitable planting locations.
6c	Landscape Assessment	The stability of the root system of existing mangroves were be examined.
7	Plantation Techniques	
7a	Raised Bed Method (Otl Method)	Create earthen mounts to plant 15-30 seeds; suitable for areas with low to moderate water currents.
7b	Transplantation of Nursery Raised Saplings	Grow saplings in polythene bags; nature for 3-4 months before transplanting; higher success rate

1. Background of the study

Mangroves are among the most productive ecosystems, providing various ecosystem services and resources to both the ocean environment and humankind. This unique ecosystem occurs in the tropics and subtropics, where land meets the oceans, often bordering estuaries and backwaters. Mangrove forests have the remarkable ability to rise upward in place or move landward or seaward in response to sea level changes (Woodroffe *et al.* 2016). Mangroves typically grow on wet, muddy substrates with minimal water fluctuations, specifically in the mudflat regions of tropical and subtropical areas. These are dense forests of trees and shrubs that are tolerant to salt, usually flourishing in tidal areas. The importance derived from these forests is critical, including coastal protection, biodiversity conservation, and climate change mitigation. All mangroves produce fertilizer from rotting litter fall and root growth deceiving ambient water sediment. Mangrove ecosystems support various plant and animal species, breeding, nursery and feeding grounds for numerous marine and terrestrial organisms. Despite their ecological importance, mangrove forests face different threats such as deforestation, pollution, and climate change. Specific measures have been taken towards conserving these valuable ecosystems including them into biosphere reserves and Ramsar sites.

According to the Forest Survey of India (FSI, 2019), the global mangrove cover is approximately 14.79 million hectares. Asia leads with 5.55 million hectares, followed by Africa with 3.24 million hectares, North and Central America with 2.57 million hectares, and South America with 2.13 million hectares. South Asia has the highest mangrove area, constituting about 6.8% of the world's total mangrove cover. Anthropogenic pressures have reduced global range of these forests to less than even half of their original total cover throughout the globe as mentioned by Ragavan *et al.* (2016) while Singh (2020) observed that almost 75% of the tropical coast has been taken up by mangrove forests. India's mangrove ecosystems are incredibly important, covering around 4,992 km², which makes up about 0.15% of the country's total land area. Despite occupying a relatively small fraction of India's geographical area, mangroves are hotspots of biological activity, supporting a wide range of flora and fauna. They help in sequestering carbon, thus mitigating climate change effects. Major mangrove areas in India include the Sundarbans in West Bengal, which is the largest mangrove forest in the world.

The present study on "Mangrove Plantation in an area of 50 Hectares for Deendayal Port Authority, Kandla" is being conducted to comply with the specific conditions outlined in the EC & CRZ Clearance dated 01.01.2024 and CRZ Recommendation condition no. 7 as given in Annexure B.

1.1. Mangrove status in Gujarat and Gulf of Kachchh

Gujarat state has the longest coast (1650 km²) with largest coastal area (28,000 km²) under cover of mangroves. Gujarat mangrove ecosystem is the second largest after Sundarbans in West Bengal (ISFR 2019). Though contentious, around 15 mangrove species are reported from 13 coastal districts of Gujarat. Of these, the southern coast of Gulf of Kachchh and South Gujarat coast are important for mangrove diversity. The species *Avicennia marina* is the most populous along the Gujarat coast. Along the coastal stretch of Gulf of Kachchh (GoK) has the most considerable mangrove extent of 986 km² out of 1140 km². Kachchh district, constituting the northern coast (northern shore) of GoK alone has 798 km² of mangroves constituting 70% of the whole Gujarat mangroves. Waterlogged mud with low oxygen levels supports such vegetation in tropical and subtropical regions. In the Kachchh coast has various habitats such as expansive mudflats and small sandy beaches with different physico-chemical variables like extreme salinity temperature inundation factor. This vibrating ecosystem can allow the species to thrive and exhibit many adaptive modifications.

Biodiversity-oriented planting schemes aim to boost species richness through ongoing plantation and meticulous monitoring activities. Restoring mangrove ecosystems with dominant species like *Avicennia marina*, *Ceriops tagal*, and *Rhizophora mucronata* plays a crucial role in enhancing species diversity. By increasing the variety of plant species, these schemes not only create a more resilient and productive ecosystem but also help in providing essential resources and services to local populations, such as fish breeding habitats, wood, and other forest products. Continuous planting and monitoring ensure that these ecosystems remain healthy and sustainable, benefiting both the environment and the people living in coastal regions. Mangrove biodiversity seeks attention towards such spots on the Kachchh coast, which require supplementation of plant cover at selected sites. For instance, although successful efforts at restoring mangroves exist, the presence of *A. marina* alone in most parts corroborates the role of high salinity of the water because of limited fresh water influx annually. The arid coastal conditions lack of

continuous freshwater flow through the river inhibits the spread and growth of mangroves which are constantly exposed to tidal inundation. The plantation of mangroves as well as creation of awareness regarding the importance of mangrove and their ecosystem services are the crucial tasks to avoid such loss.

1.2. Rationale of the project

Deendayal Port Authority (DPA) has been one of India's largest ports in terms of cargo volume handled. Being located in Gujarat state on the northwest coast of India, the port is one of the biggest creek-based ports in India. In India, it is one among twelve major ports and situated at Gulf of Kachchh's tail end, Gujarat's western part. The greatest advantage of this location is a high semi-diurnal tidal range of about 6 to 7 meters which allows for sufficient draft in the dredged channels at the Port. DPA has been and still is undergoing continuous development and expansion particularly over recent times and is located in the creek environment encompassing mangroves (193.1 km²) and mudflats (312.9 km²).

Over the last seven decades, it should be noted that due to these vast resources available at its doorstep; the port authorities have a desire to conserve, protect and enhance these coastal habitats. The coastal belt in and around Kandla region is characterized by a network of creek systems and mudflats which are covered by sparse halophytic vegetation like scrubby to dense mangroves, creek water and salt encrusted land mass which forms the major land component. The surrounding environment in a radius of 10 km from the Port is mostly built-up areas consisting salt works, human habitations and Port related structures on west and north, creek system, mangrove formations and mudflats in the east and south.

Deendayal Port as part of the expansion of the infrastructure facility has significant movements of materials and people within the area and construction activities as well. Additionally, as part of the environmental policy intended to accomplish 50 ha mangrove plantation and the task is entrusted with the Gujarat institute of Desert ecology, Bhuj, Kachchh district. Similar efforts towards conserving and preserving mangrove cover in the prospective areas have been implemented by the Deendayal Port Authority (DPA) to maintain numerous unheralded ecological services by these marine plants. Total mangrove plantation till date by DPA through several implementing agencies at Sat Saida Bet, Nakti Creek and Kantiyajal.. To ensure the project follows the

most contemporary standards and practices in the field. In accordance with the CRZ Recommendation Condition, Mr. Nischal Joshi of the Gujarat Ecology Commission (GEC) was consulted for his expert opinion during the initial stages of the work.

2. Objectives

Within the overall objective of mangrove plantation in the DPA port limits the following activity wise objectives are envisaged.

- Assess the technical suitability of the proposed land for mangrove plantation
- Assess the physico-chemical properties of soil and nearby water and tidal pattern in the proposed plantation site.
- Formulate site specific plantation strategy and execute it with the adopting appropriate techniques.

3. Study Area

The location finalized for mangrove plantation is shown in Figure 1, as per their suitability including water and sediment quality characteristics, occurrence of intertidal fauna, availability of propagules, signs of natural regeneration etc. Further, based on the water quality characteristics reported elsewhere, the site is better choice for the plantation of mangrove species, *A. marina*. In the studies conducted earlier, the salinity levels of this area is reported to be ranging between 35 - 40 ppt which is suitable for the selected species. The pH of the pour water is recorded to be in the range of 6.0 - 8.5. In addition to the above said criteria, plantation in general should be established in Intertidal areas where a good tidal flushing is happening atleast 15 days in a month.



Figure.1 Proposed location for Mangrove plantation activities at DPA area

4. Methodology

4.1. Field Studies

4.1.1. Site Overview:

- The inspection were provide an overall understanding of the site, not only for the plantation but also for potential risks (such as camel or cattle grazing).
- Accessibility for post-plantation monitoring were be evaluated to ensure ease of assessment.

4.1.2. Geographical Patterns:

- Existing mangrove species in the area were be studied to understand their presence and distribution.
- Geographical patterns were be analyzed to identify suitable locations for planting mangroves.

4.1.3. Landscape Assessment:

- Rainwater runoff into the creeks and the influencing zones were be observed to assess its impact on the mangrove ecosystem.
- The stability of the root system of existing mangroves were be examined.
- Sources of freshwater within the area were also be considered.

4.2. Plantation Techniques

Three methods preferred for the sake of mangrove plantation which were be as follows in this study period:

4.2.1. Raised bed method (Osla method)

- This is popular method of mangrove plantation in Gujarat useful for a few species such as *A. marina* and provide better result compare to other methods.
- In this method, earthen mounts of a specific height were be made which support to plant 15 to 30 seeds/ propagules.
- This method is suitable in the areas where the current of water is low and moderate (Plate 1).

4.2.2. Transplantation of nursery raised saplings (Poly bag method).

- This technique has higher success rate unlike other methods and therefore, nursery of the various species is required to grow the saplings (Plate 2).
- This technique is time consuming and laborious compared to direct dibbling and raised bed methods.
- On the open intertidal mudflats, the saplings were be grown in polythene bags through sowing the matured seeds or propagules.
- The saplings were be nurtured 3-4 months before transplantation and after attaining a height 30-45 cm in polythene bags.
- Site specific conditions were determining the number of saplings to be transplanted, however, 2500 saplings per ha is generally followed.
- In some occasions also nursery raised saplings were be used for gap filling and thereby increasing the survival rate of the plants table1.

After being successfully raised in the nursery, saplings between 30 and 45 cm tall should be chosen at different times to be transplanted at the intended location. Below are the specifics of the plantation's sapling height and germination period (plate 3). A total of 46 nursery beds were established, with each bed containing 800 to 1,200 polybags. Each polybag is sown with 3 to 4 seeds, facilitating optimal seedling production (Figures 8-13). In addition, ota raised method, in each bed sown 5 – 6 seeds were raised in plantation site (Figures 15-17)

Table 1: Details of sapling for plantation

Species	Germination period (days)	Germination percentage	Height (cm)of saplings
<i>Avicennia marina</i>	6-10	70-80	30-45
<i>Rhizophora mucronata</i>	30-35	50-60	60

With these methods, the extra seeds were also spreaded in the plantation area where the older trees are present and generally the area where natural regeneration of seeds happens.

5. Site visit

Before the initiation of mangrove plantation activity, a through pre-project survey was conducted to examine the proposed plantation site. In this survey, the crucial technical factors like land elevation, tidal pattern, physical and chemical properties of soil and water (by laboratory analysis), access to the site, level of protection such as cattle grazing, human disturbance and other potential risks, etc. were observed. This survey helps to decide the suitability of site for mangrove plantation in DPA port limit.

5.1. On-site observations

- The indicators of regular flooding of site by tide water was observed in on-site visit. The site area was wet and with plenty of mud which is required for plantation.
- There was no presence of very hard, dried soil surface in the site was observed anywhere.
- The presence of a few natural mangrove (*A. marina*) trees was observed around and in the plantation site which denotes the site is suitable for the plantation.
- The presence of crab holes and mudskippers holes is the indicator that the soil of the site is soft and regularly get wet due to tides.
- The pneumatophores of nearby mangroves were found in the nearby area which indicate that there is no sediment deposition and buried pneumatophores in this area.
- Nearby area also shows the presence of halophytic/ salt marsh plants such as *Sesuvium* and also *Salicornia* nearby creek.
- The *Sesuvium* leaves were green and fresh, also not thicker which represent the good condition of the site.
- The presence of sub-creek system may ensure the availability of tidal water which were be primary need of the plantation.
- A few natural regeneration plants were also observed in the site.
- The presence of the jackal foot marks observed which denotes the overall area have a good ecosystem and where the jackal food (crabs) sources are available.

5.2. Analysis of water and sediment samples

5.2.1. Water analysis

The water samples were collected from the plantation site in pre-cleaned polyethene bottles and rinsed with sample water, and transported to the laboratory in icebox for further analysis such as pH analysis by pH meter, salinity was determined by refractometer. The pH of water sample was found 7.25 and salinity 18 psu. Although there is no domestic freshwater source, and tidal water salinity generally higher, due to the rainy season the salinity shows lower values. However, the lower salinity is also in favour of germination of mangrove seeds.

5.2.2. Sediment/ soil analysis

Sediment samples were collected by using a non-metallic plastic spatula from random locations; three from each transect to cover the whole study area. The collected samples were air-dried at room temperature (Jackson, 1958), homogenized using an agate mortar and pestle, sieved through a standard sieve of 2 mm mesh (Tandon, 2005). The particles with size less than 2mm were retained in pre cleaned plastic bottles for further analysis for various parameters. Total Organic Carbon (TOC), pH, texture, bulk density, etc were analysed.

Texture of sediment: The texture of soil/sediment is one of the key factors when choosing a site for plantation mangroves. Generally, mangrove ecosystems typically have the types of soils which includes muds or clay or sandy mud, etc. The texture of soil significantly impacts the survival and growth of mangroves. The presence of clay texture which makes soil muddy may expected to offer a stable base for mangrove roots to flourish under tidal conditions. Thus, evaluating the soil conditions at the plantation site is crucial before starting mangrove planting activities. Here we collected 3 samples, and all shows good amount of clay percentage in them which may be favourable for the plantation.

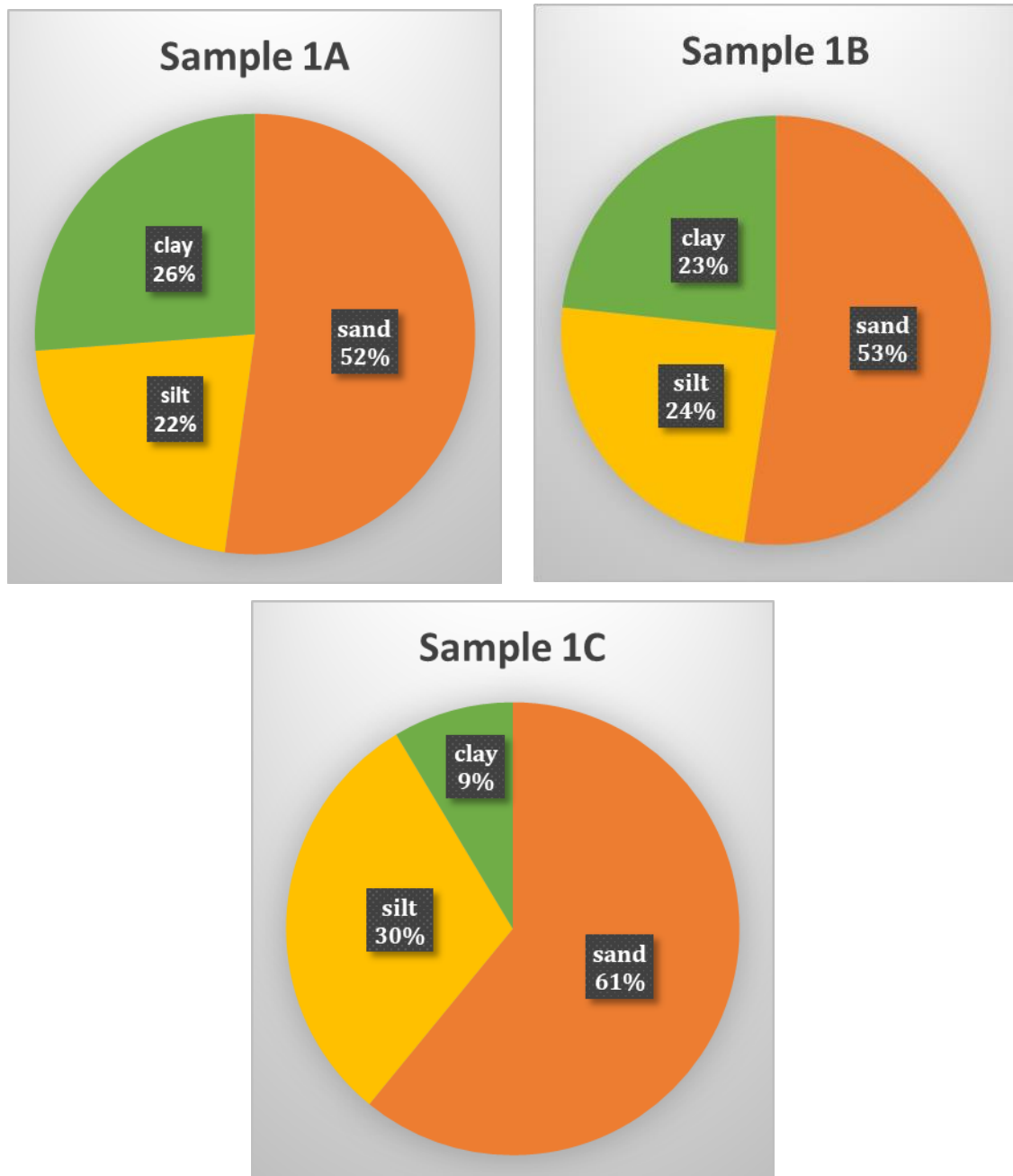


Figure 2: Sediment textural composition in the sampling sites

Bulk density of soil: It refers to the amount of soil organic matter within a given volume of soil. This property can vary significantly and is influenced by the soil's texture, structure, and organic matter content. Soils with high organic matter tend to have lower bulk density, while compacted soils exhibit higher bulk density.

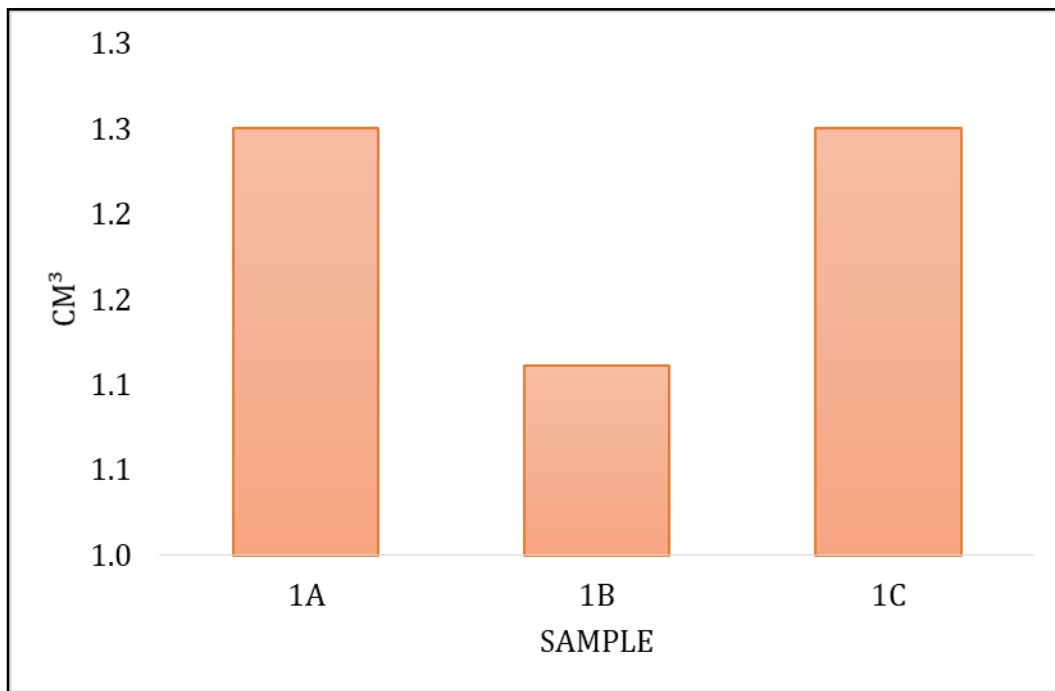


Figure 3: Bulk density of sediment samples

Total Organic Carbon: Organic carbon levels are influenced by living organisms, and the diversity of life forms in mudflats affects the total organic carbon (TOC) estimates. In all samples, the TOC percentage was ranged from 2.7 % to 2.85%

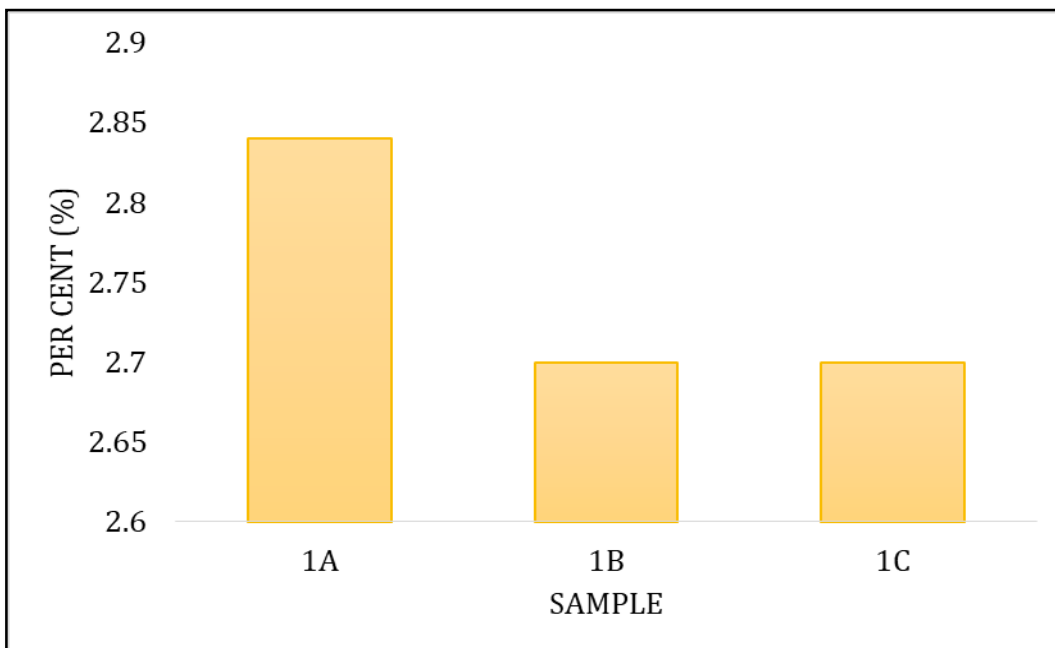


Figure 4: Total Organic Carbon content of sediment samples



Plate 1: Selection of suitable sites for mangrove plantation in DPA area based on sediment characteristics, tidal pattern, cattle grazing etc



Plate 2: Site identification, planning and field observation at mangrove plantation site on July 17th to 31st, 2024



Plate 3: Mangrove Seed Collection at Kandla on 1st to 07th August, 2024



Plate 4: Team involved in collection and separation of healthy mangrove seeds on 8th to 17th August, 2024



Plate 5: Women involved in processing of mangrove seeds on 17th to 25th August, 2024



Plate 6: Preparation and filling of bags for submerged Nursery Development Activity on 25th to 30th August, 2024



Plate 7: Labour Involvement in filling of bags for nursery preparation at Kandla on 25th August to 5th September, 2024



Plate 8: Seed sowing of *Avicennia marina* in polybags at nursery at Kandla on 6th to 15th September, 2024



Plate 9: Site submerged during high tide on 15th September, 2024



Plate 10: Germination of *A. marina* seeds in polybags and germination during visit of GUIDE team at Kandla on 15th to 25th September, 2024



Plate 11: Nursery of *A. marina* saplings in natural tidal inundation at Kandla on 5th to 25th October, 2024



Plate 12: Insect pests and diseases in *A. marina* leaf and stem in saplings during visit of GUIDE team at Kandla on 25th October to 5th November, 2024



Plate 13: Labour Involvement in Ota bed raised method at Kandla 1st to 07th September, 2024



Plate 14: Seed sowing of *A. marina* in Orla beds at nursery at Kandla on 10th to 25th September, 2024



Plate 15: Germination of *A. marina* in Orla beds observed during visit of GUIDE team at Kandla on 5th to 25th October,



Plate 16: Mangrove Growth of *A. marina* prior to Transplanting from Nursery to Plantation Site by the GUIDE Team at Kandla on 30th November



Plate 17: Labour Participation in Loading Nursery Bags onto Boats for Transportation to Plantation Sites at Kandla on 1st December to 15th December, 2024



Plate 18: Labour Involvement plantation the *A. marina* at Kandla on 1st December, 2024 to 31st January, 2025



Plate 19: Labour Involvement plantation the *A. marina* at Kandla on 1st December, 2024 to 31st January, 2025



Plate 20: Labour Involvement in *A. marina* Plantation during GUIDE Team Visit to Kandla on 15th January, 2025



Plate 21: *A. marina* Plantation during GUIDE Team and DPA Team Visit to Kandla on 15th January, 2025



Plate 22: Mangrove outplanting, including row establishment and saplings placing inside hole, levelling soil surface at Kandla on 10th February, 2025

6. Summary of the Report

The aim of the report is to assess the situation of growing mangrove saplings at DPA Gulf of Kutch. In order to comply with the stipulated condition of the EC & CRZ Clearance dated 1/1/2024 accorded by the MoEF&CC, GoI read with CRZ Recommendation dated 25/8/2022 for “Augmentation of Liquid Cargo Handling capacity from 8 to 23.8 MMTPA through modernization of existing Pipeline network at Oil Jetty area of DPA, Kandla”), DPA assigned work of “Mangrove Plantation in an area of 50 Hectares for Deendayal Port Authority reg.”, to GUIDE, Bhuj vide work order dated 10/6/2024.

The DPA has initiated a program for plantation of mangroves to improve these ecosystems within the limits of its port. The general focus of this project is to evaluate mangrove plantation in an area of 50 Hectares for Deendayal Port Authority, site conditions for planting, study the soil and water characteristics, and formulate and execute a site-specific planting plan utilizing nursery grown transplant, otla method and other forms. The objective is to increase the mangrove species, improve the resilience of the ecosystem and provide the local population with valuable resources and services, all while ensuring the sustainability of mangrove cover over the long term. The increased ecological stability and productivity of the region, and provide necessary resources and services to the local and marginalized communities throughout the work in a selected, defined and timetabled manner to observe the speed of the work done. The Mangrove Plantation in an area of 50 Hectares of *Avicennia marina* and *Rhizophora mucronata* at scientifically identified location (Satsaida bet) is completed.

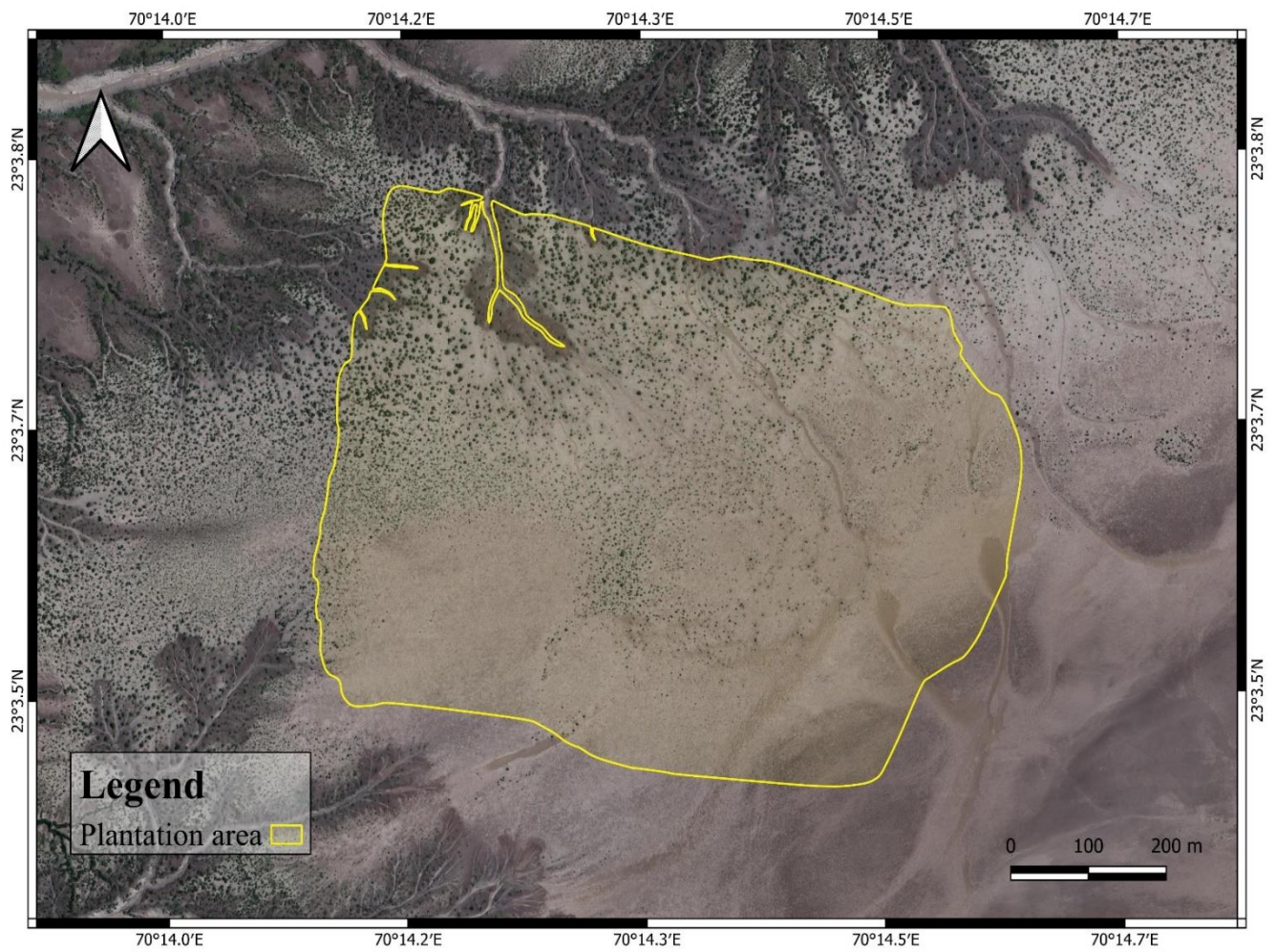


Figure 5: Mangrove plantation site area at Kandla, Gujarat, India



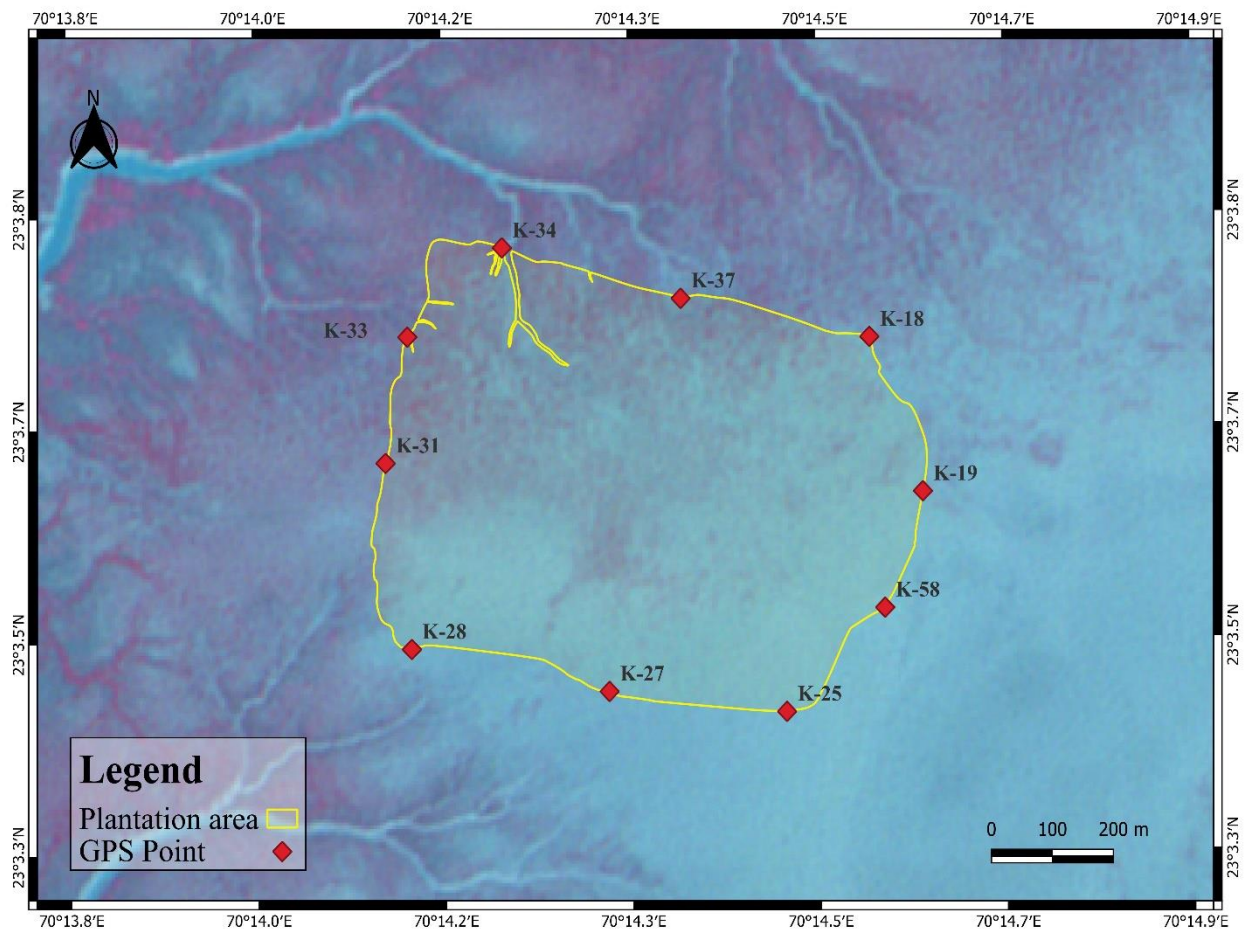
Plate 24: Growing saplings during GUIDE Team Visit to Kandla on 10th February, 2025



Plate 25: Labour Involvement plantation the *Rhizophora mucronata* at Kandla on 31st January to 28th March, 2025

Table: 2 GPS Points of Mangrove Project Site at Kandla, Gujarat, India

No	Point No.	Longitude	Latitude
1	K-18	70.243	23.062
2	K-19	70.244	23.06
3	K-23	70.243	23.058
4	K-25	70.241	23.057
5	K-27	70.239	23.057
6	K-28	70.235	23.058
7	K-31	70.235	23.061
8	K-33	70.235	23.062
9	K-35	70.237	23.064
10	K-37	70.24	23.063

**Figure 6:** Mangrove plantation site area with GPS location points at kandla, Gujarat, India

7. Future Considerations for Mangrove Plantation

DPA needs to focus on the mangrove plantation project in Kandla. In ensuring that, this report puts forward the steps that need monitoring for the future.

7.1. Carry out regular monitoring of mangrove plantation

The regular monitoring of mangrove plantations is must in the plantation site to ensure growth status of the planted mangroves. It will also help in detection of any signs of disease or damage early. Regular monitoring also helps to understand any threats to mangrove such as potential erosion or grazing etc, also help to protect the local ecosystem and biodiversity. It will useful in the measurement of effectiveness of conservation efforts.

7.2. Regular gap filling to be done

Maintenance of the plantation is crucial for its continued success. Regular upkeep is needed, including filling in gaps where plants may have failed to establish. In addition to *Avicennia marina*, it's important to plant a variety of mangrove species to boost biodiversity. This increased diversity enhances the ecosystem's resilience to environmental changes, such as fluctuations in salinity, temperature, and sea level rise. Regular monitoring and management practices ensure the plantation's long-term health and ecological stability, contributing to the protection of coastal areas and marine life habitats.

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ANNEXURE- 2

Compliance report (Period from April 2025 to September 2025)

Project: Development of Ro-Ro/Ro-Pax Facility at Hazira by Deendayal Port Authority (600 m water front – 170 m berthing jetty and other allied structure viz. approach jetty, pontoons, link span etc. and 5 Ha. area (onshore facility)).

Status of Project: Under Operation Stage (RoRo/RoPax facility: 170 m berthing jetty and other allied structure viz. approach jetty, pontoons, link span etc. and 5 Ha. area (onshore facility)). As per bifurcated EC & CRZ Clearance dated 4/4/2022 issued by the MoEF&CC, GoI, DPA has obtained CCA (PCB Id: 88242) from GPCB vide Order dated 10/07/2023 with validity up to 26/07/2027.

Reference:

- MoEF&CC, GoI, vide letter dated 4/4/2022 issued Bifurcation of EC&CRZ Clearance accorded to M/s Essar Bulk Terminal Limited vide letter dated 6th May, 2014 by MoEF&CC, GoI in the name of Deendayal Port Trust (Now Deendayal Port Authority).
- Condition no. (xv) under Specific Conditions "*All the conditions/recommendations stipulated by Gujarat Coastal Zone Management Authority (GZCMA) No. ENV 10-2011-877-E dated 01/06/2013*" of Environmental and CRZ Clearance accorded to M/s Essar Bulk Terminal Limited vide letter dated 6th May, 2014 by MoEF&CC, GoI.

Status of compliance of conditions stipulated in the CRZ Recommendation dated 01/06/2013:

Sl. No.	EC Condition	Compliance
1.	The provisions of the CRZ Notification of 2011 shall be strictly adhered to by M/s EBTL. No activity in contradiction to the provisions of the CRZ Notification shall be carried out by M/s EBTL.	With regard to Ro-Ro/Ro-Pax Facility developed by DPA, the provisions of the CRZ Notification of 2011 are being strictly adhered to by DPA and no activity in contradiction to the provisions of the CRZ Notification is being carried out.
2.	Natural drainage system shall be designed in such a way that there shall be no damage to the existing mangrove patches nearby site.	The GMB had allotted land of 24 Hectares to Deendayal Port Authority devoid of Mangroves. However, due care is being taken so that Natural Drainage System will be maintained.
3.	The Essar Bulk Terminal Limited shall take up mangrove plantation in 500 ha of land in consultation with GEC/Forest department.	As per the directions of the GCZMA and MoEF&CC, GoI, to date, DPA has undertaken a Mangrove Plantation in an area of 1650 Hectares since the year 2005. The details have already been communicated with the earlier compliance reports submitted.

		Deendayal Port Authority (DPA) has undertaken a total of 1650 hectares of mangrove plantation from 2005-06 to date, incurring a cumulative cost of ₹539.7 lakhs. (Annexure I)
4.	Coal, ore and other material handling shall be done through totally closed system.	N/A. DPA developed Ro-Ro/Ro-Pax facility which is being used for public conveyance and also for trailer, trucks, cars etc.
5.	All necessary permissions from different Government Departments/agencies, including GMB, shall be obtained by M/s EBTL, before commencing the activities.	The Ministry of Ports, Shipping & Waterways, Government of India appointed Deendayal Port Authority (Erstwhile: DPT) as its nominee to take over the Project assets under the Concession Agreement (at Ghogha and Dahej terminals and the maintenance dredging at Dahej terminal) and also the assets at Hazira for the Ro-Pax ferry service. For the purpose, the 600m waterfront along with 24 ha backup land is allotted to Deendayal Port Authority by the Gujarat Maritime Board, GoG at Hazira for developing Ro-Ro/Ro-Pax Facility at Hazira Copy of GMB has already been communicated along with earlier compliance report. As directed in the Bifurcated EC & CRZ Clearance issued to DPA by the MoEF&CC, GoI dated 4/4/2022 , DPA has obtained the CCA from the Gujarat Pollution Control Board (under Water Act 1974 and Air Act 1981) in the name of DPA for development of 600 m waterfront and 24 ha back up area vide GPCB letter no. GPCB/CCA-SRT-2458/ID-88242/74790 dated 13/07/2023.
6.	All the recommendations and suggestions given by WAPCOS in their Environmental Impact Assessment reports for conservation/ protection and betterment of environment shall be implemented strictly by M/s EBTL.	Point noted.
7.	The construction and operational activities shall be carried out in such a way that there is no negative impact	The GMB had allotted land of 24 Hectares to Deendayal Port Authority devoid of Mangroves.

	on mangroves, if any, and other important coastal / marine habitats. Construction activity shall be carried out only under the guidance/ supervision of the reputed institute / organization.	However, due care is being taken so that there is no negative impact on mangroves, if any, and other important coastal/ marine habitat. The Ro-Ro/Ro-pax facility is under operation.
8.	M/s EBTL shall strictly ensure that no rivers are blocked due to any activity at the proposed site.	It is assured that; due care is being taken by DPA so that no rivers are blocked due to any activity at the project site.
9.	The construction debris and / or any other type of waste shall not be disposed of in to the sea, creek or in the CRZ area. The debris shall be removed from the construction site immediately after construction is over.	Currently, the Ro-Ro/Ro-pax facility is under operation.
10.	The construction camps shall be located outside the CRZ area and the construction labour shall be provided with the necessary amenities, including sanitation, water supply and fuel and it shall be ensured that the environmental conditions are not deteriorated by the construction labours.	Currently, the Ro-Ro/Ro-pax facility is under operation.
11.	M/s EBTL shall bear the cost of the external agency that may be appointed by this department for supervision / monitoring of proposed activities and the environmental impacts of the proposed activities.	Currently, the Ro-Ro/Ro-pax facility is under operation.
12.	The groundwater shall not be tapped within the CRZ areas by the EBTL to meet with the water requirements in any case.	Water requirements are met through private tankers.
13.	M/s EBTL shall take up massive greenbelt developmental activities in consultation with Forest Department / GEER Foundation / Gujarat Ecology Commission. A comprehensive plan for this purpose has to be submitted to the Forest and Environment Department.	DPA had already developed required plantation (area of about 7000 m²) within the Ro-Ro/Ro-Pax Terminal area .
14.	The EBTL shall have to take up bio-shielding development programme as part of CSR in consultation with Forest	Not Applicable.

	Department / PCCF and an action plan in this regard shall have to be submitted to the MoEF, GoI and this department.	DPA developed Ro-Ro/Ro-Pax facility which is being used for public conveyance and also for trailer, trucks, cars etc.
15.	The EBTL shall have to contribute financially for taking up the socio-economic upliftment activities in this region in consultation with the Forest and Environment Department and the District Collector / District Development Officer.	As per the CSR Guidelines issued from time to time by the MoPSW,GoI, DPA since the year 2011-12 had carried out various CSR activities (Annexure 2).
16.	A separate budget shall be earmarked for environmental management and socio-economic activities including the greenbelt/ mangrove plantation and details thereof shall be furnished to this Department as well as the MoEF, GoI. The details with respect to the expenditure from this budget head shall also be furnished along with the compliance report.	The allocation made under the scheme of "Environmental Services & Clearance thereof other related Expenditure" during RBE 2024-2025 is Rs. 585 Lakhs. The expenditure made under the scheme of "Environmental Services & Clearance thereof other related Expenditure" is Rs. 136 Lakhs from April 2025 to September 2025.
17.	A separate Environmental Management Cell with qualified personnel shall be created for environmental monitoring and management during construction and operational phases of the project.	DPA is already having Environment Management cell. Further, DPA has also appointed expert agency for providing Environmental Experts from time to time. DPA appointed M/s Precitech Laboratories, Vapi for providing Environmental Experts vide work order dated 4/10/2024 (Copy of work order is attached herewith as Annexure 3). In addition, it is relevant to submit here that, DPA has appointed a Chief Manager (Environment and Safety) and two Managers (Environment and Safety) on contractual basis for the period of 3 years and further extendable to 2 years (Copy of duty report is attached herewith as Annexure 4) Recently, DPA has assigned the work of monthly environmental monitoring to GEMI, Gandhinagar for a period of 3 years vide letter dated 18/04/2023. The work is in progress and the latest monitoring report submitted by GEMI is attached herewith as Annexure 5.

18.	Environmental Audit report indicating the changes, if any, with respect to the baseline environmental quality in the coastal and marine environment shall be submitted every year by M/s EBTL to this department as well as to the MoEF, GoI.	Point noted for compliance.
19.	A six monthly report on compliance of the conditions mentioned in this letter shall have to be furnished by M/s EBTL on a regular basis to this Department as well as to the Ministry of Environment and Forest, Government of India.	It is assured that w.r.t. subject project, six monthly report on compliance of the conditions mentioned in this letter will be furnished by DPA on a regular basis to GCZMA as well as to the Regional Office, MoEF&CC, GoI.
20.	Any other condition that may be stipulated by this Department / Ministry of Environment and Forest, Government of India from time to time for Environmental Protection / management purpose shall also have to be complied with by M/s EBTL.	Point noted.

ANNEXURE- 3

दीनदयाल पोर्ट प्राधिकरण
DEENDAYAL PORT AUTHORITY



Office of the Dy. Chief Engineer
(EMC & I/c), Ground Floor,
Administrative Office Building
Post Box No. 50, Gandhidham-Kachchh
Email: scplkpt@gmail.com
www.deendayalport.gov.in

No: EG/WK/4783/VII/ 143

Date: 04/10/2024

To,
M/s. Precitech Laboratories Pvt. Ltd.
1st floor, Bhanujyot Complex,
Plot no. C5/27, B/h. Pachratna Complex,
Near GIDC Char Rasta,
VAPI-396195
Mail - vapi@precitechlab.com

WORK ORDER

Sub: "Strengthening of Existing Environmental Management Cell of Deendayal Port Authority: Appointment of Environment Expert for two years and further extendable for one years."

- Ref:** 1) Tender dated 28/12/20223 submitted by M/s Precitech Laboratories Pvt. Ltd., Vapi.
2) LOA No. EG/WK/5375/171 dated 19/09/2024.
3) Performance Guarantee submitted by M/s. Precitech Laboratories Pvt Ltd in the form of Bank Guarantee of Rs. 9,45,000.00 vide Bank Guarantee no. 1102924BG0B00238 dated 30.09.2024 issued by State Bank India, Commercial Branch, Vapi.

Sir,

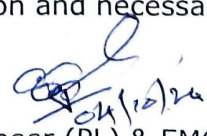
Kindly refer above cited Letter of Acceptance dated 19/09/2024.

- 1) You shall have to provide Key Experts as per tender requirement during the entire contract period. Accordingly, you shall have to submit the qualification and experience certificates of the Key experts to be appointed at DPT, as per tender conditions for verification & approval.
- 2) Please submit the agreement of contract as per Tender Conditions.
- 3) Kindly commence the work on or before 07/10/2024.

Please note that the time period for providing Consultancy service for the subject work will be Initially for Two years and further extendable for one year on mutual consent as per tender condition.

Accordingly, a copy of Form-III is enclosed herewith for information and necessary action please.

Encl: Form - III


Dy. Chief Engineer (PL) & EMC (I/c),
Deendayal Port Authority

- CC: 1. TPA to CE - For kind information to Chief Engineer, please.
2. RAO, DPA
3. Sr. DD (EDP) with a request to hoist this work order in website of DPA.

दीनदयाल पोर्ट प्राधिकरण
DEENDAYAL PORT AUTHORITY



Office of the Dy. Chief Engineer
(EMC & I/c), Ground Floor,
Administrative Office Building
Post Box No. 50, Gandhidham-Kachchh
Email: seplkpt@gmail.com,
www.deendayalport.gov.in

No: EG/WK/4783/VII/

Date: 4/09/2024

10

FORM – III

(Under rule 21(2) of the Contract Labour (Regulation and Abolition) Central Rules, 1970; and Rules 7(3) of the Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Central Rules, 1980)

CERTIFICATE BY PRINCIPAL EMPLOYER FOR OBTAINING LICENCE FROM ASSISTANT LABOUR COMMISSIONER (C), GOPALPURI.

Certified that:

I have engaged the applicant "Precitech Laboratories Pvt Ltd. 177, 1st floor, Bhanujyot Complex, Plot no. C5/27, B/h. Pachratna Complex, Near GIDC Char Rasta, VAPI-396195. as a contractor in my establishment for the work "**Strengthening of Existing Environmental Management Cell of Deendayal Port Authority: Appointment of Environment Expert for two years and further extendable for one years.**" to be carried out for **24 months** (as per tender) and the work will be commenced on or before **07/10/2024**.

- 1) I undertake to be bound by all the provisions of the Contract Labour (Regulations and Abolition) Act, 1970 (37 of 1970) and the Contract Labour (Regulations and Abolition) Central Rules, 1971 The inter-State Migrant Workman (Regulation of Employment and Conditions of Service) Act, 1979 (30 of 1979) and the Inter State Migrant Workmen (Regulation of Employment and Conditions of Service) Central Rules, 1980* in so far as the provisions are applicable to me in respect of the employment of Contract Labour/inter-state migrant workmen by the applicant in my establishment.
- 2) The engagement of contract labour in the said work is not prohibited under sub-section (1) of section 10 of the Contract Labour (Regulation and Abolition) Act, 1970 (37 of 1970) or an award or a settlement.

Dy. Chief Engineer (PL) & EMC (I/c),
Deendayal Port Authority

ANNEXURE- 4

CE
may posted in
Civil Engineering Deptt/
Chairman's office, after clearance
& all formalities done.
J. S. Jaiswal

Date: 25th August



To,

The Secretary,
Deendayal Port Authority,
Gandhidham, Kutch

Subject: Duty Report for the post of Chief-Manager (Environment & Safety) on contractual basis at DPA – reg.

Sir,

I Dr. Utkarsh S. Mukkannawar, have been selected and offered the position of Chief Manager (Environment & Safety) on contractual basis under professional functionaries category vide Letter No. GA/PS/4292(PF)/2025/1347 with effective from 12th August'2025.

As per terms clause no 19, I "have to report for medical examination before the Chief Medical Officer, DPA at Gopalpuri Hospital....."

Accordingly, I hereby submit and enclose my medical examination Report as clinically healthy and "FIT to Join".

Further, I hereby submit my duty report today i.e., 25th August 2025 (FN) along with duly signed acceptance copy of Offer Letter, the original copy of the medical report enclosing clinical documents and two passport size photos for your kind perusal.

Thanking you,

Yours faithfully,


Dr. Utkarsh Mukkannawar
Mob: 9822077507

CE
may be posted in Civil Engineering
Department, after due clearance
& formalities as per r/c of
engagement, under intimation to
GAD here.

Date: 10th September 2025

To,
The Secretary,
Deendayal Port Authority,
Gandhidham, Kutch

[Signature]
10/9/25
Secretary.

Subject: Duty Report for the Port of Manager (Environment & Safety) on contractual basis at DPA - reg.

Sir,

I Ms. Neha Chandrashekhar Dekate, have been selected and offered the position of Manager (Environment & Safety) on contractual basis under professional functionaries' category vide letter no. GA/PS/4292 (PF)/2025/1349 with effective from 12th August'2025.

As per clause no. 19, "I have to report for medical examination before the Chief Medical Officer, DPA at Gopalpuri Hospital....."

Accordingly, I hereby submit and enclose my medical examination report as clinically healthy and "FIT to Join".

Further, I hereby submit my duty report today i.e. 10th September 2025 (FN) along with duly signed acceptance copy of Offer letter, the original copy of the medical report enclosing clinical documents and two passport size photos for your kind perusal.

Thanking you,

Yours faithfully,

[Signature]

Ms. Neha Dekate
Mob: 9096069665

CG/Sr AS

may be posted in Environment
Cell of Civil Engineering Deptt, subject
to clearance of due formalities
as per terms & conditions of engagement
in DPA on contract, above.

To,
The Secretary
Administrative Building
Deendayal Port Authority

2/9/25
Secretary

Date: 03/09/2025

SUBJECT: Duty Report for Contractual Engagement as Manager – Environment & Safety in Deendayal Port Authority (DPA)

Ref : DPA letter GA/PS/4292(PF)/2025/1348 dated 12/08/2025

Sir,

With reference to the above referred letter dated 12/08/2025 I am hereby pleased to submit my Duty Report and I confirm to join the organization with effect from today i.e. 03/09/2025.

Thanking You

Yours Faithfully



Rajeshwari Sharma

ANNEXURE- 5

List of CSR Works for the year 2025(April to Till November-2025)		
Sr.No	Name of work	Approved cost (Rs in Lakhs)
1	Request for construction of relocatable of sports arena at Gandhidham Military Station,HQ 98 Artillery Brigade Military Station Gandhidham	₹ 28.00
2	Proposal for construction of Police Community Hall at Police Headquarters Shinay.Office of the Superintendent of Police, East – Kutch Gandhidham.	₹ 100.00
3	Proposal for providing AWG system at their check posts located in the Runn of Kutch,Commandant BSF Station Gandhidham	₹ 82.70
4	Proposal for providing 4000 pieces of Tripal/Tarpaulin,Matri Sena Charitable Trust	₹ 32.00
5	Proposal for Upgrading Satellite Eye Hospital at Bhuj.1.Request for financial support for the addition of cornea and retina outpatient departments (OPD), a spectacle dispensing unit, and a medicine counter as part of our OPD activities, & equipment purchase.	₹ 35.08
6	Proposal for financial assistance for purchase of C Arm and OT table to start Orthopedic at St. Joseph's Hospital Gandhidham,ST. Joseph's Hospital Trust, Gandhidham.	₹ 28.78
7	Proposed to establish a women empowerment center, through Ujjas Mahila Sangh,Gandhidham	₹ 119.48
8	CSR Grant for 'Strengthening of School Ecosystem at Primary School Level in Kachchh District,Ladies Environment Action Foundation (LEAF), Gandhinagar	₹ 50.00
9	Proposal for recharge Ponds and Solar based initiatives.Providing solar street lights, home lighting and solar lights for boats, specially targets sea farming families in the Tuna & Vandi village within Gandhidham block of Kutch district,Baif Institute for sustainable livelihoods and development, (BISLAD)Pune- Maharashtra.	₹ 30.00
10	Proposal for the Financial assistance for Ramakrishna Mission Centre for Human Excellence and Social Sciences also called 'Viveka Thirtha', New Town Kolkata. Human Excellence building ,Ramakrishna Mission, West Bengal	₹ 150.00
11	Funding for Distribute Biomass Green Cook Stove free of cost across Gujarat state.,Ramdas Athawale Foundation Ahemdabad	₹ 27.00
12	Request to Allotment of Fund for Development of School premises and providing furniture etc from CSR Fund.,Shree J.H Shukla Madhyamik Shala	₹ 25.92
13	Re-accreditation of sport academy under Khelo India Scheme.Request for Infrastructure for the proposals i) seating gallery & amenities ii) up gradation of existing hostel for elite athletes iii) surrounding road & infrastructure, etc.,Usha School Athletics, Kerala.	₹ 69.00
14	Proposal for Skill Development Training Program for Unemployed and Underprivileged Youth under CSR Initiative of Deendayal Port Authority (DPA) through Centre of Excellence in Maritime and Shipbuilding (CEMS),Mumbai	₹ 124.00
15	Submission of application along with requisite documents for construction of Kabrastan and fund for basic amenities under CSR,Etihadul Muslemin E Hind Trust, Anjar	₹ 50.00
16	Request Letter for the purchase of stainless steel Water Cooler with filter and dispenser for the school,Sunflower School, Gandhidham	₹ 3.19
17	Proposal for Placement Linked Skill and Capacity Building Training on Tourism and Hospitality Request for funding under Corporate social Responsibility (CSR) initiative,Pragati Edutech, Guwahati	₹ 50.00
18	Fund for establishment of New Facilities and upgradation of existing facilities at 'Adhar Sankul (Excluding cost of Building Construction.),'Adhar Sankul' Manav Seva Trust, Gandhidham.	₹ 75.00
19	Earnest Appeal to Contribute under CSR Activities for the construction of sainik school at silvassa in the name of NETAJI CHANDRA BOSE MILITARY ACEDEMY,VidhyaBharti Gujarat Pradesh, Ahemdabad.	₹ 445.23
20	Construction of an educational and social purpose building having 28 rooms & 2 halls.Shree Akhil Kutch Samasta Meghvanshi Gurjar Meghwal Charitable Trust, Bhuj.	₹ 75.00
21	Request to allotment of fund for development of school premises and providing furniture from CSR fund.Sunrise Global School, Gandhidham	₹ 12.60
22	Financial assistance to construction of Building Mind Power development centre for specially visually impaired children. With Equipments, Furniture CCTV, Airconditioner etc.,Shri Navchetan Adhjan Mandal, Madhapar	₹ 107.00

23	Proposal for DPA support Kutch Muslim Shifa Hospital,Muslim Shifa Medical Trust-Bhuj	₹	200.00
24	Request for help from CSR for providing Kits to the Children . List of government schools in khambhaliya taluka,for school Bags/Kits etc. They have requested for 1000 kits ,District Primary Education Officer, Devbhumi Dwarka-Khambhaliya	₹	4.00
25	Project proposal is for Education,Health and Livelihood project in kutch area Electric vehicle project for migrant community school,mobile health van project proposal, school structure project,tailoring training project, computer class for bhadreshwar centre, school-toilet-project, vermin compose unit, fisherman livelihood project.Yusuf Meherally Centre, Bhadreshwar-Kutch	₹	97.67
26	Request for renovation and construction of the shed work above G.F. slab, both side jali for shed, repairing work, painting.Missionaries of Charity, Bhachau (Mother Teresa's distituti's home)	₹	55.00
27	River Reincarnation Project of the Bhukhi River.Krushni Research Innovation and Development Association, Mumbai (KRIDA)	₹	400.00
28	Providing Financial Assistance to R.D.S Kalavad Taluka Meghwar Seva samaj Education and Charitable Trust, Kalavad,SWA Ramji Daya Somaiya Shri Kalavad Taluka Meghwar Seva Samaj Education and Charitable trust, Kalavad	₹	75.00
29	CSR funding towards cure of Baby Aasmika Das diagnosed with Spinal Muscular Atrophy (SMA Type-1).	₹	20.00
30	CSR Funding for Providing Nutrition Kit to T.B. Patients under TB Mukat Bharat Abhiyan as Nishyay Mitra.	₹	14.02
31	Financial assistance under the CSR initiative to facilitate the urgent upgradation of the training and parade ground at the 176 BN BSF campus, Bhuj, Frontier Headquarters, Border Security Force (BSF)	₹	171.90
32	Financial assistance under the CSR initiative for Construction of a Martyr's Column at the 176 BN BSF campus, Bhuj, Frontier Headquarters, Border Security Force (BSF)	₹	32.20

ANNEXURE- 6



सत्यमेव जयते
Forests & Environment Department
Government of Gujarat

**Monthly Environmental Monitoring Plan Report (EMP report)
For
“Preparing and Monitoring of Environmental Monitoring
and Management Plan for Deendayal Port Authority
at Dahej-Hazira-Ghogha for a period of 3 years”
(13th August to 12th September 25)
Final Report**

**Submitted to:
Deendayal Port Authority (DPA), Kandla**

Report Issue No.: GEMI/835(14)/2025/51



Gujarat Environment Management Institute
(An Autonomous Institute of Government of Gujarat)

ISO 9001:2015, 14001:2015 & 45001:2018 Certified Institute

"We Provide Environmental Solutions"



**Final EMP Report for Dahej-Hazira-Ghogha
for 13th August to 12th September 2025**

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Gujarat Environment Management Institute (GEMI)

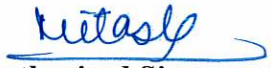
(An Autonomous Institute of Government of Gujarat)

(An ISO 9001:2015 & ISO 14001:2015 & ISO 45001 : 2018 Certified Institute)
(QCI-NABET Accredited EIA Consultant Institute Center)

Certificate

This is to certify that the Monthly Environment Monitoring Plan (EMP) report for the period 13th August to 12th September 2025 for the work entitled, **“Preparing and Monitoring of Environmental Monitoring and Management Plan for Deendayal Port Authority at Dahej-Hazira-Ghogha for a period of 3 years”** has been prepared in line with the work order no. **EG/WK/4751/Hazira & Ghogha/285** dated 18/04/2023 allotted by Deendayal Port Authority.

The report has been delivered as per the terms and conditions of the work order Sr. No. 4(3).


Authorized Signatory
S. S. O. & Lab Head

“We Provide Environmental Solutions”

Head Office : "GEMI BHAVAN", Plot Number : B - 246 & 247, Electronic Estate, G.I.D.C., Sector - 25, Gandhinagar - 382024.
Laboratory : "GEMI'S LABORATORY", Plot Number : B-64, Electronic Estate, G.I.D.C., Sector - 25, Gandhinagar - 382024.
Phone : 079-23240964 (O) 079 - 29910462 (Lab) **E-mail** : info-gemi@gujarat.gov.in **Website** : www.gemi.gujarat.gov.in

ABOUT THIS DOCUMENT

Gujarat Environment Management Institute (GEMI) has been assigned with the project **“Preparing and Monitoring of Environmental Monitoring and Management Plan for Deendayal Port Authority at Dahej-Hazira-Ghogha for a period of 3 years”** (Final EMP report for 13th August to 12th September 25) by Deendayal Port Authority, Kandla. Under the said project, the report titled “Monthly Environmental Monitoring Plan Report (*Final EMP report for 13th August to 12th September 25*)” is prepared.

Name of the Report:	Monthly Environmental Monitoring Plan (EMP report) for “Preparing and Monitoring of Environmental Monitoring and Management Plan for Deendayal Port Authority at Dahej- Hazira-Ghogha for a period of 3 years” <i>(Final EMP report for 13th August to 12th September 25)</i>
Version:	1.0
Report Issue No.	GEMI/835(14)/2025/51
Report Issue Date:	18/11/2025
Prepared by:	Mr. Nirav Nakar, Assistant Environmental Engineer Ms. Ankita Modi, Assistant Environmental Engineer
Contribution by:	Mr. Harsh Pathak (Project Assistant) Mr. Het Trivedi (Project Manager, Ghogha) Mr. Hitesh Dhabe (Project Assistant) Mr. Milan Vadaliya (Project Manager, Hazira)
Reviewed by:	Ms. Jalpa Darji, Deputy Environmental Engineer & Unit Head - 2 Dr. Nitasha Khatri, Senior Scientific Officer & Lab Head
Approved by:	Dr. Jaipal Singh, IFS, PCCF & Director



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**Final EMP Report for Dahej-Hazira-Ghogha
for 13th August to 12th September 2025**

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Chapter 1. Introduction

1.1 Introduction

Deendayal Port Authority (DPA), Erstwhile Kandla Port Trust, is one of the 13th major ports in India and is located on the west coast of India, in the Gulf of Kutch at 23001'N and 70013'E in the state of Gujarat in India. DPA has commissioned Ro-Ro/Ro-Pax facilities at Hazira and Ghogha, Gujarat. This waterfront is proposed to be operated for berthing and unberthing of ROPAX Ferry vessels to load and unload vehicles along with embarking and disembarking passengers. The travel time between Ghogha and Hazira has reduced from 10 hours to 3.15 hours with the start of the Ro-Ro ferry service. The road distance from Surat to Bhavnagar is 360 kilometers. Whereas the sea route distance is 67 nautical miles only. So, Ro-Ro/Ro-Pax vessels are deployed to reduce travel time and thereby, reduce carbon emission. In compliance with the conditions stipulated in statutory clearances viz. Environmental/CRZ Clearance from the Ministry of Environment & Forest, CRZ recommendations from the state Forest & Environment Department, and NOC from the State Pollution Control Board (SPCB), and to ensure implementation of the project in an environmentally sustainable manner in & around the project site, it is important to monitor the environmental status and prepare an effective environmental monitoring and management plan of the port facility for sustainable development.

In this regard, DPA proposes to formulate a detailed and effective environmental monitoring and management plan by conducting monthly environmental monitoring for its onward submission to the statutory bodies.

Under the said study, monitoring of the various aspects of the environment such as Ambient air, DG stack emissions, meteorology, drinking water, soil, noise, and marine environment- Water, Sediment & Ecological characteristics for the locations at Hazira, Dahej & Ghogha for 3 years needs to be carried out.

This report includes the monthly Environmental Monitoring Plan (EMP) report for monitoring carried out for the month of 13th August to 12th September 25

1.2 Locations for environmental monitoring

Finalized monitoring locations as per the preliminary site visit report are shown in **Table 1** and **Figures 1 to 3**. The monitoring photographs are shown in **Figure 4**.

Table 1: Locations of environmental monitoring components

Locations	Sample code	Latitude	Longitude
Ambient Air Monitoring			
Admin building at Ghogha Ro-Ro ferry	AM-G	21.673483	72.284497
Terminal building at Hazira Ro-Ro ferry	AM-H1	21.077458	72.657147
Staff accommodation at Ro-Ro ferry at Hazira	AM-H2	21.0775717	72.6551994
Admin building at Ro-Ro ferry service at Dahej	AM-D	21.666383	72.561889
Drinking Water Monitoring			
Canteen building at Ghogha Ro-Ro ferry	DW-G	21.677216	72.283060
Terminal building at Hazira Ro-Ro ferry	DW-H	21.077399	72.657189
Canteen building at Ro-Ro ferry service at Dahej	DW-D	21.66435	72.563489
Noise Monitoring			
Admin building at Ghogha Ro-Ro ferry	N-G	21.673481	72.284464
Terminal building at Hazira Ro-Ro ferry	N-H1	21.077458	72.657147
Staff accommodation at Ro-Ro ferry at Hazira	N-H2	21.0775717	72.6551994
Admin building at Ro-Ro Ferry Service at Dahej	N-D	21.666383	72.5561889
Meteorological Data Monitoring			
Admin building at Ghogha Ro-Ro ferry	M-G	21.673483	72.284497
Terminal building at Hazira Ro-Ro ferry	M-H	21.077458	72.657147
Admin building at Ro-Ro Ferry Service at Dahej	M-D	21.666383	72.561889
Soil Quality Monitoring			
Terminal building at Ghogha Ro-Ro ferry	S-G	21.67496	72.284388
Near Terminal building at Hazira Ro-Ro ferry	S-H	21.076353	72.657294
Ro-Ro ferry service at Dahej	S-D	21.666037	72.563489
Marine Water, Ecology and Sediment Monitoring			
Near Ro-Ro ferry terminal at Ghogha	MA-G1	21.67954	72.29433
Away from Ro-Ro ferry terminal at Ghogha and along the ferry route from Ghogha to Hazira	MA-G2	21.665054	72.336313
Near Ro-Ro ferry terminal at Hazira	MA-H1	21.07577	72.65839
Away from Ro-Ro ferry terminal at Hazira and along the ferry route from Hazira to Ghogha	MA-H2	21.072114	72.657794
Near Ro-Ro ferry Service at Dahej	MA-D	21.65988	72.56365
DG stack emission Monitoring			
Near substation-3 at Ghogha Ro-Ro ferry	DG-G	21.6739638	72.2835000
Generator Room near Terminal building at Hazira Ro-Ro ferry	DG-H	21.0775041	72.6563279
Near Substation-1 at Dahej Ro-Ro ferry	DG-D	21.665902	72.562056

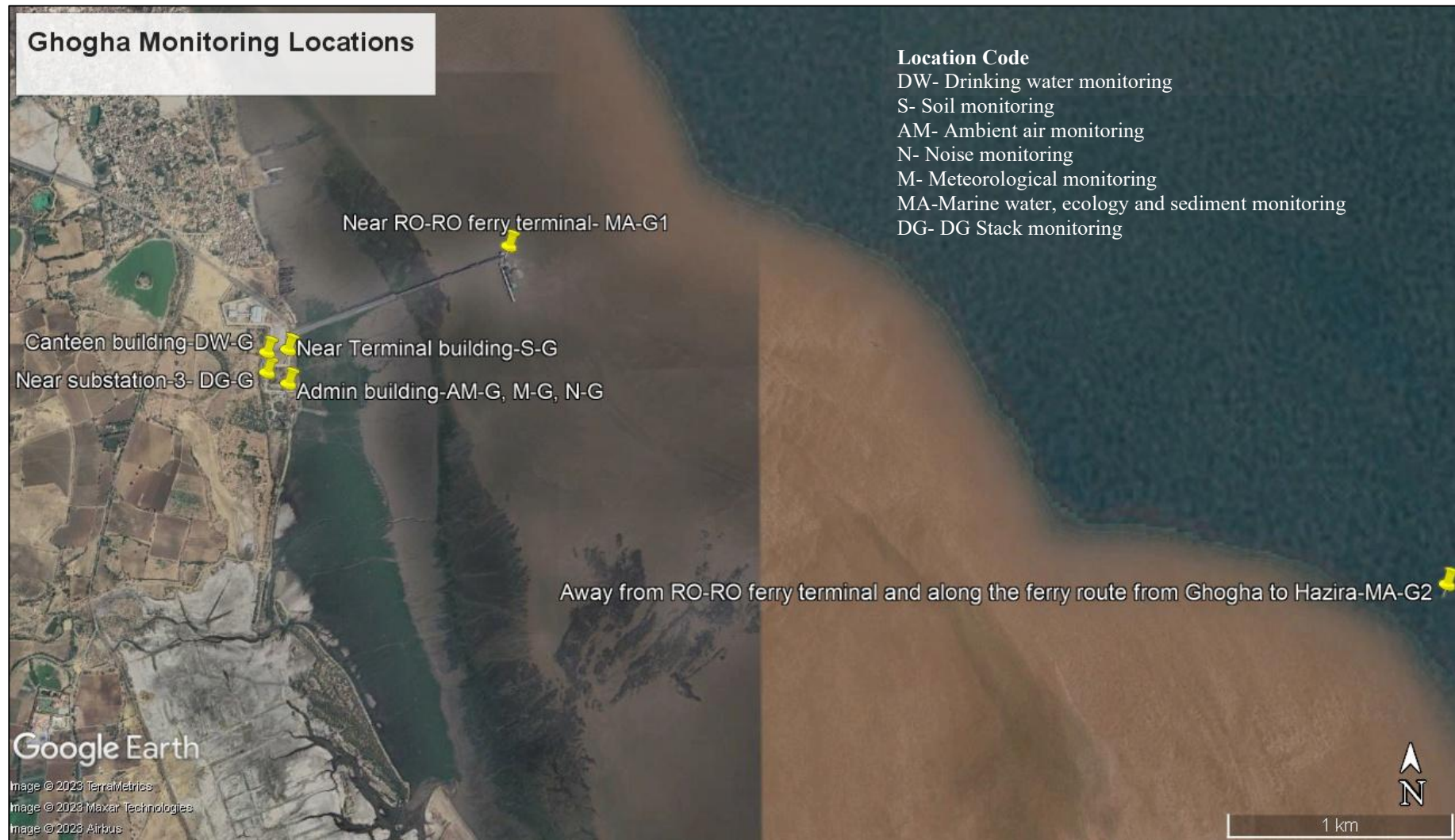


Fig. 1: Sampling locations at Ghogha



Fig. 2: Sampling locations at Hazira



Fig. 3: Sampling locations at Dahej

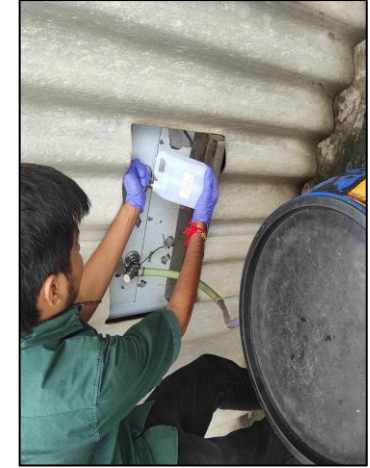


Fig. 4: Photographs of environmental monitoring

1.3 Details of environmental monitoring components

Detailed plan of environmental monitoring components and its parameters is shown in Table 2.

Table 2: Detailed plan of environmental monitoring components

Sr. No	Parameter	No. of locations	Frequency	Parameters
1.	Ambient air quality monitoring (4 locations)	1 at Ghogha, 2 at Hazira and 1 at Dahej	Twice a week	PM ₁₀ , PM _{2.5} , Sulphur dioxide, Oxides of nitrogen, Carbon monoxide
			Once in a month	Hydrocarbons, Benzene, Volatile Organic Compound, Non-methane VOC
2.	Drinking water monitoring (3 locations)	1 at Ghogha, 1 at Hazira and 1 at Dahej	Once in a month	Odor, Color, pH, Turbidity, TDS, TSS, Conductivity, Chloride, Calcium as Ca, Magnesium, Total hardness, Sulphate as SO ₄ , Nitrate as NO ₃ , Nitrite as NO ₂ , Fluoride as F, Sodium as Na, Iron as Fe, Potassium as K, Manganese, Total chromium, Hexavalent chromium, Copper, Cadmium, Arsenic, Lead, Zinc, Mercury, Salinity, Free residual chlorine, Microbiological (MPN)
3.	Noise level monitoring (4 locations)	1 at Ghogha, 2 at Hazira and 1 at Dahej	24 hrs period once in a month	Leq (Day) & (Night)
4.	Soil quality monitoring (3 locations)	1 at Ghogha, 1 at Hazira and 1 at Dahej	Once in a month	Total Organic Matter, Organic Carbon, Inorganic Phosphate, Texture, pH, Conductivity, Particle size distribution & Silt content, SAR, Water holding capacity, Aluminum, Chromium, Nickel, Copper, Zinc, Cadmium, Lead, Arsenic, Mercury
5.	Meteorological data monitoring (3 locations)	1 at Ghogha, 1 at Hazira and 1 at Dahej	Daily	Wind speed, Wind direction, Rainfall, Humidity, Temperature, Solar radiation
6.	DG emissions (3 locations)	1 at Ghogha, 1 at Hazira and 1 at Dahej	Once in a month	Particulate Matter, Sulphur dioxide, Oxides of nitrogen, Carbon monoxide, Carbon dioxide
7.	Marine water quality (5 locations)	2 at Ghogha, 2 at Hazira	Once in a month	Odor, Color, pH, Turbidity, TDS, TSS, Conductivity, DO, Particulate organic carbon, COD, BOD, Silica,

Sr. No	Parameter	No. of locations	Frequency	Parameters
		and 1 at Dahej		Phosphate, Sulphate as SO ₄ ⁻ , Nitrate as NO ₃ , Nitrite as NO ₂ , Sodium as Na, Potassium as K, Manganese, Iron as Fe, Total chromium, Hexavalent chromium, Copper, Cadmium, Arsenic, Lead, Zinc, Mercury, Oil & grease, Floating material (scum), Microbiological (MPN), Density
8.	Marine water quality for biological monitoring (5 locations)	2 at Ghogha, 2 at Hazira and 1 at Dahej	Once in a month	Chlorophyll-a, Pheophytin, Productivity (Net & Gross), Biomass; Relative abundance, species composition and diversity of phytoplankton; Relative abundance, species composition and diversity of zooplankton; Relative abundance, species composition and diversity of benthic invertebrates; (Meio, Micro and Macro benthos), Particulate oxidizable organic carbon, Secchi disk depth
9.	Sediments quality (5 locations)	2 at Ghogha, 2 at Hazira and 1 at Dahej	Once in a month	Texture, Organic Matter, Inorganic Phosphate, Silica, Phosphate, Sulphate, Nitrite, Nitrate, Calcium, Magnesium, Sodium, Potassium, Aluminum, Copper, Chromium, Nickel, Zinc, Cadmium, Lead, Arsenic, Mercury

1.4 Sample collection, preservation, storage and transportation to GEMI's Laboratory

Sampling of water and wastewater samples was carried out by 'GEMI's sampling protocol for water and wastewater' approved by the Government of Gujarat vide letter no. ENV-102013-299-E dated 24-04-2014 under the provision of the Water (Preservation and control of pollution) Act 1974. Soil sampling was conducted as per the 'Soil sampling manual by GEMI' published in November 2016. Whereas, for the other components of the environment such as ambient air, noise, & marine ecology, the guidelines/manuals brought out by CPCB were followed. The sampling was carried out by GEMI's trained manpower. The details of the environmental samples and their respective standards are summarized in **Table 3**.

Table 3: Details of sample collection and analysis method for each environmental component

Sr. No.	Type of sample		Manual/ Standards and Protocols	Instruments
1.	Ambient air	IS 5182 (Part 23): 2006	PM ₁₀	Respirable Dust Sampler (RDS) conforming to IS:5182 (Part-23): 2006
		IS:5182 (Part:24):2019	PM _{2.5}	Fine Particulate Sampler (FPS) conforming to IS:5182 (Part-24): 2019
		IS:5182 (Part-2):2001	SO _x	Gaseous attachment conforming to IS:5182 (Part-2):2001
		IS:5182 (Part-6):2006	NO _x	Gaseous attachment conforming to IS:5182 (Part-6): 2006
		GEMI/SOP/AAQM/11; Issue no 01, Issue date 17.01.2019: 2019	Carbon monoxide	Sensor based Instrument
		IS 5182 (Part 11): 2006	Benzene	Low flow air sampler conforming to IS:5182 (Part-11): 2006
		IS 5182 (Part 11): 2006	VOC	Low flow air sampler conforming to IS:5182 (Part-11): 2006
		IS: 5182 (Part 17): 1979	Hydrocarbon	Aluminized plastic bags with on/off valve conforming to IS 5182 (Part 17):1979
		IS: 5182 (Part 17): 1979	Non-methane VOC	Aluminized plastic bags with on/off valve conforming to IS 5182 (Part 17):1979
2.	DG emissions		IS: 11255 and USEPA Method	Sensor based flue gas analyzer (Make: TESTO, Model 350) Stack Monitoring Kit
3.	Meteorological data		Installation of automatic weather stations to get periodic meteorological data as per the requirement	Automatic Weather Stations (AWS)

Sr. No.	Type of sample	Manual/ Standards and Protocols	Instruments
4.	Water (Drinking water, Surface water)	Sampling protocol for water & wastewater approved by the Government of Gujarat vide letter no. ENV-102013-299-E dated 24-04-2014 under the provision of Water (Preservation and Control of Pollution) Act 1974.	For drinking water- Titration apparatus, pH meter and conductivity meter Sample collection method: Grab sampling For marine water - Niskin sampler
5.	Soil and Marine sediments	Soil sampling manual by GEMI published in November 2016	For sediment sample collection –Van veen grab sampler
6.	Noise	IS 9989:2014	Noise meter
7.	Marine ecology	Technical guidance book – An introduction to aquatic biomonitoring using macro-invertebrates, 2021 by CPCB	The sampling of the benthic invertebrates will be carried out with the help of D-frame nets, whereas the sampling of zooplankton and phytoplankton shall be carried out with the help of plankton nets (60 micron and 20 micron).

1.5 Environmental monitoring plan for 13th August to 12th September 25

The Environmental monitoring was carried out for Ambient air, Soil, Drinking water, Noise, Meteorology, DG stack, and Marine environment – water, sediment and ecology. The detailed environmental monitoring plan for the period from 13th August to 12th September 25 is given in Table 4.

Table 4: Environmental monitoring plan for Dahej, Hazira, and Ghogha, 13th August to 12th September 25

Sampling and Monitoring Team	Mr. Harsh Pathak (Project Assistant) Mr. Het Trivedi- Project manager (Ghogha), Mr. Hitesh Dhabe- Project Assistant (Dahej), Mr. Milan Vadaliya- Project manager (Hazira)				
	Actual Monitoring Dates				
Task	Project sites				
Monitoring of Drinking water, Soil, Noise, Marine Water, Sediments and ecology	Dahej	Hazira-1	Hazira-2	Ghogha-1	Ghogha-2
Soil monitoring	20-08-2025	20-08-2025	-	29-08-2025	
Drinking water	20-08-2025	20-08-2025	-	29-08-2025	-
Marine water, sediments and ecology	20-08-2025	20-08-2025	20-08-2025	29-08-2025	29-08-2025
Noise monitoring	14-08-2025	20-08-2025	30-08-2025	28-08-2025	-
Monitoring of DG stack	26-08-2025	18-08-2025	-	04-09-2025	-
Monitoring of ambient air	18-08-2025	19-08-2025	19-08-2025	19-08-2025	-
	19-08-2025	20-08-2025	20-08-2025	20-08-2025	-
	21-08-2025	25-08-2025	25-08-2025	25-08-2025	-
	27-08-2025	28-08-2025	28-08-2025	28-08-2025	-
	29-08-2025	01-09-2025	01-09-2025	01-09-2025	-
	01-09-2025	02-09-2025	02-09-2025	02-09-2025	-
	02-09-2025	08-09-2025	08-09-2025	08-09-2025	-
	03-09-2025	09-09-2025	09-09-2025	09-09-2025	-
Meteorological monitoring	13 th August to 12 th September 25				

Chapter 2. Results and observations of environmental monitoring at Dahej, Hazira & Ghogha

2.0 Monitoring of various environmental components

Monitoring of various environmental components was carried out at the locations listed in **Table 1** above. Details of each component have been mentioned below.

2.1 Ambient air monitoring

Air monitoring was carried out at four locations: 1 at Dahej, 2 at Hazira, and 1 at Ghogha. The monitoring cycle was twice a week for 24-hour sampling. Sampling for benzene, hydrocarbon, non-methane VOC, and VOC was done once a month. **Table 5** shows the results of ambient air monitoring.

Table 5: Result of ambient air quality monitoring

Sr. No.	Parameters	NAAQ Standards, 2009 (Industrial, Residential, Rural & Other areas) for 24 hours	Location code: (AM-D)							
			Sampling Date							
			18-08-2025	19-08-2025	21-08-2025	27-08-2025	29-08-2025	01-09-2025	02-09-2025	03-09-2025
1	PM ₁₀ (µg/m ³)	100 (µg/m ³)	141.94	98.39	93.54	89.73	90.45	81.95	73.97	91.10
2	PM _{2.5} (µg/m ³)	60 (µg/m ³)	15.23	9.90	11.89	13.49	14.83	18.99	19.03	11.56
3	SO ₂ (µg/m ³)	80 (µg/m ³)	33.69	10.48	9.63	12.85	11.52	8.10	7.45	9.20
4	NO _x (µg/m ³)	80 (µg/m ³)	13.21	10.60	11.75	14.36	10.78	13.94	7.03	6.85
5	CO (µg/m ³)	2000 (µg/m ³)	510	480	500	530	550	530	500	520

Sr. No.	Parameters	NAAQ Standards, 2009 (Industrial, Residential, Rural & Other areas) for 24 hours	Location code: (AM-H1)							
			Sampling Date							
			19-08-2025	20-08-2025	25-08-2025	28-08-2025	01-09-2025	02-09-2025	08-09-2025	09-09-2025
1	PM ₁₀ (µg/m ³)	100 (µg/m ³)	60.33	43.30	49.40	69.50	68.86	64.79	94.08	54.81
2	PM _{2.5} (µg/m ³)	60 (µg/m ³)	7.45	<5	28.96	24.80	10.16	13.20	18.20	19.98
3	SO ₂ (µg/m ³)	80 (µg/m ³)	10.34	9.54	12.39	11.40	8.41	7.39	<5	<5
4	NO _x (µg/m ³)	80 (µg/m ³)	6.15	6.19	8.30	12.99	8.53	<6	46.62	50.82
5	CO (µg/m ³)	2000 (µg/m ³)	530	510	520	530	500	540	490	510



Sr. No.	Parameters	NAAQ Standards, 2009 (Industrial, Residential, Rural & Other areas) for 24 hours	Location code: (AM-H2)							
			Sampling Date							
			19-08-2025	20-08-2025	25-08-2025	28-08-2025	01-09-2025	02-09-2025	08-09-2025	09-09-2025
1	PM ₁₀ (µg/m ³)	100 (µg/m ³)	57.10	40.50	45.10	64.45	65.74	62.45	89.02	57.01
2	PM _{2.5} (µg/m ³)	60 (µg/m ³)	8.00	<5	30.62	21.20	10.00	12.04	15.30	16.07
3	SO ₂ (µg/m ³)	80 (µg/m ³)	9.50	8.95	11.79	12.22	7.00	8.10	<5	<5
4	NO _x (µg/m ³)	80 (µg/m ³)	5.55	6.40	7.60	11.90	7.96	<6	40.60	46.33
5	CO (µg/m ³)	2000 (µg/m ³)	560	520	550	500	520	580	510	530

Sr. No.	Parameters	NAAQ Standards, 2009 (Industrial, Residential, Rural & Other areas) for 24 hours	Location code: (AM-G)							
			Sampling Date							
			19-08-2025	20-08-2025	25-08-2025	28-08-2025	01-09-2025	02-09-2025	08-09-2025	09-09-2025
1	PM ₁₀ (µg/m ³)	100 (µg/m ³)	14.91	16.56	19.29	27.09	26.31	33.45	21.66	16.33
2	PM _{2.5} (µg/m ³)	60 (µg/m ³)	6.22	8.40	16.16	16.69	17.67	23.32	13.86	5.47
3	SO ₂ (µg/m ³)	80 (µg/m ³)	10.07	9.36	11.51	10.54	7.99	11.03	<5	<5
4	NO _x (µg/m ³)	80 (µg/m ³)	<6	8.40	<6	7.64	<6	9.65	37.14	49.68
5	CO (µg/m ³)	2000 (µg/m ³)	470	520	530	490	480	450	520	500

Sr. No.	Parameters	NAAQ Standards, 2009 (Industrial, Residential, Rural & Other Areas) for 24 hours	Location Code: (AM-D)	Location Code: (AM-H1)	Location Code: (AM-H2)	Location Code: (AM-G)
			Sampling Date			
			20-08-2025	25-08-2025	28-08-2025	04-09-2025
1	Benzene ($\mu\text{g}/\text{m}^3$)	5 ($\mu\text{g}/\text{m}^3$)	<4.0	<4.0	<4.0	<4.0
2	Hydrocarbons ($\mu\text{g}/\text{m}^3$)	-	<4.0	<4.0	<4.0	<4.0
3	Non-methane VOC ($\mu\text{g}/\text{m}^3$)	-	<4.0	<4.0	<4.0	<4.0
4	VOC ($\mu\text{g}/\text{m}^3$)	-	<4.0	<4.0	<4.0	<4.0

Observations:

- The results of ambient air quality were compared with the National Ambient Air Quality Standards (NAAQS), 2009, specified by the Central Pollution Control Board (CPCB).
- Dahej:
 - The concentration of PM_{2.5}, SO₂, NO_x, CO, Benzene, Hydrocarbons, Non-methane VOC, and VOC were within the standard limit in all the samples.
 - PM₁₀ was higher than the standard limit of 100 $\mu\text{g}/\text{m}^3$ only once.
- Hazira and Ghogha:
 - The concentration of PM_{2.5}, PM₁₀, SO₂, NO_x, CO, Benzene, Hydrocarbons, Non-methane VOC, and VOC were within the standard limit in all the samples.
- The high concentration of PM₁₀ could be attributed to vehicular movement in the port area and surrounding road dust, causing the dispersion of emitted particulate matter in the ambient air.

Preventive measures:

- Water sprinkling on roads, end-to-end pavement of roads, and tree plantations can considerably reduce dust suspension and its emission during vehicular movement.
- Practice should be initiated by using a mask as a preventative measure to avoid the health risk associated with the inhalation of dust particles to the person working in the port area.

2.2 Drinking water monitoring

Drinking water sampling was carried out once a month at three locations, i.e., 1 at Dahej, 1 at Hazira, and 1 at Ghogha. The analysis results were compared with the stipulated standards as per IS 10500:2012 and mentioned in **Table 6** below.

Table 6: Results of drinking water quality monitoring

Sr. No.	Parameters	Unit	Acceptable limit	Permissible limit	Location Code and Sampling Date		
			Standards IS 10500:2012		DW-D	DW-H	DW-G
					20-08-2025	20-08-2025	29-08-2025
1	pH	-	6.5-8.5	No Relaxation	7.52	7.98	7.12
2	EC	μS/cm	-	-	216	48.4	331
3	TDS	mg/L	500	2000	116	26	176
4	Chloride	mg/L	250	1000	18.32	12.05	29.89
5	Total Hardness	mg/L	200	600	88	5	146
6	Calcium as Ca	mg/L	75	200	59	3	72
7	Magnesium as Mg	mg/L	30	100	29	2	74
8	Turbidity	NTU	1.00	5.00	1.45	BQL● (QL=0.5)	0.63
9	Fluoride as F	mg/L	1	1.5	0.44	QL● (QL=0.3)	0.51
10	SO ₄	mg/L	200	400	BQL● (QL=10)	BQL● (QL=10)	29.94
11	Na	mg/L	-	-	14.99	8.03	50.96
12	K	mg/L	-	-	1.83	BQL● (QL=1)	2.55
13	NO ₃	mg/L	45	No relaxation	2.95	2.53	5.01
14	NO ₂	mg/L	-	-	BQL● (QL=0.1)	BQL● (QL=0.1)	BQL● (QL=0.1)
15	Odour	TON	Agreeable	Agreeable	1	1	1
16	Hg	mg/L	0.001	No relaxation	BQL● (QL=0.003)	BQL● (QL=0.003)	BQL● (QL=0.003)
17	Salinity	PSU	-	-	0.10	0.03	0.16

Sr. No.	Parameters	Unit	Acceptable limit	Permissible limit	Location Code and Sampling Date		
			Standards IS 10500:2012		DW-D	DW-H	DW-G
					20-08-2025	20-08-2025	29-08-2025
18	Free Residual Cl ⁻	mg/L	0.2	1	BQL● (QL=2)	BQL● (QL=2)	BQL● (QL=2)
19	Pb	mg/L	0.01	No relaxation	BQL● (QL=0.002)	BQL● (QL=0.002)	BQL● (QL=0.002)
20	Cd	mg/L	0.003	No relaxation	BQL● (QL=0.002)	BQL● (QL=0.002)	BQL● (QL=0.002)
21	Fe	mg/L	0.3	No relaxation	BQL● (QL=0.1)	BQL● (QL=0.1)	BQL● (QL=0.1)
22	Total Cr	mg/L	0.05	No relaxation	BQL● (QL=0.005)	BQL● (QL=0.005)	BQL● (QL=0.005)
23	Hexavalent Cr	mg/L	-	-	BQL● (QL=0.01)	BQL● (QL=0.01)	BQL● (QL=0.01)
24	Cu	mg/L	0.05	1.5	BQL● (QL=0.005)	BQL● (QL=0.005)	BQL● (QL=0.005)
25	Zn	mg/L	5.00	15.00	BQL● (QL=0.5)	BQL● (QL=0.5)	BQL● (QL=0.5)
26	As	mg/L	0.01	0.05	BQL● (QL=0.005)	BQL● (QL=0.005)	BQL● (QL=0.005)
27	Color	Hazen	5.00	15.00	1	1	1
28	TSS	mg/L	-	-	4	BQL●(QL=2)	BQL●(QL=2)
29	Microbiological (MPN) (Total Coliforms)	CFU/100 ml	Shall not be detectable in any 100 ml sample		5	BQL● (QL=1)	120
30	Mn	mg/L	0.1	0.3	BQL● (QL=0.04)	BQL● (QL=0.04)	BQL● (QL=0.04)

BQL – Below Quantification Limit, QL– Quantification Limit

Observations:

- The samples were collected from the respective drinking water sources at the monitored locations. The following were observed from the analysis of drinking water samples.
- At all three locations, Dahej, Hazira, and Ghogha, all parameters were within the standard acceptable limit, except the following.
- At Ghogha, the concentration of Mg (74mg/L) exceeded the acceptable limit of 30 mg/L but not exceeded the permissible limit of 100 mg/L.
- At Dahej, the concentration of Turbidity (1.45 NTU) exceeded the acceptable limit of 1 NTU but not exceeded the permissible limit of 1.5 NTU.
- The concentration of Total coliform content at Dahej, Hazira, and Ghogha was detected as 5, BQL, and 120 CFU/100 ml, respectively.

Preventive measures:

- The presence of the Total Coliforms in all samples indicates microbiological contamination. Therefore, regular cleaning and maintenance of the RO system/water storage tank is recommended. It is required to ensure an efficient operation of the disinfection system to prevent the contamination of water from coliform.

2.3 Noise level monitoring

Noise monitoring was conducted at all four locations, i.e., 1 at Dahej, 2 at Hazira, and 1 at Ghogha. The monitoring was conducted once a month at all the locations for 24 hours. The results of the noise monitoring are mentioned in **Table 7**. The results were compared with the prescribed limit of noise level as per the noise standards of Environment Protection Rules, 2000, as given in **Table 8**.

Table 7: Results of noise monitoring

Sr. No.	Location Code	Date of Monitoring	Day Time			Night Time		
			Max.	Min.	Leq.	Max.	Min.	Leq.
1	N-D	14-August-25	57.8	51.6	53.8	48.8	41.1	44.9
2	N-H1	20-August-25	62.9	53.7	58.0	53.5	43.1	46.7
3	N-H2	30-August-25	59.4	52.9	56.7	59.4	44.2	48.1
4	N-G	28- August-25	71.3	56.2	60.6	62.5	40.7	47.2

Table 8: Ambient air quality norms with respect to noise

Area Code	Type of area	Noise dB(A) Leq	
		Day time	Night time
A	Industrial area	75	70
B	Commercial area	65	55
C	Residential area	55	45
D	Silent zone	50	40

Observations:

- Average Leq noise levels, for Day-time and Night-time at all locations, Dahej, Hazira, and Ghogha, were found below the maximum permissible limits defined for “Industrial area”.

2.4 Soil quality monitoring

Soil quality monitoring was carried out at all three locations, 1 at Dahej, 1 at Hazira, and 1 at Ghogha, once a month. **Table 9** shows the analysis results of soil quality.

Table 9: Results of soil quality monitoring

Sr. No.	Parameters		Unit	Location Code & Date of Sampling		
				S-D	S-H	S-G
				20-08-2025	20-08-2025	29-08-2025
1	Organic Carbon		%	0.35	0.39	0.68
2	Total Organic Matter		%	0.61	0.67	1.17
3	Inorganic Phosphate (Av. Phosphorous)		kg/Ha	0.81	0.83	0.71
4	Particle size distribution & silt content	Sand %	-	43.73	25.69	38.98
5		Silt %	-	23.98	31.99	42.40
6		Clay %	-	32.29	42.31	18.31
7	Texture	Type of soil	-	Clay loam	Clay	Loam
8	pH		-	9.41	9.8	8.51
9	Conductivity		dS/m	2.18	0.54	0.59
10	SAR		meq/L	6.32	1.82	0.15
11	Water Holding Capacity		%	54.38	69.97	59.95
12	Al		mg/kg	10513.99	13419.32	26587.56
13	Cr		mg/kg	92.19	103.86	108.41
14	Ni		mg/kg	33.67	38.93	40.72
15	Cu		mg/kg	48.27	60.77	67.26
16	Zn		mg/kg	50.75	57.17	66.88
17	Cd		mg/kg	BQL● (QL=1)	BQL● (QL=1)	BQL● (QL=1)
18	Pb		mg/kg	3.13	2.7	6.71
19	As		mg/kg	3.18	3.14	2.8
20	Hg		mg/kg	BQL● (QL=0.005)	BQL● (QL=0.005)	BQL● (QL=0.005)

BQL – Below Quantification Limit QL- Quantification Limit

To classify the soil quality, the soil quality standards- “Soil fertility class by Soil Health card 2015” & “Standard limit EU 2002” were adopted and shown in **Table 10** below.

Table 10: Soil quality standard

Soil fertility class by Soil Health Card (SHC 2015)				
Sr. No.	Parameter	Range & Interpretation of Result		
1	pH	Acidic <6.5	Normal 6.5-8.2	Alkaline >8.2
2	Electrical Conductivity (dS/m)	Normal <1	Medium 1-3	Harmful >3
3	Available Phosphorus (kg/Ha)	Low < 28	Medium 28-56	High >56
4	Organic Carbon (%)	Low < 0.5	Medium 0.5-0.75	High > 0.75
5	Zinc (mg/kg)	Low < 0.5	Medium 0.5-1.0	High >1.0
6	Copper (mg/kg)	Low < 0.2	Medium 0.2-0.4	High >0.4

Standard limit EU 2002		
7	Chromium (mg/kg)	150
8	Lead (mg/kg)	300
9	Cadmium (mg/kg)	3.0
10	Nickel (mg/kg)	75

Observations:

- The soil texture was identified as ‘Clay loam’ type at Dahej, ‘Clay’ at Hazira and ‘Loam’ type at Ghogha.
- The pH value in soil was found to be ‘Alkaline’ at all three locations.
- Electrical Conductivity at Dahej was found in the ‘Medium’ Category, and Hazira and Ghogha were found to be in the ‘Normal’ category.
- Available phosphorus falls under the ‘Low fertility’ quality class at all three locations.
- The Organic carbon content in the soil was found in the ‘Low fertility’ class at Dahej and Hazira and ‘Medium fertility’ at Ghogha locations.
- The values of Zn and Cu were found in the ‘High fertility’ class at all three locations.
- The heavy metals, including Cr, Pb, Cd, and Ni, were detected within permissible limits at all three locations.
- The overall quality of the soil at all three locations was found to have low essential nutrients, hence less suitable for plant growth.

2.5 Marine Water, Sediment & Ecology Monitoring

Marine water, sediment, and ecology monitoring was carried out at five locations: 1 at Dahej, 2 at Hazira, and 2 at Ghogha. The results and observations are mentioned below.

2.5.1 Marine Water Quality Monitoring

The analysis results of the marine water are presented in **Table 11** below. The results of marine water quality were compared with the water quality criteria for the designated best use for the coastal water stipulated by the ‘Environment (Protection) Act, 1986’, shown in **Table 12**.

Table 11: Result of marine water quality monitoring

Sr. No.	Parameters	Unit	Location code & date of sampling				
			MA-D	MA-H1	MA-H2	MA-G1	MA-G2
			20-08-2025	20-08-2025	20-08-2025	29-08-2025	29-08-2025
1	EC	μS/cm	29,780	27,366	30,457	37,100	37,300
2	DO	mg/L	6.7	5.84	6.19	5.3	6.5
3	pH	-	7.75	7.39	7.34	7.49	7.61
4	Color	Hazen	5	5	10	5	5
5	Odor	TON	1	1	1	1	1
6	Turbidity	NTU	>500 (QL=500)	432	>500 (QL=500)	215	72.7
7	TDS	mg/L	19,357	17,788	19,797	25,720	25,812
8	TSS	mg/L	430	372	467	278	188
9	Particulate Organic Carbon	mg/L	7.73	3.05	8.28	1.93	1.06
10	COD	mg/L	47.32	44.4	37.63	35.8	29.1
11	BOD	mg/L	4.9	BQL● (QL=3)	5.07	BQL● (QL=3)	BQL● (QL=3)
12	Silica	mg/L	>5 (QL=5)	>5 (QL=5)	>5 (QL=5)	7.52	6.89
13	PO ₄	mg/L	3.07	0.63	2.34	BQL● (QL=0.5)	BQL● (QL=0.5)
14	SO ₄	mg/L	1351.91	1208	1385.53	1709.85	1655.05
15	NO ₃	mg/L	5.28	7.09	6.35	5.10	5.17
16	NO ₂	mg/L	BQL● (QL=0.1)	0.29	0.23	BQL● (QL=0.1)	BQL● (QL=0.1)
17	Na	mg/L	5768.80	4214	5135.18	>10,000 (QL=10,000)	>10,000 (QL=10,000)
18	K	mg/L	218.40	88.80	185.25	1390	1188
19	Mn	mg/L	1.19	0.34	3.03	0.10	BQL● (QL=0.04)

Sr. No.	Parameters	Unit	Location code & date of sampling				
			MA-D	MA-H1	MA-H2	MA-G1	MA-G2
			20-08-2025	20-08-2025	20-08-2025	29-08-2025	29-08-2025
20	Fe	mg/L	8.99	3.7	8.98	1.43	0.33
21	Total Cr	mg/L	0.02	0.01	0.02	BQL● (QL=0.005)	BQL● (QL=0.005)
22	Hexavalent Cr	mg/L	BQL● (QL=0.01)	BQL● (QL=0.01)	BQL● (QL=0.01)	BQL● (QL=0.01)	BQL● (QL=0.01)
23	Cu	mg/L	0.06	0.02	0.11	0.01	BQL● (QL=0.005)
24	Cd	mg/L	BQL● (QL=0.002)	BQL● (QL=0.002)	BQL● (QL=0.002)	BQL● (QL=0.002)	BQL● (QL=0.002)
25	As	mg/L	BQL● (QL=0.005)	BQL● (QL=0.005)	BQL● (QL=0.005)	BQL● (QL=0.005)	BQL● (QL=0.005)
26	Pb	mg/L	0.01	0.002	0.02	BQL● (QL=0.002)	BQL● (QL=0.002)
27	Zn	mg/L	BQL● (QL=0.5)	BQL● (QL=0.5)	BQL● (QL=0.5)	BQL● (QL=0.5)	BQL● (QL=0.5)
28	Hg	mg/L	BQL● (QL=0.003)	BQL● (QL=0.003)	BQL● (QL=0.003)	BQL● (QL=0.003)	BQL● (QL=0.003)
29	Oil & grease	mg/L	BQL● (QL=1)	BQL● (QL=1)	BQL● (QL=1)	BQL● (QL=1)	BQL● (QL=1)
30	Microbiological (MPN) (Total Coliforms)	MPN/ 100 ml	23	23	23	BQL● (QL=1)	BQL● (QL=1)
31	Density	kg/m ³	>1000 (QL=1000)	>1000 (QL=1000)	>1000 (QL=1000)	>1000 (QL=1000)	>1000 (QL=1000)
32	Microbiological (MPN) (Fecal Coliforms)	MPN/ 100 ml	2	13	8	BQL● (QL=1)	BQL● (QL=1)
33	Floating material (Scum, Petroleum products)	-	ND	ND	ND	ND	ND

BQL – Below Quantification Limit, QL- Quantification Limit, ND- Not detected

Table 12: Water quality criteria: Primary water quality criteria for designated best uses for coastal waters [As per “The Environment (Protection) Act, 1986]

Parameters	SW-I	SW-II	SW-III	SW-IV	SW-V
pH	6.5 – 8.5	6.5 – 8.5	6.5 – 8.5	6.0 – 9.0	6.0 – 9.0
Dissolved oxygen (as O ₂), mg/l, min	5 or 60% of saturation value, whichever is higher	4 or 50% of saturation value, whichever is higher	3 or 40% of saturation value, whichever is higher	3 or 40% of saturation value, whichever is higher	3 or 40% of saturation value, whichever is higher
Color & Odour	No noticeable color or offensive odour	No noticeable color or offensive odour	No noticeable color or offensive odour	No noticeable color or offensive odour	None in such concentrations that would impair any usages specifically assigned to this class
Floating matters	No visible, obnoxious floating debris, oil slick, scum	Nothing obnoxious or detrimental for use purpose	No visible, obnoxious floating debris, oil slick, scum	10 mg/l max. (including Oil & grease & scum / petroleum products)	-
Oil & grease, mg/L max. (including petroleum products)	0.1	-	-		-
Suspended solids	None from sewage & industrial origin	-	-	-	-
Heavy metals •Mercury, mg/L (as Hg) •Lead, mg/L (as Pb) •Cadmium, mg/L (as Cd)	•0.001 •0.001 •0.01	-	-	-	-
Turbidity, NTU _{max} .	-	30	30	-	-

Parameters	SW-I	SW-II	SW-III	SW-IV	SW-V
Fecal coliforms, MPN/100ml,max	-	100	500	500	500
BOD, mg/L, 3 days at 27°C, max	-	3	-	5	-
Dissolved ironmg/L max (as Fe)	-	-	0.5	-	-
Dissolved manganese, mg/L max (as Mn)	-	-	0.5	-	-
Sludge deposits,solid refuse, floating solids, oil & grease,scum	-	-	-	-	None except for such a small amount that may result from discharge of appropriately treated sewage & or industrial waste
SW-I: Salt pans, shell fishing, mariculture, and ecologically sensitive zone SW-II: Bathing, contact water sports, and commercial fishing SW-III: Industrial cooling, recreation (non-contact), and aesthetics SW-IV: Harbor waters SW-V: Navigation and controlled waste disposal					

Observations:

Analysis results of the pH, DO, BOD, floating materials and Fecal coliforms showed the suitability of marine water for Harbour Waters. There were no oil slicks or floating trash at the sampling locations.

2.5.2 Marine sediment quality monitoring

The quality of the marine sediment samples collected from Dahej, Hazira & Ghogha from 13th August to 12th September 25 has been summarized in **Table 13**.

Table 13: Result of Marine Sediment Quality Monitoring

Sr. No	Parameters	Unit	Location code and sampling date				
			MA-D	MA-H1	MA-H2	MA-G1	MA-G2
			20-08-2025	20-08-2025	20-08-2025	29-08-2025	29-08-2025
1	Texture	-	Clay loam	Clay loam	Clay loam	Loam	Silt loam
2	Organic matter	%	1.04	1.41	0.67	1.47	1.14
3	Inorganic phosphate (Av. phosphorus)	kg/Ha	1.84	2.71	1.34	0.69	0.9
4	Silica	g/kg	407.82	388.84	473.59	455.69	455.8
5	Phosphate (Total phosphorous)	mg/kg	511.5	413.1	373.8	266.27	225
6	Sulphate	mg/kg	37.2	33.26	38.29	75	80
7	NO ₂	mg/kg	1.07	1.26	1.01	1.13	1.26
8	NO ₃	mg/kg	7.29	6.84	6.53	7.09	6.96
9	Ca	mg/kg	3507	3206.4	2905.8	3707.4	3406.8
10	Mg	mg/kg	2369.74	2755.84	2187.45	3281.18	2855.84
11	Na	mg/kg	3974	4274	3607	3252	5854
12	K	mg/kg	3370	3417	2618	2344	2406
13	Al	mg/kg	14617.55	14853.99	11987.45	26041.7	28701.22
14	Cr	mg/kg	122.11	115.71	102.14	107.26	114.38
15	Ni	mg/kg	39.35	41.02	36.1	53.61	43.5
16	Zn	mg/kg	79.36	69.46	66.77	76.23	73.93
17	Cd	mg/kg	BQL (QL=1)	BQL (QL=1)	BQL (QL=1)	BQL (QL=1)	BQL (QL=1)
18	Pb	mg/kg	6.52	2.88	3.46	12.02	7.58
19	As	mg/kg	3.71	3.29	2.9	4.16	2.38
20	Hg	mg/kg	BQL● (QL=0.005)	BQL● (QL=0.005)	BQL● (QL=0.005)	BQL● (QL=0.005)	BQL● (QL=0.005)
21	Cu	mg/kg	62.96	58	56.58	90.04	72.21

BQL – Below Quantification Limit QL- Quantification Limit

Observations:

The marine sediment quality at Dahej, Hazira, and Ghogha was compared based on the obtained results, and the following were observed.

- Organic matter in sediment consists of carbon and nutrients in the form of carbohydrates, proteins, fats, and nucleic acids. Sediment organic matter is derived from plant and animal detritus, bacteria, or plankton formed in situ, or derived from natural and anthropogenic sources in catchments. Organic matter was found to be 1.04% at Dahej, 0.67 to 1.41% at

Hazira and 1.14 to 1.47% at Ghogha.

- Inorganic phosphate was found to be 1.84 kg/Ha at Dahej, 1.34 to 2.71 kg/Ha at Hazira and 0.69 to 0.9 kg/Ha at Ghogha. The capacity of sediment to retain or release phosphorus is one of the important factors that influence the concentration of inorganic/organic phosphorus in the overlying waters (Saravanakumar, Rajkumar, Serebiah, & Thivakaran, 2008).
- The texture of the sediments was found to be 'Clay loam' at Dahej and Hazira, and 'Loam' to 'Silt loam' at Ghogha location.
- The concentration of Sulphate was found to be 37.2 mg/kg at Dahej, 33.26 to 38.29 mg/kg at Hazira and 75 to 80 mg/kg at Ghogha. The sulphate concentrations in marine sediment can vary naturally based on geological and hydrological factors.
- Nitrite concentration was found 1.07 mg/kg at Dahej, 1.01 to 1.26 mg/kg at Hazira, and 1.13 to 1.26 mg/kg at Ghogha.
- Nitrate concentration was found to be 7.29 mg/kg at Dahej, 6.53 to 6.84 mg/kg at Hazira, and 6.96 to 7.09 mg/kg at Ghogha.
- Ca was found to be 3507 mg/kg at Dahej, 2905.8 to 3206.4 mg/kg at Hazira, and 3406.8 to 3707.4 mg/kg at Ghogha. The source of Ca accumulation in marine sediment may be due to its naturally occurring element, and its concentration can vary widely from local geological, hydrological conditions and environmental factors. It depends on various factors, including the composition of the underlying rocks and the presence of calcareous organisms such as coral reefs.
- Mg was observed to be 2369.74 mg/kg at Dahej, 2187.45 to 2755.84 mg/kg at Hazira and 2855.84 to 3281.18 mg/kg at Ghogha. Magnesium is an essential component of marine sediments and plays a significant role in marine ecosystem dynamics. The concentration of magnesium in marine sediments can depend on various factors, including the composition of the underlying rocks, sediment type, and local hydrological conditions.
- The values for Sodium in marine sediment were found to be 3974 mg/kg at Dahej, 3607 to 4274 mg/kg at Hazira and 3252 to 5854 mg/kg at Ghogha. Sodium concentrations in marine sediments are often correlated with salinity levels. It is an essential component of marine ecosystems.
- The value for Potassium was found to be 3370 mg/kg at Dahej, 2618 to 3417 mg/kg at Hazira, and 2344 to 2406 mg/kg at Ghogha. Potassium is an essential nutrient for plants and the composition of parent materials, sediment types, weathering processes, and local hydrological conditions.
- The Silica in marine sediment was found to be 407.82 g/kg at Dahej, 388.84 to 473.59 g/kg

at Hazira and 455.69 to 455.8 g/kg at Ghogha. Its presence in marine sediments can be attributed to both natural geological processes and biological contributions, such as mineral weathering, biogenic silica, aquatic plants, and oceanographic processes.

- The Total phosphorus concentration was found to be 511.5 mg/kg at Dahej, 373.8 to 413.1 mg/kg at Hazira and 225 to 266.27 mg/kg at Ghogha. Phosphorus is an essential nutrient for marine ecosystems, playing a crucial role in biological processes. Its presence in marine sediments can have significant implications for nutrient cycling and ecosystem health. It can accumulate on the seafloor due to land runoff, natural weathering, decomposition of organic matter, local geology, etc.
- The sediment quality for the trace metals concentration was compared to the sediment quality guidelines (US Environmental Protection Agency, 1977; Augustynowicz, et al., 2013; Bi, Liu, Guo, & Lu, 2018; Saravanakumar, Rajkumar, Serebiah, & Thivakaran, 2008; Tanmay , Anilava , & Subrata , 2017; Tokatli, 2017; Perin, Bonardi, & Scotto, 1997; Onjefua, et al., 2020; Pazi, 2011), as shown in **Table 14**.

**Table 14: Sediment Quality Guidelines (SQG) of the US Environmental Protection Agency
(EPA) 1977**

Metals	Sediment quality (mg/kg)		
	Not Polluted	Moderately Polluted	Heavily Polluted
As	<3	3-8	>8
Cu	<25	25-50	>50
Cr	<25	25-75	>75
Ni	<20	20-50	>50
Pb	<40	40-60	>60
Zn	<90	90-200	>200
Al	ND	ND	ND
Cd	-	<6	>6
ND- Not detected			

- As per the comparison of the metals to this guideline, a variation in the concentration of the metals was found. The concentration of Pb and Zn was in the ‘Not polluted’ quality class at all three locations. Ni concentration was in ‘Moderately polluted’ quality class at Dahej, Hazira & MA-G2 locations whereas it was found in and ‘Heavily polluted’ quality class at MA-G1. Cd concentrations were in the ‘Moderately polluted’ quality class at all three locations. Arsenic levels at all locations fell in the ‘Not pollute’ to ‘Moderately polluted’ class. The concentrations of Cu fell in ‘Heavily Polluted’ quality class in all three locations. Cr concentrations were ‘Heavily polluted’ quality class in all three locations. Sediments are highly dynamic, constantly being deposited and carried away by water currents (Labenua, et al., 2023). The possible reasons for the higher concentration of some heavy metals may be attributed to the high sedimentation rate and to various natural and anthropogenic factors.

2.5.3 Marine ecological monitoring

The various parameters monitored for Marine ecological monitoring are mentioned in **Table 15** and **Table 16** as follows:

Table 15: Results of marine ecological monitoring for Biomass, NPP, GPP, Pheophytin, Chlorophyll-a, Secchi depth & Particulate oxidizable organic carbon

Location code	Sampling date	Biomass	Net Primary Productivity (NPP)	Gross Primary Productivity (GPP)	Pheophytin	Chlorophyll-a	Secchi Depth	Particulate oxidizable organic carbon
		mg/L	mg/L/hr.	mg/L/hr.	mg/m ³	mg/m ³	meter	mg/L
MA-D	20-08-25	504	BQL	0.01	BQL	4.06	0.06	7.73
MA-H1	20-08-25	460	BQL	0.01	BQL	3.07	0.07	3.05
MA-H2	20-08-25	368	BQL	0.05	BQL	5.02	0.06	8.28
MA-G1	29-08-25	216	BQL	BQL	BQL	8.54	0.11	1.93
MA-G2	29-08-25	126	BQL	0.01	BQL	0.72	0.23	1.06

BQL – Below Quantification Limit

Table 16: Results of marine ecological monitoring for Benthic macroinvertebrates, Phytoplankton, and Zooplankton

Location code	Sampling date	Benthic macroinvertebrates (Counts/L)		Phytoplankton (Counts/L)		Zooplankton (Counts/L)	
		Observation	Individual count	Genera	Individual count	Observation	Individual count
MA-D	20-08-25	-	-	Nitzschia	33333	Nil	Nil
MA-H1	20-08-25	-	-	Nitzschia	66667	Nil	Nil
MA-H2	20-08-25	-	-	Skeletonema	33333	Nil	Nil
MA-G1	29-08-25	MolluscaHydrobiidae	5.00	Nil	Nil	Nil	Nil
MA-G2	29-08-25	-	-	Nil	Nil	Nil	Nil

Observations and Interpretation:

- The essential nutrients that stimulate phytoplankton growth i.e. nitrate, phosphorus along with silica show variable concentrations influenced by monsoon.
- The nitrate concentrations observed are moderate, ranging between 5.10 mg/L and 7.09 mg/L. Silica levels were observed to exceed the quantifiable limits at all monitoring locations. Neither MA-G1 nor MA-G2 exhibited Phosphorus concentrations, which corresponded to absence of phytoplankton. Whereas, phosphorus was detected at MA-D, MA-H1 and MA-H2 which is a reflection for the presence of certain phytoplankton populations of *Nitzschia* and *Skeletonema* with complete absence of zooplankton at all sites. This evidently implies high levels of biomass particularly at MA-D, MA-H1 & MA-H2.
- The season lack the availability of limited or no light. Therefore, though primary producers are there, there is no activity of primary productivity confirming practically absent photosynthetic activity (Natiq Faris, Talib Abedali, & Buhloul AL-Ghizzi, 2022)
- The rainfall is likely to promote the addition of sediments and other compounds to the water body; subsequently, they settle down and result in turbid water. Hence, the Secchi depth values recorded are also very low (0.06 – 0.23m) (Tailor, 2019). The Chlorophyll-a levels were also very low (0.723–8.543 mg/m³) across the sites. Phaeophytin levels are below quantifiable limits across all locations.
- Benthic macroinvertebrate community shows the presence of only one group, Mollusca: Hydrobiidae, recorded at MA-G1, with 5 individuals. Other locations showed no benthic organisms at the monitoring locations.

2.6 Meteorological monitoring

To determine the prevailing micro-meteorological conditions at the project site the Automatic Weather Monitoring Stations (AWS) have been installed at the sites of Dahej, Hazira, and Ghogha at 10 m above the ground.

The summary of hourly meteorological observations recorded at the observatory, Dahej, Hazira, and Ghogha for 13th August to 12th September 25 for the significant parameters has been mentioned in **Table 17**.

Table 17: Results of meteorological monitoring

Sr. No.	Location	Month	Wind direction	Wind speed (m/s)			Rain (mm/hr.) (Avg.)	Relative humidity (%)			Temperature (°C)			Solar radiation (W/m ²) (Avg.)
				Mean	Max	Min		Mean	Max	Min	Mean	Max	Min	
1	M-D	August to September 25	South-South-West	2.05	8.39	0.33	0.23	89.46	92.49	86.73	28.96	29.57	28.36	66.29
2	M-H		South-West	17.39	38.67	6.71	0.25	93.98	96.11	91.95	30.24	30.80	29.65	59.16
3	M-G		West-South-West (WSW)	5.47	18.04	1.14	0.19	82.87	85.24	80.49	28.52	29.38	27.70	59.08

Observations:

The monthly average of maximum and minimum daily observed values, summarized in **Table 17**, has been discussed as follows.

• Temperature

Dahej: The ambient temperature varied from 28.36-29.57°C, with an average temperature of 28.96°C.

Hazira: The ambient temperature varied from 29.65-30.80°C, with an average temperature of 30.24°C.

Ghogha: The ambient temperature varied from 27.70-29.38°C, with an average temperature of 28.52°C.

• Relative humidity

Dahej: The Relative Humidity varied from 86.73-92.49%, with an average humidity of 89.46%.

Hazira: The Relative Humidity varied from 91.95-96.11%, with an average humidity of 93.98%.

Ghogha: The relative humidity varied from 80.49-85.24%, with an average humidity of 82.87%.

• Rainfall

Dahej: The average Rainfall was recorded as 0.23 mm/hr.

Hazira: The average Rainfall was recorded as 0.25 mm/hr.

Ghogha: The average Rainfall was recorded as 0.19 mm/hr.

• Wind speed

Wind speed and direction play a significant role in transporting the pollutants and thus determine the air quality.

Dahej: The wind speed was recorded in the range of 0.33-8.39 m/s, with an average of 2.05m/s.

Hazira: The wind speed was recorded in the range of 6.71-38.67 m/s, with an average of 17.39m/s.

Ghogha: The wind speed was recorded in the range of 1.14-18.04 m/s, with an average of 5.47m/s.

• Solar radiation

The average solar radiation at Dahej, Hazira, and Ghogha was 66.29, 59.16 and 59.08 W/m² respectively.

• Wind rose diagram

The wind-rose diagram has been drawn based on hourly wind speed and direction data. This wind rose reveals that the prevailing winds predominantly blow from a South-South-West (SSW) direction at Dahej, South-West (SW) at Hazira, and West-South-West (WSW) direction at Ghogha.

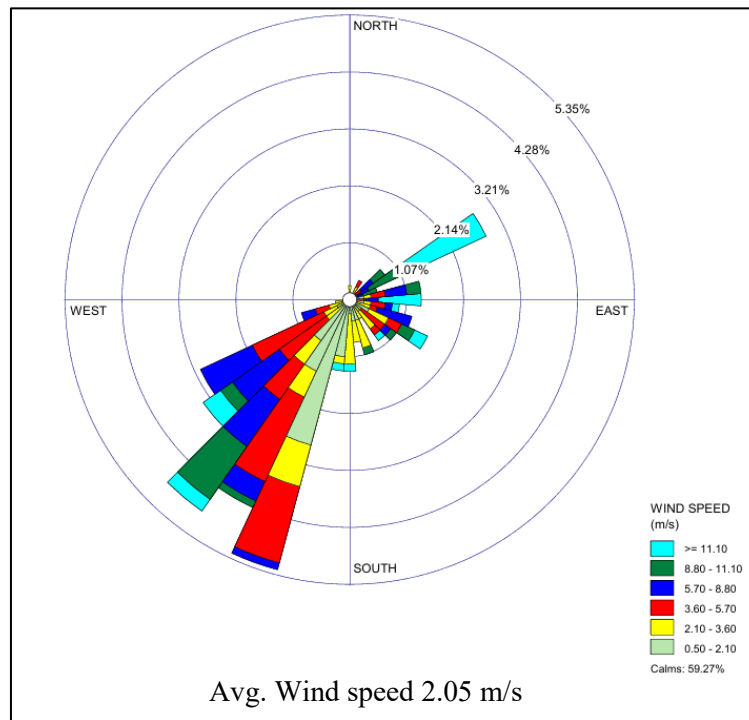


Fig. 5: Windrose diagram of Dahej

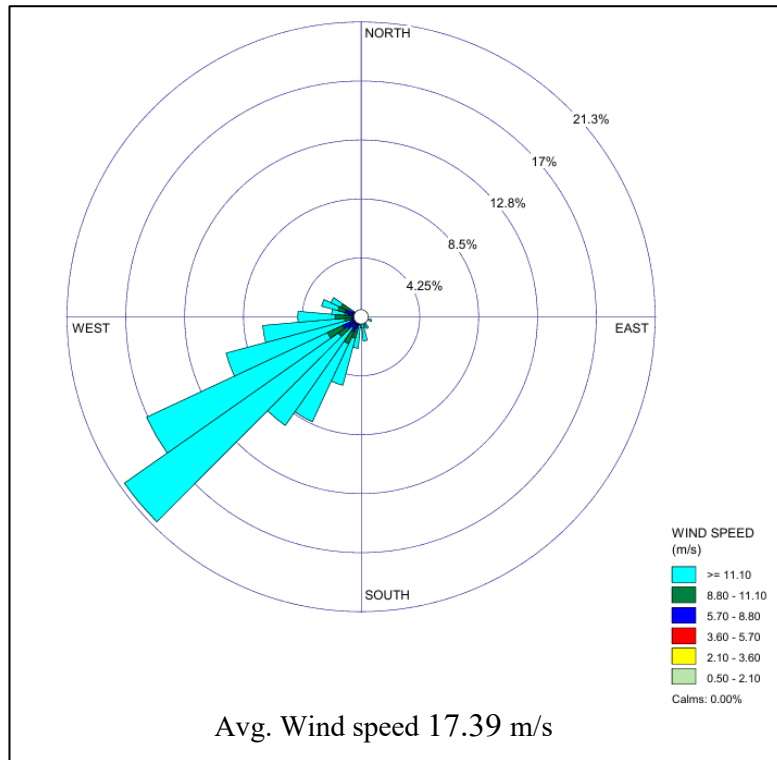


Fig. 6: Windrose diagram of Hazira

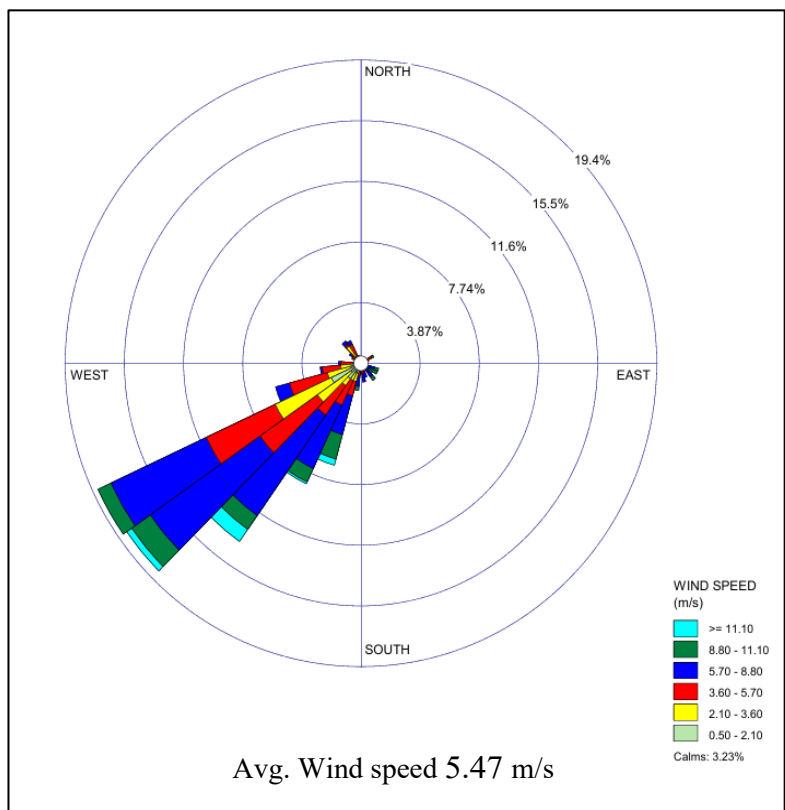


Fig. 7: Windrose diagram of Ghogha

2.7 Monitoring of DG stack emissions

DG sets at the Deendayal Port Authority (DPA) are generally utilized as a secondary power source. The sampling and monitoring of the DG stack emissions were carried out at Dahej, Hazira and Ghogha. The monitoring cycle was once a month. Sampling details of the locations are mentioned in **Table 18**.

Table 18: Result of DG stack emissions

Sr. No.	Parameters	Unit	DG sets standards	Location Code (DG-D)	Location Code (DG-H)	Location Code (DG-G)
				Sampling Date		
				26-08-2025	18-08-2025	04-09-2025
1.	Suspended Particulate Matter (SPM)	mg/Nm ³	150	102	104	105
2.	SO ₂	PPM	100	N.D.	N.D.	N.D.
3.	NO _x	PPM	50	31	44	28
4.	CO	%	-	0.0035	0.0065	0.0017
5.	CO ₂	%	-	1.19	1.22	1.27

N.D. – Not detected

Observations:

The results of DG stack emissions for Hazira, Dahej, and Ghogha are compared with the DG set standards and found within the prescribed limit for SPM, SO₂, and NO_x.

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ANNEXURE-I: Meteorological monitoring data



Dahej Meteorological Data

Dahej station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
13-08-2025	00:00:00	29.5	29.1	28.8	87.7	86.4	85.1	1.4	1004.5	229.6	20.6	7	1.9	0
13-08-2025	01:00:00	29.2	28.9	28.7	88.4	86.1	82.6	1.4	1004.2	230.8	17.9	7	1.9	0
13-08-2025	02:00:00	29.2	28.8	28.5	85	82.8	80.6	1.3	1003.6	234.1	19.9	8.1	3.3	0
13-08-2025	03:00:00	28.8	28.4	28.2	87.1	84.8	82.9	1.4	1003	236.9	17.9	7.4	2.6	0
13-08-2025	04:00:00	28.5	28.1	27.8	89	87.6	86.2	1.5	1002.2	222.7	13.9	4.7	1.3	0
13-08-2025	05:00:00	28.5	28.1	27.8	89.6	88.5	87.4	1.5	1002.1	238.5	12.6	4.9	1.3	0
13-08-2025	06:00:00	28.7	28.3	28.1	88.5	86.7	85.6	1.5	1002.8	237.1	14.6	4.6	1.3	0
13-08-2025	07:00:00	28.6	28.2	27.9	88.9	87.5	86.1	3.9	1003.3	232.8	15.2	4.2	0	0
13-08-2025	08:00:00	29.2	28.7	28.1	88	84.7	82.6	28.1	1004	234.9	11.9	4.6	0.6	0
13-08-2025	09:00:00	30.2	29.4	28.9	83.7	81.3	78.8	79.6	1004.4	238.6	16.6	5.9	0.6	0
13-08-2025	10:00:00	31.6	30.6	29.9	80.9	77.3	73.7	188.3	1004.9	243	17.9	6.8	1.9	0
13-08-2025	11:00:00	32.4	31.8	30.8	74.5	69.5	66.1	227	1005.2	245.5	19.9	6.2	0.6	0
13-08-2025	12:00:00	33.5	32.2	30.5	75.1	66.7	58.8	268.6	1005	240.8	15.9	5.1	0	0
13-08-2025	13:00:00	33.7	32.4	31.3	69.4	64.3	57.3	214	1004.3	248.4	17.9	6.6	0.6	0
13-08-2025	14:00:00	34.7	33.4	31.3	69.9	62.4	57.4	227	1004.1	164.7	11.3	2.6	0	0
13-08-2025	15:00:00	33.7	33.1	32.3	70.4	64.7	60.2	166.6	1003	164.8	11.3	2.7	0	0
13-08-2025	16:00:00	32.5	32	31.4	73.9	71.5	69.2	121.6	1002	164.2	13.3	2.2	0	0
13-08-2025	17:00:00	31.6	31.3	30.9	76.8	74.4	72.7	84.3	1001.1	145.2	21.2	3.4	0	0
13-08-2025	18:00:00	31	30.5	30.1	84.6	79.2	76.1	32.8	1000.9	176.8	22.6	2.6	1.3	0
13-08-2025	19:00:00	30.4	29.7	29.4	88.7	87	84	3.4	1001.5	135.9	19.2	2.7	1.9	0
13-08-2025	20:00:00	29.9	29.5	29.2	89.9	87	81	1.3	1002	180.9	17.2	3.1	1.3	0
13-08-2025	21:00:00	30	29.6	29.5	84.2	81.8	80.2	1.2	1002.5	179.2	15.2	3.2	1.3	0
13-08-2025	22:00:00	29.9	29.6	29.4	85	82.6	80.7	1.2	1003.1	200.9	17.2	3.9	0.6	0
13-08-2025	23:00:00	29.9	29.5	29.3	85.2	83.8	82.6	1.3	1003.6	204.3	15.2	4.6	1.3	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Dahej station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
14-08-2025	00:00:00	29.7	29.4	29.2	86.8	85.3	84.2	1.4	1002.9	210.7	17.2	5.3	1.3	0
14-08-2025	01:00:00	29.7	29.2	29	87	85.7	84.8	1.4	1002.4	218	18.6	7.4	2.6	0
14-08-2025	02:00:00	29.4	29	28.7	87.3	86	84.8	1.4	1001.9	220	15.9	6.3	1.9	0
14-08-2025	03:00:00	29.1	28.7	28.3	90	87.7	86.2	1.5	1001.8	220.7	14.6	6.1	1.3	0
14-08-2025	04:00:00	28.6	28.1	27.7	94.4	91.5	89.1	1.7	1001.7	225.9	17.2	7.3	1.9	0
14-08-2025	05:00:00	28.2	27.9	27.7	95.2	94.5	93.7	1.9	1002	226.3	10.6	4.8	1.9	0
14-08-2025	06:00:00	28.2	27.9	27.7	95.6	94.7	94.2	1.9	1002.3	217.1	8.6	1.6	0	0
14-08-2025	07:00:00	28.2	27.9	27.6	95.6	93.9	90.7	3.1	1002.7	208.9	3.3	0	0	0
14-08-2025	08:00:00	29	28.4	27.8	92.5	90.7	88	33.9	1004	86.6	13.9	3.4	0	0
14-08-2025	09:00:00	30.5	29	28.5	92.4	90.3	86.6	83.3	1004.7	78.5	12.6	4.5	0	0
14-08-2025	10:00:00	32.1	30.9	30	87.2	82.1	76.5	187	1005.4	80.1	15.9	5.6	0.6	0
14-08-2025	11:00:00	33.4	32.1	31.4	79.3	74.8	68.7	219.5	1005.4	97.7	13.9	3.8	0	0
14-08-2025	12:00:00	33.6	33.2	32.9	70.7	68.4	66.8	273.2	1005.4	95.6	14.6	3.6	0	0
14-08-2025	13:00:00	34.2	33.7	33	69.2	64.7	61.6	316.1	1005.1	143.7	13.9	3.2	0	0
14-08-2025	14:00:00	35.1	34.3	33.7	65.7	62.7	58.7	394.3	1004.8	140.8	16.6	3.4	0.6	0
14-08-2025	15:00:00	34.6	33.5	32.5	67.9	64.8	62.2	249.9	1003.8	130.1	16.6	4	1.3	0
14-08-2025	16:00:00	34.7	34.1	33.1	68	62.9	58.7	300.6	1003.2	149.5	19.2	3.1	0.6	0
14-08-2025	17:00:00	33.2	31.9	31.1	76.8	72.9	67.3	90.6	1001.3	178.5	12.6	2.9	0	0
14-08-2025	18:00:00	31.8	31.4	31	78.6	76.3	74.5	74.9	1001.1	129.7	19.9	3.4	0	0
14-08-2025	19:00:00	31.2	30.7	30	82	78.8	76.7	33.4	1001.4	190.2	17.2	3.3	0.6	0
14-08-2025	20:00:00	30.3	29.7	29.4	84.2	82.2	80.9	1	1001.8	211.7	17.9	5.2	1.3	0
14-08-2025	21:00:00	29.8	29.5	29.3	86.4	83.8	82.2	1.1	1002.4	213.7	18.6	4.8	0	0
14-08-2025	22:00:00	29.8	29.4	29.2	88	86.7	85.5	1.3	1002.8	167.4	13.9	3.1	0.6	0
14-08-2025	23:00:00	29.7	29.4	29.1	88.9	87.3	86.2	1.3	1003.4	116.8	13.3	3.6	0	0
15-08-2025	00:00:00	29.7	29.3	29.1	89.2	88.2	87.4	1.4	1003.2	108.9	13.9	3.4	0.6	0
15-08-2025	01:00:00	29.8	29.4	29.2	89.5	88.5	87.7	1.4	1002.9	115	15.9	3.3	0	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Dahej station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
15-08-2025	02:00:00	29.6	29.3	29	91.2	89.4	87.8	1.5	1002.3	113.7	10.6	2.5	0	0
15-08-2025	03:00:00	29.5	29.2	29	91	89.4	88.5	1.5	1001.4	104.4	7.3	0.6	0	0
15-08-2025	04:00:00	29.6	29	28.6	94.6	91.7	88.7	1.5	1000.9	87.5	11.3	3.6	0	0
15-08-2025	05:00:00	29.1	28.8	28.6	95.8	94.3	91.3	1.6	1001	78.3	11.3	3.1	0	0
15-08-2025	06:00:00	29.3	28.9	28.7	92	89.8	88.4	1.7	1001.1	104.2	7.9	1.1	0	0
15-08-2025	07:00:00	29.4	28.9	28.5	91.6	90.2	88.4	1.7	1001.8	208.8	11.3	3.7	0	0
15-08-2025	08:00:00	29.5	29	28.6	91.5	89.6	88	23.4	1003	217.2	10.6	3.5	0	0
15-08-2025	09:00:00	30.3	29.7	29.1	88.7	84.9	80.5	75.6	1003.7	217.8	9.9	4.2	0	0
15-08-2025	10:00:00	30.6	30.1	29.8	84.1	81.7	79.4	76.3	1004	227.3	11.3	5.1	0	0
15-08-2025	11:00:00	30.7	30.3	30	84	81.4	79.5	105.1	1004.1	223.3	12.6	6	1.9	0
15-08-2025	12:00:00	31.4	30.8	30.1	82.5	78.6	75.7	141.7	1004.3	231.1	13.9	5.5	1.3	0
15-08-2025	13:00:00	33	32.1	31.2	77.3	73.4	69	219	1004.2	201.7	12.6	3.8	0	0
15-08-2025	14:00:00	34.7	33.5	32.5	71.3	67	61.6	293.7	1003.7	144.5	17.9	3.6	0	0
15-08-2025	15:00:00	34.1	33.5	33	68.3	65.3	60.4	287.1	1002.6	124	14.6	3.3	1.3	0
15-08-2025	16:00:00	34.1	33	32.2	66	62.7	58.2	213	1001.5	195.8	14.6	3.7	0	0
15-08-2025	17:00:00	33.5	32.9	32.1	73	68.5	63.6	188.1	1000.5	146.4	19.2	3.4	0	0
15-08-2025	18:00:00	32.3	31.4	30.8	81.1	76.1	71.9	92.1	999.7	200	21.2	4.7	0.6	0
15-08-2025	19:00:00	30.9	30.2	29.7	86.1	83.9	80.9	15.9	1000.1	198.4	17.9	4.5	1.3	0
15-08-2025	20:00:00	30.1	29.8	29.6	88.4	86.5	85.3	1.2	1000.9	214.1	15.2	5.4	0.6	0
15-08-2025	21:00:00	30.1	29.8	29.6	87.9	86.3	84.4	1.3	1001.8	207.2	12.6	4.5	0.6	0
15-08-2025	22:00:00	30.1	29.8	29.6	88.2	86.7	85.9	1.3	1002.1	154.8	14.6	3.2	0	0
15-08-2025	23:00:00	30.1	29.8	29.6	90.6	88.4	86.4	1.4	1002.2	179.3	14.6	3.4	0	0
16-08-2025	00:00:00	30.1	29.6	29.2	92.1	87.8	84.8	1.5	1001.9	219.4	24.6	9	1.9	0
16-08-2025	01:00:00	29.6	29.2	28.9	87.3	83.8	82	1.3	1001	225.6	20.6	9	3.3	0
16-08-2025	02:00:00	29.3	28.9	28.6	87.4	85.2	84	1.4	1000.6	214.5	14.6	5.6	0.6	0
16-08-2025	03:00:00	29	28.7	28.5	89.2	87.4	86	1.5	1000.3	197.8	6.6	2.1	0	0



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Dahej station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
16-08-2025	04:00:00	28.9	28.4	28.1	90.8	89.6	88.5	1.5	999.7	206.3	6.6	1.3	0	0
16-08-2025	05:00:00	28.6	28.2	28	90.9	89.7	88.1	1.6	999.6	214.3	8.6	2.8	0	0
16-08-2025	06:00:00	28.6	28.3	28	89.4	88	87.3	1.6	1000	220.5	11.3	4.1	1.3	0
16-08-2025	07:00:00	28.5	27.9	27.6	94.4	92	88	2.1	1000.4	216.3	8.6	3.6	0	0
16-08-2025	08:00:00	28.7	28.1	27.6	94.4	92.9	91.6	18.3	1000.8	228.4	10.6	4.3	1.9	0
16-08-2025	09:00:00	29.5	28.8	28.3	92.3	90.1	87.6	49.8	1001.6	232.2	11.9	4.7	1.3	0
16-08-2025	10:00:00	30.5	29.7	29.1	88.5	85.9	83.9	85.8	1002.2	243.9	10.6	4.3	0.6	0
16-08-2025	11:00:00	30.9	30.3	29.8	85.3	83.3	81.3	104.5	1002.1	235.9	13.9	6.2	1.3	0
16-08-2025	12:00:00	31.7	30.8	30.1	85	81	76.1	153	1001.8	242.7	15.9	6.9	1.3	0
16-08-2025	13:00:00	31.5	30.6	29.2	92.4	82.3	77	123.7	1000.9	240	15.9	6.6	0.6	1.5
16-08-2025	14:00:00	30.4	29.9	29.3	92.9	89.3	86.2	93	1000.4	253.8	9.9	3.2	0	0
16-08-2025	15:00:00	34.2	32.4	30.1	87.1	74.2	63.3	218.4	1000.4	259.6	6.6	1.7	0	0
16-08-2025	16:00:00	34.1	33.1	32.4	72.2	69.4	64.6	165	999	143.5	14.6	1.7	0	0
16-08-2025	17:00:00	33.7	33	32.6	73.7	68.2	63.8	169.2	999	128	13.3	3	0	0
16-08-2025	18:00:00	32.7	31.6	31.2	79	76.4	72.1	83.6	998.4	204.5	14.6	3	0.6	0
16-08-2025	19:00:00	31.4	30	29	91.2	85.9	78.8	14.9	999	217.7	18.6	6	1.3	0
16-08-2025	20:00:00	29.4	28.8	28.4	92.9	91	89.6	1.9	999.7	216.1	19.9	6.4	1.3	0
16-08-2025	21:00:00	29.4	29	28.7	91.4	90.2	88.9	1.8	1000.3	224.7	23.2	8.2	1.9	0
16-08-2025	22:00:00	29.2	28.6	27.8	95.3	90.7	87.5	1.8	1000.7	223.5	12.6	5.2	1.3	0.5
16-08-2025	23:00:00	28.1	27.5	26.7	100.6	97.3	94.5	2.2	1000.8	228.3	11.9	5.7	0	2.5
17-08-2025	00:00:00	27.8	27.3	26.4	107.8	103.1	98.9	2.2	1000	231.6	11.9	4.3	0	1
17-08-2025	01:00:00	27.6	27.2	26.4	108	107.2	106.8	2.2	999.9	234.4	5.9	0	0	0
17-08-2025	02:00:00	27.8	27.2	26.3	108	107.3	106.8	2.2	999.6	243.7	0.6	0	0	0
17-08-2025	03:00:00	27.4	27	26.2	107.9	107.2	105.7	2.2	998.6	0	0	0	0	0
17-08-2025	04:00:00	27.4	27.1	26.2	107.9	107.2	106.8	2.2	998.5	0	0	0	0	0
17-08-2025	05:00:00	27.8	27.2	26.2	107.9	107.3	106.9	2.2	998.5	229.4	0.6	0	0	0



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Dahej station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
17-08-2025	06:00:00	28	27.6	26.7	108	107.2	106.4	2.2	999.3	0	0	0	0	0
17-08-2025	07:00:00	28.3	27.7	26.7	107.7	104.5	99.9	2.2	999.4	0	0	0	0	0
17-08-2025	08:00:00	28.2	27.8	26.8	108	107.2	106.6	3.5	999.6	0	0	0	0	0.5
17-08-2025	09:00:00	29	28.2	27	107.9	103	96.8	30.7	1000.3	226.1	5.3	0	0	0.5
17-08-2025	10:00:00	29.2	28.8	27.9	100.2	97.5	95.8	57.3	1000.9	48.2	11.9	4	0	0
17-08-2025	11:00:00	30.3	29.5	28.7	96.7	92.9	89.1	116.8	1001.2	26.1	11.9	3.1	0	0
17-08-2025	12:00:00	31.4	30.1	29.1	94.9	89	82.9	90.3	1001.2	25.4	11.9	3.3	0	0.5
17-08-2025	13:00:00	30.8	30.1	29.4	94.6	90.5	86.9	140.4	1000.7	62.6	11.9	2.1	0	0
17-08-2025	14:00:00	30.5	29.6	29.2	93.1	91.3	88.5	64.5	999.9	118.9	18.6	5.4	0	0
17-08-2025	15:00:00	32.3	31.4	29.6	91.7	83	79.1	243.6	999.2	129.3	18.6	4.3	0	0
17-08-2025	16:00:00	32.5	31.5	30.3	83.8	79.1	75.7	142.5	998.6	129.6	15.2	3.9	0	0
17-08-2025	17:00:00	30.8	30.2	29.2	89.4	86	83.6	78.7	998	125.7	29.2	6	0	0
17-08-2025	18:00:00	29.7	28.8	28.1	94.8	92.3	88.9	74	997.4	131.5	31.2	5.6	1.9	0
17-08-2025	19:00:00	29.5	29	28.7	94	92.2	89.7	15.1	998.4	161.1	19.2	3.5	0.6	0
17-08-2025	20:00:00	29.2	28.8	28.5	94.6	92.6	91.3	1.6	999.1	205.4	15.2	4.4	0.6	0
17-08-2025	21:00:00	29	28.7	28.5	94.6	93.2	92	1.7	999.9	160	17.2	3.5	0	0
17-08-2025	22:00:00	29	28.7	28.5	93.5	90.9	89	1.7	1000.1	179.9	17.9	3.3	1.3	0
17-08-2025	23:00:00	29.2	28.8	28.5	91.5	90.2	89.1	1.6	1000.8	176.9	21.2	2.7	0.6	0
18-08-2025	00:00:00	29.2	28.8	28.7	91.2	89.6	87.8	1.6	1001	196.6	17.2	3.5	1.3	0
18-08-2025	01:00:00	29.4	29	28.8	90.4	88.9	87.8	1.6	1001	197.8	15.9	3.8	0	0
18-08-2025	02:00:00	29.2	28.7	28.2	93.3	90.2	87.9	1.6	1000.5	211.4	17.2	4.9	0.6	0
18-08-2025	03:00:00	29	28.6	28.3	93.6	92.6	91.7	1.7	1000.2	199.6	7.9	2.5	0	0
18-08-2025	04:00:00	29	27.8	26.7	107.5	98	91.8	1.9	1000.1	206.1	15.9	2.6	0	0.5
18-08-2025	05:00:00	28.2	27.7	26.7	107.9	107.1	105.5	2	999.9	194.7	7.3	0.9	0	0
18-08-2025	06:00:00	28.3	27.8	27.1	107.8	103.5	99.3	2.1	1000.3	97.1	15.2	2.1	0	0
18-08-2025	07:00:00	28.5	27.7	26.7	107.9	104.3	99.5	9.5	1000.2	79.7	14.6	1.9	0	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Dahej station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
18-08-2025	08:00:00	28.6	27.9	26.7	107.9	101.9	98.6	39.5	1001.1	61.7	24.6	9	0	1
18-08-2025	09:00:00	29.5	28.5	27.1	107.9	99.4	94.4	150.6	1001.9	61.4	22.6	9.7	1.3	0
18-08-2025	10:00:00	31.4	30.4	29.2	95.1	88.5	83.5	197.8	1002.9	63.9	20.6	8.1	1.3	0
18-08-2025	11:00:00	32.9	31.1	29.8	89.9	83.9	75.9	237.1	1002.8	81.9	20.6	6.5	0	0
18-08-2025	12:00:00	34.1	32.9	31.9	80.4	75.1	68.6	288.4	1002.9	108.3	17.2	5.2	0.6	0
18-08-2025	13:00:00	34.1	32.9	32	77.2	73.5	69.5	253	1002.8	93.4	17.9	5.7	0.6	0
18-08-2025	14:00:00	34.5	32.8	31.1	82.8	73.1	65.7	231.3	1001.8	78.8	18.6	6.5	0.6	0
18-08-2025	15:00:00	32.4	31.8	30.9	83	78.9	74.9	188.9	1000	93.7	17.2	6.3	0	0
18-08-2025	16:00:00	32.8	32.3	31.4	79.5	76.5	74.1	189.4	999.7	97.5	18.6	6.1	0	0
18-08-2025	17:00:00	31.7	31.4	31.1	83.3	81.1	78.9	112.2	998.9	108.9	16.6	5.8	0	0
18-08-2025	18:00:00	31.4	31	30.5	84.1	82.9	81.8	63.2	998.6	110.4	17.2	6.6	1.3	0
18-08-2025	19:00:00	30.9	29.9	29	90.1	86.3	83	12.4	999	112.8	23.9	8.5	1.3	0
18-08-2025	20:00:00	29.4	28.9	28.6	94	91.5	89.5	1.4	999.6	83.9	26.6	7.5	1.3	0
18-08-2025	21:00:00	29	28.5	28.3	94.1	93.1	92.3	1.7	1000.2	76.5	35.2	10.9	1.9	0
18-08-2025	22:00:00	28.7	28.3	28	95.1	94	93.2	1.8	1000.8	62.8	31.2	12.7	3.3	0
18-08-2025	23:00:00	28.5	28.1	27.8	96	95	94.2	1.9	1001	58.5	31.2	13.6	4.6	0
19-08-2025	00:00:00	28.4	28	27.3	100.6	97.9	95.1	2	1000.8	55.1	29.9	11.4	1.9	0
19-08-2025	01:00:00	28.8	28.2	27.6	106.1	101	96.9	2.1	1000.4	71.4	23.2	8.3	1.3	0
19-08-2025	02:00:00	28.8	28	26.9	108	102.4	96.3	2.2	999.7	68.9	31.2	9.6	1.3	0
19-08-2025	03:00:00	28.1	27.6	26.7	108	105.1	99.4	2.2	998.7	63.3	33.2	11.4	1.3	0
19-08-2025	04:00:00	28.1	27.5	26.7	107.7	102.5	99.3	2.2	998.2	58.8	33.2	13.5	2.6	0
19-08-2025	05:00:00	27.7	27.3	26.5	108	107.1	105.5	2.2	998.1	58.2	31.9	12.4	3.9	0
19-08-2025	06:00:00	27.5	27.2	26.3	107.9	106.8	105.7	2.2	997.8	55.9	30.5	12.1	2.6	0
19-08-2025	07:00:00	27.3	27	26.3	107.6	106.7	105.9	3	998.5	53.6	28.5	10.6	2.6	0
19-08-2025	08:00:00	27.7	27.2	26.3	108	107	105.6	22	999.6	55.8	27.2	11.4	3.3	0
19-08-2025	09:00:00	28.7	27.8	26.5	107.8	101.8	95	64.9	999.9	59.3	30.5	11.8	3.9	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Dahej station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
19-08-2025	10:00:00	31.2	29.7	28.5	95.9	89.7	83.8	208.5	1000.5	59.1	30.5	11.8	3.3	0
19-08-2025	11:00:00	32.3	31.4	30.9	84.2	80.3	76.7	270.7	1001	57.2	22.6	9.8	3.3	0
19-08-2025	12:00:00	33.2	32.7	32.2	77.1	73	69.9	328.2	1000.4	58.7	23.9	10.8	3.3	0
19-08-2025	13:00:00	33.2	32.7	32.1	73.8	71.5	68.9	278.7	999.8	60.3	27.9	10.9	3.3	0
19-08-2025	14:00:00	34.7	33.8	32.8	71.5	66.6	62.2	381.6	999.9	56.7	25.2	10.1	1.9	0
19-08-2025	15:00:00	35.1	34.6	34.1	64.3	61.3	59.2	323.6	999.2	51.9	20.6	8.5	1.9	0
19-08-2025	16:00:00	35.1	34.6	33.3	71.3	61.2	57.4	235.7	997.9	63.6	20.6	8.1	1.3	0
19-08-2025	17:00:00	33.6	32.8	31.7	80.4	75.1	70.6	109.1	996.8	115.1	15.2	2.5	0	0
19-08-2025	18:00:00	32.8	31.5	30.1	83.9	79.2	73.3	40.9	996.6	69	46.5	9	0	0
19-08-2025	19:00:00	30.5	29.7	29	89.6	85.3	83	17.4	996.6	61.4	40.5	13.5	3.9	0
19-08-2025	20:00:00	29.4	28.9	28.6	92.7	90.7	88.4	1.6	997	56.3	32.5	12.2	2.6	0
19-08-2025	21:00:00	29	28.6	28.3	94.1	92.7	91.9	1.7	997.7	52.4	26.6	9.1	1.3	0
19-08-2025	22:00:00	28.8	28.3	28	93.9	92.9	92.2	1.7	998.4	49.2	23.9	7.7	1.3	0
19-08-2025	23:00:00	28.4	27.9	27.7	94.7	93.6	92.6	1.7	998.4	31.2	16.6	5.4	0	0
20-08-2025	00:00:00	28.1	27.7	27.4	96.7	94.9	93.6	1.7	998	47.1	13.3	4.4	0	0
20-08-2025	01:00:00	28	27.6	27.1	99.4	96.3	95.2	1.8	997.6	66.6	9.9	1.9	0	0
20-08-2025	02:00:00	28	27.7	27.2	99	96.2	95.7	1.8	997.1	343.3	10.6	1.2	0	0
20-08-2025	03:00:00	28	27.6	26.9	99.5	97.1	95.9	1.9	996.7	249.5	13.9	4.3	0	0
20-08-2025	04:00:00	28	27.5	26.8	100.9	98.8	96.4	2	996.3	257.4	12.6	3.2	0	0
20-08-2025	05:00:00	28.1	27.5	26.4	107.9	101.9	98.6	2	996.4	240.3	28.5	5.5	0	1
20-08-2025	06:00:00	27.4	27	26.4	107.8	106.8	105.7	2.2	996.7	237.6	24.6	8.5	0	3.5
20-08-2025	07:00:00	27.6	27.1	26.5	107.7	106.5	105.6	2.2	997.5	225.4	6.6	0.3	0	4.5
20-08-2025	08:00:00	27.5	27	26.5	107.3	106	105.3	4.4	998	0	0	0	0	5.5
20-08-2025	09:00:00	28	27.4	26.7	107.8	106.4	105.4	33.4	998.9	222.5	22.6	6.1	0	0
20-08-2025	10:00:00	27.8	26.8	26	107.8	106.7	105.7	19.1	999.3	228.8	21.2	0	0	0.5
20-08-2025	11:00:00	27.2	26.8	26.2	107.6	106.5	105.5	36	999.5	0	0	0	0	0.5



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Dahej station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
20-08-2025	12:00:00	27.3	26.8	26.2	107.8	106.6	105.5	38.3	999.6	224.9	29.9	5.3	0	0
20-08-2025	13:00:00	27.1	26.6	25.8	107.6	106.3	105.4	17.3	999.4	226.8	30.5	12.5	2.6	4
20-08-2025	14:00:00	26.7	26.1	25.4	107.6	106.2	105.3	37.4	999.1	229.5	28.5	11.7	0	6
20-08-2025	15:00:00	27.8	26.7	25.7	107.8	106.8	105.8	88.4	998.8	219.7	27.9	11.1	0	5
20-08-2025	16:00:00	28.6	27.8	26.8	107.9	104.7	96.5	75.4	998.5	217.1	25.2	9.8	0	0
20-08-2025	17:00:00	29.6	28.8	27.7	100.1	95.3	92.3	122.2	998.5	217.3	31.2	8.9	0	0
20-08-2025	18:00:00	29.2	28.7	28.4	95.5	94.5	93.4	32.2	998.7	218.3	25.9	9.3	1.9	0
20-08-2025	19:00:00	28.9	28.4	28	96.8	94.6	93.1	5.4	999.1	219.4	28.5	10.4	1.9	0
20-08-2025	20:00:00	28.6	28.3	28.1	95.4	93.9	92.8	1.9	999.9	220	31.2	11.2	2.6	0
20-08-2025	21:00:00	28.6	28.2	27.8	95.8	93.7	91.4	1.8	1000.6	225.7	33.9	13	3.3	0
20-08-2025	22:00:00	28.5	28.1	27.8	95.9	94.6	93.5	1.9	1001.3	212.9	30.5	10.9	3.3	0
20-08-2025	23:00:00	28.5	28.2	28	94.4	93.6	92.8	1.8	1002.2	155.2	29.2	11	3.9	0
21-08-2025	00:00:00	28.6	28.2	28	94	93.2	92.6	1.7	1002.3	142.1	28.5	12	3.9	0
21-08-2025	01:00:00	28.6	28.3	28.1	93.8	92.8	92.4	1.7	1002.1	119.3	30.5	12.3	3.9	0
21-08-2025	02:00:00	28.7	28.3	28.1	93.1	91.6	90.7	1.7	1001.6	100.4	38.5	14	4.6	0
21-08-2025	03:00:00	28.6	28.3	28.1	93.3	92.2	91.4	1.7	1001.5	87.7	27.2	12.7	3.3	0
21-08-2025	04:00:00	28.5	28.1	27.8	94.9	93.2	91.4	1.7	1001.9	88.7	29.2	12.4	1.9	0
21-08-2025	05:00:00	28.3	27.9	27.7	95.8	94.5	93.5	1.8	1001.3	89.5	29.2	12.1	3.3	0
21-08-2025	06:00:00	28.3	27.9	27.7	96	95.1	94.4	1.9	1001.5	82.9	26.6	11	3.3	0
21-08-2025	07:00:00	28.8	28.1	27.8	95.4	94.1	92.2	7.1	1001.9	106.4	29.2	7.7	3.3	0
21-08-2025	08:00:00	29.9	28.8	28.3	92.8	90.7	87.5	79.7	1003.2	90.9	32.5	13.4	2.6	0
21-08-2025	09:00:00	30	29.5	29.3	88.5	86.9	85.6	126.5	1004.3	93.4	33.9	13.4	3.3	0
21-08-2025	10:00:00	30	29.6	29.3	88.3	86.6	85.5	112.1	1004.9	90.8	31.9	13.4	4.6	0
21-08-2025	11:00:00	31	30.3	29.5	86.9	83.4	80.3	202.9	1005.1	121.3	33.9	9.1	4.6	0
21-08-2025	12:00:00	31.8	31.2	30.6	84.2	80.6	76.1	259.6	1005.1	132.3	27.9	9.5	2.6	0
21-08-2025	13:00:00	31.7	31.1	30.7	84.1	82.2	80.1	250.8	1004.6	117.6	33.9	9.2	2.6	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Dahej station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
21-08-2025	14:00:00	31	29.3	26.5	100.6	88.1	82.2	115.1	1004.1	123.9	41.8	12.3	3.9	0.5
21-08-2025	15:00:00	29.2	28.2	26.9	100.7	96	91.8	108.8	1003.2	108.5	27.9	8	1.3	0
21-08-2025	16:00:00	30	29.2	28.6	95.2	92.7	90.8	92.1	1002.7	175.4	33.2	12.9	2.6	0
21-08-2025	17:00:00	30.1	29.5	29.1	92.8	90.8	88.7	65.7	1002.6	186.3	31.2	12.2	2.6	0
21-08-2025	18:00:00	29.9	28.2	26.8	107.8	99.4	89.2	36.7	1002.5	197.2	42.5	4.6	0	2
21-08-2025	19:00:00	28.7	28.1	27.2	107.7	98.4	95.1	5.6	1003.6	0	0	0	0	0
21-08-2025	20:00:00	28.8	28.4	27.8	99.7	96.4	95	2.1	1004.7	0	0	0	0	0
21-08-2025	21:00:00	28.9	28.6	28.3	96.7	95.8	95.1	2	1005.7	0	0	0	0	0
21-08-2025	22:00:00	28.9	28.5	28.3	96.4	94.9	94	1.9	1005.8	0	0	0	0	0
21-08-2025	23:00:00	28.7	28.3	28.1	95.1	93.8	93.2	1.8	1005.9	0	0	0	0	0
22-08-2025	00:00:00	28.7	28.2	27.9	95.2	94.1	93.2	1.8	1005.8	0	0	0	0	0
22-08-2025	01:00:00	28.4	28.1	27.8	94.6	93.6	92.7	1.8	1005.6	0	0	0	0	0
22-08-2025	02:00:00	28.4	28	27.8	95.3	94.1	93	1.8	1004.5	0	0	0	0	0
22-08-2025	03:00:00	28.4	28.1	27.9	95.4	93.6	91.9	1.7	1004.3	0	0	0	0	0
22-08-2025	04:00:00	28.3	27.9	27.7	94.6	93.5	92.8	1.7	1003.7	0	0	0	0	0
22-08-2025	05:00:00	28.1	27.8	27.6	94.9	93.7	93	1.7	1003.8	0	0	0	0	0
22-08-2025	06:00:00	28.2	27.8	27.6	94.2	93.1	92.2	1.7	1004.1	0	0	0	0	0
22-08-2025	07:00:00	28.3	27.9	27.7	93.7	92.5	91.6	2.7	1004.6	0	0	0	0	0
22-08-2025	08:00:00	28.7	28.2	27.8	92.6	91.4	90.1	42.8	1005.3	0	0	0	0	0
22-08-2025	09:00:00	29.1	28.6	28.3	91.8	89.6	88.4	86	1006.1	0	0	0	0	0
22-08-2025	10:00:00	30.1	29.2	28.7	90.2	87.7	84.5	125	1006.7	0	0	0	0	0
22-08-2025	11:00:00	31.1	30.3	29.6	85.9	81.7	78.1	209.6	1006.6	0	0	0	0	0
22-08-2025	12:00:00	32.4	31.1	29.9	85	78.8	73.3	280	1006.3	0	0	0	0	0
22-08-2025	13:00:00	32.3	32	31.5	81.6	75.8	72.7	377.1	1005.8	0	0	0	0	0
22-08-2025	14:00:00	32.1	31.4	30.4	82.2	78.8	75.8	386.2	1004.7	0	0	0	0	0
22-08-2025	15:00:00	31.5	30.9	30.4	82.2	79.7	76.7	366.1	1003.8	0	0	0	0	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Dahej station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
22-08-2025	16:00:00	31.5	29.4	28.3	93.7	86.2	77.4	74.3	1002.9	0	0	0	0	0
22-08-2025	17:00:00	28.9	28	27	102.5	95.9	88.6	53.9	1002.5	0	0	0	0	0.5
22-08-2025	18:00:00	28.4	27.5	26.5	107.6	100.8	96.4	14.8	1002.8	196.5	0.6	0	0	0.5
22-08-2025	19:00:00	28.4	28	27.6	97	95.2	93.1	1.9	1003.6	0	0	0	0	0
22-08-2025	20:00:00	28.7	28.3	27.9	95.1	92.2	89.4	1.7	1004	0	0	0	0	0
22-08-2025	21:00:00	28.7	28.4	28.1	92.3	90.6	89.1	1.5	1004.5	0	0	0	0	0
22-08-2025	22:00:00	28.5	28	27.8	92.8	91.1	90.2	1.6	1005.3	0	0	0	0	0
22-08-2025	23:00:00	28.3	28	27.8	92.6	91.7	91	1.6	1005.6	0	0	0	0	0
23-08-2025	00:00:00	28.3	27.9	27.6	93.3	92	91	1.6	1004.9	0	0	0	0	0
23-08-2025	01:00:00	28.1	27.7	27.5	92.1	90.3	89.4	1.5	1004.1	0	0	0	0	0
23-08-2025	02:00:00	27.9	27.6	27.4	92.6	91.2	90.3	1.6	1004	0	0	0	0	0
23-08-2025	03:00:00	27.9	27.6	27.4	94	92.6	91.7	1.7	1003.6	0	0	0	0	0
23-08-2025	04:00:00	27.9	27.6	27.4	93.8	92.3	91.7	1.6	1003.1	0	0	0	0	0
23-08-2025	05:00:00	27.9	27.6	27.4	93	91.7	90.7	1.6	1002.7	0	0	0	0	0
23-08-2025	06:00:00	27.9	27.5	27.4	94	92.6	91.4	1.7	1002.3	0	0	0	0	0
23-08-2025	07:00:00	27.8	27.5	27.3	94.2	93.2	92.2	2.8	1002.6	0	0	0	0	0
23-08-2025	08:00:00	28.3	27.8	27.4	93.5	92	90.7	30.5	1003.6	0	0	0	0	0
23-08-2025	09:00:00	28.9	28.2	27.8	92.4	90.9	88	71.5	1004.3	0	0	0	0	0
23-08-2025	10:00:00	29.9	29	28.5	89.2	87.1	84.8	123.6	1005	0	0	0	0	0
23-08-2025	11:00:00	30	28.8	26.7	100.7	89.4	84.1	89.1	1004.7	227.5	0.6	0	0	0.5
23-08-2025	12:00:00	28	27.1	26	107.9	102.2	96.5	67.1	1004.7	0	0	0	0	0.5
23-08-2025	13:00:00	28.9	28.1	26.5	107.9	97.7	90.7	124.5	1004.7	224.6	0.6	0	0	1
23-08-2025	14:00:00	28.6	27.5	26.2	101.6	97.6	91.9	142.2	1004.2	0	0	0	0	1.5
23-08-2025	15:00:00	29	28	27	100.2	94.7	90.1	88.5	1003.4	226.2	0.6	0	0	1
23-08-2025	16:00:00	28.9	28.2	27.6	96.4	93.2	90.4	98.5	1002.5	0	0	0	0	0
23-08-2025	17:00:00	29	27.9	26.8	101.6	96.5	89.9	54.2	1002.3	0	0	0	0	0.5



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Dahej station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
23-08-2025	18:00:00	28.7	28	27.1	100	93.7	91	24.7	1002	0	0	0	0	0.5
23-08-2025	19:00:00	28.5	28	27.4	100	93.4	89.8	7.4	1002.7	0	0	0	0	0
23-08-2025	20:00:00	28.6	27.3	25.6	107.8	96.3	87.5	1.6	1003.5	203.5	0.6	0	0	5
23-08-2025	21:00:00	27.6	26.8	26	107.9	104.6	95.7	2	1004.3	0	0	0	0	0
23-08-2025	22:00:00	28.1	27.5	26.9	96.4	93	89.9	1.6	1004.4	0	0	0	0	0
23-08-2025	23:00:00	28.3	27.9	27.6	92.1	89.7	87.8	1.2	1004.8	0	0	0	0	0
24-08-2025	00:00:00	28.3	27.9	27.7	90.8	88.9	87.7	1.1	1004.5	0	0	0	0	0
24-08-2025	01:00:00	28.3	27.9	27.7	90.9	88.9	87.6	1.1	1004.1	0	0	0	0	0
24-08-2025	02:00:00	28.2	27.9	27.7	90.8	89.2	87.6	1.1	1003.5	0	0	0	0	0
24-08-2025	03:00:00	28.1	27.7	27.5	91.5	89.9	89.1	1.2	1002.9	0	0	0	0	0
24-08-2025	04:00:00	28	27.6	27.4	92.6	91.1	90.1	1.3	1002.9	0	0	0	0	0
24-08-2025	05:00:00	28.1	27.7	27.5	92.7	91.6	90.6	1.3	1002.8	0	0	0	0	0
24-08-2025	06:00:00	28.1	27.8	27.6	92.2	90.8	89.8	1.3	1003.1	0	0	0	0	0
24-08-2025	07:00:00	28.2	27.4	26.9	96.7	94.1	90.3	1.8	1003.2	0	0	0	0	0
24-08-2025	08:00:00	28.6	27.7	27.4	95.5	93.7	91.8	46.5	1003.6	0	0	0	0	0
24-08-2025	09:00:00	29.2	28.3	28	92.4	91	88.6	97.7	1004.2	0	0	0	0	0
24-08-2025	10:00:00	29.1	28.4	28.1	92.7	90.7	88.4	79.5	1004.9	0	0	0	0	0
24-08-2025	11:00:00	30	29.1	28.3	91.4	87.2	83	164.2	1005.1	0	0	0	0	0
24-08-2025	12:00:00	29.8	28.9	28.1	93	88.7	84.3	121.5	1005	0	0	0	0	0
24-08-2025	13:00:00	30.2	29.3	28.6	91.1	86.9	82.9	176.1	1004.7	0	0	0	0	0
24-08-2025	14:00:00	30.3	29.6	28.9	89.4	85.9	83	153.5	1004.3	0	0	0	0	0
24-08-2025	15:00:00	29.9	28.7	26.7	100.5	89.5	83	115.5	1003.8	193.2	0.6	0	0	2
24-08-2025	16:00:00	28.9	28.2	27.3	98.9	94.8	92.6	90.2	1003.4	0	0	0	0	0
24-08-2025	17:00:00	29.3	28.8	28.3	93.4	90.7	88.4	73.2	1003.1	0	0	0	0	0
24-08-2025	18:00:00	28.7	27.3	25.8	107.8	99.4	90.9	14.1	1003.2	236.3	0.6	0	0	5
24-08-2025	19:00:00	27.3	26.9	25.9	108	107.2	105.8	4.4	1003.7	0	0	0	0	0.5



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Dahej station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
24-08-2025	20:00:00	27.6	26.9	26.2	107.9	106.1	99.3	2	1003.9	0	0	0	0	0
24-08-2025	21:00:00	27.8	27.4	26.6	101.1	96.2	94.6	1.8	1004.4	0	0	0	0	0
24-08-2025	22:00:00	27.8	27.5	27.2	95.9	94.7	93.7	1.5	1005	0	0	0	0	0
24-08-2025	23:00:00	27.6	27	25.9	107.8	98.4	94.9	1.7	1005.5	0	0	0	0	0.5
25-08-2025	00:00:00	27.1	26.6	25.8	107.8	106.7	105.5	2	1005.3	0	0	0	0	1.5
25-08-2025	01:00:00	27.3	26.9	26.1	107.9	107.2	105.5	2	1004.8	0	0	0	0	0
25-08-2025	02:00:00	27.6	27.1	26.3	107.7	99.1	96.2	1.8	1004.3	0	0	0	0	0
25-08-2025	03:00:00	27.5	27.1	26.6	99.9	97.7	96.4	1.7	1003.7	0	0	0	0	0
25-08-2025	04:00:00	27.5	27.1	26.5	99.9	97.9	96.4	1.7	1003.1	0	0	0	0	0
25-08-2025	05:00:00	27.5	27.1	26.5	99.8	97.9	96.4	1.6	1003.2	0	0	0	0	0
25-08-2025	06:00:00	27.6	27.1	26.6	99.9	97.6	96.3	1.6	1003.4	0	0	0	0	0
25-08-2025	07:00:00	27.6	27.2	26.9	97.1	95.8	95.2	1.5	1003.6	0	0	0	0	0
25-08-2025	08:00:00	27.9	27.4	27	96.2	94.7	92.9	12.9	1004	0	0	0	0	0
25-08-2025	09:00:00	28.3	27.7	27.5	93.6	92.5	91.6	31.1	1004.6	0	0	0	0	0
25-08-2025	10:00:00	28.8	28.5	28.1	92.4	89.4	88.2	83.3	1004.7	0	0	0	0	0
25-08-2025	11:00:00	30.5	29.6	28.5	89	84.4	80.7	221.5	1005.4	0	0	0	0	0
25-08-2025	12:00:00	30.4	29	28	93	88.5	83.2	124.5	1004.9	197.9	0.6	0	0	0
25-08-2025	13:00:00	30.6	29.4	28.3	93.6	88.2	81.8	77.2	1004.5	180.3	1.3	0	0	0
25-08-2025	14:00:00	29.3	28.5	27.8	98.4	94.3	91.4	88.2	1003.8	0	0	0	0	1.5
25-08-2025	15:00:00	31.3	29.4	28	97.3	92.9	85.3	144	1003.3	353.9	0.6	0	0	0
25-08-2025	16:00:00	30.8	28.9	27.2	100	92.8	85.7	60.5	1001.7	0	0	0	0	0
25-08-2025	17:00:00	29.4	28.8	27.8	96.9	92.8	90.5	62	1001.3	0	0	0	0	0
25-08-2025	18:00:00	29.5	29.1	28.7	92	89.8	87.6	25.1	1001	0	0	0	0	0
25-08-2025	19:00:00	29.4	28.6	27.8	93.5	90.3	86.6	1.1	1001.5	0	0	0	0	0
25-08-2025	20:00:00	29	28.6	28	94.8	90.8	87.7	1.2	1002.5	0	0	0	0	0
25-08-2025	21:00:00	29.1	28.7	28.5	93.1	90.4	88.5	1.2	1003.6	0	0	0	0	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Dahej station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
25-08-2025	22:00:00	29	28.6	28.2	92.8	89.7	88.2	1.1	1004.1	0	0	0	0	0
25-08-2025	23:00:00	28.6	28.1	27.8	94.9	92.8	91.7	1.4	1004.4	0	0	0	0	0
26-08-2025	00:00:00	28.3	27.9	27.7	94.9	93.6	92.8	1.4	1004.5	0	0	0	0	0
26-08-2025	01:00:00	28.3	27.9	27.7	93.4	92.2	91.7	1.3	1004	0	0	0	0	0
26-08-2025	02:00:00	28.2	27.7	27.4	94.7	93	92.2	1.3	1003.4	0	0	0	0	0
26-08-2025	03:00:00	27.8	27.4	27.1	96.1	95.1	94.1	1.4	1002.5	0	0	0	0	0
26-08-2025	04:00:00	27.8	27.4	27.2	96	95.2	94.6	1.5	1002.6	0	0	0	0	0
26-08-2025	05:00:00	27.9	27.6	27.4	95.5	94.3	93.7	1.4	1003.4	0	0	0	0	0
26-08-2025	06:00:00	27.8	27.4	26.9	97.2	95.4	94.3	1.5	1003.9	0	0	0	0	0
26-08-2025	07:00:00	27.7	27.3	26.8	99.6	96.1	95.6	1.7	1004	0	0	0	0	0
26-08-2025	08:00:00	28.5	27.7	27.2	96.5	94.7	93.4	33.1	1004.6	0	0	0	0	0
26-08-2025	09:00:00	29.9	29.1	28.1	94	89.4	86.7	158.2	1005.9	0	0	0	0	0
26-08-2025	10:00:00	30.6	30.1	29.6	88	84.3	81.3	239.5	1006.8	0	0	0	0	0
26-08-2025	11:00:00	31.4	30.6	29.9	84.6	81.3	78	267	1006.9	0	0	0	0	0
26-08-2025	12:00:00	32.6	32	31.3	80.9	75.7	72.6	297.1	1007.1	0	0	0	0	0
26-08-2025	13:00:00	33.5	32.3	30.8	82.3	74.6	69	263.2	1006.5	0	0	0	0	0
26-08-2025	14:00:00	32.3	31.2	29.9	87.8	80.9	75	182.1	1005.4	0	0	0	0	0
26-08-2025	15:00:00	34.1	32.7	31.5	82.5	75.7	67.8	278.9	1005.1	0	0	0	0	0
26-08-2025	16:00:00	34.2	32.4	29.8	91.7	75.2	65.5	157.3	1004.2	0	0	0	0	0
26-08-2025	17:00:00	30.6	30.1	29.8	91.8	89.7	87.8	54.4	1003	0	0	0	0	0
26-08-2025	18:00:00	30.9	30.3	30	90.9	88.7	87.2	74.2	1003.1	0	0	0	0	0
26-08-2025	19:00:00	30.4	29.6	29.2	94.9	92.3	88.9	12.6	1003.4	0	0	0	0	0
26-08-2025	20:00:00	29.9	29.5	29.2	95.8	94.6	91.8	1.6	1004.3	0	0	0	0	0
26-08-2025	21:00:00	30	29.5	29.1	92.4	90.6	86.8	1.5	1004.8	0	0	0	0	0
26-08-2025	22:00:00	29.6	29.1	28.9	90.8	88.5	86.8	1.1	1005	0	0	0	0	0
26-08-2025	23:00:00	29.3	28.8	28.5	92.2	90.1	88.7	1.1	1005.2	0	0	0	0	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Dahej station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
27-08-2025	00:00:00	28.9	28.5	28.3	93	91.9	91.2	1.3	1005.5	0	0	0	0	0
27-08-2025	01:00:00	28.7	28.2	27.8	94	92.5	91.9	1.3	1004.8	0	0	0	0	0
27-08-2025	02:00:00	28.2	27.9	27.6	94.2	93	92.2	1.4	1004.1	0	0	0	0	0
27-08-2025	03:00:00	28.1	27.7	27.5	94.2	93.2	92.7	1.3	1003.5	0	0	0	0	0
27-08-2025	04:00:00	27.9	27.5	27.1	95.2	94.2	93.6	1.4	1003	0	0	0	0	0
27-08-2025	05:00:00	27.7	27.2	26.7	96.6	95	94.1	1.4	1002.8	0	0	0	0	0
27-08-2025	06:00:00	27.6	27.1	26.7	99.2	96.5	95.8	1.5	1003.3	0	0	0	0	0
27-08-2025	07:00:00	27.6	27.1	26.5	99.8	97.6	96.3	1.5	1004	204.1	0.6	0	0	0
27-08-2025	08:00:00	28	27.5	26.8	100	96.9	95.1	7.3	1004.9	204.2	0.6	0	0	0
27-08-2025	09:00:00	29	28.2	27.4	96.4	93.6	90	69.8	1005.3	0	0	0	0	0
27-08-2025	10:00:00	29.6	29.2	28.7	90.8	88.2	86	123	1005.8	0	0	0	0	0
27-08-2025	11:00:00	30.7	29.7	28.6	90.8	86.6	81.6	195.6	1005.7	0	0	0	0	0
27-08-2025	12:00:00	32.4	31.1	30.2	85.1	78.9	71.2	288.4	1005.8	0	0	0	0	0
27-08-2025	13:00:00	33.6	32.4	31.3	76.9	71.5	64.6	340.6	1005.6	0	0	0	0	0
27-08-2025	14:00:00	34.3	33.8	33.3	68.3	61.4	58.1	385.9	1005.1	0	0	0	0	0
27-08-2025	15:00:00	35	34.4	33.8	63	58.4	53.7	298.1	1004.6	204.2	0.6	0	0	0
27-08-2025	16:00:00	35	34.3	33.4	68.3	63.1	59.1	272.7	1003.7	0	0	0	0	0
27-08-2025	17:00:00	34	32.1	30.6	82.5	73.9	65.2	123.6	1002.1	0	0	0	0	0
27-08-2025	18:00:00	30.8	30.3	29.8	87.5	84.3	82.3	49.9	1001.7	0	0	0	0	0
27-08-2025	19:00:00	30.1	29.7	29.4	90.5	88.5	86.7	10.9	1002.3	0	0	0	0	0
27-08-2025	20:00:00	29.8	29.4	29.2	92.9	91.3	89.8	1.4	1003.2	0	0	0	0	0
27-08-2025	21:00:00	29.7	29.3	29.2	94	92.7	91.7	1.6	1003.3	0	0	0	0	0
27-08-2025	22:00:00	29.9	29.5	29.2	95.2	93.5	92.3	1.6	1004.6	193.7	0.6	0	0	0
27-08-2025	23:00:00	29.7	29.3	28.9	96.9	95.5	94.4	1.7	1004.7	173.7	10.6	0.8	0	0
28-08-2025	00:00:00	29.4	29	28.7	97	95.5	94.6	1.8	1004.4	199.4	15.2	4.7	0	0
28-08-2025	01:00:00	29.5	29.1	28.4	99.9	96.9	95.2	1.9	1004.2	201.8	16.6	6.7	1.9	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Dahej station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
28-08-2025	02:00:00	29.2	28.8	28.6	97.2	93.6	91.4	1.7	1003.1	220.1	25.2	10.2	2.6	0
28-08-2025	03:00:00	29	28.3	27.1	107.6	95.9	91.4	1.7	1002.1	229	28.5	7.6	0	1.5
28-08-2025	04:00:00	28.1	27.8	26.9	107.9	107	106.1	2	1002	0	0	0	0	0
28-08-2025	05:00:00	28	27.6	26.7	107.9	106.8	104.8	2.1	1002.6	267.1	1.3	0	0	0
28-08-2025	06:00:00	28	27.6	26.7	107.7	106.5	101.5	2.1	1003.2	0	0	0	0	0
28-08-2025	07:00:00	28.1	27.4	26.5	107.9	105.7	100.6	2	1003.6	258.2	0.6	0	0	0.5
28-08-2025	08:00:00	27.8	27.3	26.5	107.9	106.9	101.1	14	1004	0	0	0	0	0
28-08-2025	09:00:00	28.8	28	26.9	102.9	98.6	94.7	58.3	1004.7	246.5	1.9	0	0	0
28-08-2025	10:00:00	28.7	28.2	27.5	99.8	96.1	95	23.4	1004.6	0	0	0	0	0
28-08-2025	11:00:00	29	27.9	26.8	107.8	102.5	96.8	62.5	1004.8	241.1	0.6	0	0	0.5
28-08-2025	12:00:00	29.6	29	28.6	98.9	94.4	92.8	134.9	1004.7	0	0	0	0	0
28-08-2025	13:00:00	30.6	29.8	28.8	94.7	90.1	86.8	198.2	1004.3	0	0	0	0	0
28-08-2025	14:00:00	30.8	30.2	29.5	90.4	87.3	84.8	150	1003.2	0	0	0	0	0
28-08-2025	15:00:00	29.7	28.7	27.8	101.6	96.8	90.2	58	1001.6	209	1.3	0	0	3.5
28-08-2025	16:00:00	29.2	28.7	28	102.3	100	97.1	28.8	1000.9	203.8	0.6	0	0	0
28-08-2025	17:00:00	29.4	28.8	28.1	102.7	100.7	99.4	26.5	1000.9	203.9	3.3	0	0	0
28-08-2025	18:00:00	29.8	29.2	28.5	101.2	99.1	96.9	25.1	1001.3	200	1.3	0	0	0
28-08-2025	19:00:00	29.3	28.8	28.1	100.3	98.8	96.7	2.8	1001.5	149.8	0.6	0	0	0
28-08-2025	20:00:00	29.2	28.7	28	100.2	98.2	96.7	1.8	1002.5	156.6	1.3	0	0	0
28-08-2025	21:00:00	29.2	28.7	28	101.6	100.2	97.4	1.8	1003.6	164.9	0.6	0	0	0
28-08-2025	22:00:00	29.3	28.8	28.2	102.7	100.1	97.9	1.8	1004.1	154.4	6.6	0	0	0
28-08-2025	23:00:00	29.2	28.7	28.1	102.6	100.4	97	1.8	1004	198.7	2.6	0	0	0
29-08-2025	00:00:00	29.2	28	26.2	100	96	92.2	1.7	1003.1	187.5	6.6	0	0	0
29-08-2025	01:00:00	27	26	24.9	107.8	103.9	97.1	1.6	1001.4	187.7	5.9	0.2	0	0
29-08-2025	02:00:00	26.4	26	25.3	107.8	106.8	105.5	1.6	1000.6	193	1.3	0	0	0
29-08-2025	03:00:00	27.3	26.5	25.5	107.8	103.3	98.8	1.7	1000.5	193.7	6.6	0	0	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Dahej station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
29-08-2025	04:00:00	27.5	26.9	26.1	100.7	99.1	96.5	1.7	1000.4	194	1.9	0	0	0
29-08-2025	05:00:00	28	27.3	26.6	102.1	100	98.5	1.7	1001.1	194.1	3.9	0	0	0
29-08-2025	06:00:00	28.1	27.6	26.9	102.3	100.2	99.3	1.7	1001.7	194.1	2.6	0	0	0
29-08-2025	07:00:00	28.1	27.7	26.8	108	106.2	100.2	1.7	1002.2	193.4	1.9	0	0	0
29-08-2025	08:00:00	28.3	27.9	27.1	108	106.9	105.7	8.6	1002.8	193.5	2.6	0	0	0
29-08-2025	09:00:00	29	28.2	27.4	108	106.7	100.7	39.7	1004	238.5	1.9	0	0	0.5
29-08-2025	10:00:00	29.4	28.7	27.9	102.7	99.5	95.6	72.6	1004.9	0	0	0	0	0
29-08-2025	11:00:00	30.4	29.5	29	96.2	91.3	88.2	131.6	1004.5	0	0	0	0	0
29-08-2025	12:00:00	31.3	30.5	29.4	90.1	83.8	79	241.4	1004.6	0	0	0	0	0
29-08-2025	13:00:00	32	31.1	30.4	83	77	71.2	229.4	1004.2	0	0	0	0	0
29-08-2025	14:00:00	31.7	30.8	30.1	83	79.1	74.2	98.9	1003.3	217.3	1.3	0	0	0
29-08-2025	15:00:00	30.2	29.4	28.7	95.4	90.9	82.5	23.9	1001.9	174.1	3.3	0	0	0
29-08-2025	16:00:00	29	28.6	27.5	107.8	99.2	94.9	19.2	1000.7	127.9	2.6	0	0	0.5
29-08-2025	17:00:00	29.2	28.5	27.6	108	106.2	99.7	51.7	1001.1	193	2.6	0	0	0
29-08-2025	18:00:00	29.4	28.9	28.3	102.7	98.6	96	54.4	1001.8	192	4.6	0	0	0
29-08-2025	19:00:00	29.1	28.5	27.8	100.1	98.2	96.4	14.1	1002.4	184.5	1.3	0	0	0
29-08-2025	20:00:00	28.7	28.2	27.8	100.1	97.2	95.8	1.5	1003	169.3	3.9	0	0	0
29-08-2025	21:00:00	28.7	28.3	28	99.8	96.5	95.3	1.5	1003.3	176.9	0.6	0	0	0
29-08-2025	22:00:00	28.8	28.4	28.1	99.3	95.9	94.6	1.5	1003.9	0	0	0	0	0
29-08-2025	23:00:00	29	28.7	28.4	99.3	96.4	95.7	1.5	1004.4	0	0	0	0	0
30-08-2025	00:00:00	29	28.7	28.5	97	96.2	95.9	1.6	1004.7	0	0	0	0	0
30-08-2025	01:00:00	29.1	28.7	28.2	99.9	97.1	96.2	1.5	1004.5	0	0	0	0	0
30-08-2025	02:00:00	29	28.6	27.8	100.8	99.1	96.8	1.7	1004.3	0	0	0	0	0
30-08-2025	03:00:00	28.7	28	27.2	102.5	99.2	96.5	1.7	1003.6	0	0	0	0	0
30-08-2025	04:00:00	28.3	27.9	27.5	99.9	96.5	95.6	1.6	1002.5	0	0	0	0	0
30-08-2025	05:00:00	28.3	27.7	26.7	106.8	99.8	96.3	1.7	1002.9	0	0	0	0	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Dahej station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
30-08-2025	06:00:00	27.9	27.4	26.5	107.7	104.2	99.5	1.8	1003.3	0	0	0	0	0
30-08-2025	07:00:00	28.1	27.7	27	101.6	97.8	95.2	1.7	1004.3	0	0	0	0	0
30-08-2025	08:00:00	28.3	27.9	27.6	95.9	94.5	93.8	4.1	1004.8	0	0	0	0	0
30-08-2025	09:00:00	28.8	28.1	27.8	96.7	95.2	93.8	29.9	1005.3	0	0	0	0	0
30-08-2025	10:00:00	29.5	28.9	28.5	94.5	92.1	89.9	67	1005.7	0	0	0	0	0
30-08-2025	11:00:00	29.9	29.3	29	92.2	90.6	88.4	88.4	1006.2	0	0	0	0	0
30-08-2025	12:00:00	30.5	30.1	29.6	89.4	87.7	85.9	140.2	1006.4	0	0	0	0	0.5
30-08-2025	13:00:00	30.8	30.3	29.9	91.2	89.1	86.6	137.4	1006.2	203.9	7.9	0.1	0	0
30-08-2025	14:00:00	30.5	30.1	29.8	90.6	89	88	97.7	1005.5	186.5	6.6	0.3	0	0
30-08-2025	15:00:00	30.1	29.6	29.1	92.7	90.6	88.5	74.4	1004.4	184.7	1.9	0	0	0
30-08-2025	16:00:00	29.4	28.6	28	99.6	95.3	91.5	76.3	1003.8	0	0	0	0	0
30-08-2025	17:00:00	29	28.5	28	97.1	95.2	94.2	44.7	1004	192.1	6.6	0	0	0
30-08-2025	18:00:00	29.3	28.6	27.9	101.6	99.7	96.5	18.8	1004.1	190	6.6	0.3	0	0
30-08-2025	19:00:00	29.1	28.5	27.9	102.6	100.7	98.9	2.1	1004.9	184.8	2.6	0	0	0
30-08-2025	20:00:00	28.8	28.2	27.4	107.7	103.6	99.7	1.6	1005.2	173.2	5.3	0	0	0
30-08-2025	21:00:00	28.8	28.2	27.6	102.5	100.7	99.5	1.6	1005.5	0	0	0	0	0
30-08-2025	22:00:00	28.9	28.4	27.8	101.6	98.4	96.4	1.6	1005.7	0	0	0	0	0
30-08-2025	23:00:00	28.8	28.4	28.1	97.5	96.1	95.1	1.5	1005.9	0	0	0	0	0
31-08-2025	00:00:00	29	28.5	27.9	100.8	98.6	96.1	1.6	1005.9	0	0	0	0	0
31-08-2025	01:00:00	29	28.6	28	100	97.7	96	1.6	1006	0	0	0	0	0
31-08-2025	02:00:00	28.8	28.4	28.1	96.7	95.8	94.6	1.4	1005.2	0	0	0	0	0
31-08-2025	03:00:00	28.6	28.2	28	96.1	95.2	94.4	1.4	1004.7	0	0	0	0	0
31-08-2025	04:00:00	28.5	28.1	27.8	96.4	95.3	94.6	1.4	1004.6	0	0	0	0	0
31-08-2025	05:00:00	28.3	28	27.6	99	96.5	95.7	1.4	1004.4	0	0	0	0	0
31-08-2025	06:00:00	28.3	27.9	27.6	99.2	96.6	96	1.5	1004.5	0	0	0	0	0
31-08-2025	07:00:00	28.2	27.8	27.4	99.2	96.5	96	1.4	1005.1	196.6	5.9	0	0	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Dahej station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
31-08-2025	08:00:00	28.4	28	27.6	99.5	96.7	96.2	11.4	1005.8	0	0	0	0	0
31-08-2025	09:00:00	29.4	28.6	27.8	97.1	93.4	90.2	79.7	1006.8	219.7	1.3	0	0	0
31-08-2025	10:00:00	31.3	30.3	29	91.4	84.6	79.2	266	1007.8	0	0	0	0	0
31-08-2025	11:00:00	31.6	31.1	30.5	81.5	78.8	76.1	248.4	1007.8	0	0	0	0	0
31-08-2025	12:00:00	31.3	30.8	30.4	82.6	79.6	77.1	191.5	1007.3	199	5.9	0	0	0
31-08-2025	13:00:00	32.5	31.4	30.9	79.7	77.6	73.4	225.7	1007	184.2	3.9	0	0	0
31-08-2025	14:00:00	33.5	32.6	31.9	76.9	73.1	69.8	304.6	1006.6	184.6	7.9	0	0	0
31-08-2025	15:00:00	33.7	32.3	31.5	78.8	74.8	68.4	189	1005.6	165.6	4.6	0	0	0
31-08-2025	16:00:00	31.9	31	29.9	85.3	79.4	75.5	153.8	1004.3	0	0	0	0	0
31-08-2025	17:00:00	30.3	29.5	28.8	90.1	87.9	84	59.3	1003.1	0	0	0	0	0
31-08-2025	18:00:00	29.1	28.4	27.2	100.6	93.9	89	16.5	1002.9	0	0	0	0	0
31-08-2025	19:00:00	28.8	28.3	27.4	100.7	98.3	95.7	6.1	1003.1	195.6	1.3	0	0	0
31-08-2025	20:00:00	28.6	28.2	27.7	100.4	96.1	93.7	1.6	1003.6	0	0	0	0	0
31-08-2025	21:00:00	29.1	28.5	27.5	102.2	97.3	94.2	1.6	1004.2	0	0	0	0	0.5
31-08-2025	22:00:00	28.5	28	27.2	108	106.8	100.3	2.1	1004.8	0	0	0	0	0
31-08-2025	23:00:00	28.4	28	27.1	107.9	104.1	98.1	2.1	1005	0	0	0	0	0
01-09-2025	00:00:00	28.5	28	27.4	100.2	97.2	95.7	1.9	1005	0	0	0	0	0
01-09-2025	01:00:00	28.2	27.7	27.2	100	97.6	96.4	1.9	1004.1	0	0	0	0	0
01-09-2025	02:00:00	28.2	27.8	27.5	99.9	96.3	94.6	1.8	1003.7	0	0	0	0	0
01-09-2025	03:00:00	28	27.7	27.4	95.2	94.2	93.3	1.6	1002.8	0	0	0	0	0
01-09-2025	04:00:00	28	27.6	27.3	95.7	93.9	93	1.6	1002.5	0	0	0	0	0
01-09-2025	05:00:00	27.8	27.5	27.2	95.7	94.4	93.2	1.6	1002.1	0	0	0	0	0
01-09-2025	06:00:00	27.8	27.4	27.2	95.1	94.1	93.3	1.6	1002	0	0	0	0	0
01-09-2025	07:00:00	27.8	27.5	27.2	94.8	93.5	92.9	3.2	1002.5	0	0	0	0	0
01-09-2025	08:00:00	28.3	27.8	27.4	94.4	92.9	91.4	37.2	1003	0	0	0	0	0
01-09-2025	09:00:00	29.5	28.8	28	92.4	88.5	84.8	126.6	1004.1	0	0	0	0	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Dahej station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
01-09-2025	10:00:00	30.1	29.6	29.2	86.8	84.4	81.9	171.5	1004.6	0	0	0	0	0
01-09-2025	11:00:00	31.5	30.8	29.7	83.2	79	74.9	263.7	1005	0	0	0	0	0
01-09-2025	12:00:00	31.6	30.8	29.6	84.1	78.5	73.8	139	1004.4	0	0	0	0	0
01-09-2025	13:00:00	32.7	31.6	30.3	81.5	76	70.8	208.7	1004.1	164.4	1.9	0	0	0
01-09-2025	14:00:00	33.5	32.9	31.3	77.7	70.4	66.6	352.9	1003.7	119.8	9.3	0	0	0
01-09-2025	15:00:00	33.5	32.7	31.7	77.4	72.9	68.9	253.1	1002.6	0	0	0	0	0
01-09-2025	16:00:00	31.9	30.7	30	88.9	84	77.3	88.4	1000.9	0	0	0	0	0
01-09-2025	17:00:00	31.9	30.9	29.9	89.8	86.2	82	124	1000.8	0	0	0	0	0
01-09-2025	18:00:00	30.8	30	29.5	90.1	88.9	85	21.6	999.9	0	0	0	0	0
01-09-2025	19:00:00	29.9	29.5	29.3	93.1	91.3	89.2	2.6	1000.3	0	0	0	0	0
01-09-2025	20:00:00	29.7	29.2	28.9	94.6	93	91	1.3	1001	0	0	0	0	0
01-09-2025	21:00:00	29.5	29	28.7	94.9	93.8	93.1	1.4	1001.5	0	0	0	0	0
01-09-2025	22:00:00	29.2	28.8	28.6	94.9	92.2	89.4	1.2	1002.1	0	0	0	0	0
01-09-2025	23:00:00	29	28.6	28.4	90.5	89.2	88.5	1	1003.1	0	0	0	0	0
02-09-2025	00:00:00	28.8	28.4	28.2	89.9	87.2	85.9	0.9	1003.1	0	0	0	0	0
02-09-2025	01:00:00	28.6	28.2	28	90.8	88.5	86.2	1	1003.3	0	0	0	0	0
02-09-2025	02:00:00	28.4	28	27.8	92.8	90.7	89.6	1.2	1002.7	0	0	0	0	0
02-09-2025	03:00:00	28.3	27.9	27.6	93.7	92.8	92.1	1.3	1002.1	0	0	0	0	0
02-09-2025	04:00:00	28	27.6	27.3	95.3	94	92.8	1.3	1001.5	0	0	0	0	0
02-09-2025	05:00:00	27.8	27.4	27.2	95.8	94.8	94.1	1.4	1001.1	0	0	0	0	0
02-09-2025	06:00:00	27.9	27.5	27.4	94.9	93.9	93.5	1.3	1001.9	0	0	0	0	0
02-09-2025	07:00:00	27.8	27.4	27.2	95	94.3	93.9	3	1002.3	0	0	0	0	0
02-09-2025	08:00:00	28.6	28	27.4	94.8	93.1	91	31.6	1003.6	194.7	9.3	0.8	0	0
02-09-2025	09:00:00	29.3	28.8	28.2	91.9	88.8	86.8	93.1	1004.2	204.2	1.3	0	0	0
02-09-2025	10:00:00	30.5	29.9	29.2	88	84.1	80.6	175.7	1005.2	0	0	0	0	0
02-09-2025	11:00:00	32.2	31.1	30.2	82.9	78.4	73.3	243.5	1005.8	0	0	0	0	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Dahej station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
02-09-2025	12:00:00	32.8	32.3	31.5	75.4	70.9	68	229.4	1005.8	268.9	2.6	0	0	0
02-09-2025	13:00:00	32.8	32.4	31.6	74.1	68.5	64.9	304.9	1005	264.4	1.9	0	0	0
02-09-2025	14:00:00	34.4	33.4	32.4	68.2	63.3	58.5	357.3	1004.6	197.1	11.3	0.1	0	0
02-09-2025	15:00:00	35.2	34.3	33.2	65.3	59.8	55.6	261.9	1003.6	138	8.6	0.1	0	0
02-09-2025	16:00:00	33.4	32.2	31.6	76.9	72.9	65	135.1	1002.1	0	0	0	0	0
02-09-2025	17:00:00	32.9	32.4	31.5	76.5	73	69.6	142.6	1001.7	115.1	1.3	0	0	0
02-09-2025	18:00:00	31.6	31	30.4	84.1	82	76.5	50.5	1001	129.4	1.3	0	0	0
02-09-2025	19:00:00	30.6	30	29.6	90	87.6	83.9	5.5	1001.2	148.2	5.9	0	0	0
02-09-2025	20:00:00	29.9	29.6	29.4	93.2	91.6	89.8	0.6	1001.9	188.4	8.6	0.1	0	0
02-09-2025	21:00:00	29.9	29.5	29.3	94.3	93.2	92.2	1.3	1003.4	184.3	3.3	0	0	0
02-09-2025	22:00:00	29.9	29.5	29.3	94.5	92.4	89.9	1.3	1004	203.4	2.6	0	0	0
02-09-2025	23:00:00	29.7	29.3	29	90.5	89	87.5	1.1	1004.5	0	0	0	0	0
03-09-2025	00:00:00	29.5	29.1	28.8	88.4	84.8	82.2	0.7	1004.1	0	0	0	0	0
03-09-2025	01:00:00	29	28.7	28.4	85.8	83.7	82	0.6	1003.6	0	0	0	0	0
03-09-2025	02:00:00	28.7	28.3	28.1	88.8	87.1	85	1	1003.2	0	0	0	0	0
03-09-2025	03:00:00	28.5	28.1	27.8	89.2	88	87.4	1	1003	0	0	0	0	0
03-09-2025	04:00:00	28.1	27.8	27.6	90.2	88.9	88.2	1.1	1002.4	0	0	0	0	0
03-09-2025	05:00:00	28.1	27.6	27.4	91.8	90.3	89.4	1.2	1002.8	0	0	0	0	0
03-09-2025	06:00:00	27.8	27.5	27.3	92.3	91.3	90.8	1.3	1003.4	0	0	0	0	0
03-09-2025	07:00:00	27.8	27.4	27.1	93.1	91.4	90.8	1.2	1003.9	232.2	5.9	0	0	0
03-09-2025	08:00:00	28.2	27.6	27.2	93.5	92.5	91.5	13.9	1004.8	0	0	0	0	0
03-09-2025	09:00:00	29	28.3	27.7	92.4	90.1	87.2	77.8	1005.2	0	0	0	0	0
03-09-2025	10:00:00	30.5	29.3	28.6	87.6	83.8	76.2	173.8	1005.7	0	0	0	0	0
03-09-2025	11:00:00	31.4	30.7	30.1	78.3	75.3	72.5	235.9	1006.6	0	0	0	0	0
03-09-2025	12:00:00	33.2	31.8	30.7	74.2	68.9	63.5	292	1006.7	235.5	1.3	0	0	0
03-09-2025	13:00:00	33.7	32.7	31.7	69	64.3	60.2	360.8	1006.2	0	0	0	0	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Dahej station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
03-09-2025	14:00:00	35	34.1	32.8	63.2	57.6	52.8	352.3	1005.7	214.5	7.3	0	0	0
03-09-2025	15:00:00	35.3	34.2	33.4	60.2	55.6	52.1	321.6	1004.9	284.5	3.9	0	0	0
03-09-2025	16:00:00	34.2	33.5	33	64.1	60.8	56	257.8	1003.7	211.4	3.3	0	0	0
03-09-2025	17:00:00	33.8	32.4	31.5	71.5	66.4	59.3	168.6	1002.6	0	0	0	0	0
03-09-2025	18:00:00	31.7	30.9	30.2	78.7	76.3	71.2	63.2	1002.1	0	0	0	0	0
03-09-2025	19:00:00	30.5	30	29.5	85	81.4	77.2	14.3	1001.8	194.9	0.6	0	0	0
03-09-2025	20:00:00	29.7	29.5	29.4	87.4	84.7	81.5	0.4	1002.5	0	0	0	0	0
03-09-2025	21:00:00	30	29.6	29.4	89	87.4	86.2	0.7	1003.3	188.8	0.6	0	0	0
03-09-2025	22:00:00	30.1	29.7	29.5	90.2	89	87.1	1.1	1004.6	0	0	0	0	0
03-09-2025	23:00:00	30	29.6	29.3	89.2	86.8	85.7	1	1004.4	0	0	0	0	0
04-09-2025	00:00:00	29.6	29.3	29.1	89.2	85.5	83.3	0.8	1003.8	0	0	0	0	0
04-09-2025	01:00:00	29.4	28.1	25.1	100	88.2	81.4	1	1003.6	221.7	0.6	0	0	7
04-09-2025	02:00:00	26	25.5	24.7	107.8	105.4	98.9	1.4	1002.7	263	11.3	0.2	0	4.5
04-09-2025	03:00:00	26.3	25.7	25	107.7	106.7	105.9	1.9	1002.1	5	13.3	0.8	0	2
04-09-2025	04:00:00	26.5	26	25.4	107.7	106.8	106.1	1.5	1001.9	2.7	7.3	0.3	0	1
04-09-2025	05:00:00	26.6	26.1	25.4	107.7	106.7	106.1	1.6	1002	2.7	5.9	0.9	0	0
04-09-2025	06:00:00	26.7	26.4	25.7	107.8	106.8	106.1	1.7	1002.6	2.6	10.6	3.1	0	0
04-09-2025	07:00:00	27	26.6	25.8	107.9	106.8	105.5	2.3	1003.7	355.3	3.3	0	0	0
04-09-2025	08:00:00	27.8	26.9	26	107.8	103.6	99.3	23.8	1004.3	238.8	1.9	0	0	0
04-09-2025	09:00:00	28.2	27.6	26.9	100.7	96	94.2	48.8	1005	0	0	0	0	0
04-09-2025	10:00:00	28.3	27.9	27.7	95.3	94.4	93.5	45.3	1005.4	0	0	0	0	0
04-09-2025	11:00:00	28.9	28.3	27.7	95.4	92.7	90.3	69.2	1005	225.5	1.9	0	0	0
04-09-2025	12:00:00	30.7	29.2	27.8	95.7	89.3	83	209.3	1004.8	0	0	0	0	0
04-09-2025	13:00:00	30.5	29.5	28.2	95.1	87.1	82.3	109.3	1004.1	226.9	4.6	0.1	0	1
04-09-2025	14:00:00	28.6	27.2	26.2	107.9	104.7	94.9	36.6	1002.5	205.7	5.9	0	0	9.5
04-09-2025	15:00:00	27.4	27	26.1	107.8	106.7	105.7	36.9	1002.2	0	0	0	0	1



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Dahej station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
04-09-2025	16:00:00	27.1	26.5	25.8	107.8	106.1	105.2	3.8	1001.9	220.5	1.9	0	0	18
04-09-2025	17:00:00	27.2	26.7	26.3	106.5	105.6	105.2	2.7	1001.4	220.7	0.6	0	0	11
04-09-2025	18:00:00	27.3	26.9	26.5	106.6	105.7	105.1	2.2	1001	211.1	0.6	0	0	3.5
04-09-2025	19:00:00	27.2	26.8	26.4	106.6	105.7	105.2	2.3	1001.3	205	0.6	0	0	3.5
04-09-2025	20:00:00	27.3	26.9	26.5	107	105.8	105.2	2.4	1001.6	213.2	0.6	0	0	1.5
04-09-2025	21:00:00	27.6	27.1	26.5	107.8	106.7	105.5	2.4	1002.6	0	0	0	0	0
04-09-2025	22:00:00	27.6	27.3	26.5	108	106.8	105.7	2.4	1003.5	218.9	0.6	0	0	0.5
04-09-2025	23:00:00	27.6	27.2	26.5	107.9	106.7	105.5	2.3	1003.6	0	0	0	0	0
05-09-2025	00:00:00	28	27.3	26.5	107.9	103.2	96.7	2.3	1003.7	226.6	12.6	0	0	0
05-09-2025	01:00:00	27.4	26.8	26.4	99.7	96.3	95.3	2.2	1002.8	240.7	18.6	1.7	0	0
05-09-2025	02:00:00	27.1	26.7	26.3	97	96	95.5	2.2	1002.1	252.2	17.2	1.3	0	0
05-09-2025	03:00:00	27	26.3	25.1	107.8	100.8	95	2.2	1001.6	253	11.9	0.3	0	1
05-09-2025	04:00:00	26	25.6	24.8	107.7	106.6	105.5	2.1	1001.5	253.7	12.6	0.1	0	0
05-09-2025	05:00:00	25.8	25.3	24.7	107.7	98.4	95.6	2.2	1002.1	255.9	14.6	0.4	0	0.5
05-09-2025	06:00:00	25.8	25.4	24.8	100.2	96.7	95.3	2.2	1002.6	253.5	16.6	0.4	0	0
05-09-2025	07:00:00	25.8	25.2	24.4	107.8	103.8	98.5	2.2	1003.7	237.9	7.9	0	0	0.5
05-09-2025	08:00:00	25.8	25.3	24.5	107.8	105.7	99	5.7	1004.3	246.8	9.9	0.1	0	0
05-09-2025	09:00:00	25.9	25.4	24.6	107.8	102.7	99	16	1005	235.3	8.6	0	0	1
05-09-2025	10:00:00	26.2	25.6	24.8	107.8	106.6	105.5	34.1	1005.5	231	9.9	0.2	0	2
05-09-2025	11:00:00	27	26.3	25.3	107.9	106.9	105.5	47.6	1005.8	222.9	14.6	1.7	0	0
05-09-2025	12:00:00	28.4	27.4	26.1	107.9	103.4	96.2	94.3	1005.8	226.5	20.6	0.6	0	0
05-09-2025	13:00:00	29.3	28.6	27.9	96.9	94.1	91.4	128.5	1005.7	220.6	17.2	2.9	0	0
05-09-2025	14:00:00	29.3	29	28.7	93.6	92.3	91.4	75.9	1005	218.6	15.2	3	0	0
05-09-2025	15:00:00	30.1	29.5	28.7	93.9	91.2	88.8	108.5	1003.9	216.1	16.6	3.1	0	0
05-09-2025	16:00:00	30.1	29.6	29.4	92.2	90.3	88.8	68.1	1002.3	211.3	16.6	4.3	0	0
05-09-2025	17:00:00	30.1	29.1	24.7	92.7	90.1	88.9	62.4	1001.4	212.1	19.2	5.6	0	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Dahej station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
05-09-2025	18:00:00	29.8	29.4	29.1	95.1	93	91.8	17.8	1001.7	207.9	15.9	4.2	0	0
05-09-2025	19:00:00	29.5	29.1	28.8	96.8	95.1	94	2.1	1002.5	204.1	13.3	2.6	0	0
05-09-2025	20:00:00	29.4	29	28.5	99.7	96.6	95.8	1.8	1003.4	205	13.9	3.3	0	0
05-09-2025	21:00:00	29.2	28.8	28.3	100	96.8	95.1	1.9	1003.9	214.3	22.6	7.9	0	0
05-09-2025	22:00:00	29.1	28.8	28.5	96	94.4	93.3	1.7	1004.5	219.3	30.5	10.2	1.3	0
05-09-2025	23:00:00	28.9	28.1	27.4	99.5	95.6	93.7	1.9	1005.1	221.7	25.9	10.8	3.3	0
06-09-2025	00:00:00	28.1	25.7	24.5	107.8	103.1	93.9	1.9	1005	242	19.9	1	0	17.5
06-09-2025	01:00:00	26.3	25.5	24.7	107.1	105.6	105	2	1004.2	215.7	13.3	0.4	0	2.5
06-09-2025	02:00:00	27.1	26.5	25.6	106.8	105.7	105.2	2.1	1004.2	214.8	0.6	0	0	2
06-09-2025	03:00:00	27.2	26.8	26.3	107.1	105.8	105.2	2.2	1003.9	208	7.9	0.1	0	1
06-09-2025	04:00:00	27.3	26.9	26.3	107.8	106.7	105.5	2.3	1002.5	0	0	0	0	0
06-09-2025	05:00:00	27.5	27.1	26.3	108	106.9	105.7	2.3	1003.2	0	0	0	0	0
06-09-2025	06:00:00	27.7	27.2	26.3	107.9	106.1	99.3	2.2	1003.7	0	0	0	0	0
06-09-2025	07:00:00	27.8	27.2	26.5	101.8	100.2	99.1	2.1	1004	221.5	5.9	0	0	0
06-09-2025	08:00:00	28.1	27.4	26.7	102.1	99.7	96.5	15.5	1004.8	205.8	4.6	0.1	0	0
06-09-2025	09:00:00	29.2	28.3	27.4	99.2	95	92.9	61.5	1005.7	205.8	11.3	0.6	0	0
06-09-2025	10:00:00	30.2	29.5	28.8	93.6	89.4	86.4	156.7	1005.9	206.7	10.6	0.6	0	0
06-09-2025	11:00:00	30.6	30.1	29.6	89.2	86.8	84.2	184.9	1005.8	198.2	12.6	0.2	0	0
06-09-2025	12:00:00	31	30.3	29.6	88.4	85.3	81.8	187.7	1006.3	202.5	6.6	0	0	0
06-09-2025	13:00:00	30.9	29.5	27.5	100.7	88.9	83.2	85.4	1005.5	208.2	5.3	0	0	0.5
06-09-2025	14:00:00	29	27.7	26.4	108	105.3	99.3	41.6	1004.5	221.5	9.9	0.1	0	8.5
06-09-2025	15:00:00	29.9	29.4	28.1	107.3	95.9	93	111.1	1004.5	224.7	5.9	0.1	0	0
06-09-2025	16:00:00	29.5	28.4	28	95.5	93.4	90.7	39.5	1003.2	217	10.6	0.5	0	0
06-09-2025	17:00:00	29.1	28.7	28.4	91.4	90.1	89.4	51.5	1002.6	0	0	0	0	0
06-09-2025	18:00:00	28.8	28.3	28.1	93.2	90.9	89.5	4.4	1002.5	0	0	0	0	0
06-09-2025	19:00:00	28.5	28	27.7	93.5	91.9	91	1.4	1003.5	0	0	0	0	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Dahej station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
06-09-2025	20:00:00	28.2	27.9	27.6	94.7	93.2	91.2	1.6	1004	0	0	0	0	0
06-09-2025	21:00:00	28	27.7	27.5	95.3	93.6	91.4	1.6	1004.4	0	0	0	0	0
06-09-2025	22:00:00	27.9	27.6	27.2	99	96	94.4	1.7	1004.7	0	0	0	0	0
06-09-2025	23:00:00	28	27.6	27.2	99.3	96.3	95.1	1.7	1005.1	0	0	0	0	0
07-09-2025	00:00:00	28.1	27.6	27.4	96.1	95.4	95	1.6	1005.1	0	0	0	0	0
07-09-2025	01:00:00	28.1	27.7	26.9	101.1	97.6	94.9	1.8	1004.7	0	0	0	0	0
07-09-2025	02:00:00	28.1	27.6	26.9	103.5	99.9	97.5	2	1004.4	0	0	0	0	0
07-09-2025	03:00:00	28.1	27.6	26.8	104.2	99.7	96.5	1.9	1003.8	0	0	0	0	0
07-09-2025	04:00:00	27.9	27.4	26.8	101.5	100.1	98.8	1.9	1003.4	0	0	0	0	0
07-09-2025	05:00:00	27.9	27.3	26.6	100.7	99.2	96.3	1.9	1003.2	0	0	0	0	0
07-09-2025	06:00:00	27.6	27	26.2	107.6	100.5	96.4	2	1003.2	0	0	0	0	0
07-09-2025	07:00:00	27.7	27.1	26.2	107.8	103.3	96.1	2	1003.5	0	0	0	0	0
07-09-2025	08:00:00	27.7	27.4	27.1	97.2	95.9	94.7	10.5	1004.3	0	0	0	0	0
07-09-2025	09:00:00	28.3	27.7	27.2	99.4	96.3	94.6	38.3	1005.3	0	0	0	0	0
07-09-2025	10:00:00	28.5	28.1	27.9	95.3	93.3	92.6	52	1005.6	0	0	0	0	0
07-09-2025	11:00:00	28.4	27.7	27.1	99.8	95.9	93	61.7	1005.9	0	0	0	0	0
07-09-2025	12:00:00	28.7	28.2	27.6	99	94.9	93	92.8	1005.9	0	0	0	0	0
07-09-2025	13:00:00	28.9	28.3	28.1	94.7	93	91.2	133.1	1005.2	0	0	0	0	0
07-09-2025	14:00:00	28.9	28.2	27.4	99.9	94.2	90.4	125.1	1004.8	0	0	0	0	0.5
07-09-2025	15:00:00	28.1	27.5	26.9	103.1	100.3	97	58.7	1004.3	0	0	0	0	0.5
07-09-2025	16:00:00	27.8	27.3	26.6	102.3	100.1	99	57.9	1003.2	205.2	6.6	0	0	1
07-09-2025	17:00:00	28.3	27.8	26.9	106.3	98.5	94.7	47.9	1002.9	168.3	13.3	0.1	0	0
07-09-2025	18:00:00	28.4	28	27.7	95.5	92	88.4	30.8	1002.5	0	0	0	0	0
07-09-2025	19:00:00	28.6	28.2	28	93	89.6	88	4.3	1002.9	0	0	0	0	0
07-09-2025	20:00:00	28.6	28.2	28.1	93.8	92.6	92.1	1.4	1003.6	0	0	0	0	0
07-09-2025	21:00:00	28.6	28.2	28.1	94.2	92	89.6	1.5	1004.5	213.6	6.6	0	0	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Dahej station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
07-09-2025	22:00:00	28.6	28.2	28	91	89.5	88.6	1.3	1005.4	0	0	0	0	0
07-09-2025	23:00:00	28.5	28.1	28	91	89.9	88.9	1.3	1005.7	0	0	0	0	0
08-09-2025	00:00:00	28.4	28	27.8	93.4	91.6	89.8	1.4	1005.8	0	0	0	0	0
08-09-2025	01:00:00	28.2	27.9	27.6	94.2	92.7	91.7	1.5	1005.4	213.4	3.3	0	0	0
08-09-2025	02:00:00	28.3	28	27.8	93.5	91.6	90.3	1.4	1004.9	0	0	0	0	0
08-09-2025	03:00:00	28.4	28.1	27.7	93	89.7	88	1.3	1004.4	207.7	12.6	0	0	0
08-09-2025	04:00:00	28.2	27.8	27.6	93.8	91.9	90.9	1.4	1003.4	227.5	1.9	0	0	0
08-09-2025	05:00:00	28.2	27.9	27.7	92.6	91.5	90.6	1.4	1003.2	209.4	7.3	0	0	0
08-09-2025	06:00:00	28.4	28	27.8	92.4	90.8	89.3	1.3	1003.4	190.2	5.9	0	0	0
08-09-2025	07:00:00	28.5	28	27.7	91.8	89.8	87.9	7	1003.7	207.1	11.9	0.1	0	0
08-09-2025	08:00:00	29	28.5	28.1	90.5	87.9	85.1	60.2	1004.7	0	0	0	0	0
08-09-2025	09:00:00	30.1	29.1	28.6	87.6	83.6	79.9	120.3	1005.8	0	0	0	0	0
08-09-2025	10:00:00	30.6	30	29.4	82.8	80.5	77.4	208.4	1006.7	0	0	0	0	0
08-09-2025	11:00:00	31	30.5	29.9	81.3	78.6	75.5	205.1	1007	0	0	0	0	0
08-09-2025	12:00:00	31.4	30.9	30.4	78.5	74.8	71	287.2	1007.2	190.1	0.6	0	0	0
08-09-2025	13:00:00	32.1	31.7	31.2	73.4	69.3	66.6	387.5	1007.3	0	0	0	0	0
08-09-2025	14:00:00	32.6	32.2	31.7	71.1	66.9	64.3	373.1	1006.9	159.6	17.2	0	0	0
08-09-2025	15:00:00	32.4	31.9	31.7	70.1	68.4	66.5	310.6	1006.2	196.1	16.6	0.1	0	0
08-09-2025	16:00:00	32	31.7	31.4	71.7	69.7	68.2	248.8	1005.6	222.2	13.9	0.1	0	0
08-09-2025	17:00:00	31.9	31.3	30.8	74.7	71.8	68.9	169.7	1005.2	197.2	11.3	0	0	0
08-09-2025	18:00:00	31	30.2	29.4	79.5	76.4	73.3	76.5	1004.8	262.1	9.9	0	0	0
08-09-2025	19:00:00	29.6	29	28.6	84.4	81.8	77.8	8.3	1004.6	206.4	14.6	0.2	0	0
08-09-2025	20:00:00	28.8	28.6	28.4	86.8	85.1	83.7	0.4	1005	193.1	16.6	0.6	0	0
08-09-2025	21:00:00	28.8	28.5	28.3	87.7	85.3	84	0.5	1005.7	208.5	17.2	1	0	0
08-09-2025	22:00:00	28.7	28.3	28.2	89.1	86.9	85.2	0.8	1007.1	202.8	11.9	1.2	0	0
08-09-2025	23:00:00	28.7	28.2	28	90.3	88.4	87	1	1007.5	199.9	15.2	0.9	0	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Dahej station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
09-09-2025	00:00:00	28.4	28	27.8	91.5	89.6	87.6	1.3	1007.5	194.3	9.3	0.7	0	0
09-09-2025	01:00:00	28.4	28	27.7	91.9	89.7	87.8	1.3	1007.4	201.9	12.6	1.6	0	0
09-09-2025	02:00:00	28.1	27.8	27.6	91	89.5	88.4	1.3	1007.3	198.2	11.9	1.3	0	0
09-09-2025	03:00:00	28.1	27.7	27.5	91.4	89.6	88	1.3	1006.7	206.8	12.6	1.3	0	0
09-09-2025	04:00:00	28.3	27.8	27.5	90.7	88.8	87.7	1.3	1006.4	204.5	11.9	1.2	0	0
09-09-2025	05:00:00	28.1	27.7	27.6	91.5	89.7	88.2	1.3	1006.5	179.3	16.6	0.7	0	0
09-09-2025	06:00:00	28.3	27.9	27.7	91.7	89.1	86.9	1.2	1006.6	194.3	13.3	0.8	0	0
09-09-2025	07:00:00	28.3	27.9	27.6	90.4	88.1	86.6	1.6	1007	202.1	25.2	1.1	0	0
09-09-2025	08:00:00	28.2	27.7	27.4	96	93.3	88.6	32.5	1007.8	75.6	15.2	0.8	0	0
09-09-2025	09:00:00	28.8	27.7	27.1	98.9	94.9	91.2	63.6	1009.1	82.9	9.9	0.1	0	0
09-09-2025	10:00:00	29.4	28.9	28.3	92.6	89.3	86.9	124	1009.7	87.6	9.9	0	0	0
09-09-2025	11:00:00	29.8	28.7	27.8	96	92.5	88	126	1009.6	64.4	11.3	0.2	0	0
09-09-2025	12:00:00	31.9	30.6	29	91.4	82.6	74.7	210.6	1010.2	171.4	13.3	0.4	0	0
09-09-2025	13:00:00	32.5	31.6	30.4	78.6	71.8	65.4	329.5	1010	190.7	18.6	1	0	0
09-09-2025	14:00:00	33	32.4	31.5	70	65.5	63	317.2	1009.6	196.4	14.6	1	0	0
09-09-2025	15:00:00	33.2	32.6	31.4	70.9	65.5	62.5	296.4	1009.3	172.4	12.6	0.8	0	0
09-09-2025	16:00:00	33.4	33	32.4	64.7	62.1	60.2	275.3	1008.9	158.5	12.6	0.7	0	0
09-09-2025	17:00:00	33.1	32.4	31.9	67.9	64.5	61.4	183.6	1008.6	175.5	11.3	0.5	0	0
09-09-2025	18:00:00	32	31	30.3	74.4	68.6	62.5	82.7	1008.2	190.3	12.6	0.6	0	0
09-09-2025	19:00:00	30.5	29.4	28.7	82.7	78.9	72.9	10.6	1007.9	142.6	11.9	1.1	0	0
09-09-2025	20:00:00	29	28.7	28.5	86.6	84.9	82.1	0.4	1008	187.4	11.3	0.9	0	0
09-09-2025	21:00:00	28.7	28.5	28.3	88.2	86.9	85.8	0.5	1008.4	166.9	9.9	0.7	0	0
09-09-2025	22:00:00	28.7	28.3	28	88.7	87.3	86.4	0.8	1009.2	198.8	10.6	0.9	0	0
09-09-2025	23:00:00	28.4	28	27.8	89.4	87.9	86.9	1	1009.3	200.4	9.3	0.4	0	0
10-09-2025	00:00:00	28.2	27.8	27.5	92.1	90	88.8	1.1	1009.3	200.6	9.3	0.7	0	0
10-09-2025	01:00:00	27.9	27.4	27.2	93	91.5	90.3	1.2	1008.8	199.7	8.6	0.7	0	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Dahej station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
10-09-2025	02:00:00	27.6	27.3	27.1	92.8	90.8	89.6	1.3	1008.5	198	9.3	1.1	0	0
10-09-2025	03:00:00	27.6	27.2	26.9	92.4	90.7	89.6	1.5	1008.3	200.6	8.6	0.3	0	0
10-09-2025	04:00:00	27.4	27	26.8	92.7	91.6	89.8	1.5	1008	205.4	9.3	0.2	0	0
10-09-2025	05:00:00	27.3	26.9	26.7	95.3	93.4	91.8	1.5	1008.4	202.3	8.6	0.5	0	0
10-09-2025	06:00:00	27.2	26.8	26.5	99	95.9	94.6	1.6	1009	197.6	6.6	0.4	0	0
10-09-2025	07:00:00	27.6	27.1	26.6	97	95.1	93.8	3.8	1009.6	198.8	7.9	0.7	0	0
10-09-2025	08:00:00	29.2	27.9	27.2	94.6	89.1	80.6	48.9	1010.6	201.5	8.6	0.5	0	0
10-09-2025	09:00:00	30.5	29.3	28.4	88.6	81.4	75.3	94.2	1011.6	214.5	9.3	1.1	0	0
10-09-2025	10:00:00	29.2	28.8	28.3	89.1	86.9	83.6	91.8	1011.6	221.9	10.6	0.9	0	0
10-09-2025	11:00:00	31.4	30.4	29	84.2	77.3	71.9	155.1	1012.6	201.6	11.3	0.8	0	0
10-09-2025	12:00:00	32.4	31.8	31.3	73.5	70	65.3	373.7	1012.7	206	10.6	0.7	0	0
10-09-2025	13:00:00	33.5	32.9	32.3	68.3	62.4	57.6	392.2	1011.8	163.4	9.9	0.6	0	0
10-09-2025	14:00:00	33.7	33	32.3	65.2	60.4	54.6	380.3	1010.8	189.5	13.9	0.7	0	0
10-09-2025	15:00:00	33.8	33.5	33	60.5	57.2	54.3	340	1010.3	164.2	14.6	0.6	0	0
10-09-2025	16:00:00	34	33.3	32.1	63.4	58	53.9	254.7	1009.7	174.9	13.9	0.4	0	0
10-09-2025	17:00:00	32.8	31.6	30.8	68.5	64.6	58.8	137.8	1008.7	203.3	12.6	0.9	0	0
10-09-2025	18:00:00	31.2	30.6	29.9	72.5	69.4	66	78.3	1008.1	203.3	15.2	0.8	0	0
10-09-2025	19:00:00	30	29.1	28.6	80.6	78	72.3	7.3	1007.2	205.6	11.9	0.5	0	0
10-09-2025	20:00:00	28.8	28.6	28.5	84.6	82.8	79.9	0.5	1007.5	206.8	12.6	0.6	0	0
10-09-2025	21:00:00	28.7	28.6	28.4	84	81	77.9	0.5	1008	202	11.3	0.2	0	0
10-09-2025	22:00:00	28.8	28.5	28.3	86.2	83.7	82	0.6	1008.7	207.7	8.6	0.5	0	0
10-09-2025	23:00:00	28.7	28.4	28.2	89.3	87	85.4	0.9	1008.9	210.2	8.6	0.1	0	0
11-09-2025	00:00:00	28.6	28.2	28	89.4	87.9	86.4	1	1009	201.6	1.9	0	0	0
11-09-2025	01:00:00	28.4	27.9	27.6	91.2	89.3	87.1	1.1	1008.6	0	0	0	0	0
11-09-2025	02:00:00	27.9	27.5	27.2	92.6	91.3	90.5	1.3	1008.2	0	0	0	0	0
11-09-2025	03:00:00	27.6	27.1	26.7	95.7	93.8	91.7	1.5	1007.7	0	0	0	0	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Dahej station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
11-09-2025	04:00:00	27.2	26.7	26.4	96	95.2	94.8	1.5	1007.5	205.3	6.6	0	0	0
11-09-2025	05:00:00	26.9	26.5	26.2	95.9	94.7	93	1.7	1007.6	228.6	11.3	2.4	0	0
11-09-2025	06:00:00	27.1	26.6	26.3	94.4	93.2	92.5	1.6	1007.8	222.3	14.6	5.6	0	0
11-09-2025	07:00:00	26.7	26.2	25.9	95.8	94.7	93.7	3.3	1008.2	204.5	6.6	0.6	0	0
11-09-2025	08:00:00	27.8	26.9	26.3	94.9	91.6	88	39.2	1009.1	205.8	8.6	0.4	0	0
11-09-2025	09:00:00	29	28.5	27.6	88.6	82.1	77.1	148.9	1010.3	203.5	1.9	0	0	0
11-09-2025	10:00:00	31.2	30	28.9	78.7	75.1	69.9	244.9	1011.4	221.7	9.9	0.5	0	0
11-09-2025	11:00:00	32.6	31.4	30.8	71.3	67.5	63.2	203.9	1011.7	196.1	9.9	0.7	0	0
11-09-2025	12:00:00	33.5	32.6	32.1	66.2	63.2	59.8	368.4	1011.5	117.9	12.6	0.6	0	0
11-09-2025	13:00:00	33.9	33.5	33	62.3	58.8	55.6	392.3	1011.4	117.4	10.6	0.9	0	0
11-09-2025	14:00:00	34.4	34	33.7	57.6	55.2	53	379.3	1010.6	104.9	13.3	1	0	0
11-09-2025	15:00:00	34.3	34.1	33.8	57.4	55.3	52.9	333.2	1009.9	115.1	12.6	0.8	0	0
11-09-2025	16:00:00	34.2	33.7	33	62.3	58	55.3	268.6	1009.2	194.5	12.6	0.6	0	0
11-09-2025	17:00:00	33.7	32.4	31.5	68	64.6	59.8	180.1	1008.5	212.8	13.3	1	0	0
11-09-2025	18:00:00	31.7	30.7	29.9	76.3	72.2	67.4	66.9	1007.8	217.3	11.9	0.4	0	0
11-09-2025	19:00:00	30.1	29.3	28.9	81.6	79.2	75.9	7	1007.5	219.7	7.3	0	0	0
11-09-2025	20:00:00	29	28.9	28.7	82.5	80.1	77.3	0.5	1007.8	0	0	0	0	0
11-09-2025	21:00:00	29.1	28.8	28.6	88.4	84.2	80.9	0.7	1008.3	214.3	18.6	3.9	0	0
11-09-2025	22:00:00	29.1	28.7	28.6	89.8	88.2	87.3	1.1	1009	212.1	22.6	8.2	1.9	0
11-09-2025	23:00:00	29	28.6	28.3	91.7	89.7	88.2	1.2	1009.2	214.2	22.6	7.8	1.3	0
12-09-2025	00:00:00	28.7	28.3	28.1	92.1	90.5	87.8	1.4	1009.1	216.1	19.9	8.2	0	0
12-09-2025	01:00:00	28.5	28	27.7	90.8	89	86.6	1.2	1008.6	221.2	23.9	9.6	1.3	0
12-09-2025	02:00:00	28.2	27.7	27.4	87.3	85.1	83.9	0.9	1007.9	232.9	23.9	9.9	1.9	0
12-09-2025	03:00:00	27.7	27.2	26.9	89.8	88.1	86.2	1.1	1007.4	233.8	21.9	8.7	1.9	0
12-09-2025	04:00:00	27.5	26.9	26.6	92.4	90.9	89.2	1.2	1007.5	232.8	17.2	7.1	0.6	0
12-09-2025	05:00:00	27	26.6	26.4	93.3	92.2	91.6	1.4	1007.6	235.8	17.2	7.2	0.6	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Dahej station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
12-09-2025	06:00:00	27	26.6	26.3	94.6	93.1	91.9	1.5	1007.9	235.7	12.6	5	0	0
12-09-2025	07:00:00	26.7	26.4	26.2	95.4	94.5	93.9	2.2	1008.5	224.2	12.6	1.8	0	0
12-09-2025	08:00:00	28.5	27	26.3	95.5	93.4	88.4	37.1	1009.6	236.7	5.9	0.1	0	0
12-09-2025	09:00:00	29.9	29	28.1	89.1	83.5	79.1	139.1	1011.3	248.6	13.9	2.5	0	0
12-09-2025	10:00:00	30.7	30	29.6	80.2	76.4	73.3	230.3	1011.9	244.6	17.9	5.1	0	0
12-09-2025	11:00:00	31.3	30.6	30.1	76.9	72.6	69.2	185.8	1011.9	239.3	15.9	3.9	0	0
12-09-2025	12:00:00	32.4	31.5	30.4	75.5	68.8	62	311.2	1012	236	19.9	5.2	0	0
12-09-2025	13:00:00	33.4	32.7	31.6	65.6	58.9	54.1	379	1011.8	236.7	20.6	4.7	0	0
12-09-2025	14:00:00	35.8	34.1	32.5	60.4	52	45.3	373.3	1011.3	233.2	14.6	2.3	0	0
12-09-2025	15:00:00	35.5	34.7	33.8	51.4	47.5	44.6	333.3	1010.4	232.9	14.6	3.5	0	0
12-09-2025	16:00:00	35.5	34.5	33.3	51.6	47.3	43.5	243.2	1009.4	243	16.6	4	0	0
12-09-2025	17:00:00	34.6	34	33.4	51.2	48.1	45.3	170.9	1008.5	243.9	15.2	2.5	0	0
12-09-2025	18:00:00	34	32.5	31.4	60.6	54.8	48.4	75.6	1007.9	240	11.9	2.6	0	0
12-09-2025	19:00:00	32.1	30.6	29.3	75.2	66.3	56	10.5	1007.6	219.9	9.9	1.9	0	0
12-09-2025	20:00:00	29.4	29	28.8	80	76.9	74.9	0.6	1007.5	204.6	10.6	2.6	0	0
12-09-2025	21:00:00	29.1	28.9	28.7	82.1	81.1	79.9	0.6	1008.1	202.8	11.3	2.6	0	0
12-09-2025	22:00:00	29.2	28.9	28.7	86.4	83.5	81.3	0.6	1008.5	201.9	10.6	3.6	0	0
12-09-2025	23:00:00	29.2	28.8	28.6	90.2	87.4	85.6	1	1008.9	201.8	11.3	3.6	0	0

Hazira Meteorological Data

Hazira station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
13-08-2025	00:00:00	31.4	31.5	31.4	87.6	85.9	83.8	0	1005.7	217.5	46.6	22.6	7.3	0
13-08-2025	01:00:00	31.6	31.4	31.2	87.4	86	84.6	0	1004.8	218.9	45.3	22.2	9.3	0
13-08-2025	02:00:00	31.6	31.4	31.4	88.2	87.2	86	0	1004.6	216.6	47.3	23.4	10.6	0
13-08-2025	03:00:00	31.6	31.4	31.2	92.7	87.3	83.7	0	1004.5	214.9	44.6	21.3	8.6	0
13-08-2025	04:00:00	31.6	31.3	31.2	94.2	93.1	91.3	0	1004.5	221	38	16.9	6.6	0
13-08-2025	05:00:00	31.6	31.1	30.5	93.7	90.6	86.1	0	1004.5	226.2	30	14.3	5.3	0
13-08-2025	06:00:00	31.5	31.2	30.8	94.9	91.1	86.2	0	1005.5	233.3	28.6	10.1	2	0.5
13-08-2025	07:00:00	31.6	31.2	30.7	99.4	97.4	93.6	0.1	1005.9	225.9	24.6	10.9	1.3	0
13-08-2025	08:00:00	33.3	32.4	31.2	98.9	96.8	93.6	15.8	1007.2	219.2	29.3	14.8	4	0
13-08-2025	09:00:00	34.5	33.7	32.5	93.8	87.5	80.8	54.5	1009	237.1	36	14.2	5.3	0
13-08-2025	10:00:00	35.2	34.4	33.7	81.9	76.5	72.8	83.7	1010.2	264.6	35.3	10.8	3.3	0
13-08-2025	11:00:00	36	35.5	34.8	76	73.5	69.6	135.3	1009.7	230.5	40	15.7	6	0
13-08-2025	12:00:00	36.2	35.5	34.6	84.6	82.4	75.7	146.2	1009	227.2	39.3	17.8	7.3	0
13-08-2025	13:00:00	36.2	35.8	35.4	88.4	82.9	76.3	169.3	1008.1	220.5	43.3	22.2	6	0
13-08-2025	14:00:00	36.6	36.1	35.6	76.5	69.6	62.6	163.2	1007.4	221	44.6	22.2	7.3	0
13-08-2025	15:00:00	36.5	36.1	35.4	69.3	66.6	63.3	146.3	1006.3	218.9	47.3	24.9	8.6	0
13-08-2025	16:00:00	36.4	35.9	35.4	69.4	66.5	63.8	109.3	1005.7	217.4	50	26.4	8.6	0
13-08-2025	17:00:00	36.3	35.3	34.4	67.1	64.1	61.6	65.7	1004.8	218.5	50.6	27.9	12	0
13-08-2025	18:00:00	35.3	34.3	33.5	72.4	67.8	64.2	24.5	1004.1	217.6	49.3	27.7	11.3	0
13-08-2025	19:00:00	33.9	33.1	32.5	78.9	75.5	71.7	2.2	1003.4	213.9	52.6	27.2	8.6	0
13-08-2025	20:00:00	32.8	32.4	32	82.1	79.8	78	0	1003.8	216	46.6	26	10.6	0
13-08-2025	21:00:00	32.6	32.2	31.9	82.6	81.7	80.3	0	1003.8	216.7	50.6	24.4	9.3	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Hazira station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
13-08-2025	22:00:00	32.4	32	31.7	84.8	82	80.7	0	1004.4	211.2	46	25.3	6.6	0
13-08-2025	23:00:00	32.2	31.9	31.6	87.2	86.2	84.6	0	1005	214.4	52.6	24.9	10.6	0
14-08-2025	00:00:00	29	28.7	28.1	100.2	99.3	98.4	0	1002.6	231.6	28	5.3	0	0.5
14-08-2025	01:00:00	29.5	28.7	27.8	108.8	101.6	98.8	0	1002.2	236.3	26.6	4.6	0	3
14-08-2025	02:00:00	29.5	28.9	28.1	108.8	105.8	100.2	0	1001.7	226.7	20.6	4.7	1.3	1
14-08-2025	03:00:00	29.6	29.1	28.5	102	99.6	98.5	0	1001.8	231	21.3	7	2	0
14-08-2025	04:00:00	29.8	29.4	29	99.1	98	97.2	0	1001.5	219.4	14.6	6.9	3.3	0
14-08-2025	05:00:00	29.7	29.4	29	98.3	97.6	96.9	0	1001.8	213.1	20	8.5	2.6	0
14-08-2025	06:00:00	29.9	29.5	29.2	98	97.2	96.7	0	1001.9	222.6	12	2.3	0	0
14-08-2025	07:00:00	30	29.4	28.8	99.4	98.1	96.9	0	1002.4	110.8	34.6	11.4	1.3	0
14-08-2025	08:00:00	29.6	29.2	28.6	101.1	99.4	98.7	9.2	1002.8	154.9	34.6	21.9	9.3	0
14-08-2025	09:00:00	30.2	29.7	29.2	99.6	97.6	96	66.9	1003.7	164.1	32	20.2	9.3	0
14-08-2025	10:00:00	31.2	30.6	29.9	97	94.9	92.4	134.2	1004.6	170	32.6	19.9	9.3	0
14-08-2025	11:00:00	32.2	31.3	30.8	93.1	91.1	88	245.6	1005.1	164.6	34.6	21	10	0
14-08-2025	12:00:00	32.9	31.8	31.2	90.7	88.3	84.4	279.2	1004.9	164.6	36	23.2	11.3	0
14-08-2025	13:00:00	33.3	32.6	32	87.2	84.9	82.1	308	1004.6	171	41.3	22.6	10	0
14-08-2025	14:00:00	33.5	33	32.5	84.3	82	80.3	279.5	1004.2	184.3	43.3	24.6	8.6	0
14-08-2025	15:00:00	33.4	32.9	32.5	84.1	82	80.1	278.8	1003.2	195.4	42	25.5	11.3	0
14-08-2025	16:00:00	34	33.4	32.7	81.9	79.8	77.4	276.8	1002.9	204.6	40.6	22.4	8.6	0
14-08-2025	17:00:00	34.1	33.3	32.7	82.8	80.8	78.1	182.9	1002.2	207.2	39.3	20.8	8.6	0
14-08-2025	18:00:00	33.5	32.7	32.1	84.1	82	80	113.8	1002.1	209.8	36	20.7	6.6	0
14-08-2025	19:00:00	32.5	31.7	31	87.8	85.6	83.3	25.4	1002.4	209.8	31.3	17.5	6	0
14-08-2025	20:00:00	31.4	30.9	30.4	90.4	89	87	0	1002.2	210.4	32.6	15	7.3	0
14-08-2025	21:00:00	31	30.6	30.3	91.8	90.8	90	0	1002.6	200.5	28.6	14.5	5.3	0
14-08-2025	22:00:00	30.8	30.5	30.3	93.5	92.2	91.1	0	1002.9	192.2	27.3	14	5.3	0
14-08-2025	23:00:00	30.9	30.5	30.2	93.5	92.6	92.1	0	1003.3	194.9	26	12.7	4	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Hazira station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
15-08-2025	00:00:00	30.9	30.6	30.3	93.6	92.8	91.3	0	1003.2	195.8	20	11	4.6	0
15-08-2025	01:00:00	30.8	30.4	30	93.9	93.4	92.8	0	1002.9	200	18	9.6	4.6	0
15-08-2025	02:00:00	30.6	30.2	29.8	95.4	94.3	93.4	0	1002.1	213.7	24	10	4	0
15-08-2025	03:00:00	30.4	30.1	29.8	94.8	93.5	92.4	0	1001.4	229.1	16	7.2	2.6	0
15-08-2025	04:00:00	30.6	30.3	30	93	92.2	91.3	0	1001.3	237.9	17.3	6.3	0.6	0
15-08-2025	05:00:00	30.8	30.4	30.2	92.3	91.6	91	0	1001.5	243.5	17.3	7.4	2.6	0
15-08-2025	06:00:00	30.8	30.5	30.2	93.2	92.4	91.5	0	1001.6	237	16.6	6.4	2	0
15-08-2025	07:00:00	30.7	30.4	30.1	93.8	93.2	92.6	0.6	1002	228.1	18.6	7.8	2.6	0
15-08-2025	08:00:00	31.9	31.1	30.4	93.3	91.2	88.7	36.8	1003	223.6	22	9.6	2	0
15-08-2025	09:00:00	33.5	32.1	31.2	89.8	87.3	82.2	117.1	1004.1	225.3	24.6	11.3	4	0
15-08-2025	10:00:00	33.6	32.6	32	86	84.1	81.8	87.2	1004.6	223.7	24.6	10.3	4	0
15-08-2025	11:00:00	32.7	32.2	31.6	88.2	85.3	83.4	88.2	1004.5	212.8	24	11.9	4.6	0
15-08-2025	12:00:00	32	30.9	29.3	93.4	89	86.6	41.6	1003.9	274.9	24.6	9	4	2.5
15-08-2025	13:00:00	29.6	28.9	28.4	98.2	96.4	92.9	20.7	1002	292	27.3	6.2	0	5
15-08-2025	14:00:00	29.4	28.7	28.1	100.1	98.7	96.6	66.4	1001.8	15.3	18.6	9.6	2.6	1
15-08-2025	15:00:00	30.3	29.1	28.3	100.2	98.7	97.2	114.2	1007	11.6	14.6	4.7	0	0.5
15-08-2025	16:00:00	32.9	31.6	30	97.8	94.2	89.2	203.7	1008.2	210.5	18.6	5.7	0	0
15-08-2025	17:00:00	32.5	31.8	31	93.4	91.4	89.4	138.9	1000.7	184.9	36	12.9	4.6	0
15-08-2025	18:00:00	32.5	31.7	31	90.9	89.5	88	79	1000.3	214.8	36.6	18.4	7.3	0
15-08-2025	19:00:00	31.2	30.9	30.2	92.6	91.7	90.6	1.1	1001	232.4	26	11.5	1.3	0
15-08-2025	20:00:00	31	30.8	30.4	94	93.2	92.1	0	1001.1	222.6	28.6	14	6	0
15-08-2025	21:00:00	31	30.7	30.4	94	93.5	93.1	0	1002.1	226.6	25.3	11.3	4.6	0
15-08-2025	22:00:00	31	30.6	30.3	93.7	92.8	92.3	0	1002.5	217	24.6	12.8	6	0
15-08-2025	23:00:00	31	30.7	30.4	94.1	93.1	92.4	0	1002.4	205.5	32	16.4	7.3	0
16-08-2025	00:00:00	31	30.6	30.3	94.2	93.5	92.3	0	1001.9	219.8	31.3	14.7	5.3	0
16-08-2025	01:00:00	31	30.7	30.3	93.4	92.8	92.3	0	1001.8	231.2	28	9.4	3.3	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Hazira station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
16-08-2025	02:00:00	30.8	30.6	30.3	94.9	94	93	0	1001.2	235.5	12	5.3	2	0
16-08-2025	03:00:00	30.6	30.3	29.8	96.1	95.2	94.2	0	1000	270.5	14	3.3	1.3	0
16-08-2025	04:00:00	30.1	28.7	27.5	103.4	98.4	95.1	0	997.8	0.3	18.6	7.9	0.6	13
16-08-2025	05:00:00	28.9	28.1	27.3	108.8	107.3	101.8	0	997.9	201.7	15.3	5	0	0.5
16-08-2025	06:00:00	29.2	28.8	28.1	108.3	107.2	106.3	0	999.9	197.7	19.3	8.7	1.3	0
16-08-2025	07:00:00	29.2	28.8	28.3	108.3	107.4	106.3	0	999.7	224.2	14.6	4.7	0	0.5
16-08-2025	08:00:00	28.9	28.4	27.7	108.4	107.6	106.3	7.9	999.6	257.2	14.6	6.4	1.3	0.5
16-08-2025	09:00:00	29.9	29.1	28.3	108.8	107.6	103.6	51	1003.7	233.2	14.6	6.3	2.6	0
16-08-2025	10:00:00	30.8	29.9	29	108.1	99.8	96.5	85.9	1008.2	248	15.3	7.2	2.6	0
16-08-2025	11:00:00	31.4	30.8	30.4	97.1	95.1	93.4	66.7	1006.2	263.7	18	7.8	2	0
16-08-2025	12:00:00	30.8	30.5	30.2	95	93.4	92.2	32.2	1001.7	286.8	13.3	3.9	0	0
16-08-2025	13:00:00	30.8	30.4	29.8	95.8	93.8	92.2	12.6	1001.2	244.1	12	4.1	0	1
16-08-2025	14:00:00	30.2	29.7	28.8	100.2	97.5	95.4	24	999.9	186.7	33.3	8.9	0	4
16-08-2025	15:00:00	30	29.3	28.7	108.2	100.3	98.9	123.8	1002.2	189.1	28.6	15.2	8	1
16-08-2025	16:00:00	31.2	30.3	29.4	99.9	97.7	95.3	163.4	1006.3	195	32	16.9	7.3	0
16-08-2025	17:00:00	31.6	31	30.5	96.2	94.9	93.5	116.2	998.9	200.8	31.3	17.6	4.6	0
16-08-2025	18:00:00	31.3	30.9	30.6	95.2	93.7	92.8	83.4	998.9	208.8	36	19.5	8	0
16-08-2025	19:00:00	30.9	30.4	30	96.1	94.8	93.1	11.6	999	215.7	36.6	19.5	8	0
16-08-2025	20:00:00	30.6	30.2	29.9	97	96.3	95.6	0	999.5	228.1	38.6	15.1	5.3	0
16-08-2025	21:00:00	30.4	30.1	29.8	97.2	96.8	96.2	0	1000.2	232.5	26.6	11.5	4.6	0
16-08-2025	22:00:00	30.3	29.9	29.4	99.2	97.5	96.5	0	1000.8	243.6	63.3	12.3	4.6	1
16-08-2025	23:00:00	29.9	29.5	29.1	100	99.4	98.7	0	1000.2	261.8	26.6	12.3	4	0.5
17-08-2025	00:00:00	29.9	29.5	28.8	100.4	99.4	98.6	0	1000.3	268.4	23.3	9.9	3.3	0
17-08-2025	01:00:00	29.7	29.3	29	99.2	98	96.6	0	999.4	261.6	22.6	10.1	3.3	0
17-08-2025	02:00:00	29.8	29.5	29.2	97.2	96.5	96.2	0	999	288.9	14.6	4.4	0.6	0
17-08-2025	03:00:00	29.9	29.5	29.2	97.6	97.1	96.6	0	998.3	291.9	14	4.9	0.6	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Hazira station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
17-08-2025	04:00:00	29.6	29.3	29.1	97.9	97.5	97.1	0	998.3	283.4	7.3	3.2	0	0
17-08-2025	05:00:00	29.9	29.3	28.9	99.2	98.2	97.4	0	998.2	120.3	18	3	0	0
17-08-2025	06:00:00	29.8	29.4	28.9	104.3	99.9	98.8	0	998.5	105.6	18	7.5	0.6	0
17-08-2025	07:00:00	29.8	29.4	28.7	108.8	104.7	99.8	0	998.4	92.3	16.6	6.7	0	0
17-08-2025	08:00:00	29.7	29.1	28.4	108.8	107.9	105.3	11.1	998.8	98.9	28	12.2	0.6	0
17-08-2025	09:00:00	29.1	28.7	28.2	108.5	107.7	106.2	15.3	999.4	105.8	27.3	17.6	7.3	0
17-08-2025	10:00:00	29.6	29.1	28.4	108.9	107.9	103.8	108.4	1000.2	112	22.6	14.4	7.3	0
17-08-2025	11:00:00	30.2	29.5	28.9	108.8	106.2	100	111.8	1000.2	143.8	38	22.3	12.6	0
17-08-2025	12:00:00	30.6	30.1	29.4	106.5	99.6	97.4	104.3	1000.4	169.8	40.6	26.1	11.3	0
17-08-2025	13:00:00	31.3	30.6	30.1	98.5	96.7	94.5	113	1000.2	187.1	38.6	21.8	10	0
17-08-2025	14:00:00	32.2	31.7	31	95.8	92.4	90.4	218.5	999.9	180.2	42.6	22.3	11.3	0
17-08-2025	15:00:00	31.9	31.4	31.1	92.2	91.4	90.3	124.8	999.1	198.7	35.3	18.8	6.6	0
17-08-2025	16:00:00	32.2	31.4	30.6	92.7	90.5	88.7	93.3	998.8	200.5	34.6	18.1	6	0
17-08-2025	17:00:00	31	30.4	29.8	96.3	94	92.2	0.9	998.3	207.1	30.6	15.7	5.3	0
17-08-2025	18:00:00	30.2	29.8	29.1	98.5	97.1	95.6	7.6	997.8	214.4	46.6	16.8	7.3	0
17-08-2025	19:00:00	29.8	29.3	28.9	99.4	98.8	97.8	7.2	998	210.8	42	20.2	10	0
17-08-2025	20:00:00	29.8	29.2	28.7	99.3	98.2	97.2	0	998.9	214	39.3	17.4	6.6	0
17-08-2025	21:00:00	29.9	29.3	28.9	99.1	98	96.4	0	1000	213.5	40	17.3	7.3	0
17-08-2025	22:00:00	30	29.4	28.7	99.1	97.5	96.2	0	1000.4	201	36.6	19.6	8	0.5
17-08-2025	23:00:00	30.2	29.8	29.5	97.4	96.6	95.8	0	1000.9	202.2	40	20.3	8	0
18-08-2025	00:00:00	30.4	30.1	29.8	96.5	95.6	95	0	1001.5	209.4	39.3	17.9	6	0
18-08-2025	01:00:00	30.3	29.7	29.3	98.2	97	95.4	0	1000.9	220.3	34	14.9	3.3	0
18-08-2025	02:00:00	30.3	29.9	29.5	98	97	96.2	0	1000.8	212.5	33.3	14.5	6	0
18-08-2025	03:00:00	30.2	29.5	28.5	99.8	97.8	95.4	0	999.8	216.7	46	14.5	4.6	0
18-08-2025	04:00:00	29.7	28.9	27.7	108.8	102	97.4	0	999.7	218.1	40.6	12.6	3.3	1.5
18-08-2025	05:00:00	29.4	28.8	28.1	108.8	107.8	106	0	999.6	214.2	32	10.5	2.6	0.5



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Hazira station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
18-08-2025	06:00:00	29.2	28.8	28	108.8	107.6	105.8	0	999.9	203.9	24.6	10.6	4.6	0
18-08-2025	07:00:00	29.5	29	28.4	108.9	107.7	106	1.5	1000	191.4	21.3	10.5	5.3	0
18-08-2025	08:00:00	30.3	29.7	28.8	108.8	103.7	99.2	26.6	1000.4	185.7	26	14	6	0
18-08-2025	09:00:00	31.6	30.7	29.8	99.8	97.6	95.2	112.7	1002	194.9	34	16.2	4	0
18-08-2025	10:00:00	31.8	31.2	30.6	96.6	95.2	93.6	119.5	1002.7	194.3	28.6	16.3	6	0
18-08-2025	11:00:00	32.1	31.5	30.4	96.2	93.4	91.6	157.1	1003.2	222.8	32	15.4	2	0
18-08-2025	12:00:00	32.2	31.6	31	92.3	90.8	88.7	135.4	1003	230.7	30.6	13.3	5.3	0
18-08-2025	13:00:00	32.9	32.3	31.6	89.5	87	84.5	181	1002.9	222.5	30	13.9	6	0
18-08-2025	14:00:00	33.1	32.7	32.3	88.1	86.8	84.5	185.1	1002.1	204.6	23.3	10.8	3.3	0
18-08-2025	15:00:00	34.2	33.4	32.6	85.3	82.8	79.8	215.3	1001.3	205.5	20.6	9	2.6	0
18-08-2025	16:00:00	33.6	31.7	29.6	96.9	88.1	81.2	73.8	999.8	138	44.6	15.3	5.3	0
18-08-2025	17:00:00	30.1	29.1	28.3	108.8	101.3	96.5	32.4	998.1	157.3	42	23	12	1
18-08-2025	18:00:00	29.6	28.9	28.1	108.8	107.7	101.3	39.2	997.9	152.7	54	30.5	15.3	1
18-08-2025	19:00:00	29.8	29.3	28.3	108.5	107.6	106.1	8.6	999.2	166.4	62	32.4	12	0
18-08-2025	20:00:00	29.4	28.9	28.4	108.5	107.7	106.6	0	998.6	187.9	36.6	17.1	6	0
18-08-2025	21:00:00	29.6	29.1	28.4	108.4	107.6	106.5	0	998.9	176.9	30.6	13.5	4.6	2
18-08-2025	22:00:00	29.6	29.3	28.7	108.4	107.7	106.5	0	999.4	216.2	55.3	25.2	10.6	0
18-08-2025	23:00:00	29.6	29.1	28.4	108.4	107.7	106.6	0	999.7	213.5	54	27.4	11.3	0
19-08-2025	00:00:00	29.8	29.2	28.5	108.8	106	99.4	0	1001.1	204	54	27.5	10.6	0
19-08-2025	01:00:00	29.8	29.2	28.7	102.5	99.3	98.3	0	1000.1	191.9	42.6	24.8	10.6	0
19-08-2025	02:00:00	29.8	29.4	28.8	100.6	99	98	0	999.4	198	56	28.8	12	0
19-08-2025	03:00:00	29.6	29	28.4	99.7	98.8	97.9	0	998.3	199.5	54	26	10.6	0
19-08-2025	04:00:00	29.6	29.3	29	98.4	96.5	95.1	0	998.2	200.2	44.6	22.5	11.3	0
19-08-2025	05:00:00	30	29.6	29.2	97.8	96.7	95.4	0	997.7	210.7	41.3	19.7	8.6	0
19-08-2025	06:00:00	29.9	29.5	29.2	98.5	97.5	96.8	0	997.8	208.8	26.6	11	4	0
19-08-2025	07:00:00	30	29.7	29.4	99.2	98.5	97.8	0.9	998.1	190.8	16.6	8.2	3.3	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Hazira station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
19-08-2025	08:00:00	30.6	30	29.5	99.1	97.7	96.2	22.5	999	177.3	14.6	7.7	3.3	0
19-08-2025	09:00:00	31	30.5	29.8	97.6	96.1	94.9	54.4	999.7	150.3	32	12.1	4	0
19-08-2025	10:00:00	30.3	29.5	28.6	108.9	101.9	97	87.8	999.4	111.4	42	24.3	8	0
19-08-2025	11:00:00	30.1	29.7	28.3	108.9	102.1	99.1	217.6	1007.2	115.2	40.6	27.7	6	0
19-08-2025	12:00:00	30.6	30.2	29.5	101.1	99.2	97.8	152.6	1000.6	126.2	40	25.7	16	0
19-08-2025	13:00:00	30.6	30.2	29.7	100.8	98.7	97.3	87	998.9	148.7	46.6	33.5	20	0
19-08-2025	14:00:00	30.8	30.3	29.8	100	97.9	95.6	191.6	998.8	154.4	55.3	39.2	22.6	0
19-08-2025	15:00:00	32.3	31.5	30.6	96.5	92.7	89.1	357	998.3	151.6	40.6	26.8	14.6	0
19-08-2025	16:00:00	32.1	31.3	30.1	95.1	92.7	90.1	146.4	996.9	154.2	62.6	32.1	12.6	0
19-08-2025	17:00:00	32	31.3	30.4	95.3	92	89.9	118.4	996.3	117.4	62	38.7	18	0
19-08-2025	18:00:00	30.8	30.1	29.6	97.7	95.3	93.1	14.9	995.8	168.2	44.6	20.2	8	0
19-08-2025	19:00:00	30.1	29.7	29.2	98.3	95.8	94.2	4.1	995.6	98.4	45.3	21.6	2.6	0
19-08-2025	20:00:00	30.2	29.9	29.4	99.4	98.3	97.4	0	995.6	114.3	25.3	8.4	0.6	0
19-08-2025	21:00:00	30.3	29.8	29.3	100.8	99.5	98.2	0	996.6	29.6	18.6	3.1	0	0
19-08-2025	22:00:00	30	29.7	29.1	108.8	103.4	99.8	0	997.1	288.7	26.6	8.2	0.6	0
19-08-2025	23:00:00	30.1	29.2	28.2	108.8	106	99.5	0	998.1	245.1	61.3	26.4	8	0
20-08-2025	00:00:00	29	28.6	28	108.7	107.6	106.1	0	997.8	242.9	58	25.6	12.6	0.5
20-08-2025	01:00:00	29	28.4	27.8	108.3	107.2	106	0	997.2	243.8	62	28.8	11.3	3
20-08-2025	02:00:00	28.5	28.3	27.9	109.2	107.6	105.6	0	996.9	243	67.3	31	13.3	2.5
20-08-2025	03:00:00	28.5	28	27.7	109.2	109	108.8	0	996.2	245.8	68	33.5	16	4.5
20-08-2025	04:00:00	28.5	28.1	27.8	109.2	109	108.8	0	996	245.7	71.3	32.1	12.6	10.5
20-08-2025	05:00:00	28.4	28.1	27.8	109.2	109	108.8	0	996.1	249.5	55.3	29.2	10.6	8
20-08-2025	06:00:00	28.5	28.1	27.7	109.2	109	108.8	0	996.4	249.2	60.6	30.1	14	3.5
20-08-2025	07:00:00	29	28.3	27.8	109.3	107.7	105.6	0	997.7	251.6	66	27.9	12.6	0
20-08-2025	08:00:00	29.2	28.7	28.1	108.3	106.8	105.7	6.6	999.1	252.6	62.6	29	12	0
20-08-2025	09:00:00	29.1	28.6	28	108.6	107.6	106	16.3	998.2	254.9	65.3	32.6	12	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Hazira station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
20-08-2025	10:00:00	29.3	28.8	28.1	108.8	105	99.4	43.5	999.2	267	58.6	25	8.6	0
20-08-2025	11:00:00	29.9	29.5	28.4	108.5	98.3	95.8	136	1000.1	261.3	57.3	26.3	9.3	0
20-08-2025	12:00:00	30.6	30.1	29.5	96.8	94.8	93.3	134.2	1000.1	256.3	54.6	26	10.6	0
20-08-2025	13:00:00	31.2	30.6	30.1	94.3	92.1	89.9	142.7	1000.2	275.2	55.3	19.6	5.3	0
20-08-2025	14:00:00	30.8	30.2	29.4	96.1	93.2	91.3	68.6	999.8	273.5	40.6	16.6	4.6	0
20-08-2025	15:00:00	29.7	29.1	28.2	108.7	101.6	96	11.5	998.7	249.4	65.3	25.1	10.6	0
20-08-2025	16:00:00	29.6	29	28.3	108.8	107.6	101	21.7	999.2	238	68	27.9	12	0.5
20-08-2025	17:00:00	29.6	29.1	28.4	108.9	108	106	22.8	998.9	233.4	69.3	26.8	12	0.5
20-08-2025	18:00:00	30	29.4	28.7	108.7	100.7	97.2	17.4	1001	231.4	66.7	28.4	12.6	0.5
20-08-2025	19:00:00	29.8	29.1	27.7	108.8	100.3	96.2	1.4	999.3	239.4	64.6	25.4	11.3	0
20-08-2025	20:00:00	29.6	28.8	27.7	108.8	105.1	99.2	0	999.6	237.1	58	21.8	8.6	0
20-08-2025	21:00:00	29.9	29.3	28.2	108.7	101.2	97.6	0	1001.4	234.8	58.6	21.7	8	0
20-08-2025	22:00:00	30.2	29.7	29	98.9	97.4	95.6	0	1002.1	229.6	54.6	22.9	8	0
20-08-2025	23:00:00	29.8	29.3	28.8	101.4	99.2	98.3	0	1001.7	229.4	53.3	22.5	8.6	0
21-08-2025	00:00:00	29.6	29	27.7	108.8	102.6	97.7	0	1001.5	231.5	56.6	21.7	7.3	0
21-08-2025	01:00:00	30.1	29.5	28.8	100.5	99	97.5	0	1003.5	228.7	48	19.8	8.6	0
21-08-2025	02:00:00	30.3	29.7	28.6	101.8	97.5	95.2	0	1002.6	227.9	56	21.9	10	0
21-08-2025	03:00:00	29.9	29.4	28.9	101.6	99.1	97.7	0	1001.7	230.8	49.3	20.6	10	0
21-08-2025	04:00:00	29.9	29.5	29.1	99.3	98.3	96.3	0	1001.9	230.7	54.6	20.1	8.6	0
21-08-2025	05:00:00	29.8	29.3	28.3	100.9	98.9	97.3	0	1002	234	52.6	20.7	8	0
21-08-2025	06:00:00	29.3	28.6	27.8	108.8	106.9	98.8	0	1002.9	245.2	56.6	20.6	7.3	0
21-08-2025	07:00:00	29.9	29.2	28.3	108.7	101.4	97	0	1004.6	231	57.3	23.2	10.6	0
21-08-2025	08:00:00	30.7	29.9	29.3	99.2	97	95.1	21.1	1003.4	226.1	52.6	23.2	10	0
21-08-2025	09:00:00	31.6	30.7	30.1	95.4	93.4	90.3	95.1	1004.4	218.6	54.6	29.4	13.3	0
21-08-2025	10:00:00	32.5	31.7	31.2	90.7	89.2	86.7	192.9	1005.7	220.7	58.6	29.1	14	0
21-08-2025	11:00:00	32.7	32.3	31.6	91.2	86.2	85.7	315.5	1006.5	224.3	54	27.8	13.3	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Hazira station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
21-08-2025	12:00:00	33.3	32.4	31.3	91.8	87.6	83.5	327.7	1006.1	221.6	58	28.3	13.3	0
21-08-2025	13:00:00	33.5	32.9	32.2	88.3	85.9	83.3	365	1005.5	222.3	57.3	27.7	11.3	0
21-08-2025	14:00:00	33.5	31.4	29.3	100.3	91.5	83.1	187.2	1004.5	231	59.3	22.4	7.3	2
21-08-2025	15:00:00	31.4	30.5	29.1	107.2	98.2	93.8	174.9	1003.6	228.1	58.6	24.3	8	1.5
21-08-2025	16:00:00	31.7	30.6	28.7	101.2	96.7	92.7	183.5	1009.4	227.7	52.6	24	10.6	0
21-08-2025	17:00:00	32.1	31.5	31.2	93.5	91.3	89.8	123.1	1003.7	231.1	60.6	24.7	9.3	0
21-08-2025	18:00:00	31.8	31.1	30.6	93.5	91.5	89.3	46.4	1003.2	233.1	56.6	23.5	8.6	0
21-08-2025	19:00:00	31.1	30.6	30.2	95.1	94	91.8	12.6	1003.6	232.5	52	22.2	9.3	0
21-08-2025	20:00:00	30.8	30.4	30.2	94.1	93.3	92.5	0	1004.6	235.1	49.3	22.1	8	0
21-08-2025	21:00:00	30.8	30.3	30	95.2	93.6	92.3	0	1005.5	236.3	52	21.6	8.6	0
21-08-2025	22:00:00	30.4	29.9	29.3	98.3	95.7	94	0	1005.7	239.6	46.6	20.1	7.3	0
21-08-2025	23:00:00	30.2	29.4	28.5	99.6	98.2	96.4	0	1005.9	233.5	50.6	20.3	7.3	0
22-08-2025	00:00:00	30.2	29.7	29.3	98.9	97.9	96.6	0	1006	232.3	54	21.9	10.6	0
22-08-2025	01:00:00	30.2	29.5	28.3	101.4	98.2	95.2	0	1005.8	229.4	52	22.2	9.3	0.5
22-08-2025	02:00:00	29.9	29.4	28.8	99.6	98.9	98	0	1005.2	230.9	58	24.7	9.3	0
22-08-2025	03:00:00	30	29.7	29.3	98.3	97.3	96.2	0	1004	231.7	64	24.1	10.6	0
22-08-2025	04:00:00	30.1	29.8	29.6	97.2	96	94.7	0	1003.6	230.5	66.7	24.3	9.3	0
22-08-2025	05:00:00	30.2	29.8	29.5	95.7	94.3	93.2	0	1003.7	235.4	62	24.4	10.6	0
22-08-2025	06:00:00	30.3	30	29.7	93.8	92.5	91.6	0	1004.1	234.6	58.6	24.3	10.6	0
22-08-2025	07:00:00	30.2	29.6	29.1	96.3	94.9	92.7	0.1	1004.6	234.8	51.3	22.6	9.3	0
22-08-2025	08:00:00	30	28.9	27.7	99.6	97	93.1	12.1	1005.2	236.5	64	23.4	9.3	0
22-08-2025	09:00:00	30.7	29.2	27.8	100.6	97.7	94	61.4	1010.6	228.2	62.6	22.9	10	0
22-08-2025	10:00:00	32.2	31.5	30.3	94.3	88.6	85.1	198.2	1011.9	232.4	58	25.6	11.3	0
22-08-2025	11:00:00	32.9	32.6	31.3	89.2	85.7	84.3	281.6	1007.9	221.7	52.6	26.6	3.3	0
22-08-2025	12:00:00	32.9	32.2	31.6	88.8	86.6	83.8	310.2	1007.4	227.2	66	30.3	12.6	0
22-08-2025	13:00:00	32.7	32.1	31.2	90.5	86.6	84	305.9	1006.6	222	64	32.7	16	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Hazira station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
22-08-2025	14:00:00	33.1	32.4	31.8	87.8	84.8	82.2	293.4	1006.2	225.3	66.7	31.3	12.6	0
22-08-2025	15:00:00	33.1	32.6	32.1	84.7	82.8	81.1	283.5	1005.2	227.8	70.7	31.6	12.6	0
22-08-2025	16:00:00	32.5	31.6	29.6	93.6	86.2	82.5	235.5	1004.3	228.4	67.3	30.1	14	0
22-08-2025	17:00:00	32.5	31.2	28.5	96.3	87.7	83.6	139.1	1003.4	231.2	73.3	31.9	14	0.5
22-08-2025	18:00:00	31.2	28.7	27.3	108.8	99.8	95.3	22.3	1002.4	231.6	79.3	28.6	12	1.5
22-08-2025	19:00:00	30.6	30.2	29.6	96.1	92.5	90.3	2.3	1005.6	229.1	66.7	27.6	10.6	0
22-08-2025	20:00:00	30.6	30.2	30	92.1	91.1	90.3	0	1004.4	229	57.3	25.9	10	0
22-08-2025	21:00:00	30.6	30	29.4	95.1	92.2	90.4	0	1005	231.2	61.3	24.2	10.6	0
22-08-2025	22:00:00	30.6	30.2	29.9	92	90.9	89.6	0	1005.7	232.7	61.3	23.1	8.6	0
22-08-2025	23:00:00	30.4	30.2	29.8	91.8	90.6	88	0	1005.5	236.3	50.6	21.5	10	0
23-08-2025	00:00:00	30.4	30	29.7	93.1	92.3	91	0	1005.2	234.4	52	21.2	9.3	0
23-08-2025	01:00:00	30.3	30	29.7	92.2	91.4	90.6	0	1004.3	234.1	51.3	22	10.6	0
23-08-2025	02:00:00	30.3	30	29.7	92	91	90.2	0	1003.9	235.3	53.3	22.9	10.6	0
23-08-2025	03:00:00	30.2	29.9	29.6	92.7	91.3	90.2	0	1003.3	239	55.3	22.4	6.6	0
23-08-2025	04:00:00	30.2	29.9	29.5	93.5	92.2	91	0	1002.9	242.3	50.6	22.4	8.6	0
23-08-2025	05:00:00	30.1	29.3	28.7	96.9	94.9	91.8	0	1002.4	241.3	57.3	23.9	10	0.5
23-08-2025	06:00:00	29.7	29.2	28.7	96.7	95.8	94.8	0	1003.1	243.2	52	22.5	8.6	0
23-08-2025	07:00:00	30	29.5	29	95.2	93.9	92.8	4.8	1003.3	248.4	49.3	25.3	11.3	0
23-08-2025	08:00:00	30.1	29.7	29	97.4	94.5	93.5	19.3	1003.9	251.4	56	25.5	9.3	0.5
23-08-2025	09:00:00	30.1	29.3	28.5	96.5	94	91.5	24.7	1001.2	242.2	52	30.5	9	0.5
23-08-2025	10:00:00	28.3	27.8	27.2	108.7	107.3	100.5	31.1	1002.3	256.4	68.7	31.7	12.6	5
23-08-2025	11:00:00	29	28	27.1	108.8	107.6	106	44.1	1004.3	236.7	71.3	29.9	12.6	4.5
23-08-2025	12:00:00	29	28	27.1	94.3	92.1	90	118.3	1005	235.1	62	27	10.6	0
23-08-2025	13:00:00	31	30.6	29.5	94.5	90.5	88.2	125.2	1012	231.5	68	29.5	12	0
23-08-2025	14:00:00	31.4	31	30.3	88.9	87.2	86.2	124	1005	227	65.3	31.2	15.3	0
23-08-2025	15:00:00	32.1	31.2	30.4	87.7	85.6	82.8	172.7	1004.6	231.4	74.7	31.8	8	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Hazira station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
23-08-2025	16:00:00	32.2	31.5	30.9	87.8	85.6	82.9	149.2	1003.8	228.2	73.3	31.9	13.3	0
23-08-2025	17:00:00	31.2	30.3	29.4	94	90.1	86.3	44	1002.8	228.4	78	33.1	13.3	0
23-08-2025	18:00:00	30.6	30.3	29.9	91.2	89.4	87.7	14	1003	228.7	66	31.7	13.3	0
23-08-2025	19:00:00	30.6	30.3	30	90.5	89.4	88.3	1.4	1003.6	227.7	66	31.2	14.6	0
23-08-2025	20:00:00	30.6	30.3	30	89.8	88.7	87.8	0	1004.2	228.8	72	30.7	14	0
23-08-2025	21:00:00	30.6	30.2	30	90	89	87.8	0	1004.7	229.4	64.6	27.8	11.3	0
23-08-2025	22:00:00	32.8	30.2	29.9	89.7	88.6	87.1	0	1005.5	230.1	62	27	10.6	0
23-08-2025	23:00:00	30.6	30.2	29.8	90	88.6	87.7	0	1005.5	227.7	64.6	28.6	10	0
24-08-2025	00:00:00	30.5	29.7	28.9	95.3	91.8	88.9	0	1005.1	228.6	62	26	11.3	0
24-08-2025	01:00:00	30	29	27.8	99.4	95.5	92.7	0	1003.9	227.4	66	26.7	10	0.5
24-08-2025	02:00:00	30.2	30.8	31.5	105	99.1	93.2	0	1010.1	228.4	74	32.1	14	1
24-08-2025	03:00:00	29	28.3	26.9	102	99.2	97.2	0	1002.9	228.1	62.6	24.9	10.6	0
24-08-2025	04:00:00	29.7	29.1	28.4	98.5	96.9	95.2	0	1004.3	226.9	74.7	27.9	12.6	0
24-08-2025	05:00:00	29.6	29	28.5	98.4	96.5	94.6	0	1002.9	227.4	70.7	27.3	11.3	0
24-08-2025	06:00:00	29.9	29.4	28.9	97.4	94.6	91.3	0	1003.6	229.3	64.6	27.5	10.6	0
24-08-2025	07:00:00	29.8	29	28.3	96.3	94.4	91.7	0.7	1003.3	229.2	63.3	25.8	9.3	0
24-08-2025	08:00:00	29.9	29.2	28.7	97.2	96.1	95.1	24.9	1004.1	228	60.6	24.3	9.3	0
24-08-2025	09:00:00	29.8	28.8	27.2	108.3	98.1	94.7	14.6	1004.2	256	71.3	25.3	10	7
24-08-2025	10:00:00	28.7	27.9	27.1	108.7	107.5	106	19.5	1004.7	255	64	26	10	8.5
24-08-2025	11:00:00	30.4	29.3	28	108.9	102.6	97	78.4	1010.1	233.4	63.3	28.1	12	0.5
24-08-2025	12:00:00	31.5	30.5	29.2	99.4	94	88.5	143.1	1010.5	230.6	70.7	30.4	13.3	0
24-08-2025	13:00:00	32.2	31.4	30.8	89.3	87.4	82.4	202.4	1006	229.8	74	32.1	14	0
24-08-2025	14:00:00	32.7	32.3	31.7	86.1	83.7	81.4	314.8	1006	228.5	74.7	33.4	14.6	0
24-08-2025	15:00:00	32.7	32.2	31.6	85.3	83.2	82	252.7	1005.4	228.6	72	33.2	15.3	0
24-08-2025	16:00:00	32.7	32.1	31.6	85	82.6	81	214.7	1004.6	224.9	73.3	35.1	15.3	0
24-08-2025	17:00:00	32.8	32	31.3	84.6	83.2	81.2	152.9	1004.5	227.9	68.7	31.8	14.6	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Hazira station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
24-08-2025	18:00:00	32.1	31.3	30.6	87.2	85.5	83.1	65.4	1004.3	228.4	64.6	30.2	13.3	0
24-08-2025	19:00:00	31	30.6	30.2	88.9	87.7	86.3	4.3	1004.1	228.1	66	28.8	13.3	0
24-08-2025	20:00:00	30.8	30.3	30	90.6	89.5	88.2	0	1004.4	225.4	62	28.3	14.6	0
24-08-2025	21:00:00	30.6	30.1	29.3	92.7	91	88.9	0	1004.6	225.6	63.3	29	10.6	0
24-08-2025	22:00:00	29.6	27.9	26.7	108.7	101.2	92.3	0	1004.4	252.4	63.3	28.5	10	18
24-08-2025	23:00:00	28.2	27.4	26.7	108.3	107.5	106.2	0	1004.7	236	67.3	25.6	11.3	0
25-08-2025	00:00:00	29.1	28.8	28.3	108.5	102.4	100.1	0	1008.2	229.7	62	33.4	20.6	0
25-08-2025	01:00:00	30	29.4	28.5	100.7	97	93.6	0	1007.3	237.6	65.3	26.6	12	0
25-08-2025	02:00:00	30	29.7	29.4	94.8	93.8	92.8	0	1004.4	239.1	58.6	27.4	12.6	0
25-08-2025	03:00:00	29.7	28.1	27.3	108.3	100.6	92.8	0	1003.5	253.1	62	28.3	12	2.5
25-08-2025	04:00:00	28.7	28.1	27.3	108.7	107.4	100.2	0	1004	254.6	52.6	23.3	7.3	0.5
25-08-2025	05:00:00	28.8	28.3	27.4	108.8	107.6	100.4	0	1003.9	243.2	57.3	24.5	10.6	1
25-08-2025	06:00:00	29.3	28.7	28.1	108.8	107.1	100	0	1004.7	240.1	58.6	23.2	10	0
25-08-2025	07:00:00	30.8	28.1	27.4	108.6	107.5	106	0	1002.7	254.1	58	24.8	8.6	7.5
25-08-2025	08:00:00	29	28.3	27.5	108.7	107.5	106.1	1.2	1004.3	248	54.6	24.5	10	0
25-08-2025	09:00:00	30.1	29.4	28.5	108.5	99.5	94.8	50.5	1008.4	250	53.3	25.5	10.6	0
25-08-2025	10:00:00	30.2	29.7	29.1	97.4	95.6	92.3	48.4	1005.3	255.6	53.3	24.2	10.6	0
25-08-2025	11:00:00	29.5	28.7	28	108.6	101.8	97.1	55.2	1005.6	245	45.3	20.4	8.6	1
25-08-2025	12:00:00	30.8	30.1	28.5	102.1	97	92.9	177.7	1008.2	243.8	50	21.8	4	0
25-08-2025	13:00:00	31.4	30.9	30.2	92	90.3	89.1	169.4	1005.6	248.7	50.6	25.4	10.6	0
25-08-2025	14:00:00	31	30.7	30.4	91.8	90.4	89	123.4	1004.4	248.1	50	24	8	0
25-08-2025	15:00:00	31.2	30.8	30.4	92.2	90.6	89.7	137.9	1003.6	245.4	59.3	27.9	11.3	0
25-08-2025	16:00:00	31.4	30.8	30.4	92.4	90.7	88.8	149.1	1003	243.5	54.6	26.5	10	0
25-08-2025	17:00:00	31.3	30.9	30.4	91.2	89.8	88.2	92.8	1002.7	240.8	58.6	24.9	12	0
25-08-2025	18:00:00	30.1	29.7	29.4	97.6	94.5	91.4	14.2	1003.2	253.1	58	24	8	0
25-08-2025	19:00:00	30.4	30.1	29.7	94.4	92.8	91.6	2.4	1003	240.4	48.6	23.2	9.3	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Hazira station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
25-08-2025	20:00:00	30.2	29.9	29.6	95.1	94.2	93.4	0	1002.9	243.4	50	21.6	8.6	0
25-08-2025	21:00:00	30.1	29.8	29.6	94.5	94	93.6	0	1003.7	242.6	48	20.8	10	0
25-08-2025	22:00:00	30.2	29.9	29.6	94.9	94.2	93.6	0	1004.6	244.5	40.6	18.4	6.6	0
25-08-2025	23:00:00	30.2	29.8	29.5	95.7	94.4	93.6	0	1004.6	248	38.6	17.9	6	0
26-08-2025	00:00:00	30.2	29.8	29.4	95.6	94.7	93.7	0	1004.6	248.9	36	17.2	7.3	0
26-08-2025	01:00:00	30	29.6	29.1	96.7	95.6	94.7	0	1004.2	259.5	36	15.7	5.3	0
26-08-2025	02:00:00	29.9	29.5	29.3	97.8	96	95.4	0	1003.7	260.2	34	17.1	7.3	0
26-08-2025	03:00:00	29.8	29.4	29.2	97.2	96.6	96	0	1003	258.2	31.3	14.6	4	0
26-08-2025	04:00:00	29.7	29.4	29.1	96.7	96.2	95.6	0	1002.7	248.7	34	15.8	6	0
26-08-2025	05:00:00	29.6	29.3	29	97	96.4	94.9	0	1003	244.7	37.3	17.2	6.6	0
26-08-2025	06:00:00	29.8	29.5	29.2	96.9	95.9	95.1	0	1003.6	250	35.3	17.3	6.6	0
26-08-2025	07:00:00	29.8	29	28	101	97.1	94.9	0	1003.9	261.3	34	14.4	4	2
26-08-2025	08:00:00	29.3	28.7	27.9	103.8	100.3	98.6	8.6	1004.4	265.8	30	12.3	4.6	0.5
26-08-2025	09:00:00	30.6	29.5	28.5	99.2	96.4	92.3	79.6	1005.8	265.8	28	13.4	5.3	0
26-08-2025	10:00:00	31	30.2	29.6	95.1	92.9	90.6	145	1006.6	260.8	37.3	15.6	6	0
26-08-2025	11:00:00	31.9	31.3	30.6	91.5	89.8	88.6	182.8	1007.2	255.8	37.3	16.4	5.3	0
26-08-2025	12:00:00	32.4	31.8	30.4	92.3	88.3	86.1	313.3	1007.5	249.1	38.6	18.7	4	0
26-08-2025	13:00:00	32.9	32.2	31.3	87.2	85.2	82.9	353.9	1006.9	256.2	40.6	18.5	7.3	0
26-08-2025	14:00:00	32.9	32.5	32.1	86.2	83.8	81.8	344.6	1006.2	251.3	39.3	18.7	7.3	0
26-08-2025	15:00:00	33.3	32.8	32.2	85.1	82.8	80.6	278.9	1005.4	238.2	46	20	9.3	0
26-08-2025	16:00:00	33.1	32.4	32	88	85.3	83.4	243.5	1004.7	238.9	47.3	21.7	9.3	0
26-08-2025	17:00:00	32.1	31.6	31.1	88.8	87.5	86.5	68	1004.2	237.4	41.3	21.9	10	0
26-08-2025	18:00:00	31.5	31	30.3	92.2	90.1	88	40.5	1003.6	240.5	49.3	21.5	9.3	0
26-08-2025	19:00:00	30.8	30.4	30.1	94.4	92.9	91.4	0.6	1003.8	240.8	44	19	8.6	0
26-08-2025	20:00:00	30.4	30.2	30	95	94.3	93.4	0	1004.3	239.7	42.6	19	8	0
26-08-2025	21:00:00	30.5	30.2	30	95.6	95.1	94.2	0	1004.7	243.9	40	17.4	8	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Hazira station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
26-08-2025	22:00:00	30.4	30.2	29.9	95.8	95.3	94.8	0	1005	245.1	36	16.8	7.3	0
26-08-2025	23:00:00	30.4	30	29.8	96.3	95.8	95.4	0	1005.5	249.7	31.3	15.1	6.6	0
27-08-2025	00:00:00	30.3	30	29.7	96.6	96	95.5	0	1005.5	252.9	30.6	14.9	6.6	0
27-08-2025	01:00:00	30.2	29.9	29.5	96.4	95.8	95.4	0	1005	256	52	18	7.3	0
27-08-2025	02:00:00	30	29.7	29.3	96	95.5	95.1	0	1004	260.6	37.3	17.9	6	0
27-08-2025	03:00:00	29.8	29.5	29.1	96.9	95.8	95.1	0	1003.2	264	35.3	14	4.6	0
27-08-2025	04:00:00	29.6	29.3	29	96.9	96.5	95.9	0	1003.2	260.8	24.6	11.5	4.6	0
27-08-2025	05:00:00	29.7	29.4	29.1	97	96.2	95.6	0	1002.8	253.2	23.3	11.2	4	0
27-08-2025	06:00:00	29.7	29.3	29	97.2	96.7	96.4	0	1003.2	263.9	20.6	9.1	3.3	0
27-08-2025	07:00:00	29.7	29.3	29.1	97.2	96.8	96.3	0	1003.7	282.5	17.3	7.8	2	0
27-08-2025	08:00:00	29.9	29.5	29.3	96.9	95.6	94.6	11.2	1004.4	294.1	20.6	10	2	0
27-08-2025	09:00:00	30.4	29.9	29.4	95.1	93.7	92	43.5	1005.2	296.7	25.3	10.7	2	0
27-08-2025	10:00:00	31.3	30.4	29.8	92.8	91.4	89.1	109.8	1005.9	293.6	26	12.1	4	0
27-08-2025	11:00:00	31.8	31.4	30.8	89.5	86.9	84.5	194.4	1006.5	294.2	25.3	12.4	4	0
27-08-2025	12:00:00	33.1	32.2	31.4	86.2	83.5	80	330.9	1006.8	281.2	24	11.1	3.3	0
27-08-2025	13:00:00	33.4	32.8	32.2	83.1	81.1	79.1	337.4	1006.1	263.6	26	10.6	3.3	0
27-08-2025	14:00:00	34.4	33.4	32.5	82.6	78.4	74.2	371.4	1005.2	265.2	25.3	11.3	2.6	0
27-08-2025	15:00:00	35	34.5	33.9	77.4	75.4	72.9	325.4	1004.8	236.6	26	10.8	3.3	0
27-08-2025	16:00:00	34.8	34	33.1	80.5	78.2	75.4	231.1	1003.8	215.9	30	15.9	6	0
27-08-2025	17:00:00	34.8	33.6	32.3	84.3	79.1	74.6	134.6	1003.3	222.4	31.3	15.3	6.6	0
27-08-2025	18:00:00	32.6	32	31.4	88.6	86.2	83.5	23.5	1002.7	226.3	30.6	13.7	6	0
27-08-2025	19:00:00	31.9	31.3	30.9	90.8	89.3	87.7	2	1002.8	225.7	36	14.7	6	0
27-08-2025	20:00:00	31.4	30.9	30.6	93.6	92.1	90.4	0	1003.2	228.9	30.6	13.8	6	0
27-08-2025	21:00:00	31	30.7	30.5	93.9	93.3	92.7	0	1003.3	228.7	38	15.4	5.3	0
27-08-2025	22:00:00	31	30.6	30.3	95	94.3	93.4	0	1004.2	230.1	31.3	13.4	4.6	0
27-08-2025	23:00:00	30.8	30.5	30.3	95.6	95.1	94.5	0	1004.6	235.5	28.6	12.4	6	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Hazira station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
28-08-2025	00:00:00	30.8	30.4	30	95.8	95.3	95	0	1004.3	232.2	30	13.5	6	0
28-08-2025	01:00:00	30.6	30.4	30	97.1	96.3	95.2	0	1003.4	240.7	34	15.3	7.3	0
28-08-2025	02:00:00	30.7	30.4	30.1	97.6	96.9	96.3	0	1002.9	253.4	32	16.7	6.6	0
28-08-2025	03:00:00	30.6	29.6	29	99.2	97.5	96.2	0	1002.3	265.6	32.6	15.1	4	0
28-08-2025	04:00:00	30.1	29.7	29.2	99.2	97.4	96.5	0	1002	268	22.6	9.5	3.3	0
28-08-2025	05:00:00	30.1	29.8	29.4	97.4	96.5	95.8	0	1002.3	260.1	21.3	9.8	3.3	0.5
28-08-2025	06:00:00	29.6	29.3	28.8	99.2	98.4	96.8	0	1002.5	252.2	15.3	7.2	2.6	0
28-08-2025	07:00:00	29.7	29.3	28.9	99.1	98.2	97.5	0	1003.1	281	17.3	8	2.6	0
28-08-2025	08:00:00	30.1	29.6	29.2	98	96.7	95.7	6	1003.5	284.7	19.3	7.4	2	0
28-08-2025	09:00:00	30.1	29.5	28.7	99.4	96.9	95.6	5.8	1003.5	297.8	18.6	7.2	0.6	1
28-08-2025	10:00:00	30.1	29.5	28.5	100.3	98.7	97	95.3	1008.7	294.7	21.3	9.9	4	0
28-08-2025	11:00:00	31.2	30.5	29.7	97.7	93.6	93	88.7	1007.3	293.5	32.6	16.3	5.3	0
28-08-2025	12:00:00	31.2	30.2	29.4	94	92.8	91.4	75	1004.3	303.3	28	13.3	4.6	0
28-08-2025	13:00:00	29.7	29.2	28.8	98.2	96	93.2	21	1003.4	294.7	24.6	10.1	2.6	0
28-08-2025	14:00:00	30.1	29.6	29	99.1	98	97.2	79.5	1003	299.4	22.6	9.9	3.3	0
28-08-2025	15:00:00	30.2	29.7	29.3	98.3	96.7	95.4	70.7	1002.2	298.3	21.3	9.4	2	0
28-08-2025	16:00:00	30.3	29.8	29.3	96.4	94.9	93.7	29.7	1001.6	270.9	15.3	5.6	1.3	0
28-08-2025	17:00:00	30.3	29.9	29.6	97.2	95.5	94	1.7	1000.8	214.1	12.6	5.7	1.3	0
28-08-2025	18:00:00	29.9	29.5	29	101.4	98.9	96.8	0	1001.1	187.1	17.3	6.4	2	1
28-08-2025	19:00:00	29.8	29.3	28.5	108.8	106.2	100	0	1001.3	173.7	30	16.9	4	2.5
28-08-2025	20:00:00	29.6	29.2	28.7	108.6	107.4	106.1	0	1002	191.4	24.6	13.1	6	0.5
28-08-2025	21:00:00	29.8	29.4	28.8	108.5	107.8	107.1	0	1003.2	191.9	20.6	12.2	6	0
28-08-2025	22:00:00	30	29.6	29.1	108.5	107.9	107	0	1004	200.7	22	10.3	3.3	0
28-08-2025	23:00:00	30.2	29.7	29.1	108.5	107.8	106.4	0	1004.3	211.6	25.3	11	2.6	0
29-08-2025	00:00:00	30.2	29.8	29.2	108.3	107.3	106.3	0	1003.6	225.1	28.6	12.8	5.3	0
29-08-2025	01:00:00	30.4	29.9	29.4	108.7	107.4	106.1	0	1003.2	237.9	30	13.2	6	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Hazira station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
29-08-2025	02:00:00	30.4	30	29.4	108.6	107.3	106.1	0	1001.8	239.2	33.3	14.8	6	0
29-08-2025	03:00:00	30.2	29.8	29.3	108.7	107.6	106	0	1001.1	246.1	34	15.8	6.6	0
29-08-2025	04:00:00	30.3	29.4	28.7	108.9	107.7	106.2	0	1000.5	255	41.3	19.7	8.6	0.5
29-08-2025	05:00:00	29.7	29.3	28.8	108.6	107.5	106	0	1001	257.9	38	18.3	7.3	0
29-08-2025	06:00:00	29.6	28.9	28.1	108.7	107.4	106.1	0	1001.5	270.9	42	15.6	5.3	0
29-08-2025	07:00:00	29.3	28.8	28	108.9	104.4	99.4	0.2	1002.2	270.2	29.3	12.6	4	0
29-08-2025	08:00:00	29.4	29	28.5	100	99.1	98.5	5.4	1002.8	256.1	35.3	16.7	6.6	0
29-08-2025	09:00:00	29.2	28.7	27.3	108.5	100.5	98.6	0	1003.5	272	30.6	12.5	5.3	0
29-08-2025	10:00:00	28.1	27.5	26.8	108.7	107.6	105.8	1.2	1003.8	291.2	29.3	12.1	4.6	0
29-08-2025	11:00:00	28.7	28.3	26.9	108.2	107.7	106.1	6.2	1007.3	282.9	28.6	10.5	3.3	0
29-08-2025	12:00:00	28.8	28.3	27.6	108.4	107.6	106.5	45.6	1006.4	289.8	19.3	7.8	2.6	0.5
29-08-2025	13:00:00	29.5	28.9	28.1	108.8	107.7	106	82.1	1008.3	299.6	15.3	3.2	0	0.5
29-08-2025	14:00:00	29.7	29.1	28.4	108.9	107.8	106	42	1005.7	232.7	10.6	2.9	0	1
29-08-2025	15:00:00	30.2	29.6	28.7	108.9	102.9	98.9	117.5	1009.1	241.5	9.3	2.1	0	0.5
29-08-2025	16:00:00	30.6	30.1	29.4	107.6	99.1	96.9	81.3	1007.1	201.2	12.6	2.7	0	0
29-08-2025	17:00:00	30.7	30.3	29.9	98	96.5	95.4	72.1	1002.4	169.6	19.3	5.2	0	0
29-08-2025	18:00:00	30.8	30.3	29.8	97.2	96	95.2	58.7	1001.8	189.1	21.3	11.8	4.6	0
29-08-2025	19:00:00	30.4	29.8	29.2	96.8	96.2	95.6	9.5	1002.4	196.5	19.3	11.1	4	0
29-08-2025	20:00:00	30	29.5	29.1	96.8	96.2	95.7	0	1002.8	208.1	17.3	9	2.6	0
29-08-2025	21:00:00	30	29.7	29.4	96.4	95.9	95.4	0	1003.5	211.4	27.3	12.6	5.3	0
29-08-2025	22:00:00	30.1	29.8	29.5	97.4	96.7	95.8	0	1004	206.5	25.3	13.1	5.3	0
29-08-2025	23:00:00	30.2	29.8	29.5	97.8	97.3	96.9	0	1004.1	206.6	30	14.3	6	0
30-08-2025	00:00:00	30.2	29.8	29.5	98.2	97.5	96.9	0	1004.4	219.4	27.3	13.6	5.3	0
30-08-2025	01:00:00	30.2	29.6	29	99.9	98.8	97.3	0	1004	217.6	28	14.6	7.3	0
30-08-2025	02:00:00	30	29.7	29.1	99.8	99.3	98.8	0	1003.9	211.5	31.3	16.7	8.6	0
30-08-2025	03:00:00	30.1	29.6	29.4	99.4	98.7	98.2	0	1003.5	217.9	32	14.1	6	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Hazira station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
30-08-2025	04:00:00	30.1	29.8	29.4	99.3	98.8	98.2	0	1002.8	214.5	30.6	16.2	7.3	0
30-08-2025	05:00:00	30	29.5	29	100	99.2	98.2	0	1002.7	231.9	30.6	10.8	4	0
30-08-2025	06:00:00	30	29.7	29.3	99.8	99.3	98.9	0	1003.5	231.8	24	9.6	4	0
30-08-2025	07:00:00	30.2	29.8	29.3	100	99.4	98.8	0	1004.2	246.5	16.6	7.5	3.3	0
30-08-2025	08:00:00	30.2	29	27.8	108.8	102.6	98.2	0.3	1004	306.9	22.6	7.7	2	2
30-08-2025	09:00:00	28.9	28.4	27.8	108.5	107.4	106.1	17.5	1004.2	309.7	26.6	8.9	3.3	0.5
30-08-2025	10:00:00	29.3	28.7	27.9	108.6	107.4	106.1	31.6	1007.3	297.7	15.3	4.9	0	0
30-08-2025	11:00:00	29.4	28.8	28.3	108.6	107.6	106.1	14.8	1006.6	284.2	6.6	1.5	0	0
30-08-2025	12:00:00	29.4	28.8	28.1	108.8	107.6	105.9	73.8	1006.7	248.7	14	3.9	0	2.5
30-08-2025	13:00:00	30.2	29.4	28.4	108.9	103.1	98.5	116.8	1009.7	255.3	14	4.8	0	0.5
30-08-2025	14:00:00	31.6	30.2	29.4	100.5	98.2	95.6	140.1	1011.6	239.3	20.6	7.2	1.3	0
30-08-2025	15:00:00	31.6	30.3	29.4	97.6	95.9	94.2	98.2	1006.4	226.9	36	11.4	2	0
30-08-2025	16:00:00	30.8	30.4	30	95.9	93.4	92	108.7	1004.5	242.9	25.3	12.3	5.3	0
30-08-2025	17:00:00	31	30.7	30.3	92.9	91.5	90.2	81.3	1004.4	230.5	24	11.5	4.6	0
30-08-2025	18:00:00	30.8	30.4	30	96.2	94.6	92.4	39	1004.3	215.4	20.6	11.4	4.6	0
30-08-2025	19:00:00	30.4	30	29.6	98.3	96.7	95.2	4.7	1004.7	213.4	24.6	12.1	4	0
30-08-2025	20:00:00	30	29.7	29.3	99.8	99	98	0	1005	194.7	22	12.2	4.6	0
30-08-2025	21:00:00	30	29.4	29	99.3	98.6	98	0	1005.2	198.4	21.3	9.5	4	0
30-08-2025	22:00:00	30.1	29.8	29.5	100.1	99.1	98.3	0	1005.8	191.9	29.3	15.2	7.3	0
30-08-2025	23:00:00	30	29.7	29.3	100.5	98.4	95.8	0	1005.2	231.5	28	14.3	7.3	0
31-08-2025	00:00:00	30.1	29.6	29.1	99.7	99.5	99.4	0	1005.2	242.5	32	13.8	4.6	0
31-08-2025	01:00:00	30.1	29.8	28.7	109.1	100.4	99.2	0	1006.2	222.1	33.3	13.8	4	0
31-08-2025	02:00:00	30.2	29.8	29.3	100.1	99.3	98.7	0	1005.5	228.7	31.3	12.4	5.3	0
31-08-2025	03:00:00	30.1	29.7	29.3	99.6	99	98.4	0	1004.9	242.7	28.6	11.2	4.6	0
31-08-2025	04:00:00	30	29.5	29	99.4	98.9	97.8	0	1004.3	242.4	35.3	13.7	6	0
31-08-2025	05:00:00	30	29.6	29.2	99.4	98.3	97.4	0	1004.4	240.4	29.3	13.4	4.6	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Hazira station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
31-08-2025	06:00:00	29.9	29.5	29.2	98.7	97.9	97.4	0	1004.5	238.9	25.3	9.8	4	0
31-08-2025	07:00:00	30	29.6	29.2	99	98.4	97.8	0.5	1005.2	236.3	24	10.2	4	0
31-08-2025	08:00:00	30	29.7	29.4	99.1	98.3	97.1	12.7	1005.9	228.8	28.6	13.1	5.3	0
31-08-2025	09:00:00	30.9	30.2	29.5	97.8	95.6	93	59.3	1006.7	227.7	28	12	4.6	0
31-08-2025	10:00:00	31.4	30.9	30.2	95	92.8	91.8	185.4	1008.1	238	24	11.1	5.3	0
31-08-2025	11:00:00	32.5	31.7	31.2	92	88.9	86.2	185.7	1008	223.5	38.6	14.3	4.6	0
31-08-2025	12:00:00	31.4	31.4	31.4	90.7	90.7	90.7	146.3	1007.4	207	0	2.6	2.6	0
31-08-2025	13:00:00	32.3	30.8	30.1	95.8	93.6	88.7	112.6	1006.6	242.5	32	12.6	4.6	0
31-08-2025	14:00:00	33.5	32.6	31	93.2	87.6	83.8	240	1006.7	229.4	32.6	14	4.6	0
31-08-2025	15:00:00	33.1	32.5	32	87.5	85.5	83.9	163.4	1005.8	231.1	32	13.8	4.6	0
31-08-2025	16:00:00	33.1	32.5	32	87.4	85.5	83.4	171.1	1004.9	224.8	36	17.1	6.6	0
31-08-2025	17:00:00	32.8	32	31.5	89.1	86.8	84.2	123.2	1004.3	236.2	38	16.6	8	0
31-08-2025	18:00:00	32.3	31.4	30.8	92	89.5	86.6	47.1	1003.8	232.3	40	16.5	7.3	0
31-08-2025	19:00:00	31.2	30.6	30.1	95.4	93.4	91.3	4.7	1003.3	231.6	39.3	16.3	7.3	0
31-08-2025	20:00:00	30.4	30.1	29.7	96	95.3	94.2	0	1003.6	233.5	39.3	16.7	6	0
31-08-2025	21:00:00	30.5	30.1	29.8	95.9	95.1	94.4	0	1004.3	233.8	43.3	16.3	7.3	0
31-08-2025	22:00:00	30.4	30.1	29.8	95.8	94.9	94.2	0	1004.5	238.4	40.6	17.5	8	0
31-08-2025	23:00:00	30.3	29.9	29.5	94.6	92.7	90.6	0	1004.8	246.3	38	18.4	7.3	0
01-09-2025	00:00:00	30.6	30.1	29.8	93.4	92.5	90.7	0	1004.6	241.1	33.3	14.3	6	0
01-09-2025	01:00:00	30.4	30	29.6	94.5	93.6	92.4	0	1004.1	240.7	33.3	14.5	6	0
01-09-2025	02:00:00	30.4	29.7	28.7	98.5	94.7	92.6	0	1003.3	236.5	40.6	16.2	6	0
01-09-2025	03:00:00	29.8	29.4	28.8	100.2	98.2	97	0	1002.6	239.4	38	15.2	7.3	0.5
01-09-2025	04:00:00	29.7	29.3	28.9	99.4	98.5	96.9	0	1002.3	236.6	44.6	16.7	6.6	0.5
01-09-2025	05:00:00	29	28.2	26.7	108.8	107.5	102.9	0	1002.1	256.5	36.6	16.8	4.6	1
01-09-2025	06:00:00	29.5	28.8	27.5	108.7	102	96.8	0	1002	248.5	64.6	19	8	1
01-09-2025	07:00:00	29.7	28.9	28.2	100.1	97.8	95.2	0.5	1002.5	257.6	40	17.8	7.3	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Hazira station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
01-09-2025	08:00:00	30.3	29.7	29.2	95.6	94	92.3	18.1	1003.1	252.8	34.6	15.8	6.6	0
01-09-2025	09:00:00	31.3	30.4	29.4	95.8	93.6	91.4	91.1	1004.1	246.1	33.3	14.3	4.6	0
01-09-2025	10:00:00	30.2	29.5	28.2	98.7	96.8	95	96.9	1004.4	270.3	34	13.2	4.6	0
01-09-2025	11:00:00	31.4	30.2	29.4	95.4	94	91.2	115.5	1004.7	235.4	43.3	15.1	2.6	0
01-09-2025	12:00:00	34.7	31.6	30.8	92.6	89.8	87.9	240.9	1004.8	236.3	45.3	19.3	9.3	0
01-09-2025	13:00:00	33.1	32.4	31.8	90.5	86.1	82.9	309.6	1004.6	232.6	43.3	18.7	6.6	0
01-09-2025	14:00:00	32.7	32	31.4	89	86.2	83.3	247.5	1003.6	235.7	46.6	19.7	6	0
01-09-2025	15:00:00	32.5	31.2	30.3	93.6	89.2	85.1	95.9	1002.6	237.8	47.3	20.8	9.3	0
01-09-2025	16:00:00	31.6	30.9	30	94.4	91.2	88.6	91.6	1001.9	239.1	39.3	17.6	7.3	0
01-09-2025	17:00:00	31.5	30.7	29	97.4	91.4	88.9	39.3	1001.3	249.4	41.3	17.8	6	1
01-09-2025	18:00:00	29.4	28.9	27.9	108.8	107.9	104	0.1	1000.6	250.3	49.3	18.2	4.6	2
01-09-2025	19:00:00	29.3	29	28.2	108.7	107.9	106.1	0	1001.3	248.3	45.3	22.3	10	0
01-09-2025	20:00:00	30	29.3	28.5	108.7	104	98.9	0	1002.4	245.1	48.6	21.6	9.3	0
01-09-2025	21:00:00	29.9	29.5	29.1	100	97.9	97.1	0	1002.5	247.1	47.3	23.3	6.6	0
01-09-2025	22:00:00	30.1	29.6	29.2	97.9	96.8	95.4	0	1002.9	247.3	47.3	22.2	9.3	0
01-09-2025	23:00:00	30.3	30	29.7	95.9	95.2	94.5	0	1003.5	248.4	45.3	21.2	7.3	0
02-09-2025	00:00:00	30.8	30	29.8	95.8	95.1	94.2	0	1003.3	247.4	43.3	21.5	10	0
02-09-2025	01:00:00	30.3	29.8	29	97.7	95.5	93.8	0	1003.1	247.6	54	20.5	8.6	0
02-09-2025	02:00:00	30.3	29.6	29.2	98.1	96.8	96	0	1002.6	253.3	44.6	21	5.3	0
02-09-2025	03:00:00	30	29.7	29.3	98	97	96.2	0	1002.4	255.8	42.6	18.6	7.3	0
02-09-2025	04:00:00	30.2	29.8	29.5	96.8	96	95.4	0	1002.1	258.4	37.3	17	5.3	0
02-09-2025	05:00:00	30	29.6	29.2	96.5	95.7	94.5	0	1001.9	264.8	38.6	17.5	4.6	0.5
02-09-2025	06:00:00	32.1	29.7	29.4	96.1	94.7	93.7	0	1002.2	261.5	36.6	17.4	8	0
02-09-2025	07:00:00	30	29.7	29.4	95.6	95	94.5	0	1002.5	262.2	35.3	16	6.6	0
02-09-2025	08:00:00	30.4	30	29.6	94.9	94.1	92.8	21.5	1003.4	261.2	39.3	16.9	8	0
02-09-2025	09:00:00	31.5	30.7	30	93.3	92.1	89.6	89.1	1004.5	265.2	33.3	13.9	4	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Hazira station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
02-09-2025	10:00:00	32.3	31.7	31	90.2	88.4	86.8	179.5	1005.7	258.4	26.6	11.8	3.3	0
02-09-2025	11:00:00	32.9	32.5	31.4	88.3	85	83.1	291.8	1006.6	246.9	32.6	15	0	0
02-09-2025	12:00:00	32.9	32.1	31.4	89.5	86.4	83.5	192.5	1005.7	255	32	14.5	4.6	0
02-09-2025	13:00:00	33.3	32.7	32	87.8	85	82.1	325.8	1005.3	245.7	33.3	14.7	5.3	0
02-09-2025	14:00:00	34.1	33.5	32.8	84.3	82.2	80	377.3	1004.6	234	34.6	16.2	6	0
02-09-2025	15:00:00	34.1	33.5	32.9	84.6	82.1	79.4	266.8	1003.9	231.6	32.6	16.2	7.3	0
02-09-2025	16:00:00	33.9	33.3	32.7	85.9	83.7	81.7	185.6	1003	224.2	36	16.7	6	0
02-09-2025	17:00:00	33.3	32.4	31.8	88.5	86.9	84.2	105.1	1002.3	224.5	45.3	19.9	8	0
02-09-2025	18:00:00	32.7	32	31	88.7	85.9	82.8	60.6	1002.1	226	42	20	8.6	0
02-09-2025	19:00:00	31.4	31	30.5	91	89.5	87.9	3.8	1002.2	224.6	46.6	20.1	7.3	0
02-09-2025	20:00:00	31	30.6	30.3	92.2	91.1	89.8	0	1002.7	226	46	20.6	8.6	0
02-09-2025	21:00:00	30.8	30.5	30.2	93.2	92.5	91.6	0	1003.5	227.8	44.6	20.6	8	0
02-09-2025	22:00:00	30.8	30.4	30.2	94	93.5	92.7	0	1004.2	225.2	42	19.9	8	0
02-09-2025	23:00:00	30.6	30.3	30	94.2	93.8	93.3	0	1004.8	227	42	20.4	8	0
03-09-2025	00:00:00	30.4	30.2	29.9	94.6	94	93.4	0	1004.6	236.2	44.6	16.3	8	0
03-09-2025	01:00:00	30.4	30	29.7	94.8	93.4	91.4	0	1004	244.5	38.6	17.9	6.6	0
03-09-2025	02:00:00	30.2	29.9	29.3	93.5	91.8	90.9	0	1003.6	247.1	33.3	16.9	4	0
03-09-2025	03:00:00	30.2	29.9	29.6	92.6	91.7	90.8	0	1003.2	257.2	34.6	16.9	6.6	0
03-09-2025	04:00:00	30.1	29.7	29.4	94	93	91.2	0	1002.8	274.1	30	13.4	6	0
03-09-2025	05:00:00	29.9	29.6	29.4	94.5	93.9	93.4	0	1002.6	283.3	26.6	11.6	4.6	0
03-09-2025	06:00:00	29.8	29.5	29.2	94.4	93.5	92.5	0	1003	284.4	29.3	11.9	4	0
03-09-2025	07:00:00	29.8	29.5	29.2	93	92.2	91.6	0	1003.5	290.3	31.3	11.8	4	0
03-09-2025	08:00:00	30	29.5	29.2	92	91.2	89.8	19.6	1004.4	294.6	29.3	12.6	4.6	0
03-09-2025	09:00:00	31.4	30.5	29.6	90.3	87.1	84.6	134.5	1005.6	297.9	32	14.9	5.3	0
03-09-2025	10:00:00	31.8	31.3	30.8	86	84.4	82.7	221.5	1006.7	297.3	33.3	15.4	5.3	0
03-09-2025	11:00:00	32.8	32.2	31.4	84.7	81	78.6	313.7	1007.5	301.1	26.6	11.7	2.6	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Hazira station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
03-09-2025	12:00:00	32.8	32.4	31.8	82.1	79.4	77.6	306	1007	297.1	28.6	13.1	3.3	0
03-09-2025	13:00:00	33.7	32.9	31.9	81.5	77.2	73.4	374.7	1006.3	294.5	28	12	2.6	0
03-09-2025	14:00:00	34.4	33.9	33.1	77.1	72.3	69.4	314.7	1005.8	273.8	26	10.1	2.6	0
03-09-2025	15:00:00	33.4	32.5	31.6	94	88.3	84	199.3	1000.8	226.9	28.6	11.2	4	0
03-09-2025	16:00:00	32.7	32.4	31.8	91.1	89.9	89.1	152.9	1000.4	217.1	32.6	17.1	5.3	0
03-09-2025	17:00:00	33.2	32.5	31.4	93.1	89.9	85.6	138.2	999.8	217.5	37.3	19.6	8	0
03-09-2025	18:00:00	32.7	32.3	31.9	90.2	89.2	87.8	65.8	999.5	218.9	40	18.2	6.6	0
03-09-2025	19:00:00	32.1	31.4	30.8	92.7	90.5	88.5	30.5	1003.6	216.9	42	17.9	7.3	0
03-09-2025	20:00:00	31.4	31.1	30.8	93.4	92.2	89.2	0.4	1005.3	213.4	44	20.3	8.6	0
03-09-2025	21:00:00	31.4	30.9	30.4	94.2	93.1	91.8	0	1001	216.5	38	18.6	7.3	0
03-09-2025	22:00:00	31.1	30.8	30.4	94.3	93.1	91.8	0	1001.3	216.1	38	19	8.6	0
03-09-2025	23:00:00	31.2	30.7	30.4	96.1	94.9	93.8	0	1001.5	216.3	36.6	17.5	8	0
04-09-2025	00:00:00	28.3	27.8	27.3	106.1	106	106	0	1005	188.4	25.3	12.7	4	0.5
04-09-2025	01:00:00	27.9	27.3	26.8	108.4	107.2	106	0	1001.6	207.2	25.3	8.6	2	1
04-09-2025	02:00:00	27.3	26.8	26.3	108.6	107.6	106.7	0	1001.3	202.6	23.3	10	3.3	0.5
04-09-2025	03:00:00	26.5	26.2	25.6	108.6	108.1	106	0	999.3	209.5	25.3	11.6	4	0.5
04-09-2025	04:00:00	27.7	27	25.9	108.5	107.3	105.8	0	1000.8	306.6	37.3	15.2	6	3.5
04-09-2025	05:00:00	27.7	27.3	26.8	108.2	107.5	106.7	0	1001.6	328.7	32.6	14.4	4.6	2.5
04-09-2025	06:00:00	27.9	27.5	26.9	108.1	107.4	106.5	0	1002.6	295	20.6	8.8	0.6	0.5
04-09-2025	07:00:00	27.8	27.3	26.8	108.1	107.4	106.5	0	1003	269.4	14.6	5.9	0	0
04-09-2025	08:00:00	28.8	28.1	27.3	108.8	107.6	106	6	1005.4	269.2	16.6	6.5	0.6	0
04-09-2025	09:00:00	29.3	28.8	27.9	108.7	102.7	98.2	20.8	1006.5	271.9	25.3	9.8	2.6	0
04-09-2025	10:00:00	30	29.5	28.9	98.7	94.5	91.7	77.2	1010.1	288.8	32	13.4	4	0
04-09-2025	11:00:00	30.6	30.2	29.6	92.3	90.9	89.1	116.4	1005.9	284.3	36	14.6	4.6	0
04-09-2025	12:00:00	30.7	30.4	30.2	90.3	89.6	88.5	105	1005	286.2	33.3	14.7	2	0
04-09-2025	13:00:00	31.4	31	30.4	90	87.7	86.1	161.2	1004.8	281.6	31.3	13	4	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Hazira station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
04-09-2025	14:00:00	31.9	31.1	30.4	88.8	87.2	84.9	142.5	1003.8	269.1	36	14.1	4.6	0
04-09-2025	15:00:00	31.9	30.9	30.4	91.8	89.2	85.1	67.1	1003	252.6	34.6	16.9	6	0
04-09-2025	16:00:00	30.6	30.2	29.4	95.8	92.8	91.3	11.1	1002.4	252.2	35.3	15.9	7.3	0.5
04-09-2025	17:00:00	28.5	28.1	27.7	108.7	106.8	101.6	0	1001.8	293.5	25.3	14.3	2	0
04-09-2025	18:00:00	28.9	28.1	27.4	108.5	103.3	98.1	0	1005.3	253.1	32	13.4	4	0
04-09-2025	19:00:00	29	28.6	27.7	108.7	101.8	99.8	0	1002.7	255.4	32.6	16.7	7.3	0.5
04-09-2025	20:00:00	29.1	28.7	28.3	100.8	99.8	98.8	0	1002.7	248.6	40.6	19	7.3	0
04-09-2025	21:00:00	30	29.2	28.5	102.2	99.9	98.9	0	1004.4	241.8	34	14.2	6.6	0
04-09-2025	22:00:00	29.9	29.3	28.7	108.8	105.1	98.9	0	1003.7	244.1	47.3	20.8	8	0.5
04-09-2025	23:00:00	29.6	29.1	28.7	100.2	98	95.8	0	1003.4	254.6	56.6	27.8	13.3	0
05-09-2025	00:00:00	29.3	28.6	28.1	100	98.4	96.3	0	1003	247.4	51.3	24.3	12	0
05-09-2025	01:00:00	29.8	29.1	28.2	99.2	97.6	95	0	1002.7	252.8	48	24.4	10	0
05-09-2025	02:00:00	29.7	29.4	29	95.3	94.5	94	0	1002.1	262.2	41.3	15.6	4	0
05-09-2025	03:00:00	29.5	29	28.7	95.4	94.5	93.8	0	1001.6	281.9	16.6	7.2	2.6	0
05-09-2025	04:00:00	29.3	28.8	28.5	95.4	94.8	94.1	0	1001.7	281.7	19.3	7.8	2	0
05-09-2025	05:00:00	29	28.3	27	98.7	94.8	93.2	0	1001.9	303.6	20	8.2	2.6	1.5
05-09-2025	06:00:00	27.6	26.9	26.2	108.7	103.3	98.3	0	1001.5	294	15.3	5.9	0.6	1.5
05-09-2025	07:00:00	27.3	26.7	26	108.7	108	106	0	1002.4	299.4	12	4.1	0.6	0
05-09-2025	08:00:00	26.9	26.4	25.7	108.7	107.5	105.8	0	1002.1	251.4	10.6	2.9	0	1.5
05-09-2025	09:00:00	27.6	26.8	25.7	108.7	105.7	99.6	7.1	1004.9	266.9	26.6	11.9	4	0
05-09-2025	10:00:00	28.2	27.7	27	101.8	99.4	98.2	14.2	1005.8	264.8	32.6	14.2	4	0
05-09-2025	11:00:00	28.5	27.9	27.1	106.3	99.4	97	35	1006.7	259.9	35.3	16.6	5.3	0
05-09-2025	12:00:00	29.7	28.7	28.2	97.5	96	93.2	55.5	1006.9	261.8	34.6	15.9	5.3	0
05-09-2025	13:00:00	31	30.3	29.4	93.6	90	87.7	169.9	1005.4	257	37.3	17.4	6	0
05-09-2025	14:00:00	30.6	30.2	29.9	91.4	90.2	88.9	98.5	1004.5	246.3	35.3	16.3	7.3	0
05-09-2025	15:00:00	30.8	30.4	30	92	90.4	89.4	110.7	1003.8	239.6	35.3	16	7.3	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Hazira station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
05-09-2025	16:00:00	30.6	30.3	30	92.9	92	91	59.8	1003	235.1	30.6	13.2	5.3	0
05-09-2025	17:00:00	30.6	30.1	29.5	96.3	93.8	92.2	26.2	1002.5	236.2	32.6	12.4	6	0
05-09-2025	18:00:00	29.9	29.5	29.1	97.7	97	95.8	9.6	1002.1	239.7	36.6	14.6	6	0
05-09-2025	19:00:00	30.1	29.8	29.4	97.1	96.3	95.8	0.1	1002.9	236.8	40	15.3	6.6	0
05-09-2025	20:00:00	30	29.6	28.7	103.5	98.4	96.7	0	1003.1	234.3	40	16.8	6.6	1.5
05-09-2025	21:00:00	29.6	29.2	28.5	108.9	106.4	101.1	0	1003.5	237.1	44	19.2	7.3	0
05-09-2025	22:00:00	29.7	29.3	28.5	108.9	107.9	105.8	0	1004.4	231.5	42.6	17.2	8	0
05-09-2025	23:00:00	30	29.5	28.9	108.9	104.7	99.6	0	1005.2	236	44.6	15.7	7.3	0
06-09-2025	00:00:00	30	29.5	28.7	107.6	100.8	98.9	0	1004.8	233.5	32	13.4	5.3	0.5
06-09-2025	01:00:00	29.6	29.2	28.5	108.2	104.5	100.7	0	1004.3	239.3	29.3	12.7	6	0
06-09-2025	02:00:00	29.7	29.1	28.3	108.8	103.7	100.1	0	1003.9	250.4	41.3	17.4	8	1.5
06-09-2025	03:00:00	29.2	28.7	28.1	108.9	107.6	106.1	0	1003.3	258.1	32.6	15.3	4.6	2.5
06-09-2025	04:00:00	29.1	28.4	27.7	108.5	107.7	106.7	0	1002.8	264.8	30	13.1	4	1
06-09-2025	05:00:00	29	28.4	27.8	108.4	107.6	106.8	0	1002.5	244.6	24.6	11.5	3.3	0
06-09-2025	06:00:00	29.2	28.8	28.3	108.5	107.8	106.8	0	1003.1	247.9	23.3	11.3	2.6	0
06-09-2025	07:00:00	29.7	29.2	28.5	108.9	107.3	101.2	0	1003.9	259.1	23.3	9.8	3.3	0
06-09-2025	08:00:00	30.1	29.6	29	102	98.6	96.5	14.3	1004.6	259.2	22	10.5	3.3	0
06-09-2025	09:00:00	30.6	30.1	29.7	97.2	95.4	93.3	40.1	1005.3	246.9	24	11.6	4.6	0
06-09-2025	10:00:00	32	31.2	30.1	93.8	91.2	88.3	126.6	1006.2	234.5	28	11.5	4.6	0
06-09-2025	11:00:00	32.9	32.1	31.4	89.6	86.9	84.3	219	1006.9	227.1	32	15.2	6.6	0
06-09-2025	12:00:00	33.1	32.6	32.3	88	86.2	84.9	277.9	1007.2	229.3	40.6	17.8	6	0
06-09-2025	13:00:00	32.8	31.9	31.4	90.2	88.2	85.3	127.9	1006.3	235.2	35.3	15.6	6	0
06-09-2025	14:00:00	32.6	31.8	31.2	90.8	89.6	88	148.8	1005.4	236.2	38.6	16.2	6	0
06-09-2025	15:00:00	32.4	31.8	31.3	92.6	90.5	88.7	131.2	1004.5	237.9	38.6	16.3	4.6	0
06-09-2025	16:00:00	31.9	30.3	29.3	94.9	93	91.1	39.7	1003.4	275.4	37.3	14.5	5.3	0
06-09-2025	17:00:00	30.6	30.2	29.6	95	94.3	93.4	22.2	1002.9	265.5	30	7.2	1.3	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Hazira station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
06-09-2025	18:00:00	30.4	29.8	29.2	98.2	96.5	93.8	7	1002.9	232.5	40	15.4	4	0
06-09-2025	19:00:00	30.4	30.1	29.5	98	97	96	0	1003.3	234.4	43.3	16.8	6.6	0
06-09-2025	20:00:00	30.1	29.8	29.5	97.2	96.1	94.5	0	1003.9	252.8	44	19.9	9.3	0
06-09-2025	21:00:00	30.2	29.9	29.2	95.6	94.7	94	0	1004.6	255.3	37.3	18.2	7.3	0
06-09-2025	22:00:00	30.1	29.7	29.4	96.6	95.5	94.9	0	1004.9	241.7	39.3	16.7	6.6	0
06-09-2025	23:00:00	29.9	29.6	29.3	97.2	96.4	95.8	0	1005.1	234.4	41.3	17.7	8.6	0
07-09-2025	00:00:00	29.9	29.4	28.5	100.1	97.8	96.5	0	1005.1	233	45.3	18.7	7.3	0
07-09-2025	01:00:00	29.3	28.9	28.5	101.6	99.7	98.9	0	1004.5	239.9	55.3	20.8	10	0
07-09-2025	02:00:00	29.4	29	28.5	101.7	99.9	98.9	0	1003.9	241.4	49.3	21.8	10	0.5
07-09-2025	03:00:00	29.6	29.2	28.8	100.1	99.1	98.2	0	1003.4	237.6	52.6	20.7	10	0
07-09-2025	04:00:00	29.6	29.3	29	99.5	98.6	97.4	0	1003.2	244	54.6	23.4	8.6	0
07-09-2025	05:00:00	29.6	28.9	27.8	108.5	98.7	95.6	0	1002.9	253.7	59.3	22	8	1
07-09-2025	06:00:00	29.8	29.2	28.4	99.8	98.2	97.2	0	1003.1	250.9	50	25	10	0
07-09-2025	07:00:00	29.8	29.3	28.9	99.2	98.2	97.4	0	1003.4	252.1	51.3	22.5	8.6	0
07-09-2025	08:00:00	29.9	29.5	29.1	98.7	96.9	94.4	10.9	1004.5	242.4	51.3	21.7	8.6	0
07-09-2025	09:00:00	30.4	30	29.4	94.8	92.9	91.8	24.9	1005.7	241.8	48	18.6	8.6	0
07-09-2025	10:00:00	30.8	30.3	29.8	93.1	92	90.3	58.2	1006.3	239.3	52	21	8	0
07-09-2025	11:00:00	30.9	30.6	30.2	91.3	90.4	89.3	69.5	1006.4	242	51.3	22.2	7.3	0
07-09-2025	12:00:00	31.1	30.6	30.3	92.4	91.4	90	78.7	1006.4	236.8	52	21.3	9.3	0
07-09-2025	13:00:00	31.4	31	30.4	91.8	88.4	84.5	151.1	1006	241.2	54.6	25.1	10.6	0
07-09-2025	14:00:00	31.6	31.3	30.9	88	86.1	84	133.1	1005.3	237	52.6	23.5	9.3	0
07-09-2025	15:00:00	31.8	31.3	30.8	88.5	87	85.8	139.4	1004.9	237.3	50.6	22.1	10	0
07-09-2025	16:00:00	31.4	30.9	30.6	89.8	88.8	87.1	86.2	1004.2	234.1	45.3	19.5	9.3	0
07-09-2025	17:00:00	31	30.7	30	90.1	87.7	86.4	54.1	1003.6	229.4	49.3	19.8	0.6	0
07-09-2025	18:00:00	31	30.6	30.2	90	88	86.4	44.2	1003.3	225	48.6	22.5	9.3	0
07-09-2025	19:00:00	30.6	30.1	29.6	92.3	91	89.1	3.3	1003.6	220.6	41.3	21.5	9.3	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Hazira station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
07-09-2025	20:00:00	30.2	29.8	29.4	92.9	90.6	88.9	0	1004.2	226.3	44	19.8	9.3	0
07-09-2025	21:00:00	30.3	29.9	29.6	91.8	91	89.5	0	1004.8	219.3	43.3	20.5	7.3	0
07-09-2025	22:00:00	30.2	29.8	29.5	92.1	91.1	90	0	1005.6	227.8	43.3	18	8	0
07-09-2025	23:00:00	30	29.7	29.4	92.3	91.7	90.8	0	1005.9	225.7	38.6	17.8	7.3	0
08-09-2025	00:00:00	30	29.7	29.4	93.2	92.3	91.6	0	1005.9	219.9	37.3	18.8	7.3	0
08-09-2025	01:00:00	29.9	29.5	29.2	94.3	93.4	92.4	0	1005.3	220.9	43.3	19.8	8.6	0
08-09-2025	02:00:00	29.7	29.4	29.1	94.5	93.8	93.2	0	1004.5	214.3	41.3	21	9.3	0
08-09-2025	03:00:00	29.7	29.4	29	94.4	93.8	93.1	0	1004.2	216.6	42.6	20.8	10	0
08-09-2025	04:00:00	29.9	29.5	29.2	94.6	93.6	93	0	1003.7	213.8	43.3	21.2	7.3	0
08-09-2025	05:00:00	29.7	29.4	29	94.4	93.3	92	0	1003.4	210.7	43.3	21.7	9.3	0
08-09-2025	06:00:00	29.8	29.4	29.1	93.8	92.9	92.2	0	1003.7	208.7	42	21.7	10	0
08-09-2025	07:00:00	29.8	29.4	29	94.2	93.4	92.5	0.8	1003.8	201	48.6	23.6	10	0
08-09-2025	08:00:00	30.4	29.7	29.2	93.7	92.1	88.9	33.3	1004.8	202.2	46.6	24.9	11.3	0
08-09-2025	09:00:00	31	30.5	30.1	90.3	88.8	87.2	70	1006.2	203.8	48.6	24.6	11.3	0
08-09-2025	10:00:00	31.9	30.8	30.3	89.8	86.8	83.4	110.7	1006.8	210.5	45.3	24.5	8	0
08-09-2025	11:00:00	32.9	32.3	31.3	83.5	79.9	78.3	256.5	1008.4	216.8	53.3	27	11.3	0
08-09-2025	12:00:00	33.3	32.7	32.1	81.2	78.5	76.3	342.6	1008	214.3	58	29.5	14	0
08-09-2025	13:00:00	33.7	33.1	32.7	78.4	75.6	73.4	358.9	1007.8	214.2	52	27.6	9.3	0
08-09-2025	14:00:00	33.7	33.1	32.7	77.6	74.9	70	283.6	1007.4	216.4	47.3	25	10.6	0
08-09-2025	15:00:00	33.9	33.4	32.9	76.7	73.3	70.6	310.8	1006.9	216.3	45.3	23.6	9.3	0
08-09-2025	16:00:00	33.7	33.2	32.7	76.9	75.3	73.7	248	1006.5	209	46	25.5	9.3	0
08-09-2025	17:00:00	33.3	32.8	32.4	77.7	75.8	73.8	163.6	1005.9	205.5	44	24	10.6	0
08-09-2025	18:00:00	32.8	31.9	31.4	80.3	77.9	75.3	72.3	1005.4	206.8	42.6	23.1	8	0
08-09-2025	19:00:00	31.7	30.8	30	86.7	83.2	79.1	5.8	1005.3	210	37.3	19.2	8	0
08-09-2025	20:00:00	30.6	30.1	29.8	87.4	86.3	85.2	0	1005.5	212.5	44.6	20.1	8.6	0
08-09-2025	21:00:00	30.4	30	29.6	90	88.4	86.3	0	1006.4	211.3	34.6	18.5	6.6	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Hazira station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
08-09-2025	22:00:00	30.2	29.8	29.4	90.5	89.7	88.9	0	1007.3	214	33.3	15.7	8	0
08-09-2025	23:00:00	30	29.6	29.3	91.2	90.3	89.4	0	1007.4	215.9	32.6	15.3	6.6	0
09-09-2025	00:00:00	29.8	29.4	29.1	91.4	90.4	89.6	0	1007.4	206.2	31.3	16	6.6	0
09-09-2025	01:00:00	29.7	29.3	29	92.2	91.4	90.5	0	1007.3	202.4	26.6	14	7.3	0
09-09-2025	02:00:00	29.7	29.2	28.8	92.9	92.2	91.6	0	1006.9	201.2	23.3	13.2	6	0
09-09-2025	03:00:00	29.6	29.2	28.8	93.9	93	92	0	1006.5	199.9	30	12.3	4.6	0
09-09-2025	04:00:00	29.4	29	28.7	94.3	93.3	92.4	0	1006	195.6	27.3	14.2	7.3	0
09-09-2025	05:00:00	29.6	28.9	28.3	99.3	97.1	94.2	0	1005.9	168.9	44.6	23.8	6.6	0
09-09-2025	06:00:00	29	28.6	27.8	108.7	101.5	98.7	0	1005.9	169.3	50	26.2	4.6	0
09-09-2025	07:00:00	28.7	28.4	27.8	108.8	108.2	104.9	0.7	1006.8	166.5	55.3	29	14.6	0
09-09-2025	08:00:00	29.4	28.9	28.1	108.8	104.8	99.2	39	1009.6	167.7	41.3	26.3	14	0.5
09-09-2025	09:00:00	30	29.3	28.6	102.4	99.5	98.3	85.3	1011.2	163.9	48	29.1	13.3	0
09-09-2025	10:00:00	29.6	28.8	28.1	91.2	86	80.9	190.2	1005.3	206.4	36	15.7	5.3	0
09-09-2025	11:00:00	30.4	29.1	27.8	94.4	93	91.6	247.5	1006	199.6	34	17.1	7.3	0
09-09-2025	12:00:00	31.7	30.2	28.8	87.1	86.8	86.5	352.6	1009.5	201.2	31.3	14.6	4	0
09-09-2025	13:00:00	31.4	31.3	31.2	92.7	84	75.3	350.7	1005.3	221.1	34	15.8	6	0
09-09-2025	14:00:00	33.1	32.5	32	84.8	81.9	80.2	365.2	1009.3	177.8	41.3	22.8	2	0
09-09-2025	15:00:00	34.1	33.3	32.7	81.1	77.6	73.9	322.9	1009	196.6	37.3	19	6.6	0
09-09-2025	16:00:00	34.4	33.7	33.2	77.1	75.4	72.9	258.8	1008.9	207	35.3	17.1	6.6	0
09-09-2025	17:00:00	33.7	33.2	32.7	78.9	77	75	161.3	1008.5	212	33.3	16.6	5.3	0
09-09-2025	18:00:00	33.2	32.5	31.7	82.3	78.8	76.1	64.5	1008.2	221.1	28	14.5	4	0
09-09-2025	19:00:00	32	31.2	30.4	86.9	84.2	81.8	4.5	1008.1	221.4	24	11.7	5.3	0
09-09-2025	20:00:00	30.8	30.3	30	87.3	86.6	85.5	0	1008.1	221.8	17.3	8	3.3	0
09-09-2025	21:00:00	30.4	30	29.5	89.9	88.1	86	0	1008.6	226.8	16	6.8	3.3	0
09-09-2025	22:00:00	30	29.5	29.2	90.9	90.4	89.4	0	1008.9	210.4	13.3	7.4	3.3	0
09-09-2025	23:00:00	29.6	29.3	29	92.8	91.5	90.3	0	1008.9	214.2	10.6	6.5	2.6	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Hazira station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
10-09-2025	00:00:00	29.4	29.1	28.7	93.7	93.1	92.4	0	1008.7	221.3	11.3	6.1	2	0
10-09-2025	01:00:00	29.2	28.9	28.7	94.7	93.9	93.3	0	1008.4	225.7	13.3	6.6	3.3	0
10-09-2025	02:00:00	29	28.6	28.3	96.2	95.1	94.2	0	1008	213.8	10.6	5.4	2.6	0
10-09-2025	03:00:00	28.9	28.4	28.1	96.9	96.4	95.8	0	1007	210.9	12	6.1	2.6	0
10-09-2025	04:00:00	28.6	28.3	28	96.8	96.2	95.6	0	1007.4	197.4	13.3	8.3	3.3	0
10-09-2025	05:00:00	28.5	28.2	27.9	96.6	95.9	95.5	0	1007.5	200.4	13.3	7.5	4	0
10-09-2025	06:00:00	28.5	28.2	27.8	96.9	96.2	95.7	0	1007.9	195.2	13.3	7.6	4	0
10-09-2025	07:00:00	29.2	28.3	27.9	98.1	96	95	1.6	1008.4	180.9	15.3	7.4	4.6	0
10-09-2025	08:00:00	29.7	29.2	28.6	97.8	97	96.2	49	1009.9	158.1	22.6	12.6	4	0
10-09-2025	09:00:00	30.4	29.6	29.1	98.2	96.5	94.9	149.1	1011	154.6	28	19.1	4	0
10-09-2025	10:00:00	31.1	30.4	29.7	96.6	93.9	90.4	227.8	1008.2	150.3	26	18.4	10.6	0
10-09-2025	11:00:00	31.9	31.4	30.9	91.5	89.6	87.8	88.9	1003.5	238.7	44.6	19.8	5.3	0
10-09-2025	12:00:00	33.1	31.6	31.1	90.1	88.3	86.5	92.3	1003.3	234.8	48	18.9	8	0
10-09-2025	13:00:00	32.9	32.2	31	90.8	86.6	84.3	188.5	1003.3	234	54	22.1	8	0
10-09-2025	14:00:00	33.5	32.9	32.3	86.6	84.3	82.2	225.8	1003.3	226.3	50	23.3	9.3	0
10-09-2025	15:00:00	32.7	32.2	31.9	87.5	85.9	83.8	135.5	1002.2	224.8	56.6	26.5	12.6	0
10-09-2025	16:00:00	32.3	31.9	31.5	89.2	87.6	86.4	116.3	1001.7	226.4	62.6	26.2	11.3	0
10-09-2025	17:00:00	32.1	31.7	31.4	88.8	87.6	86.3	104.8	1001.4	225.5	52.6	25.4	11.3	0
10-09-2025	18:00:00	32.1	31.4	31	89.6	88.3	86.5	53.1	1001.6	227	54.6	25.6	11.3	0
10-09-2025	19:00:00	31.4	31	30.5	91.8	90.1	88.5	16.9	1001.4	228.2	51.3	24.6	10	0
10-09-2025	20:00:00	31.5	30.7	30.2	93.4	92.5	91.4	0	1002.2	224	48	22.5	8.6	0
10-09-2025	21:00:00	30.8	30.5	30.2	93.7	92.6	91.7	0	1002.4	221.2	45.3	24.6	12	0
10-09-2025	22:00:00	31.2	30.4	30.2	93.8	93.2	92.6	0	1002.7	223.4	50.6	23.6	10.6	0
10-09-2025	23:00:00	30.8	30.4	30	94.2	93.5	92.7	0	1002.8	227.7	48.6	21.4	8.6	0
11-09-2025	00:00:00	31	30.5	30.2	93.4	92.3	91.2	0	1001.9	223.8	55.3	24.1	10	0
11-09-2025	01:00:00	30.4	30.3	30.2	93.8	93	92	0	1003.4	227.1	50.6	23.2	10.6	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Hazira station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
11-09-2025	02:00:00	30.5	29.7	28.4	96.3	92.9	90.1	0	1003.9	231.9	67.3	22.2	8	0
11-09-2025	03:00:00	29.8	29.1	28.3	99.4	97.7	96	0	1002.2	231.1	52.6	15.3	6	0
11-09-2025	04:00:00	30.2	29.6	28.9	99.6	98	96.5	0	1003.8	230.1	46.6	20.6	9.3	0
11-09-2025	05:00:00	30.4	29.9	29.4	97	94.6	93.1	0	1003.8	235.4	49.3	21.1	8.6	0
11-09-2025	06:00:00	30.3	30	29.6	94.3	93.4	92.5	0	1002.4	227.5	55.3	22.8	9.3	0
11-09-2025	07:00:00	30.3	29.9	29.5	96.8	95.1	93.6	0.1	1002.9	227.2	43.3	18.8	9.3	0
11-09-2025	08:00:00	30.1	29.9	29.4	95.4	93.8	92.4	17.6	1003.8	234.5	44.6	18.4	8.6	0
11-09-2025	09:00:00	31.4	30.9	30.4	93.4	91.6	90	53.1	1004.8	236.1	41.3	17.4	7.3	0
11-09-2025	10:00:00	31.8	31.5	31.1	90.8	88.1	85.9	134	1005.7	239.2	41.3	19.2	8	0
11-09-2025	11:00:00	31.7	31.7	31.7	82.4	82.4	82.4	125.2	1010.2	236.6	24	9.9	3.3	0
11-09-2025	12:00:00	33.9	32.9	31.6	82.6	78	74.3	361	1011.3	241.3	32.6	12.3	4	0
11-09-2025	13:00:00	33.9	33.3	32.7	79.4	76.1	71.7	372.6	1010.5	243.2	28.6	11.9	2.6	0
11-09-2025	14:00:00	34.4	34.1	33.3	72.9	70.1	67.5	326.3	1010.2	241.9	30	12.6	0.6	0
11-09-2025	15:00:00	31.2	30.2	29.6	89.3	87.8	86.3	225.7	1008.3	252.3	26.6	12.7	6	0
11-09-2025	16:00:00	34.5	34	33.3	73.4	71.2	69.4	255.2	1009.3	239.3	30	14.2	0.6	0
11-09-2025	17:00:00	33.7	33	32.6	76.9	74.5	72	123.6	1008.1	235.5	31.3	14.4	4.6	0
11-09-2025	18:00:00	33.3	32.5	31.4	80	76.2	72.9	69.6	1007.9	238.3	31.3	14.8	6	0
11-09-2025	19:00:00	31.9	31.3	30.8	83.1	81	79.1	3.7	1007.7	237.5	28.6	11.9	5.3	0
11-09-2025	20:00:00	31.2	30.7	30.4	83.9	83	81.7	0	1007.9	238.9	24.6	10.7	4	0
11-09-2025	21:00:00	31	30.6	30.3	88.2	85.8	82.9	0	1008.5	237.6	27.3	9.5	3.3	0
11-09-2025	22:00:00	30.8	30.5	30.1	88.5	87.4	86.5	0	1009	245.4	25.3	10.3	3.3	0
11-09-2025	23:00:00	30.8	30.4	30.2	90	88.6	87.8	0	1008.9	251	32	14.9	6.6	0
12-09-2025	00:00:00	30.6	30.2	30	91.4	90.3	89.2	0	1008.4	252.2	33.3	16	6.6	0
12-09-2025	01:00:00	30.4	30.1	29.7	92.2	91.3	90.4	0	1008.1	254.6	34.6	16	6.6	0
12-09-2025	02:00:00	30.2	29.9	29.5	92.6	91.7	91.1	0	1007.9	262.8	29.3	14.2	4	0
12-09-2025	03:00:00	30.1	29.7	29.4	92.3	91.4	90.4	0	1007.5	265.7	28	12.9	3.3	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Hazira station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
12-09-2025	04:00:00	30	29.5	29.2	92.9	92.2	91.2	0	1007.4	264.7	23.3	9.9	3.3	0
12-09-2025	05:00:00	29.7	29.4	29.1	93	92.3	91.8	0	1007.3	281.3	22	8.3	2.6	0
12-09-2025	06:00:00	29.7	29.4	29	92.5	91.8	91.4	0	1007.6	274.4	23.3	10	4	0
12-09-2025	07:00:00	29.4	29	28.4	93.6	92.2	91.3	1.5	1008.2	292.1	18	8.2	3.3	0
12-09-2025	08:00:00	30.7	29.9	28.9	91.6	87.8	83.2	53.2	1009.4	292.2	19.3	9.2	3.3	0
12-09-2025	09:00:00	31.8	31.1	30.4	83.5	79.6	76.1	146.4	1011.3	294.2	20.6	10.2	3.3	0
12-09-2025	10:00:00	32.7	32	31.4	77.9	75.4	72.9	232.5	1012.3	299.4	24.6	10.4	2.6	0
12-09-2025	11:00:00	33.3	32.9	31.6	76.6	69.9	68.9	322.9	1009.4	289.1	25.3	10.5	4	0
12-09-2025	12:00:00	33.9	33.2	32.5	70.7	67.7	64.7	350.7	1012.2	264.8	28.6	11	3.3	0
12-09-2025	13:00:00	33.9	33.2	32.7	70	66.4	63.1	373.6	1011	271	29.3	12.4	4	0
12-09-2025	14:00:00	34.4	33.6	33	66.9	63.8	60.5	338.8	1010.4	269.6	28	13.1	4.6	0
12-09-2025	15:00:00	34	33.4	32.9	67.4	64.3	61.3	232.8	1009.4	261.6	28.6	13.1	3.3	0
12-09-2025	16:00:00	34.6	33.9	33.1	66.2	62.2	58.9	240.2	1009.1	274	22	10.8	4.6	0
12-09-2025	17:00:00	34.7	33.9	33.1	68.9	64.4	58.8	127.5	1008.3	235.7	24	10.2	2.6	0
12-09-2025	18:00:00	34.1	32.9	31.8	73.5	69.5	64.9	63.6	1007.9	234.3	21.3	10.5	4	0
12-09-2025	19:00:00	32.2	31.6	30.9	80.8	78.3	73	2.2	1007.7	241.9	20.6	9.7	4	0
12-09-2025	20:00:00	31.4	31	30.6	84	82.2	80.3	0	1007.9	244.1	21.3	9	2.6	0
12-09-2025	21:00:00	31.2	30.8	30.5	85.1	83.3	82	0	1008	244.2	22	8.1	2.6	0
12-09-2025	22:00:00	31	30.7	30.4	88.3	86.2	84.3	0	1008.7	240.9	53.3	7.8	3.3	0
12-09-2025	23:00:00	30.8	30.5	30.2	90.7	89.3	87.8	0	1008.8	241.1	18.6	8.2	2.6	0



Ghogha Meteorological Data

Ghogha station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
13-08-2025	00:00:00	28.9	28.2	27.9	82.5	81.7	80.3	0	1002.6	233.7	14	4.6	0.6	0
13-08-2025	01:00:00	28.9	28.3	27.8	82.1	80.3	78.5	0	1002.4	230.3	7.3	2.2	0	0
13-08-2025	02:00:00	29	27.9	26.7	83.4	80.2	77.6	4.1	1001.9	244.3	15.3	3.9	0	0
13-08-2025	03:00:00	28.5	27.4	26.6	84.8	84.1	82.7	3.1	1000.8	233.8	8.6	2.9	0	0
13-08-2025	04:00:00	28.1	27.6	27	84.3	83.1	82.4	0	1000.7	238.4	8.6	2.9	0	0
13-08-2025	05:00:00	28.1	27.7	27.3	82.8	82.1	81.5	0	1000.8	238.6	8.6	2.6	0	0
13-08-2025	06:00:00	28	27.5	27	83.3	82.5	81.6	0	1001.2	242	9.3	2.6	0	0
13-08-2025	07:00:00	27.8	27.3	26.9	84	83.2	82.2	0.6	1001.5	240.5	8	1.5	0	0
13-08-2025	08:00:00	29.1	28.2	27.3	82.7	81.1	78.7	23.9	1002.1	236.8	8.6	2	0	0
13-08-2025	09:00:00	31.9	29.9	28.5	78.9	74.5	67.2	111.2	1003.2	249.8	15.3	4.1	0	0
13-08-2025	10:00:00	32.9	31.9	30.8	67.7	65	61.8	167.6	1004.1	304	22	5.1	0.6	0
13-08-2025	11:00:00	33.9	32.8	31.4	67.4	60.6	56.8	225.8	1004.2	325.4	18	4.8	0	0
13-08-2025	12:00:00	34	33	31.9	65.3	61.3	56.7	134.7	1003.7	10	12	2.3	0	0
13-08-2025	13:00:00	33.6	30.7	28.5	82.4	73.6	60.6	115.9	1002.5	120.7	26.6	6.8	1.3	0
13-08-2025	14:00:00	32.6	31	28.8	82.2	72.9	64.5	220	1002	142	20	6.1	1.3	0
13-08-2025	15:00:00	32.6	32	31.6	67.5	66.1	64.5	160.4	1001.7	163.4	18.6	5	1.3	0
13-08-2025	16:00:00	32.1	30.9	29.9	75.2	71.3	64.6	80.5	1000.6	181.9	20	7	2	0
13-08-2025	17:00:00	30.5	30	29.5	77.2	75.4	73.2	64.5	999.7	197	26	9.2	3.3	0
13-08-2025	18:00:00	30.4	29.9	29.5	76.8	75.8	73.2	6.5	999.7	200	27.3	9.1	2.6	0
13-08-2025	19:00:00	30.2	29.7	29.3	75.7	74.7	74.2	0	1000.2	204.9	26.6	8	0.6	0
13-08-2025	20:00:00	29.9	29.4	29	75.9	74.6	73	0	1000.1	200.5	21.3	7.1	2	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Ghogha station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
13-08-2025	21:00:00	29.7	29.2	28.8	76.1	74.9	73.3	0	1000.7	201	21.3	8	2.6	0
13-08-2025	22:00:00	28.6	28.3	27.8	79.8	79	78.5	0	1001.8	233.9	11.3	4.8	0.6	0
13-08-2025	23:00:00	28.6	28	27.6	80.8	79.8	78.4	0	1001.6	246	8	0.8	0	0
14-08-2025	00:00:00	28.1	27.6	27.2	84.8	83.1	80.6	0	1001.2	280.7	3.3	0	0	0
14-08-2025	01:00:00	27.9	27.5	27.2	85.6	84.9	84.2	0	1000.7	238.1	11.3	2.8	0	0
14-08-2025	02:00:00	28	27.6	27.3	85.9	84.9	84	0	1000.2	235.8	10.6	4.1	0	0
14-08-2025	03:00:00	28	27.5	27.1	88.4	87	85.4	0	1000.1	318.8	5.3	0.7	0	0
14-08-2025	04:00:00	27.7	27	26.1	91.7	90.2	87.9	0.4	1000	271.7	3.3	0.1	0	0
14-08-2025	05:00:00	28	26.8	25.8	93.2	92.1	91.1	8	1000.1	263	4.6	0	0	0
14-08-2025	06:00:00	27.8	26.7	25.7	94.2	93.3	92.3	8.2	1000.4	263.2	3.3	0	0	0
14-08-2025	07:00:00	27.9	26.7	25.8	95.2	94.4	93.7	11.3	1001	252.2	2.6	0.1	0	0
14-08-2025	08:00:00	28.7	27.4	26	95.1	93.3	89.1	31.3	1001.8	220.1	6.6	1.9	0	0
14-08-2025	09:00:00	31.2	29.7	27.6	89.3	76.9	68.6	98.5	1003.2	206.5	8.6	3.1	0	0
14-08-2025	10:00:00	32.8	31.8	30.6	69.6	66	62.8	174.6	1004.1	174.5	12	3.1	0	0
14-08-2025	11:00:00	33.2	32.1	30.6	72.1	65.8	60.6	188.6	1004.2	134.7	21.3	5.7	0	0
14-08-2025	12:00:00	32.9	32.1	30.7	72.1	66.9	63.7	287.6	1003.7	121.9	30	9.3	2.6	0
14-08-2025	13:00:00	34.3	33.2	31.6	67.3	61.7	57.4	301.3	1003.4	141	24.6	7.4	2.6	0
14-08-2025	14:00:00	34.3	33.4	32.7	64.5	60.7	58.4	287.8	1003	162.7	25.3	7.4	2	0
14-08-2025	16:00:00	34.4	33.3	32.2	64.9	61	57.3	277.3	1001.9	188.8	27.3	8.7	2	0
14-08-2025	17:00:00	33.2	32.1	31	70	66.7	61.9	139.6	1000.3	198.9	23.3	8.5	2	0
14-08-2025	19:00:00	31.6	30.8	30	72.7	70.6	69.2	24.5	1000.7	196.6	22	8.6	2	0
14-08-2025	20:00:00	30.2	29.7	29.3	76.4	74.6	72.3	0	1000.5	199.3	23.3	8.8	2.6	0
14-08-2025	21:00:00	29.8	29.2	28.8	78.6	77.3	76	0	1000.8	206.9	18.6	6.6	2	0
14-08-2025	22:00:00	29.4	29	28.6	81.2	79.6	78.1	0	1001.3	214.3	16.6	5.3	0.6	0
14-08-2025	23:00:00	29.2	28.7	28.5	83.3	82.1	80.8	0	1001.4	204.1	10	3.4	0	0
15-08-2025	00:00:00	29.1	28.7	28.4	83.3	82.8	82.1	0	1001.4	207.2	14	5	0.6	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Ghogha station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
15-08-2025	01:00:00	28.9	28.4	28.1	85.1	84.2	82.8	0	1001.3	218.7	14.6	4.8	1.3	0
15-08-2025	02:00:00	28.7	28.2	27.9	84.8	82.9	81.7	0	1000.5	234.3	10	2.7	0	0
15-08-2025	03:00:00	28.5	27.9	27.4	87.6	85.3	82.5	0	999.6	238.2	3.3	0.1	0	0
15-08-2025	04:00:00	28.2	27.7	27.4	87.8	87.4	86.8	0	999.2	238.8	0.6	0	0	0
15-08-2025	05:00:00	28.1	27.7	27.4	88.2	87.6	87	0	999.1	227.6	5.3	0.2	0	0
15-08-2025	06:00:00	28	27.5	27.2	89.8	88.5	87.6	0	999.3	237.1	6	1.5	0	0
15-08-2025	07:00:00	27.9	27.4	27.1	90.7	90	89.2	0	1000.1	237.8	5.3	0.9	0	0
15-08-2025	08:00:00	28.9	27.9	27.3	90.6	87.5	82.8	13.7	1001.3	305.4	8.6	1.6	0	0
15-08-2025	09:00:00	31.4	30	28.5	83.2	77.2	72	97.1	1002.4	264.3	10	2.3	0	0
15-08-2025	10:00:00	32.5	31.7	31	72.2	68.2	65.1	110	1003.2	252	10	1.6	0	0
15-08-2025	11:00:00	33.2	32.3	31.8	66	64	60.9	111.5	1003.5	266	6.6	0.8	0	0
15-08-2025	12:00:00	33.4	32.7	31.8	68.3	63.1	59.7	124.1	1003.6	84.2	9.3	0.6	0	0
15-08-2025	13:00:00	32.4	31.8	31.2	71.3	69.6	67.9	149.4	1002.9	118.7	15.3	5.7	0.6	0
15-08-2025	14:00:00	33.3	32.7	32.2	68.5	66	64.1	239	1002.3	126.4	20.6	7.7	3.3	0
15-08-2025	15:00:00	33	32	31.4	72.5	69.4	67	159.1	1000.6	114.2	22.6	7.2	0.6	0
15-08-2025	16:00:00	33.2	32.3	31.8	69.2	66.9	63.7	221.6	999.7	158.1	24.6	6.8	2	0
15-08-2025	17:00:00	34	32.1	30.8	75.5	68.9	62	137.9	998.9	198.3	34	8.7	2.6	0
15-08-2025	18:00:00	32	31.3	30.8	75.5	71.6	67.1	94.9	998.4	198.8	31.3	10.8	3.3	0
15-08-2025	19:00:00	31.4	30.6	30	77.6	75.2	72.8	15.7	998.6	200.5	28.6	10.9	3.3	0
15-08-2025	20:00:00	30.6	30.1	29.8	77.9	76.4	74.9	0	999.2	210.3	23.3	6.5	1.3	0
15-08-2025	21:00:00	30.4	29.9	29.4	76.6	75.3	74.6	0	1000	196.4	9.3	3.3	0	0
15-08-2025	22:00:00	30	29.5	29.2	77.6	76.3	75.5	0	1000.4	205.3	13.3	4.3	0	0
15-08-2025	23:00:00	29.8	29.1	28.6	81.7	79.3	76.8	0	1000.7	229.3	10.6	2.8	0	0
16-08-2025	00:00:00	29.2	28.7	28.3	82.4	79.6	77	0	1000	238.3	12	3.7	0.6	0
16-08-2025	01:00:00	28.9	28.3	28	81.2	80	78.3	0	999.5	254.4	5.3	0.3	0	0
16-08-2025	02:00:00	28.6	28.1	27.8	82.2	81.3	79.9	0	998.9	238	8	2.8	0	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Ghogha station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
16-08-2025	03:00:00	28.3	27.8	27.5	84.7	83.3	81.6	0	998.2	235.1	5.3	0.3	0	0
16-08-2025	04:00:00	28.1	27.6	27.3	85.9	85	84.1	0	998.1	230.5	2.6	0	0	0
16-08-2025	05:00:00	27.8	27.3	26.9	88.6	87	85.4	0	997.9	230.5	6	1	0	0
16-08-2025	06:00:00	27.6	27.1	26.9	88.9	88.4	87.9	0	998.1	224.4	6	2	0	0
16-08-2025	07:00:00	27.6	27.2	26.9	89.6	88.9	88.2	0	998.5	221.8	6	0.5	0	0
16-08-2025	08:00:00	28.4	27.7	27.1	89.8	89.1	87.6	20.3	998.9	223	6	1.1	0	0
16-08-2025	09:00:00	30.4	29.1	27.9	87.8	82.1	77.3	67.2	1000.2	315.5	16.6	3	0	0
16-08-2025	10:00:00	31.5	30.6	29.8	77.4	74.3	69.7	111.9	1001.3	328.4	15.3	5.2	0	0
16-08-2025	11:00:00	32.5	31.4	30.4	71.9	68.5	63.5	129.2	1001.7	335	16.6	5.3	0	0
16-08-2025	12:00:00	34.7	33.4	31.8	66	61.4	57.8	194.6	1001.7	349.2	14	4	0	0
16-08-2025	13:00:00	37.5	35.6	34.1	59.6	55.3	50.2	342.1	1001.3	10.4	15.3	3	0	0
16-08-2025	14:00:00	37.4	35.2	33.7	63.1	57.2	49.4	274.2	1000.1	50	17.3	3.9	0	0
16-08-2025	15:00:00	35	33	31.7	70	65.7	57.9	216	998.6	111.3	16.6	5	0	0
16-08-2025	16:00:00	35.3	33.7	32.6	67.5	63.1	57.4	271.3	998.3	124.7	19.3	6.5	0	0
16-08-2025	17:00:00	34	32.7	32	68.3	66.4	62.6	140.7	997.9	144.3	20	6.6	1.3	0
16-08-2025	18:00:00	32.7	31.4	30.4	75.9	71.3	67.3	59.1	997.6	194.9	29.3	9.8	2.6	0
16-08-2025	19:00:00	31	30.2	29.4	76.5	74.3	72.1	3.9	997.8	231	26.6	6.7	2	0
16-08-2025	20:00:00	30	29.2	28.6	80.3	78.3	76.2	0	998.1	257	14	3.2	0.6	0
16-08-2025	21:00:00	29.2	28.4	27.9	81	79.3	77.9	0	998.2	245.9	12.6	3.8	0.6	0
16-08-2025	22:00:00	28.7	28.3	27.9	81.5	80	79.2	0	998.9	240.9	12	3.2	0	0
16-08-2025	23:00:00	28.5	27.7	26.7	89.3	85	81.2	3.2	998.7	241.1	13.3	2.9	0	0.5
17-08-2025	00:00:00	27.8	26.9	26	93	91.4	89	4.1	998	241	12	3.4	0	1
17-08-2025	01:00:00	27.5	26.6	25.9	94.5	93.5	92.5	4.4	997.7	237.3	6.6	0.8	0	0
17-08-2025	02:00:00	27.5	26.7	25.9	95.2	94.4	93.8	4.7	997.7	302.3	0.6	0	0	0
17-08-2025	03:00:00	27.5	26.6	25.9	95.5	95	94.5	3	996.7	295.2	6	0.3	0	0
17-08-2025	04:00:00	27.3	26.6	25.9	95.9	95.4	95	2	996.6	317.8	10.6	1.2	0	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Ghogha station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
17-08-2025	05:00:00	27.1	26.6	26.1	95.7	95.1	94.8	0.1	997	298.5	10	1.5	0	0
17-08-2025	06:00:00	27.1	26.7	26.3	95.5	95	94.5	0	997.5	321.9	9.3	2.2	0	0
17-08-2025	07:00:00	27.4	26.8	26.3	95.1	94.8	94.4	0	997.6	323.8	8.6	1.8	0	0
17-08-2025	08:00:00	27.9	27	26.5	95.3	94.9	94.5	4	997.5	297.7	6.6	0.5	0	0
17-08-2025	09:00:00	28.6	27.6	26.7	95.3	94.3	92.5	37.3	998	317	9.3	2.2	0	0
17-08-2025	10:00:00	30	28.8	27.6	92.9	89.2	84.4	84.8	998.7	326.8	9.3	2.7	0	0
17-08-2025	11:00:00	31	30.3	29.5	84.6	80.2	77.4	88.4	999.2	348.5	8.6	2.3	0	0
17-08-2025	12:00:00	32	30.8	30	80	77.6	74	103.5	999.2	332.5	8	2.5	0	0
17-08-2025	13:00:00	32.7	31.4	28.9	83	76.6	70.2	84.1	998.9	16.8	6.6	0.6	0	2
17-08-2025	14:00:00	30.4	29.3	28.2	88.3	86.8	82.6	82.3	998	187.4	19.3	3.8	0	0
17-08-2025	15:00:00	31.8	30.2	28.8	87.6	82.8	75.5	146.6	997.8	196	18	6.4	1.3	0
17-08-2025	16:00:00	32.1	30.8	29.9	78.1	76.6	74	111.3	997.7	194	18.6	6.6	0.6	0
17-08-2025	17:00:00	32.6	31.7	30.4	77.5	71.6	68.3	157	997.6	180.5	26	6	1.3	0
17-08-2025	18:00:00	31.6	29.6	27.3	88.7	81.1	74.4	71.4	996.2	190.7	30	8.2	2.6	0
17-08-2025	19:00:00	29.3	28.3	27.3	90.5	89.5	88.3	14.1	996.5	207.6	18.6	6.4	1.3	0
17-08-2025	20:00:00	29.1	28.1	27.4	90.8	90.3	89.6	3.3	997.5	194.9	16.6	6.7	1.3	0
17-08-2025	21:00:00	28.6	27.9	27.2	91.6	90.9	90.3	1.8	997.8	194.3	14	4	0	0
17-08-2025	22:00:00	28.3	27.7	27.1	90.9	90	89.1	0.1	998.1	206.5	16.6	6.5	2.6	0
17-08-2025	23:00:00	27.9	27.4	27	89.9	89.3	88.7	0	998.8	200.3	14.6	6.5	1.3	0
18-08-2025	00:00:00	27.9	27.3	26.9	90.3	89.3	88.5	0	999	215.1	17.3	6	2	0
18-08-2025	01:00:00	27.8	27.1	26.7	91.5	90.5	89.8	0	998.9	226.8	10.6	2.2	0	0
18-08-2025	02:00:00	27.6	27	26.5	92.1	91.7	91.2	0	998.4	197.1	8.6	1.6	0	0
18-08-2025	03:00:00	27.5	27	26.5	92.3	91.9	91.4	0	998.1	185.3	7.3	0.8	0	0
18-08-2025	04:00:00	27.8	27.1	26.7	91.9	90.8	89.6	0	998.2	209.7	6.6	1.6	0	0
18-08-2025	05:00:00	27.7	27.1	26.6	91.2	90.4	89.7	0	998.1	199.4	3.3	0	0	0
18-08-2025	06:00:00	27.3	26.7	26.1	93	91.8	90.8	0	997.9	0	0	0	0	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Ghogha station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
18-08-2025	07:00:00	27.7	26.6	26.1	93.9	93.1	91.9	3.6	998.1	196.8	9.3	1.9	0	0
18-08-2025	08:00:00	31.1	29.2	26.9	92.1	82.6	73.8	65.2	999.6	189.1	12.6	4.9	0.6	0
18-08-2025	09:00:00	31.7	31.1	30.5	76.2	74.1	72.3	97.7	1000.8	113.5	16.6	6.5	0	0
18-08-2025	10:00:00	32.1	31.7	30.7	74.3	72.1	70.4	192.9	1001.9	119	19.3	7.8	1.3	0
18-08-2025	11:00:00	33.3	32.7	32.1	69.4	67.8	66.6	327.6	1002	131.4	31.3	9.8	4.6	0
18-08-2025	12:00:00	33.9	32.9	32	69.1	66.7	63.2	262.5	1001.4	140.8	26.6	8.1	2	0
18-08-2025	13:00:00	33.6	32.6	32	70.9	68.4	66	305.3	1001.2	123.3	28.6	10.7	4	0
18-08-2025	14:00:00	34.4	33.1	32.2	69.2	66.2	61.9	388.5	1000.4	124.1	27.3	10.6	2.6	0
18-08-2025	15:00:00	34.1	33	32.3	68.8	66.9	64	276.1	999.3	137.9	26.6	9	1.3	0
18-08-2025	16:00:00	33.7	32.7	31.8	71.3	68.5	64.5	240.4	998.6	134.7	27.3	9.8	3.3	0
18-08-2025	17:00:00	32.4	31.5	30.9	74	71.8	68.6	108.5	998	149.3	27.3	7.9	2	0
18-08-2025	18:00:00	31.6	30.9	30.4	76.9	74.7	73	60.4	997.9	156.5	22.6	6.9	0.6	0
18-08-2025	19:00:00	30.9	30.1	29.1	82.4	77.8	74.7	12.4	997.9	168.4	24.6	7.6	2.6	0
18-08-2025	20:00:00	29.7	29	28.6	83.8	82.9	81.9	0	997.9	151.1	26.6	7.9	2.6	0
18-08-2025	21:00:00	29.6	28.9	28.3	85.5	83.8	82.2	0.2	998.2	126.4	30.6	9.6	3.3	0
18-08-2025	22:00:00	29.4	28.7	28	88.1	87.1	85.1	0.4	998.7	105	32.6	10.3	2.6	0
18-08-2025	23:00:00	29.1	28.6	28.2	88.7	88.1	87.5	0	999	100.1	30	9.2	2.6	0
19-08-2025	00:00:00	29	28.5	28.2	88.5	87.7	87.1	0	998.7	110	28.6	10.6	2.6	0
19-08-2025	01:00:00	28.9	28.4	28	90.2	89	87.5	0	998.3	104.6	24	6	0	0
19-08-2025	02:00:00	29.1	28.5	28.1	90.2	89	88	0	997.6	109.2	13.3	4.4	0	0
19-08-2025	03:00:00	29.2	28.7	28.2	89.3	87.5	85.2	0	996.8	114.9	22.6	8.2	2	0
19-08-2025	04:00:00	29.1	28.6	28.2	89.3	88.7	87.8	0	996.6	91.7	25.3	7.3	2.6	0
19-08-2025	05:00:00	28.8	28.3	27.8	88.7	87.8	86.8	0	996.2	66.2	20.6	5.2	1.3	0
19-08-2025	06:00:00	28.9	28.3	27.8	90	89.3	88.5	0	995.7	46.5	26	5.7	1.3	0
19-08-2025	07:00:00	28.8	28.3	27.9	89.3	88.5	87.8	1.3	996.7	70.1	28.6	5.8	2.6	0
19-08-2025	08:00:00	29.2	28.5	27.8	88.5	87.3	85.1	32.5	998	59.6	28	4.9	2	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Ghogha station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
19-08-2025	09:00:00	30.6	29.3	28.4	86.2	83.6	79	91.4	998.5	76.4	23.3	5.7	1.3	0
19-08-2025	10:00:00	31.8	30.7	30.1	79.7	76	72.8	130.7	1000	64.1	18	4.8	0.6	0
19-08-2025	11:00:00	32.8	31.7	30.4	77	72.8	68.5	184.4	999.9	57.2	21.3	4.7	0	0
19-08-2025	12:00:00	33.2	32.2	30.6	77.2	71.1	67.8	312.4	999.2	95.7	22.6	7.4	1.3	0
19-08-2025	13:00:00	34.4	33.4	31.9	69.4	65.7	62.4	340.8	999.2	102.6	21.3	7.7	2	0
19-08-2025	14:00:00	34	33	31.6	71.6	67.3	64.3	363.5	998.8	119.2	24.6	9.8	4	0
19-08-2025	15:00:00	34.4	33.6	33	67.6	64.7	63	344.6	998.2	128	25.3	9.5	3.3	0
19-08-2025	16:00:00	34.5	33.8	33	67.7	64.7	61.8	266.9	997.2	143.5	20	6.9	2	0
19-08-2025	17:00:00	33.8	32.8	31.4	73.2	68.4	65.1	130.4	996.1	178.4	17.3	6	1.3	0
19-08-2025	18:00:00	32.7	32.1	31.4	72.4	70.1	68.5	43.1	995.6	172.9	19.3	3.7	0	0
19-08-2025	19:00:00	32.3	29.5	28	89.4	84.4	71.7	13.8	994.9	169.1	21.3	3.2	0	0
19-08-2025	20:00:00	30	29	28	90.5	89.8	88.8	6.8	995.2	178.9	10	0.2	0	0
19-08-2025	21:00:00	29.6	28.8	28.2	89.1	87.6	86.4	2.5	996	79.7	13.3	3.2	0	0
19-08-2025	22:00:00	29.6	28.9	28.3	86.8	85.8	84.7	0.2	997.4	63	7.3	1.2	0	0
19-08-2025	23:00:00	29.6	29	28.5	85.8	85.2	84.5	0	997.9	265.8	5.3	0.7	0	0
20-08-2025	00:00:00	29.4	28.4	27.8	85.9	85.1	84.1	0	996.4	312	42	6.5	0.6	0
20-08-2025	01:00:00	28.7	28.1	27.3	88.1	85.9	85.2	0.7	995.7	310.4	24.6	7	2.6	0
20-08-2025	02:00:00	28.5	27.6	26.5	92.9	90.8	87.7	4.5	995.2	322.4	30	7.6	2	1
20-08-2025	03:00:00	28.4	27.1	26	93.9	93.2	92.5	4.9	994.7	294.5	25.3	4.6	1.3	0.5
20-08-2025	04:00:00	27.9	26.7	25.7	95	94.1	93.4	6.2	993.8	261.3	19.3	5.2	2	1
20-08-2025	05:00:00	27.5	26.5	25.6	96.4	95.9	95.5	6.7	994.2	254.6	16	5	2	0
20-08-2025	06:00:00	27.7	26.7	25.7	95.9	94.9	94	6.3	994.4	273.5	18.6	4.2	0.6	0
20-08-2025	07:00:00	27.9	26.9	26.1	94.4	93.6	93.1	6.6	995.3	253.2	18	5	1.3	0
20-08-2025	08:00:00	27.9	26.9	26	95.9	94.6	93.5	12.1	996	320.2	15.3	3.4	0	1
20-08-2025	09:00:00	28.3	27.3	26.2	96.2	95.6	95.1	30.2	997.1	246.5	14.6	4.6	0	0
20-08-2025	10:00:00	27.5	26.6	25.8	96.5	96	95.5	55.1	997.9	234.9	18	7.4	1.3	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Ghogha station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
20-08-2025	11:00:00	27.6	26.6	25.7	96.4	95.3	94.9	47	998.2	240.1	24.6	8.6	2	1
20-08-2025	12:00:00	27.8	26.7	25.8	96.3	95.6	95.1	33.9	997.8	244.2	22	6.1	0.6	1
20-08-2025	13:00:00	27.6	25.8	24.6	98.2	96.3	95.1	18.4	997.7	249	28	6.7	2	24.5
20-08-2025	14:00:00	27.3	25.9	24.6	98.7	97.6	96.5	68.3	997.1	241.8	24.6	7.3	1.3	1.5
20-08-2025	15:00:00	27.9	26.8	25.7	97	95.3	94.4	46.2	996.9	241.7	28	8.4	2	1
20-08-2025	16:00:00	29	27.7	26.4	95.4	93.6	90.3	94.3	995.8	240.4	26.6	9.1	2.6	0.5
20-08-2025	17:00:00	29.7	28.7	27.6	90.7	86.2	83.3	75.8	996.3	240.4	26.6	9.8	2	0
20-08-2025	18:00:00	29.4	28.6	28	87.4	85.8	83.4	24.4	997.4	238	30.6	7	2	0
20-08-2025	19:00:00	29.3	28.5	27.8	85.5	84.7	83.4	10.6	997.6	232.3	17.3	6.1	0.6	0
20-08-2025	20:00:00	28.7	27.9	27.2	88.1	86.5	84.8	0.2	997.9	229.2	16.6	5.6	0.6	0
20-08-2025	21:00:00	28.2	27.5	27	88.3	87.6	86.7	0	998.5	232.3	18	6.4	1.3	0
20-08-2025	22:00:00	27.9	27.3	26.9	87.9	87.4	86.9	0	998.9	227.6	22	8	2	0
20-08-2025	23:00:00	27.8	27.3	26.9	88.8	88.2	87.5	0	1000	219	20.6	6.8	0	0
21-08-2025	00:00:00	27.7	27.2	26.6	90.5	89.4	88.3	0	1000.3	225.7	23.3	6.7	1.3	0
21-08-2025	01:00:00	27.6	27	26.5	91.5	90.8	89.9	0	1000.2	224.8	22	6.9	1.3	0
21-08-2025	02:00:00	27.7	27.1	26.6	91.1	90	88.9	0	999.8	227	21.3	8	2	0
21-08-2025	03:00:00	27.8	27.1	26.6	89.7	88.9	88.1	0	999.4	227.1	24	7.4	0.6	0
21-08-2025	04:00:00	27.4	26.9	26.5	91	90.1	89.3	0	999.8	229.2	18.6	6.8	2	0
21-08-2025	05:00:00	27.3	26.7	26	92.3	91.3	90.4	0	999.4	220.7	16	6.6	2	0
21-08-2025	06:00:00	27.1	26.5	26	93.1	92.7	92.1	0	999.3	220.6	26	7.6	2	0
21-08-2025	07:00:00	27.7	26.7	26.1	93	92.1	89.3	4.9	1000	230.7	24	7.6	2	0
21-08-2025	08:00:00	28.8	28	27.1	89.5	85.5	83.1	25.7	1001.7	233.6	27.3	8.6	2.6	0
21-08-2025	09:00:00	29.9	28.9	27.5	86.1	81.4	77.8	93.4	1002.7	231.5	32	10.4	3.3	0
21-08-2025	10:00:00	29.9	29.3	28.9	79.7	78.7	77.8	78.3	1003.4	232.1	29.3	10.2	2.6	0
21-08-2025	11:00:00	31.8	30.8	29.2	78.6	73.8	70	196.4	1004.4	237.5	28	9.6	2	0
21-08-2025	12:00:00	33.4	32.8	32.1	67.2	65.5	63.4	216.3	1004.3	227.5	29.3	8.5	2.6	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Ghogha station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
21-08-2025	13:09:20	29.3	28.2	27.1	90.3	88.8	86.5	82.6	1001.5	219.3	26.6	8.5	2.6	0
21-08-2025	14:00:00	29.7	27.7	26.5	90.2	86.5	77.8	64.2	1002.1	226.4	35.3	8.7	2	2
21-08-2025	15:00:00	29.3	28.2	27.1	90.3	88.8	86.5	82.6	1001.5	219.3	26.6	8.5	2.6	0
21-08-2025	16:00:00	29.2	28.7	28.2	87.3	86.7	86.2	41.8	1001.6	234.5	14	6.7	2	0
21-08-2025	17:00:00	29.8	28.9	28	89.9	88.2	85.2	48.3	1001.1	233.1	24	7	1.3	0
21-08-2025	18:00:00	29.4	28.6	27.3	89	85.9	84.4	13.5	1001.5	239	27.3	7.7	1.3	0
21-08-2025	19:00:00	28.8	27.8	26.7	93.3	91.3	88.7	9.8	1001.5	231.7	14.6	3.7	0	0
21-08-2025	20:00:00	28.2	27.4	26.5	95	93.8	92.5	6.5	1002.2	235	8	1.7	0	0
21-08-2025	21:00:00	28.4	27.3	26.4	95.5	94.9	94.3	6.7	1003.1	214.4	6.6	1.3	0	0
21-08-2025	22:00:00	28.2	27.3	26.5	95.5	95.1	94.6	5.9	1003.4	223.7	16	5.6	1.3	0
21-08-2025	23:00:00	28.1	27.1	26.3	95	93.9	92.8	4.5	1003.6	226.7	18	7	2	0
22-08-2025	00:00:00	27.6	26.9	26.2	93.4	92.9	92.4	3.1	1003.7	225.1	22	7.6	2.6	0
22-08-2025	01:00:00	27.5	26.7	26.2	93.1	92.6	92.1	1.8	1003.3	223.5	22.6	8	3.3	0
22-08-2025	02:00:00	27.3	26.7	26.1	92.7	92.2	91.7	1.1	1002.7	218.5	29.3	8.4	2.6	0
22-08-2025	03:00:00	27.3	26.7	26.2	92.7	92.1	90.8	0.2	1002	220.9	24.6	7.8	1.3	0
22-08-2025	04:00:00	27.3	26.7	26.1	91.1	90.3	89.8	0	1001.7	228.1	22.6	7.2	0.6	0
22-08-2025	05:00:00	27.1	26.5	26	91.7	90.9	90.3	0	1001.6	232	17.3	5.6	0.6	0
22-08-2025	06:00:00	27	26.5	26.1	91.9	91.2	90.5	0	1001.9	234.7	19.3	6.1	1.3	0
22-08-2025	07:00:00	27.1	26.5	26.1	91.2	90.7	90.1	2.2	1002.7	228	16.6	6.5	2	0
22-08-2025	08:00:00	28.6	28	27.2	87.2	85.6	84.3	58.8	1004.4	233.7	22.6	9	3.3	0
22-08-2025	09:00:00	29.8	29.1	28	84.7	80	76.8	103.1	1004.9	234.7	30.6	10.1	3.3	0
22-08-2025	10:00:00	29.27	28.64	27.55	85.73	80.55	77.36	123.9	998.6	221.2	19.8	7.4	1.43	0
22-08-2025	11:00:00	29.91	29.64	28.45	81.09	77.91	76.64	176.0	999.0	216.8	24.2	8.8	2.2	0
22-08-2025	12:00:00	29.91	29.27	28.73	80.73	78.73	76.18	193.9	1000.1	208.6	22.66	7.48	0	0
22-08-2025	13:00:00	29.73	29.18	28.36	82.27	78.73	76.36	191.2	1000.4	215.0	25.63	7.37	1.43	0
22-08-2025	14:00:00	30.09	29.45	28.91	79.82	77.09	74.73	183.4	1000.3	214.1	24.2	7.59	1.43	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Ghogha station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
22-08-2025	15:00:00	30.09	29.64	29.18	77.00	75.27	73.73	177.2	999.9	216.2	23.43	8.8	2.2	0
22-08-2025	16:00:00	29.55	28.73	26.91	85.09	78.36	75.00	147.2	999.5	216.3	26.4	8.14	0.66	0
22-08-2025	17:00:00	29.55	28.36	25.91	87.55	79.73	76.00	86.9	999.9	218.3	20.46	7.48	2.2	0
22-08-2025	18:00:00	28.36	26.09	24.82	98.91	90.73	86.64	13.9	999.5	210.2	17.6	7.26	2.2	0
22-08-2025	19:00:00	27.82	27.45	26.91	87.36	84.09	82.09	1.4	999.4	210.1	28.6	8.36	2.2	0
22-08-2025	20:00:00	27.82	27.45	27.27	83.73	82.82	82.09	0	1000.1	219.7	26.4	8.36	2.2	0
22-08-2025	21:00:00	27.82	27.27	26.73	86.45	83.82	82.18	0	1001.8	222.5	30.03	9.46	2.86	0
22-08-2025	22:00:00	27.82	27.45	27.18	83.64	82.64	81.45	0	1002.8	220.5	35.2	11.44	3.63	0
22-08-2025	23:00:00	27.64	27.45	27.09	83.45	82.36	80.00	0	1003.5	221.0	32.23	11.22	2.86	0
23-08-2025	00:00:00	27.64	27.27	27.00	84.64	83.91	82.73	0	1004.5	226.2	30.8	10.56	2.2	0
23-08-2025	01:00:00	27.55	27.27	27.00	83.82	83.09	82.36	0	1004.4	216.7	32.23	9.35	2.86	0
23-08-2025	02:00:00	27.55	27.27	27.00	83.64	82.73	82.00	0	1001.6	208.9	29.26	9.35	2.86	0
23-08-2025	03:00:00	27.45	27.18	26.91	84.27	83.00	82.00	0	1002.2	215.6	38.83	9.57	2.2	0
23-08-2025	04:00:00	27.45	27.18	26.82	85.00	83.82	82.73	0	1001.6	208.9	29.26	9.35	2.86	0
23-08-2025	05:00:00	27.36	26.64	26.09	88.09	86.27	83.45	0	1001.7	223.3	15.4	7.37	2.2	0
23-08-2025	06:00:00	27.00	26.55	26.09	87.91	87.09	86.18	0	1001.2	222.0	26.4	7.7	1.43	0
23-08-2025	07:00:00	27.27	26.82	26.36	86.55	85.36	84.36	3	1001.6	227.6	30.03	8.47	1.43	0.4
23-08-2025	08:00:00	27.36	27.00	26.36	88.55	85.91	85.00	12.1	1001.6	220.7	16.06	4.07	0	0
23-08-2025	09:00:00	27.36	26.64	25.91	87.73	85.45	83.18	15.4	1002.3	223.8	8.8	1.87	0	0.42
23-08-2025	10:00:00	25.73	25.27	24.73	98.82	97.55	91.36	19.4	1003.2	204.2	7.26	1.43	0	0.3
23-08-2025	11:00:00	26.36	25.45	24.64	98.91	97.82	96.36	27.6	1003.5	213.0	17.6	6.16	1.43	0.0
23-08-2025	12:00:00	26.36	25.45	24.64	85.73	83.73	81.82	73.9	1003.7	215.9	19.8	7.7	2.2	0.3
23-08-2025	13:00:00	28.18	27.82	26.82	85.91	82.27	80.18	78.3	1003.8	214.4	24.2	8.36	2.86	0
23-08-2025	14:00:00	28.55	28.18	27.55	80.82	79.27	78.36	77.5	1003.4	212.9	24.86	8.8	3.63	0.4
23-08-2025	15:00:00	29.18	28.36	27.64	79.73	77.82	75.27	107.9	1002.8	208.1	32.23	9.24	2.86	0.3
23-08-2025	16:00:00	29.27	28.64	28.09	79.82	77.82	75.36	93.3	1002.1	210.4	27.06	8.58	1.43	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Ghogha station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
23-08-2025	17:00:00	28.36	27.55	26.73	85.45	81.91	78.45	27.5	1001.8	217.2	24.86	7.92	0.66	0.4
23-08-2025	18:00:00	27.82	27.55	27.18	82.91	81.27	79.73	8.8	1001.7	221.0	19.03	6.16	0.66	0
23-08-2025	19:00:00	27.82	27.55	27.27	82.27	81.27	80.27	0.9	1002.0	223.5	21.23	6.71	1.43	0.3
23-08-2025	20:00:00	27.82	27.55	27.27	81.64	80.64	79.82	0	1002.8	217.1	18.26	7.15	2.2	0
23-08-2025	21:00:00	27.82	27.45	27.27	81.82	80.91	79.82	0	1004.5	222.6	24.86	9.9	3.63	0.4
23-08-2025	22:00:00	29.82	27.45	27.18	81.55	80.55	79.18	0	1005.0	223.5	33.66	11.11	3.63	0.3
23-08-2025	23:00:00	27.82	27.45	27.09	81.82	80.55	79.73	0	1004.8	234.6	23.43	6.82	1.43	0
24-08-2025	00:00:00	27.73	27.00	26.27	86.64	83.45	80.82	0	1004.1	234.1	32.23	7.7	2.2	0.4
24-08-2025	01:00:00	27.27	26.36	25.27	90.36	86.82	84.27	0	1003.0	234.6	24.2	6.27	1.43	0
24-08-2025	02:00:00	27.45	28.00	28.64	95.45	90.09	84.73	0	1002.2	261.3	49.06	6.6	1.43	0.3
24-08-2025	03:00:00	26.36	25.73	24.45	92.73	90.18	88.36	0	1000.7	233.1	22	5.94	0	0
24-08-2025	04:00:00	27.00	26.45	25.82	89.55	88.09	86.55	0	1000.8	227.6	0	3.63	3.63	0.4
24-08-2025	05:00:00	26.91	26.36	25.91	89.45	87.73	86.00	0	1000.1	234.0	24.86	6.05	0.66	0.3
24-08-2025	06:00:00	27.18	26.73	26.27	88.55	86.00	83.00	0	1000.2	222.8	13.2	5.06	0	0
24-08-2025	07:00:00	27.09	26.36	25.73	87.55	85.82	83.36	0.4	1001.0	226.9	11.66	3.74	0	0
24-08-2025	08:00:00	27.18	26.55	26.09	88.36	87.36	86.45	15.6	1001.9	227.0	9.46	4.51	0.66	0
24-08-2025	09:00:00	27.09	26.18	24.73	98.45	89.18	86.09	9.1	1002.8	224.0	11.66	3.96	0.66	0
24-08-2025	10:00:00	26.09	25.36	24.64	98.82	97.73	96.36	12.2	1003.1	222.6	20.46	6.05	1.43	0
24-08-2025	11:00:00	27.64	26.64	25.45	99.00	93.27	88.18	49.0	1003.2	227.2	18.26	6.27	1.43	0
24-08-2025	12:00:00	28.64	27.73	26.55	90.36	85.45	80.45	89.4	1002.8	218.4	19.03	6.16	0.66	0
24-08-2025	13:00:00	29.27	28.55	28.00	81.18	79.45	74.91	126.5	1002.1	193.6	10.23	4.29	0.66	0
24-08-2025	14:00:00	29.73	29.36	28.82	78.27	76.09	74.00	196.8	1001.3	205.0	19.03	6.6	2.2	0
24-08-2025	15:00:00	29.73	29.27	28.73	77.55	75.64	74.55	157.9	1001.5	206.5	15.4	5.39	0	0
24-08-2025	16:00:00	29.73	29.18	28.73	77.27	75.09	73.64	134.2	1001.9	218.6	9.46	2.97	0	0
24-08-2025	17:00:00	29.82	29.09	28.45	76.91	75.64	73.82	95.6	1002.3	225.1	8.03	2.97	0	0
24-08-2025	18:00:00	29.18	28.45	27.82	79.27	77.73	75.55	40.9	1002.6	229.0	5.06	1.54	0	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Ghogha station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
24-08-2025	19:00:00	28.18	27.82	27.45	80.82	79.73	78.45	2.7	1003.3	224.2	13.86	2.2	0	0
24-08-2025	20:00:00	28.00	27.55	27.27	82.36	81.36	80.18	0	1002.8	220.5	35.2	11.44	3.63	0
24-08-2025	21:00:00	27.82	27.36	26.64	84.27	82.73	80.82	0	1003.5	221.0	32.23	11.22	2.86	0
24-08-2025	22:00:00	26.91	25.36	24.27	98.82	92.00	83.91	0	1004.5	226.2	30.8	10.56	2.2	0
24-08-2025	23:00:00	25.64	24.91	24.27	98.45	97.73	96.55	0	1004.4	216.7	32.23	9.35	2.86	0
25-08-2025	00:00:00	26.45	26.18	25.73	98.64	93.09	91.00	0	1001.6	208.9	29.26	9.35	2.86	0
25-08-2025	01:00:00	27.27	26.73	25.91	91.55	88.18	85.09	0	1002.2	215.6	38.83	9.57	2.2	0
25-08-2025	02:00:00	27.27	27.00	26.73	86.18	85.27	84.36	0	1001.6	208.9	29.26	9.35	2.86	0
25-08-2025	03:00:00	27.00	25.55	24.82	98.45	91.45	84.36	0	1001.7	223.3	15.4	7.37	2.2	0
25-08-2025	04:00:00	26.09	25.55	24.82	98.82	97.64	91.09	0	1001.2	222.0	26.4	7.7	1.43	0
25-08-2025	05:00:00	26.18	25.73	24.91	98.91	97.82	91.27	0	1001.6	227.6	30.03	8.47	1.43	0
25-08-2025	06:00:00	26.64	26.09	25.55	98.91	97.36	90.91	0	1001.6	220.7	16.06	4.07	0	0
25-08-2025	07:00:00	28.00	25.55	24.91	98.73	97.73	96.36	0	1002.3	223.8	8.8	1.87	0	0
25-08-2025	08:00:00	26.36	25.73	25.00	98.82	97.73	96.45	0.8	1003.2	204.2	7.26	1.43	0	0
25-08-2025	09:00:00	27.36	26.73	25.91	98.64	90.45	86.18	31.6	1003.5	213.0	17.6	6.16	1.43	0
25-08-2025	10:00:00	27.45	27.00	26.45	88.55	86.91	83.91	30.3	1003.7	215.9	19.8	7.7	2.2	0
25-08-2025	11:00:00	26.82	26.09	25.45	98.73	92.55	88.27	34.5	1000.4	215.0	25.63	7.37	1.43	0
25-08-2025	12:00:00	31.2	30.1	29.5	75.5	74	71.7	128.5	1004.7	246.3	21.3	6.2	1.3	0
25-08-2025	13:00:00	31.8	30.8	28.5	80.8	71.4	68.3	116.4	1004	245.8	29.3	7	2	0
25-08-2025	14:00:00	33.2	30.7	28.6	83.2	76.8	63.6	224.2	1002.9	246.3	22	5.7	1.3	0
25-08-2025	15:00:00	33.1	31.6	27.3	86.1	68.9	63.9	124.8	1002.1	274.4	44.6	6	1.3	4
25-08-2025	16:00:00	29.7	28.6	27.1	91.2	87.3	79.9	98	1000.6	244.8	20	5.4	0	0.5
25-08-2025	17:00:00	29.2	29.2	29.2	79.8	79.8	79.8	29.6	1000.7	239	0	3.3	3.3	0
25-08-2025	18:00:00	30.1	29.3	27.5	86.4	79.5	76.8	22.5	1000	245.7	22.6	5.5	0.6	0
25-08-2025	19:00:00	29.2	28	27.2	88	87	85.8	10.5	1000.1	233.9	12	4.6	0	0
25-08-2025	20:00:00	28.5	27.7	27.2	88.5	86.9	85.8	0	1000.9	238.2	10.6	3.4	0	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Ghogha station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
25-08-2025	21:00:00	27.9	27.3	26.9	88.7	87.8	87.1	0.1	1001.8	238.3	8.6	4.1	0.6	0
25-08-2025	22:00:00	27.4	27	26.7	90.2	89.2	87.7	0	1002.7	235.2	10.6	3.6	0.6	0
25-08-2025	23:00:00	27.6	27.1	26.7	89.8	87.4	85.3	0	1003	233.7	18.6	5.5	1.3	0
26-08-2025	00:00:00	27.3	26.9	26.6	90	88.7	87.6	0	1003.1	238.6	16.6	5.7	1.3	0
26-08-2025	01:00:00	27.3	26.8	26.5	91.2	89.9	88.7	0	1002.7	229.3	17.3	5.6	0.6	0
26-08-2025	02:00:00	26.7	26.4	25.9	94.4	94	93.5	0	1002	203.3	9.3	3.9	0.6	0
26-08-2025	03:00:00	26.7	26.2	25.6	95.8	94.6	93.6	0	1001.2	215.3	17.3	6	2	0
26-08-2025	04:00:00	26.6	26.1	25.6	96.1	95.7	95.2	0	1001.4	216.8	14	4.9	0	0
26-08-2025	05:00:00	26.5	26.1	25.6	95.9	95.6	95.3	0	1001.8	229.5	8.6	2.7	0	0
26-08-2025	06:00:00	26.5	26.1	25.6	96.5	96	95.5	0	1002.2	236.4	7.3	2.7	0	0
26-08-2025	07:00:00	26.7	26.1	25.7	96.6	96.1	95.6	0.7	1002.5	240.5	4.6	1.4	0	0
26-08-2025	08:00:00	28	26.9	26	96.1	94.5	91	27.9	1003.2	235.4	12.6	2	0	0
26-08-2025	09:00:00	29.9	28.9	27.5	86.1	81.4	77.8	93.4	1002.7	231.5	32	10.4	3.3	0
26-08-2025	10:00:00	29.9	29.3	28.9	79.7	78.7	77.8	78.3	1003.4	232.1	29.3	10.2	2.6	0
26-08-2025	11:00:00	31.8	30.8	29.2	78.6	73.8	70	196.4	1004.4	237.5	28	9.6	2	0
26-08-2025	12:00:00	33.4	32.8	32.1	67.2	65.5	63.4	216.3	1004.3	227.5	29.3	8.5	2.6	0
26-08-2025	13:00:00	29.3	28.2	27.1	90.3	88.8	86.5	82.6	1001.5	219.3	26.6	8.5	2.6	0
26-08-2025	14:00:00	29.7	27.7	26.5	90.2	86.5	77.8	64.2	1002.1	226.4	35.3	8.7	2	2
26-08-2025	15:00:00	29.3	28.2	27.1	90.3	88.8	86.5	82.6	1001.5	219.3	26.6	8.5	2.6	0
26-08-2025	16:00:00	29.2	28.7	28.2	87.3	86.7	86.2	41.8	1001.6	234.5	14	6.7	2	0
26-08-2025	17:00:00	29.8	28.9	28	89.9	88.2	85.2	48.3	1001.1	233.1	24	7	1.3	0
26-08-2025	18:00:00	29.4	28.6	27.3	89	85.9	84.4	13.5	1001.5	239	27.3	7.7	1.3	0
26-08-2025	19:00:00	28.8	27.8	26.7	93.3	91.3	88.7	9.8	1001.5	231.7	14.6	3.7	0	0
26-08-2025	20:00:00	28.2	27.4	26.5	95	93.8	92.5	6.5	1002.2	235	8	1.7	0	0
26-08-2025	21:00:00	28.4	27.3	26.4	95.5	94.9	94.3	6.7	1003.1	214.4	6.6	1.3	0	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Ghogha station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
26-08-2025	22:00:00	28.2	27.3	26.5	95.5	95.1	94.6	5.9	1003.4	223.7	16	5.6	1.3	0
26-08-2025	23:00:00	28.1	27.1	26.3	95	93.9	92.8	4.5	1003.6	226.7	18	7	2	0
27-08-2025	00:00:00	27.7	27.2	26.6	90.5	89.4	88.3	0	1000.3	225.7	23.3	6.7	1.3	0
27-08-2025	01:00:00	27.6	27	26.5	91.5	90.8	89.9	0	1000.2	224.8	22	6.9	1.3	0
27-08-2025	02:00:00	27.7	27.1	26.6	91.1	90	88.9	0	999.8	227	21.3	8	2	0
27-08-2025	03:00:00	27.8	27.1	26.6	89.7	88.9	88.1	0	999.4	227.1	24	7.4	0.6	0
27-08-2025	04:00:00	27.4	26.9	26.5	91	90.1	89.3	0	999.8	229.2	18.6	6.8	2	0
27-08-2025	05:00:00	27.3	26.7	26	92.3	91.3	90.4	0	999.4	220.7	16	6.6	2	0
27-08-2025	06:00:00	27.1	26.5	26	93.1	92.7	92.1	0	999.3	220.6	26	7.6	2	0
27-08-2025	07:00:00	27.7	26.7	26.1	93	92.1	89.3	4.9	1000	230.7	24	7.6	2	0
27-08-2025	08:00:00	28.8	28	27.1	89.5	85.5	83.1	25.7	1001.7	233.6	27.3	8.6	2.6	0
27-08-2025	09:00:00	29.9	28.9	27.5	86.1	81.4	77.8	93.4	1002.7	231.5	32	10.4	3.3	0
27-08-2025	10:00:00	29.9	29.3	28.9	79.7	78.7	77.8	78.3	1003.4	232.1	29.3	10.2	2.6	0
27-08-2025	11:00:00	31.8	30.8	29.2	78.6	73.8	70	196.4	1004.4	237.5	28	9.6	2	0
27-08-2025	12:00:00	33.4	32.8	32.1	67.2	65.5	63.4	216.3	1004.3	227.5	29.3	8.5	2.6	0
27-08-2025	13:00:00	29.3	28.2	27.1	90.3	88.8	86.5	82.6	1001.5	219.3	26.6	8.5	2.6	0
27-08-2025	14:00:00	29.7	27.7	26.5	90.2	86.5	77.8	64.2	1002.1	226.4	35.3	8.7	2	2
27-08-2025	15:00:00	29.3	28.2	27.1	90.3	88.8	86.5	82.6	1001.5	219.3	26.6	8.5	2.6	0
27-08-2025	16:00:00	29.2	28.7	28.2	87.3	86.7	86.2	41.8	1001.6	234.5	14	6.7	2	0
27-08-2025	17:00:00	29.8	28.9	28	89.9	88.2	85.2	48.3	1001.1	233.1	24	7	1.3	0
27-08-2025	18:00:00	29.4	28.6	27.3	89	85.9	84.4	13.5	1001.5	239	27.3	7.7	1.3	0
27-08-2025	19:00:00	28.8	27.8	26.7	93.3	91.3	88.7	9.8	1001.5	231.7	14.6	3.7	0	0
27-08-2025	20:00:00	28.2	27.4	26.5	95	93.8	92.5	6.5	1002.2	235	8	1.7	0	0
27-08-2025	21:00:00	28.4	27.3	26.4	95.5	94.9	94.3	6.7	1003.1	214.4	6.6	1.3	0	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Ghogha station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
27-08-2025	22:00:00	28.2	27.3	26.5	95.5	95.1	94.6	5.9	1003.4	223.7	16	5.6	1.3	0
27-08-2025	23:00:00	28.1	27.1	26.3	95	93.9	92.8	4.5	1003.6	226.7	18	7	2	0
28-08-2025	00:00:00	27.6	26.9	26.2	93.4	92.9	92.4	3.1	1003.7	225.1	22	7.6	2.6	0
28-08-2025	01:00:00	27.5	26.7	26.2	93.1	92.6	92.1	1.8	1003.3	223.5	22.6	8	3.3	0
28-08-2025	02:00:00	27.3	26.7	26.1	92.7	92.2	91.7	1.1	1002.7	218.5	29.3	8.4	2.6	0
28-08-2025	03:00:00	27.3	26.7	26.2	92.7	92.1	90.8	0.2	1002	220.9	24.6	7.8	1.3	0
28-08-2025	04:00:00	27.3	26.7	26.1	91.1	90.3	89.8	0	1001.7	228.1	22.6	7.2	0.6	0
28-08-2025	05:00:00	27.1	26.5	26	91.7	90.9	90.3	0	1001.6	232	17.3	5.6	0.6	0
28-08-2025	06:00:00	27	26.5	26.1	91.9	91.2	90.5	0	1001.9	234.7	19.3	6.1	1.3	0
28-08-2025	07:00:00	27.1	26.5	26.1	91.2	90.7	90.1	2.2	1002.7	228	16.6	6.5	2	0
28-08-2025	08:00:00	28.6	28	27.2	87.2	85.6	84.3	58.8	1004.4	233.7	22.6	9	3.3	0
28-08-2025	09:00:00	28.1	27.3	26.3	94.7	94.3	93.8	13.1	1002.8	264.5	14.6	3.6	0	0
28-08-2025	10:00:00	28.2	27.3	26.5	94.8	94.2	93.6	15.1	1002.7	251.2	12	2.6	0	0
28-08-2025	11:00:00	29.4	28	26.9	94	92	87.4	52	1003.1	246.1	10	2.3	0	0
28-08-2025	12:00:00	30.6	29.5	28.3	87.5	82.8	78.3	96.8	1003.3	257.2	13.3	3.4	0	0
28-08-2025	13:00:00	33.6	31.4	30	79.1	74	64.9	176.9	1003.5	249	14.6	3.4	0	0
28-08-2025	14:00:00	33.4	32.8	32.1	69.2	66.6	64.5	183.2	1002.7	265.8	16.6	3.4	0	0
28-08-2025	15:00:00	33	31.1	29.4	82.3	75.6	66.2	82.5	1001	331.2	20.6	4.6	0	0
28-08-2025	16:00:00	31.6	31	30.4	77.4	76.1	74.9	47.7	1000	334	15.3	2.9	0	0
28-08-2025	17:00:00	31.3	30.9	30.4	79.4	78.3	76.9	27.8	999.7	344	5.3	0.3	0	0
28-08-2025	18:00:00	31.2	30.6	30.1	83	80.6	78.6	16.7	999.7	166.7	10.6	0.7	0	0
28-08-2025	19:00:00	30.4	29.7	29	86.3	84.6	82.5	3.3	999.9	195.8	18	5.7	1.3	0
28-08-2025	20:00:00	29.4	28.9	28.4	89.1	87.6	86	0	1000.4	199.5	19.3	6	1.3	0
28-08-2025	21:00:00	29.1	28.7	28.3	90.3	89.5	88.8	0	1001.5	207.8	14.6	5.9	1.3	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Ghogha station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
28-08-2025	22:00:00	29.1	28.7	28.3	90.1	88.9	88	0	1001.9	218.5	13.3	5.3	2	0
28-08-2025	23:00:00	29.2	28.5	28.1	88.5	88.1	87.2	0	1001.9	229.7	14	5	0	0
29-08-2025	00:00:00	26.3	24.9	23.8	93.7	92	90.3	7.5	1002.1	74.3	24	4.2	1.3	17
29-08-2025	01:00:00	25.9	24.7	23.7	97.2	95.6	93.4	7.3	1000.7	231.9	19.3	2.9	0	3
29-08-2025	02:00:00	26.3	25.1	24	100	98.1	96.6	7.1	999.3	241.9	9.3	3.2	0	0
29-08-2025	03:00:00	26.9	25.7	24.6	103.1	101	99.1	6.5	998.6	236.6	12	3.2	0	0
29-08-2025	04:00:00	27.1	26.1	25.1	102.4	100	98.8	6.2	998.9	239.2	9.3	0.9	0	0
29-08-2025	05:00:00	27.6	26.4	25.4	102.9	100.5	99.1	5.2	999.2	240.9	8	2.6	0	0
29-08-2025	06:00:00	27.7	26.8	25.7	104.5	102.3	99.8	3.9	999.9	260	12.6	2.6	0	0
29-08-2025	07:00:00	27.6	26.7	25.8	101.1	98	96	4.4	1000.6	263.1	13.3	3.3	0.6	0
29-08-2025	08:00:00	27.8	26.8	25.9	96.6	96	95.6	14.1	1001.5	318.2	9.3	1.6	0	0
29-08-2025	09:00:00	28.5	27.7	26.3	96.3	94.9	93.4	28.4	1002.6	298.8	8	0.9	0	0
29-08-2025	10:00:00	27.7	26.8	25.7	104.5	102.3	99.8	3.9	999.9	260	12.6	2.6	0	0
29-08-2025	11:00:00	32.8	31.8	30.4	76.7	69.9	66	242.7	1004.4	307.6	16	3.7	0	0
29-08-2025	12:00:00	33.8	32.8	32	67.4	64.5	60.3	206.6	1004	296.3	18.6	3.5	0	0
29-08-2025	13:00:00	33.8	32.3	31.2	68.7	66	61.3	129.2	1003.2	330.5	14.6	4.2	0	0
29-08-2025	14:00:00	33.1	32.1	31.2	75.5	68.3	63.4	101.5	1002.3	206.9	16	1.8	0	0
29-08-2025	15:00:00	30.8	29.7	28.8	86.3	83.3	80.3	19.7	1001.5	131.6	21.3	8.5	0.6	0
29-08-2025	16:00:00	29.4	28.7	27.5	91.4	87.9	86.1	12.1	999.9	197.5	14	5.6	1.3	1
29-08-2025	17:00:00	29.5	28.5	27.4	94.2	93.4	91	46.8	999.2	213.2	13.3	4.9	0	0
29-08-2025	18:00:00	29.3	28.6	27.9	93.9	93.1	92.3	30.2	999.9	215.8	12	4.6	0	0
29-08-2025	19:00:00	28.6	28.1	27.5	93.6	93	92.6	8.4	1000.4	204.8	14.6	5.3	0.6	0
29-08-2025	20:00:00	28.4	27.8	27.4	94.6	94.1	93.3	0	1001.3	198.9	13.3	4.8	0	0
29-08-2025	21:00:00	28.5	27.9	27.4	94.7	94.2	93.8	0	1001.3	208.2	16.6	6.9	2	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Ghogha station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
29-08-2025	22:00:00	28.4	27.8	27.3	95.1	94.6	94	0	1001.9	217.9	20.6	7.4	1.3	0
29-08-2025	23:00:00	28.2	27.8	27.5	94.2	93.3	92.4	0	1002.5	222	26	8.4	2	0
30-08-2025	00:00:00	28.2	27.8	27.5	92.9	92.4	91.9	0	1002.8	228.1	22	7.8	2.6	0
30-08-2025	01:00:00	28.1	27.8	27.4	93.4	92.9	92.4	0	1002.2	223.5	19.3	6.9	1.3	0
30-08-2025	02:00:00	28	27.6	27.3	92.8	91.5	90.4	0	1001.9	232.5	19.3	6.2	1.3	0
30-08-2025	03:00:00	28.4	27.4	26.3	92.9	91.1	89.9	3.9	1001.6	233.8	14.6	5	0.6	0
30-08-2025	04:00:00	28.2	27.1	26.2	93.4	93	92.5	4.7	1000.9	237.9	10	2.8	0	0
30-08-2025	05:00:00	27.9	27.1	26.5	93.4	92.8	92.1	0.2	1001.2	241.6	5.3	0.6	0	0
30-08-2025	06:00:00	28.2	26.9	25.7	94.2	92.6	91.7	6.4	1001.6	241	10	1.6	0	0.5
30-08-2025	07:00:00	27.9	26.7	25.7	96.1	94.9	93.7	8.5	1002.7	235	9.3	3.6	0	0
30-08-2025	08:00:00	28.1	27.1	25.9	96.8	96.1	95.2	14.6	1003.6	236.1	10	4.4	0.6	0
30-08-2025	09:00:00	28.9	27.7	26.4	95.8	93.2	90.7	34.1	1003.7	237.5	10.6	3.1	0	0
30-08-2025	10:00:00	31.9	30.2	27.6	91.1	80.6	72.6	165.6	1005.2	260.8	17.3	4.5	0	0
30-08-2025	11:00:00	31.3	30.6	29.8	78.1	75.9	73.7	114.1	1005.3	257.2	14.6	3.4	0.6	0
30-08-2025	12:00:00	33.1	32.2	30.6	75	68.4	64.5	202.6	1005.8	252.5	19.3	3.7	0	0
30-08-2025	13:00:00	34	32.9	31.8	67.9	64.2	59.5	171.4	1005.6	251.1	12.6	3.5	0	0
30-08-2025	14:00:00	33.8	32.2	29	80.1	67.8	60.7	78.8	1004.6	320.9	23.3	2.2	0	0
30-08-2025	15:00:00	29.8	27.7	26.2	94	89.1	79.6	17.6	1002.8	22.9	23.3	2	0	17.5
30-08-2025	16:00:00	28.6	27.4	26.3	94.7	94.1	93.3	56.8	1002.1	230.8	16	4.9	0	0.5
30-08-2025	18:00:00	30	28.8	28	91.5	89.9	88.5	18	1002.9	204.4	8.6	1	0	0
30-08-2025	19:00:00	29.3	28.4	27.4	93.5	92.1	91.1	5.2	1003	216.6	10.6	4.3	0.6	0
30-08-2025	20:00:00	29	27.8	26.7	95.6	94.4	93.1	7.4	1003.2	198.4	12.6	5.5	1.3	0
30-08-2025	21:00:00	28.4	27.4	26.3	96.8	96	95.1	7.2	1003.2	204.8	14.6	5.4	0.6	0
30-08-2025	22:00:00	28.8	27.4	26.3	98.2	97.2	96.4	6.9	1003.8	214.4	18.6	5.4	0	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Ghogha station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
30-08-2025	23:00:00	28.3	27.2	26.3	98	96.9	95.9	5.5	1004.2	220.5	17.3	6.6	2.6	0
31-08-2025	00:00:00	28.1	27.2	26.3	96.5	95.9	95.5	4.4	1004.1	224.2	18.6	6.8	2	0
31-08-2025	01:00:00	28.2	27.2	26.4	96	95.6	95.2	3.7	1003.6	232.4	18.6	7.2	2	0
31-08-2025	02:00:00	28	27.2	26.5	96	95.6	95.2	3.3	1003.1	233.4	18	7	2	0
31-08-2025	03:00:00	28.2	27.1	26.4	96.2	95.7	95.3	2.6	1002.8	234.8	14.6	5.7	1.3	0
31-08-2025	04:00:00	28	27	26.3	95.8	95.3	94.9	2.2	1002.6	230.5	12	2.7	0	0
31-08-2025	05:00:00	27.8	27	26.3	95.9	95.4	94.9	1.9	1002.8	236.1	8.6	2.9	0	0
31-08-2025	06:00:00	27.6	26.9	26.2	96.6	95.9	95.5	1.8	1003	234.3	8	3.1	0	0
31-08-2025	07:00:00	27.6	26.8	26.1	97	96.5	96.1	3	1003.4	234.7	9.3	1.7	0	0
31-08-2025	08:00:00	27.9	27	25.7	97.2	96.5	95.7	11.2	1004.1	221.1	8	2.2	0	0
31-08-2025	09:00:00	28.1	27.4	26.5	96.1	94.5	92.4	20.6	1004.9	226.8	12.6	3	0	0
31-08-2025	10:00:00	29.3	28.2	27.1	92.7	87.7	82.7	65.7	1005.4	237.2	17.3	5.8	0.6	0
31-08-2025	11:00:00	30.2	29.4	28.4	83.1	79.9	77.2	108.5	1005.6	242.3	17.3	5.8	1.3	0
31-08-2025	12:00:00	31.2	30.3	29.6	77.9	76.1	73.9	139.2	1005.9	240.6	19.3	5.7	1.3	0
31-08-2025	13:00:00	32.8	31.8	30.6	74.2	70	65.3	206.8	1005.9	237.2	16.6	5.5	0.6	0
31-08-2025	14:00:00	33.9	33.1	32.2	68.3	64.7	61.3	227.6	1005.2	210.8	22.6	3.8	0	0
31-08-2025	15:00:00	32.7	31	30	79.1	75.5	67.9	123.8	1003.7	196.2	28.6	8.5	3.3	0
31-08-2025	16:00:00	30.6	28.5	26	92.6	85.2	78.6	38.8	1002.3	257.6	34.6	3.1	0.6	6.5
31-08-2025	17:00:00	28.7	27.3	26.1	95.3	94.2	92.1	26.3	1001.5	218.4	8	1.3	0	0.5
31-08-2025	18:00:00	28.9	28	27	95.3	93.4	91.5	24.8	1001.5	214.4	18	6.4	0.6	0
31-08-2025	19:00:00	29.1	27.9	27.1	91.9	90.5	89.8	9.3	1001.5	233.4	18	5.4	0.6	0
31-08-2025	20:00:00	28.6	27.6	26.9	91.5	90.9	90.2	2.1	1001.7	224.9	12.6	5	0.6	0
31-08-2025	21:00:00	28.4	27.5	26.4	93.1	91.3	90.4	3.5	1002.1	228.5	14.6	5.2	1.3	0
31-08-2025	22:00:00	28.6	27.4	26.3	93.7	93.2	92.4	7.3	1002.6	230.3	16	5.5	0.6	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Ghogha station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
31-08-2025	23:00:00	28.5	27.3	26.4	93.5	90.6	86.6	5.7	1003.1	235.7	19.3	7.3	2	0
01-09-2025	00:00:00	28.5	27.2	26.5	88.5	87.6	86.3	3.4	1002.6	237.9	10	3.9	0	0
01-09-2025	01:00:00	28.4	27.3	26.6	88.5	87.1	85.6	2.1	1002.1	237.8	18	6.5	2	0
01-09-2025	02:00:00	28.2	27.2	26.5	88	86.6	85.5	1.2	1001.6	232.2	12.6	4.9	1.3	0
01-09-2025	03:00:00	27.6	26.9	26.3	89.5	88.6	87.6	0.2	1001.2	231.3	13.3	3.6	0	0
01-09-2025	04:00:00	27.4	26.7	26.2	89.8	89.3	88.8	0	1001.2	236.6	13.3	3.5	0	0
01-09-2025	05:00:00	27.8	26.9	26.3	89	86.4	85.5	0	1000.4	237.9	15.3	5.8	1.3	0
01-09-2025	06:00:00	27.4	26.5	26	88.7	87.6	85.9	0	1000.2	233.6	11.3	4.6	0.6	0
01-09-2025	07:00:00	27.2	26.4	25.9	89.5	88.2	87.4	1.5	1000.8	227.4	10	3.6	0.6	0
01-09-2025	08:00:00	28.1	26.9	26.1	90.2	89.1	86.4	34.6	1001.6	228.9	10	3.7	0	0
01-09-2025	09:00:00	29.8	29.4	27.5	86.9	75.7	74.8	140.4	1003.7	243.8	26	6.8	0	0
01-09-2025	10:00:00	31.4	30	29.2	76.2	73.5	69.6	171.1	1003.3	238.9	23.3	8.5	2.6	0
01-09-2025	11:00:00	33	31.9	31	69.6	65.8	62.8	208.5	1003.8	247	19.3	5.5	1.3	0
01-09-2025	12:00:00	32.4	31.4	30.7	70.2	67.5	64.5	135.8	1003.1	243.4	16	5.9	1.3	0
01-09-2025	13:00:00	34	32.6	31.2	68.8	63.1	58.7	244.5	1002.9	242.2	21.3	6.1	0.6	0
01-09-2025	14:00:00	35	33.6	32.5	63.8	59	53.8	180.8	1002.2	242.9	18	4.8	1.3	0
01-09-2025	15:00:00	33.1	32	30.2	75.9	68.4	62.5	137.5	1000.6	233.3	27.3	5.5	0	0
01-09-2025	16:00:00	33.2	32	30.6	73.4	68.6	64.7	160.1	1000	233.7	23.3	8	2	0
01-09-2025	17:00:00	32	31.1	30.4	74	72.5	70.7	106.3	999.2	236.3	22.6	8.1	2	0
01-09-2025	18:00:00	31.5	30.7	30	76.2	74.4	72.5	35.7	998.9	234.7	22.6	7.8	2.6	0
01-09-2025	19:00:00	30.4	29.8	29.2	79.5	77.2	74.5	1	999	236.7	18	6.6	2	0
01-09-2025	20:00:00	29.9	29.4	29	79.8	79	78.3	0	999.5	234.2	18	6.7	2	0
01-09-2025	21:00:00	29.6	29.1	28.6	79.9	78.8	77.1	0	1000.3	236.9	25.3	6.5	1.3	0
01-09-2025	22:00:00	29.3	28.6	28	79.9	78.2	77.3	0	1001.2	238.8	22.6	7.2	1.3	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Ghogha station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
01-09-2025	23:00:00	28.6	28.1	27.5	80.1	79	77.5	0	1001.4	240.7	19.3	5.6	1.3	0
02-09-2025	00:00:00	28	27.6	27.2	82.1	80.8	79.4	0	1001.6	239.2	16	5.1	0.6	0
02-09-2025	01:00:00	27.8	27.3	26.7	84.8	82.9	81.6	0	1001.5	233.7	12	3.7	0	0
02-09-2025	02:00:00	27.6	27.2	26.8	84.7	83.4	82.7	0	1001	235.6	16.6	4.4	0.6	0
02-09-2025	03:00:00	27.5	26.9	26.3	86.6	84.8	83.6	0	1000.5	236.7	13.3	3.5	0.6	0
02-09-2025	04:00:00	27	26.4	25.9	90.5	88.1	86.2	0	999.9	202.8	9.3	2.6	0	0
02-09-2025	05:00:00	26.6	26.2	25.8	93	91.7	90.1	0	999.9	193.5	7.3	1.3	0	0
02-09-2025	06:00:00	26.5	25.9	25.5	95	93.7	92.5	0	1000	213.8	6.6	2.4	0	0
02-09-2025	07:00:00	26.5	25.8	25.3	95.5	95	94.4	0.3	1000.5	245.3	7.3	1.4	0	0
02-09-2025	08:00:00	28.1	27	26	94.6	91.8	87.8	24.3	1001.7	254.4	10.6	2.4	0	0
02-09-2025	09:00:00	30.4	29.1	27.6	88	81.2	74.5	89.9	1002.9	244	16	5	1.3	0
02-09-2025	10:00:00	32.2	31.5	30	74.7	68.9	64.9	168.6	1004.7	271.4	20.6	3.7	0	0
02-09-2025	11:00:00	33	32.3	31.4	67.7	64.2	62.1	191.6	1004.7	283.7	21.3	4.3	1.3	0
02-09-2025	12:00:00	34.3	32.7	31.8	65.4	62.4	57.5	208.9	1004.5	268.8	16.6	3.6	0.6	0
02-09-2025	13:00:00	36.2	34.8	33.8	58.2	54.8	49.8	279.8	1004.4	271.7	15.3	3.2	0	0
02-09-2025	14:00:00	35.9	34.8	33.9	58.6	54.6	50.4	233	1003.2	240.3	23.3	4.2	0	0
02-09-2025	15:00:00	36.3	33.9	31	73.4	58.2	46.6	215.7	1002.2	169.3	21.3	5	0	0
02-09-2025	16:00:00	32.2	31.3	30.8	75.3	73	70.2	96.7	1000.4	167.3	23.3	6.9	1.3	0
02-09-2025	17:00:00	32	30.7	29.2	83.1	79.5	72.4	89.3	999.7	164.3	26	6.7	1.3	0.5
02-09-2025	19:00:00	30.4	29.6	28.6	84.9	83.5	82.5	7.1	1000.1	229.4	16.6	7.3	1.3	0
02-09-2025	20:00:00	30.2	29.3	28.6	84.2	83.4	82.4	4.6	1000.4	223.9	14.6	5.1	1.3	0
02-09-2025	21:00:00	29.9	29	28.4	84.9	84.1	83.7	2.2	1001.5	225.3	15.3	6.2	0.6	0
02-09-2025	22:00:00	29.8	29	28.4	85.4	82.7	77.8	0.5	1002.4	235	14.6	5.7	1.3	0
02-09-2025	23:00:00	29.3	28.5	27.8	78	75.9	74.7	0	1002.6	239.5	24.6	6.8	2	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Ghogha station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
03-09-2025	00:00:00	28.4	27.9	27.4	81	79.1	76.7	0	1002.9	237.9	15.3	5.8	1.3	0
03-09-2025	01:00:00	28.2	27.5	26.9	83.6	82.2	80.6	0	1002.3	243.7	16	5	1.3	0
03-09-2025	02:00:00	27.6	27.1	26.7	85.9	84.4	83.1	0	1001.5	244.4	16	5.3	0.6	0
03-09-2025	03:00:00	27.5	27	26.7	86.1	85.4	84.8	0	1001.3	247.8	14.6	4.6	0.6	0
03-09-2025	04:00:00	27.4	26.9	26.5	86.5	85.6	85.1	0	1001.1	243.2	18	5.1	1.3	0
03-09-2025	05:00:00	27.3	26.8	26.3	88.3	86.8	85.9	0	1001.3	235.3	12	4.7	0.6	0
03-09-2025	06:00:00	27.1	26.6	26.3	90	88.9	87.8	0	1001.8	235.8	12	3.6	0	0
03-09-2025	07:00:00	27.1	26.6	26.3	90.1	89.6	89.3	0	1002.3	239.4	10.6	2.2	0	0
03-09-2025	08:00:00	27.8	26.9	26.3	90	89.1	86.7	15.6	1003.2	251.4	7.3	1.6	0	0
03-09-2025	09:00:00	30.2	29.4	27.3	87.1	76.9	74.5	122.6	1004.8	305.8	14.6	3.9	0	0
03-09-2025	10:00:00	31.6	30.8	29.8	74.6	68.7	64.8	176.4	1005.2	321.6	22.6	5.9	2	0
03-09-2025	11:00:00	32.8	32.1	30.5	67.2	62.2	59.1	242	1005.8	331.4	24	7.2	2	0
03-09-2025	12:00:00	34.2	33	31.9	61.4	57.6	54.4	275.4	1005.3	332.6	20	7.4	0.6	0
03-09-2025	13:00:00	34.2	33.2	32.4	63.5	60.2	53.6	280.9	1004.8	36.8	19.3	5.1	0.6	0
03-09-2025	14:00:00	34.5	33	31.3	67	61.6	56.8	268.2	1004.1	64.2	19.3	5.4	1.3	0
03-09-2025	15:00:00	34.2	31.8	30.6	71.5	67	57.8	139	1002.8	134.8	22	6	1.3	0
03-09-2025	16:00:00	33.5	32.8	32	66.2	63.1	60.1	249.1	1002.3	180.7	22.6	7.2	2	0
03-09-2025	17:00:00	33.4	32.1	31.2	68.7	65.9	61.6	185	1001.3	200.7	26	9.4	2.6	0
03-09-2025	18:00:00	31.8	30.7	29.7	75.5	71.2	66.7	67.9	1000.7	200.7	24.6	10.1	4	0
03-09-2025	19:00:00	30.4	29.8	29.1	78.7	76.2	74.6	10.8	1000.4	203.2	27.3	9.9	3.3	0
03-09-2025	20:00:00	29.8	29.4	29	81	79.9	78.3	0	1001.1	200.5	22	8.3	3.3	0
03-09-2025	21:00:00	29.7	29.3	28.9	81	80.4	79.9	0	1001.7	208.5	19.3	6.2	2	0
03-09-2025	22:00:00	29.6	29.1	28.7	81	80.1	79.4	0	1002.2	227	16	6.2	1.3	0
03-09-2025	23:00:00	29.7	29.1	28.6	81.6	78.5	75.1	0	1002.6	239.9	18.6	6.8	2	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Ghogha station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
04-09-2025	00:00:00	29.8	28.7	27	82.7	78.3	75	4.2	1002.5	244.9	20	6.2	1.3	0
04-09-2025	01:00:00	28.9	27.7	25.5	88.3	82.5	79.7	7.8	1002.2	310	44	5	2	1
04-09-2025	02:00:00	27.2	25.7	24.6	94.4	92.1	88.1	8	1001.6	4.4	22.6	4.8	1.3	6.5
04-09-2025	03:00:00	27.2	26	24.9	94.6	93.8	93	7.8	1000.9	335.3	32	4	0	0.5
04-09-2025	04:00:00	26.7	25.5	24.5	96.5	95.1	93.8	8.4	1000.6	235.9	8	2.7	0	2
04-09-2025	05:00:00	26.5	25.4	24.3	98.6	97	95.9	8.3	1000.3	226.4	8	2.4	0	0
04-09-2025	06:00:00	26.5	25.3	24.1	102.7	99.2	97.5	8.3	1000.8	234.7	8.6	3.1	0	0
04-09-2025	07:00:00	26.7	25.5	24	107.6	105.2	100.8	9.3	1001.5	241.4	9.3	2.9	0	0
04-09-2025	08:00:00	27.3	26	24.6	107.3	103.9	98.6	23.3	1002.3	243.3	10	2.8	0	0
04-09-2025	09:00:00	28.3	27	25.2	99.7	96.1	91.4	61.1	1003	245.1	14	4.8	0.6	0
04-09-2025	10:00:00	28.9	28.3	27.1	91.8	85.6	84.9	33.9	1004.1	269.4	17.3	3.7	0.6	0
04-09-2025	11:00:00	29.3	28.2	27.4	86.3	85.2	83	51.3	1003.8	259.8	15.3	3.6	0	0
04-09-2025	12:00:00	31	30	28.4	83.3	77.9	74.2	147.6	1003.8	282.4	26.6	4.2	0.6	0
04-09-2025	13:00:00	31.4	30.5	29.2	79.1	75.2	72	112.3	1003.6	294.3	15.3	3.7	1.3	0
04-09-2025	15:00:00	27.5	26.5	25.3	102.3	100.7	99.1	17	1001.3	306	16.6	4.6	1.3	8.5
04-09-2025	17:00:00	27.7	26.7	25.5	107.4	106.6	105.9	10.5	1000.5	239.5	15.3	5.8	2	6.5
04-09-2025	18:00:00	27.7	26.5	25.3	107.4	106.7	106	8.5	999.4	240.7	18.6	6.4	2	1.5
04-09-2025	19:00:00	27.3	26.2	25.1	107.5	106.7	105.7	8.2	999.4	240.4	20.6	7.6	2.6	2.5
04-09-2025	20:00:00	27.1	26.2	25.1	107.6	106.6	105.6	7.5	1000.2	239.4	27.3	8.3	2.6	1.5
04-09-2025	21:00:00	27.3	26.2	25.1	107.4	106.7	105.7	6.7	1000.5	240	25.3	8.8	2.6	0
04-09-2025	22:00:00	27.3	26.3	25.2	108	106.6	104.8	6.4	1001.1	240.2	24	8.3	3.3	0
04-09-2025	23:00:00	27.7	26.7	25.7	107.6	97.4	93.5	5.7	1001.4	242.8	24	8	3.3	0
05-09-2025	00:00:00	27.7	26.5	25.2	93.9	92.2	89.5	5.7	1001.6	273.8	24	3.9	2	0
05-09-2025	01:00:00	26.9	25.9	25	90.7	89.9	89.3	5.5	1000.8	273.6	18.6	3.9	2	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Ghogha station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
05-09-2025	02:00:00	26.5	25.7	25	90.2	89.6	89.1	3.5	999.8	314.9	17.3	5	2	0
05-09-2025	03:00:00	26.5	25.7	25	89.8	88.8	87	2.6	999.7	335	20	7.8	1.3	0
05-09-2025	04:00:00	26.4	25.2	24.1	92.2	90	86.7	6.9	1000.1	325.5	24	5	0	0
05-09-2025	05:00:00	26.2	25.1	24.2	91.8	88.5	86.2	6.9	1000.6	324.6	12.6	3.6	0	0
05-09-2025	06:00:00	26.3	25.1	24.2	90.2	89.2	87.8	6.3	1001.2	317.3	8	2.1	0	0
05-09-2025	07:00:00	25.9	25	24.1	91.7	90.2	88.7	5.5	1001.6	252.7	8	1.7	0	0
05-09-2025	08:00:00	25.8	24.9	23.9	91.9	91.4	90.9	10.5	1002.2	258.1	8	2.5	0	0
05-09-2025	09:00:00	26.7	25.3	24.1	91.9	90.7	88.5	28.8	1003.2	254.3	11.3	2.7	0	0
05-09-2025	10:00:00	28	26.5	25.3	89.1	88.4	87.6	57.4	1003.9	247.4	12	4	0	0
05-09-2025	12:00:00	29.8	29	27.8	86.2	81.9	79.6	107.4	1004.5	256.1	20	4.2	1.3	0
05-09-2025	13:00:00	30.6	29.7	28.8	80.5	78.9	76.9	105.5	1003.5	255.7	20.6	5	1.3	0
05-09-2025	15:00:00	31.2	30.4	29.8	79.6	77.7	74.5	106	1002.7	244.7	18.6	6.5	1.3	0
05-09-2025	16:00:00	32.5	31.3	30.1	78.1	74.2	70.6	179.8	1001.7	239.5	24.6	8.3	2.6	0
05-09-2025	17:00:00	30.8	30.5	29.9	79.8	78.9	78.3	58.5	1000.7	240.7	22	7.9	2	0
05-09-2025	18:00:00	30.8	30.2	29.6	81	79.6	78.2	28.1	1000.4	238.5	18.6	8	2.6	0
05-09-2025	19:00:00	30.2	29.6	28.9	82.7	81.7	80.6	1.4	1001.1	238.4	14.6	6	1.3	0
05-09-2025	20:00:00	29.6	29	28.5	84.3	83.4	82.3	0	1001.6	234.5	14.6	5.7	2	0
05-09-2025	21:00:00	29.4	28.8	28.3	84.8	83.1	81.4	0	1001.9	238.5	24	7.2	2	0
05-09-2025	22:00:00	29	28.4	27.9	83.5	82.7	81.8	0	1002.9	244	24	7.5	1.3	0
05-09-2025	23:00:00	28.8	28.2	27.8	82.6	82	81.6	0	1003	242.4	26	7.5	1.3	0
06-09-2025	00:00:00	29	27.7	26.4	88.6	84.7	82	5.5	1003.2	329.5	28	2.1	0	0.5
06-09-2025	01:00:00	28.1	26.4	25.3	94.5	91.7	87.9	8.5	1002.4	135	14.6	1.4	0	5.5
06-09-2025	02:00:00	27.3	26.2	25.1	96.7	95.3	93.9	8	1002.1	215.6	6.6	2.7	0	1
06-09-2025	03:00:00	27.6	26.3	25.2	98.7	97.3	96.1	7.9	1001.8	233.9	11.3	3.8	0	1



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Ghogha station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
06-09-2025	04:00:00	27.3	26.1	24.9	100.4	99	97.7	7.2	1000.8	234.7	16	5.6	0.6	0
06-09-2025	05:00:00	27.4	26.2	25	100.8	99.6	98.3	6.8	1001.2	235	16.6	5.2	1.3	0
06-09-2025	06:00:00	27.4	26.2	25.1	100	97.9	96.5	6.5	1001.3	245.4	17.3	5.4	1.3	0
06-09-2025	07:00:00	27.4	26.4	25.4	97	95.8	94.6	7.3	1001.4	240.6	12.6	3.9	0	0
06-09-2025	08:00:00	28.1	26.9	25.7	95.1	93.3	90.8	28.2	1002.4	228.1	10	3.2	0	0
06-09-2025	09:00:00	29.2	28.2	26.9	91.2	87.1	84.1	69.7	1003.6	231.2	13.3	5	0	0
06-09-2025	10:00:00	31.8	30.2	28.2	84.4	78.2	72.3	162.9	1004.5	226.5	16.6	5.7	0.6	0
06-09-2025	11:00:00	32.6	31.7	30.2	75.8	70.3	66.6	182.9	1005	235.6	16.6	5.3	1.3	0
06-09-2025	12:00:00	31.8	30	28	87.2	79.5	72.1	70	1004.6	245.7	16	3.6	0	0.5
06-09-2025	13:00:00	30.7	29.6	28.3	85.1	80.2	78	79.8	1004.1	253.8	16.6	3.7	0.6	0
06-09-2025	14:00:00	31.6	30.5	29	78.3	73.9	71.1	122.7	1003.7	257.5	17.3	3.7	0	0
06-09-2025	15:00:00	30.4	29.9	29.5	75.5	74.4	73.4	116	1002.7	245.1	20.6	5.9	2	0
06-09-2025	16:00:00	30.2	29.9	29.3	73.4	73	72.6	89.9	1002	259.3	16.6	5	3.3	0
06-09-2025	17:00:00	30.4	29.6	28.5	77.2	74.8	72.3	63.1	1001.6	250.4	20	5.6	2	0
06-09-2025	18:00:00	29.1	28.5	28	81.3	78.7	77	15.6	1001.4	249.3	20.6	4.9	0	0
06-09-2025	19:00:00	28.6	27.8	26.7	87.5	84.3	81	2.7	1001.7	248.3	12	3.3	0	0
06-09-2025	20:00:00	28.1	26.9	25.8	90.8	89.1	87	7.3	1002	236.5	20.6	5.4	0.6	0
06-09-2025	21:00:00	27.7	26.5	25.7	93.5	91.9	90.2	7.3	1002.3	234.8	14	6.4	2	0
06-09-2025	22:00:00	27.6	26.6	25.7	93.8	93	92.2	7	1002.5	228.5	20.6	6.9	1.3	0
06-09-2025	23:00:00	27.6	26.6	25.7	93.4	92.7	92.3	6.2	1003.1	231.6	17.3	4.6	0.6	0
07-09-2025	00:00:00	27.9	26.9	25.9	93.1	90.7	88.6	4.6	1003	222.4	17.3	6	2	0
07-09-2025	01:00:00	27.5	26.7	26	91.7	90.6	89.1	3.5	1002.6	221.9	18.6	6.4	1.3	0
07-09-2025	02:00:00	27.5	26.7	26	92	91.5	91	2.3	1002.1	230.8	17.3	6.3	2	0
07-09-2025	03:00:00	27.5	26.7	26	91.9	90.7	87.1	1.6	1001.8	232.9	22.6	6.5	1.3	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Ghogha station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
07-09-2025	04:00:00	28.2	27	25.5	90.7	86.4	83.6	5.3	1001.5	243.5	26	8.2	2	0.5
07-09-2025	05:00:00	27.3	26.1	25.1	95	93	90.3	7.5	1000.9	241.4	18.6	6.4	2	0.5
07-09-2025	06:00:00	27.1	26	25.1	96.1	95.4	94.6	6.9	1001.2	233.8	20.6	7.4	2	0
07-09-2025	07:00:00	26.9	26	25	96.1	95.7	95.1	7.5	1001.2	234.2	25.3	7.9	2	0
07-09-2025	08:00:00	27.1	26.1	25.1	95.7	94.7	94.1	13.3	1001.9	225.8	25.3	6.9	2	0.5
07-09-2025	17:00:00	28.6	27.4	26.3	95.9	93.1	91.9	35	1001.5	211	27.3	5.7	0.6	0
07-09-2025	18:00:00	28.3	27.4	26.6	92.3	89.2	87	21.2	1001	217.4	17.3	6.8	2	0
07-09-2025	19:00:00	28.2	27.2	26.4	88.7	87.8	86.8	7.2	1001.3	204.2	18	6.9	2.6	0
07-09-2025	20:00:00	27.8	26.9	26.3	88.9	88.4	87.8	3.3	1001.9	203.5	16.6	7.3	2.6	0
07-09-2025	21:00:00	27.8	26.9	26.1	89.3	88.2	87.4	2.7	1002.9	213.4	16	5.9	2	0
07-09-2025	22:00:00	27.7	26.7	26.1	89.7	89.3	88.6	2.5	1003.6	208.3	15.3	6.2	1.3	0
07-09-2025	23:00:00	27.5	26.7	26.1	89.1	88.4	87.6	1.8	1004.2	213.9	22.6	7.3	2	0
08-09-2025	00:00:00	27.7	26.8	26.1	88.1	87.6	87.1	1.2	1004.2	216.7	22.6	8.3	2.6	0
08-09-2025	01:00:00	27.6	26.8	26.1	89	88	87.1	1.2	1003.6	216.4	22.6	7.9	3.3	0
08-09-2025	02:00:00	27.5	26.7	26	89.5	88.9	88.3	1.3	1003.2	221.4	26	8.3	2	0
08-09-2025	03:00:00	27.4	26.5	25.7	90.2	89.1	88.2	1.4	1002.4	220.1	21.3	8	2	0
08-09-2025	04:00:00	27.2	26.3	25.5	90.5	89.7	88.8	1.7	1001.6	220.1	24.6	8.3	2	0
08-09-2025	05:00:00	27	26	25.3	91.7	91	90	2.2	1001.3	220.9	21.3	8.3	2.6	0
08-09-2025	06:00:00	26.9	25.9	25.1	92.1	91.3	90.8	2.4	1001.3	206.7	24	8.4	2.6	0
08-09-2025	07:00:00	27.1	26.2	25.3	92	90.6	89	7.9	1001.9	218.6	22.6	8.1	2	0
08-09-2025	08:00:00	28.6	27.5	26	89.4	85.8	82	66.1	1003.4	227.5	28	8.5	2	0
08-09-2025	09:00:00	29.3	28.6	27.7	82.9	80.8	78.7	111.2	1004.7	228.3	33.3	10.2	3.3	0
08-09-2025	10:00:00	27.5	26.7	26.1	89.1	88.4	87.6	1.8	1004.2	213.9	22.6	7.3	2	0
08-09-2025	11:00:00	31.5	30.7	29.5	72.8	66.8	62.7	179.9	1006.1	225.5	44	13.9	3.3	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Ghogha station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
08-09-2025	12:00:00	32.4	31.6	30.6	66.4	61.9	57.5	310.4	1005.8	222.6	49.3	14.5	4.6	0
08-09-2025	13:00:00	33.1	32.2	31.4	59.8	57.6	54.3	321.7	1005.8	226.4	40.6	13.9	5.3	0
08-09-2025	14:00:00	33.8	33	32.1	59	55.1	51.3	324.2	1005.3	223.4	37.3	12.8	4.6	0
08-09-2025	15:00:00	33.9	32.9	31.9	60.6	55.9	52	277.9	1004.6	224.7	34	12.4	4.6	0
08-09-2025	16:00:00	33	32	31.2	65.1	60.1	56	213.8	1004	211.4	32	12.3	4	0
08-09-2025	17:00:00	32.7	31.8	30.6	68.5	64.8	61.8	173.9	1003.6	203.2	34.6	11.4	3.3	0
08-09-2025	18:00:00	31.2	30.6	29.8	70.2	68.2	66.5	84.9	1003.5	209	30	10.6	3.3	0
08-09-2025	19:00:00	30	28.9	28	78	74.6	69.4	4.4	1003.3	203.3	26	9.9	3.3	0
08-09-2025	20:00:00	28.4	27.8	27.2	81	78.7	77.4	0	1003.7	211.6	28	8.3	3.3	0
08-09-2025	21:00:00	27.6	27.3	26.9	84.1	82.5	80.6	0	1004.6	213.1	23.3	7.4	2.6	0
08-09-2025	22:00:00	27.4	26.8	26.4	87.1	85.4	83.8	0	1005.4	210.8	16	4.9	0	0
08-09-2025	23:00:00	26.9	26.4	26	89.4	88.2	86.7	0	1005.6	206.3	14	5.2	1.3	0
09-09-2025	00:00:00	26.7	26.1	25.7	91.3	90	89	0	1005.5	214.9	11.3	4	1.3	0
09-09-2025	01:00:00	26.3	25.8	25.5	92.7	91.8	90.6	0	1005.1	216.7	12	3.9	0	0
09-09-2025	02:00:00	26.3	25.7	25.3	94	92.9	92.1	0	1004.9	228.4	10	4	0.6	0
09-09-2025	03:00:00	26.1	25.5	25.1	94.8	94.2	93.6	0	1004.6	238.8	8	2.1	0	0
09-09-2025	04:00:00	25.7	25.2	24.8	96	95.2	94.4	0	1004.4	244.2	2.6	0	0	0
09-09-2025	05:00:00	25.5	25	24.6	97	96.2	95.5	0	1004.7	244.5	0.6	0	0	0
09-09-2025	06:00:00	25.4	24.9	24.5	97.9	96.9	96.4	0	1005	0	0	0	0	0
09-09-2025	07:00:00	25.3	24.7	24.2	98.5	97.7	97	1.1	1005.2	243.9	4	0	0	0
09-09-2025	08:00:00	26.7	25.5	24.4	98.4	96.9	95.4	23.8	1006.1	240.2	6.6	2.2	0	0
09-09-2025	09:00:00	29.7	28.2	26.2	95.5	87.1	77.6	104.7	1007.9	225.2	20.6	5.2	0	0
09-09-2025	10:00:00	30.6	29.7	29.1	78.5	74	69.4	131.3	1008.8	222.7	18.6	6.1	0	0
09-09-2025	11:00:00	31.4	30.7	30.2	68.5	66.8	64.5	156.5	1009.3	210	20	7	1.3	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Ghogha station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
09-09-2025	12:00:00	31.8	31.1	30.4	69.8	66.6	64.5	174.1	1008.9	209.8	21.3	6.9	2	0
09-09-2025	13:00:00	32.6	31	30.2	69.4	66.7	62.4	178.5	1008.1	205.2	26.6	7.9	2	0
09-09-2025	14:00:00	33.3	32.7	32.2	63.6	60.4	58	365.4	1007.9	193.3	30	9.7	3.3	0
09-09-2025	15:00:00	33.3	32.7	32.2	61	59.3	57.7	334	1007.4	188.6	28.6	10.1	4	0
09-09-2025	16:00:00	32.8	32.2	31.6	63	59.5	57.4	275	1007	196.1	30	11.5	4.6	0
09-09-2025	17:00:00	32	31.4	30.8	66.4	64	61.4	190.5	1006.7	197.7	34	12	4	0
09-09-2025	18:00:00	31.4	30.7	29.9	71.1	66.6	64	90.5	1006.7	202.2	24.6	9.4	2.6	0
09-09-2025	19:00:00	30.2	29.1	28.1	76	73.8	70.7	5.7	1006.6	203.8	21.3	8.4	3.3	0
09-09-2025	20:00:00	28.6	28	27.4	80.4	77.9	75.1	0	1006.8	206.9	20.6	6.9	2	0
09-09-2025	21:00:00	28	27.2	26.7	83.4	81.8	79.6	0	1007.2	219.3	16	5.9	1.3	0
09-09-2025	22:00:00	27.3	26.9	26.5	84.1	82.7	81.7	0	1007.6	215.7	16	6.6	1.3	0
09-09-2025	23:00:00	27	26.3	25.7	88.5	86.2	83.9	0	1007.5	235.8	13.3	4.2	1.3	0
10-09-2025	01:00:00	25.8	25.4	24.9	93.3	92.6	92.1	0	1007.2	232.3	7.3	3	0	0
10-09-2025	02:00:00	25.7	25.1	24.7	93.8	93.3	92.8	0	1006.7	229.8	6.6	1.6	0	0
10-09-2025	03:00:00	25.3	24.8	24.5	94.6	94	93.4	0	1006.7	230.1	6.6	1.3	0	0
10-09-2025	04:00:00	25.1	24.6	24.2	95.9	95	94.3	0	1006.4	230.3	6	0.9	0	0
10-09-2025	05:00:00	24.8	24.3	23.9	96.9	96.2	95.5	0	1006.7	230.6	6	1.7	0	0
10-09-2025	06:00:00	24.7	24.2	23.7	98.8	97.3	96.4	0	1007.1	231.4	7.3	2.8	0	0
10-09-2025	07:00:00	24.9	24.2	23.6	100	98.8	97.8	1.5	1007.6	236.8	7.3	3.2	0	0
10-09-2025	08:00:00	27.8	26	24	99.4	94.8	88	45.4	1008.9	236.5	13.3	4.3	0.6	0
10-09-2025	09:00:00	30.3	29.9	27.4	88.2	72.4	70.6	156.3	1011	216.1	16.6	7	2	0
10-09-2025	10:00:00	31.8	30.7	29.8	71.8	66.9	61.9	204.6	1010.8	227	20	7.7	2	0
10-09-2025	11:00:00	33.2	32.2	31.2	63.3	58.1	50.9	212.8	1011.2	225.4	20.6	6.7	1.3	0
10-09-2025	12:00:00	33.6	32.6	31.4	63.2	55.9	49	243	1010.9	203.1	18	5.1	0	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Ghogha station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
10-09-2025	13:00:00	33.9	33	32.2	60.4	57.3	54.5	348.5	1010.4	190.4	24.6	7.3	2	0
10-09-2025	14:00:00	33.8	33.1	32.4	59.3	56.2	52.6	361.3	1009.4	151.3	26	7.8	2	0
10-09-2025	15:00:00	33.9	32.9	32	59.4	57.4	55	297.7	1008.9	173.4	26.6	7.6	0.6	0
10-09-2025	16:00:00	33.8	32.1	30.9	63.9	60.5	54.5	187.7	1007.9	156.9	26.6	7.2	2	0
10-09-2025	17:00:00	32.5	31.4	30.6	66.1	63.2	59.7	124.3	1007.3	161.6	22.6	6.9	0.6	0
10-09-2025	18:00:00	31.2	30.2	29.6	69.4	66.6	63.6	34	1006.4	183.5	17.3	5.9	1.3	0
10-09-2025	19:00:00	30	29.2	28.5	73.6	71.2	69.3	3.2	1006	197.3	15.3	6	2	0
10-09-2025	20:00:00	29	28.4	27.9	77.4	75.6	73	0	1006.6	200.9	16.6	6.9	2	0
10-09-2025	21:00:00	28.6	28	27.4	78.8	77.2	75.9	0	1006.9	205.2	14	5.5	1.3	0
10-09-2025	22:00:00	28	27.5	27.1	81	79.9	78.5	0	1007.3	210.8	16.6	5.6	1.3	0
10-09-2025	23:00:00	27.5	27.1	26.7	83.6	82.1	80.6	0	1007.5	213.8	16	6.5	2	0
11-09-2025	00:00:00	27.2	26.6	26.1	86.1	84.6	83	0	1007.1	223.9	17.3	6.8	2.6	0
11-09-2025	01:00:00	26.7	26	25.5	90	88	85.7	0	1006.7	231.7	13.3	5.2	1.3	0
11-09-2025	02:00:00	26.1	25.6	25.3	92.1	91.1	89.7	0	1006.2	233.6	8	3.3	0	0
11-09-2025	03:00:00	26.1	25.6	25.2	91.9	91.4	90.2	0	1005.6	237.1	8.6	3.6	0	0
11-09-2025	04:00:00	26.2	25.6	25.1	91.4	90.6	89.9	0	1005.3	243.9	7.3	2.8	0	0
11-09-2025	05:00:00	25.7	25.2	24.8	93.2	92.2	91.1	0	1005.3	232.6	8	2.3	0	0
11-09-2025	06:00:00	25.8	25.2	24.7	93.6	93	92.6	0	1005.5	245.8	7.3	2.4	0	0
11-09-2025	07:00:00	25.4	24.9	24.5	94.5	93.8	93.1	0.6	1006.6	255.6	6	0.8	0	0
11-09-2025	08:00:00	27.9	26	24.8	94.2	91.6	83.3	33.4	1007.4	238.1	9.3	1.8	0	0
11-09-2025	09:00:00	31.2	30.1	28.5	75.5	69	63.8	150.3	1009.9	242.7	14	4.2	0	0
11-09-2025	10:00:00	33.2	32.3	30.6	64.1	58.6	54.3	207	1010.6	234.6	14.6	3.7	0	0
11-09-2025	11:00:00	34.4	33.5	32.5	54	50.8	45.7	164.2	1010.7	227.6	15.3	3	0	0
11-09-2025	12:00:00	33.8	32.1	31.2	67.1	62.6	51.6	282.5	1009.8	107.2	21.3	6.8	2	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Ghogha station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
11-09-2025	13:00:00	32.7	32.1	31.4	66.7	63.9	61.1	328.5	1009.4	107.3	20	7.5	1.3	0
11-09-2025	14:00:00	33.4	32.7	32	63.4	60.4	54.6	357.5	1008.8	117.1	21.3	8.2	2.6	0
11-09-2025	15:00:00	34	33	32.3	63.5	59.8	54.9	320.3	1008.4	132.9	22	7.6	2	0
11-09-2025	16:00:00	33.8	32.9	32.2	63.6	60.9	57.4	270.4	1007.5	166.3	23.3	8	2.6	0
11-09-2025	17:00:00	33.1	32.3	31.4	65.6	62.4	60	178.4	1007	191.3	20	7.3	2	0
11-09-2025	18:00:00	32.3	30.9	30	70	66.2	60.6	69.3	1006.4	197.4	25.3	8.1	2	0
11-09-2025	19:00:00	30.4	29.4	28.7	74.5	72.1	69.6	6.7	1006.2	198.8	23.3	8.9	2.6	0
11-09-2025	20:00:00	29.2	28.7	28.4	76.7	75.9	74	0	1006.5	200.9	21.3	8	2	0
11-09-2025	21:00:00	28.7	28.1	27.6	80.6	78.4	76.2	0	1007	208.6	19.3	6.8	2	0
11-09-2025	22:00:00	28.1	27.7	27.3	83.7	82	80.1	0	1007.3	212.9	17.3	6.9	2	0
11-09-2025	23:00:00	27.7	27.2	26.8	86.9	85.4	83.4	0	1007.3	223.3	18	6	1.3	0
12-09-2025	00:00:00	27.7	27	26.7	88.1	86.4	80.2	0	1007.2	237.1	18	5.9	2	0
12-09-2025	01:00:00	27.8	27.3	26.9	80.5	78.3	76.8	0	1007	244.5	15.3	5.6	1.3	0
12-09-2025	02:00:00	27.4	26.9	26.3	83	80.6	78.7	0	1006.6	244.6	15.3	4.2	0.6	0
12-09-2025	03:00:00	26.9	26.2	25.8	86.4	84.5	82.7	0	1005.8	241.9	13.3	4	0.6	0
12-09-2025	04:00:00	26.4	25.8	25.5	87.9	87.1	85.9	0	1005.4	247	14	3.5	0.6	0
12-09-2025	05:00:00	26.1	25.5	25.1	90.4	88.9	87.5	0	1005.4	245.8	10.6	3.6	0	0
12-09-2025	06:00:00	25.6	25.2	24.9	91.6	90.9	90	0	1005.8	245	8.6	3.5	0.6	0
12-09-2025	07:00:00	25.7	25.2	24.9	91.6	91.3	91	0.7	1006.6	247.7	9.3	2.7	0	0
12-09-2025	08:00:00	29	26.8	25.1	91.6	86.9	78	39.2	1008	237.5	8	1.1	0	0
12-09-2025	09:00:00	31.6	30.2	28.5	78	70.2	64.1	119.5	1010.1	275.4	10	1.2	0	0
12-09-2025	10:00:00	32.2	31.1	30.2	67.3	64.4	60.9	203.6	1010.9	337.5	16	5.2	0	0
12-09-2025	11:00:00	33.9	32.5	31.8	61.5	59.2	54.9	202.8	1010.9	352.4	18	4.9	0	0
12-09-2025	12:00:00	34.4	33.5	32.5	59.8	53.7	47.9	305.3	1010.9	4.2	20	5.4	0.6	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Ghogha station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
12-09-2025	13:00:00	35	33.6	33	58.5	55.1	51.1	355.3	1010.4	21.9	21.3	4.6	0	0
12-09-2025	14:00:00	34.3	32.8	31.8	64	59.5	53.8	343.9	1009.5	58	24.6	8.8	2	0
12-09-2025	16:00:00	34.3	33.8	33	53.2	51.1	48.4	225.7	1008.4	61.6	13.3	5	0.6	0
12-09-2025	17:00:00	34.6	33.9	33.2	53.8	48.9	45.6	180.2	1007.5	68.1	11.3	2.8	0	0
12-09-2025	18:00:00	33.8	33.2	32.5	54.6	52.2	50.6	38.9	1007.2	113.5	0.6	0	0	0
12-09-2025	19:00:00	33	31.4	29.6	67.5	60.2	52.7	7.2	1006.7	180.4	6.6	0.3	0	0
12-09-2025	20:00:00	30	29.1	28.4	75.9	71.8	67.3	0	1006.5	214.1	9.3	3.4	0	0
12-09-2025	21:00:00	29.1	28.4	27.8	78	76.9	75.5	0	1006.8	221	12	4.5	0.6	0
12-09-2025	22:00:00	28.4	28	27.5	81.4	79.8	77.6	0	1007.2	216.5	12.6	5.2	0.6	0
12-09-2025	23:00:00	28.1	27.5	27.1	84	82.8	81	0	1007.2	229.7	10	4.2	0	0
12-09-2025	06:00:00	27	26.6	26.3	94.6	93.1	91.9	1.5	1007.9	235.7	12.6	5	0	0
12-09-2025	07:00:00	26.7	26.4	26.2	95.4	94.5	93.9	2.2	1008.5	224.2	12.6	1.8	0	0
12-09-2025	08:00:00	28.5	27	26.3	95.5	93.4	88.4	37.1	1009.6	236.7	5.9	0.1	0	0
12-09-2025	09:00:00	29.9	29	28.1	89.1	83.5	79.1	139.1	1011.3	248.6	13.9	2.5	0	0
12-09-2025	10:00:00	30.7	30	29.6	80.2	76.4	73.3	230.3	1011.9	244.6	17.9	5.1	0	0
12-09-2025	11:00:00	31.3	30.6	30.1	76.9	72.6	69.2	185.8	1011.9	239.3	15.9	3.9	0	0
12-09-2025	12:00:00	32.4	31.5	30.4	75.5	68.8	62	311.2	1012	236	19.9	5.2	0	0
12-09-2025	13:00:00	33.4	32.7	31.6	65.6	58.9	54.1	379	1011.8	236.7	20.6	4.7	0	0
12-09-2025	14:00:00	35.8	34.1	32.5	60.4	52	45.3	373.3	1011.3	233.2	14.6	2.3	0	0
12-09-2025	15:00:00	35.5	34.7	33.8	51.4	47.5	44.6	333.3	1010.4	232.9	14.6	3.5	0	0
12-09-2025	16:00:00	35.5	34.5	33.3	51.6	47.3	43.5	243.2	1009.4	243	16.6	4	0	0
12-09-2025	17:00:00	34.6	34	33.4	51.2	48.1	45.3	170.9	1008.5	243.9	15.2	2.5	0	0
12-09-2025	18:00:00	34	32.5	31.4	60.6	54.8	48.4	75.6	1007.9	240	11.9	2.6	0	0
12-09-2025	19:00:00	32.1	30.6	29.3	75.2	66.3	56	10.5	1007.6	219.9	9.9	1.9	0	0



Final EMP Report for Dahej-Hazira-Ghogha for 13th August to 12th September 2025

Ghogha station														
DATE	TIME	AT_Max	AT_Avg	AT_Min	RH_Max	RH_Avg	RH_Min	SOLAR	BP	WD	WS_Max	WS_Avg	WS_Min	RAIN
DD/MM/YY	HH:MM:SS	DegC	DegC	DegC	%	%	%	W/m2	mbar	Deg	m/s	m/s	m/s	MM
12-09-2025	20:00:00	29.4	29	28.8	80	76.9	74.9	0.6	1007.5	204.6	10.6	2.6	0	0
12-09-2025	21:00:00	29.1	28.9	28.7	82.1	81.1	79.9	0.6	1008.1	202.8	11.3	2.6	0	0
12-09-2025	22:00:00	29.2	28.9	28.7	86.4	83.5	81.3	0.6	1008.5	201.9	10.6	3.6	0	0
12-09-2025	23:00:00	29.2	28.8	28.6	90.2	87.4	85.6	1	1008.9	201.8	11.3	3.6	0	0

Annexure –II

Monitoring the implemental Safe guards
Ministry of Environment, Forests & Climate Change
Regional office (WZ), Gandhinagar.
Monitoring Report (Period from April, 2025 to September, 2025)
DATA SHEET

Sr. No.	Particulars	Reply
1.	Project type: River valley/Mining/ Industry/thermal/ nuclear/Other (specify)	Infrastructure and Miscellaneous Projects + CRZ
2.	Name of the project	Development of Ro-Ro/Ro-Pax Facility at Hazira by Deendayal Port Authority (600 m water front and 24 Ha. backup area
3.	Clearance Letter (s). OM no and date	MoEF&CC, GoI vide letter dated 4/4/2022 issued Bifurcation of Environmental and CRZ Clearance accorded to M/s Essar Bulk Terminal Limited vide letter dated 6th May, 2014 in the name of Deendayal Port Trust (Now Deendayal Port Authority)
4.	Location a) District (s) b) State (s) c) Location/latitude/longitude	Dist: Surat State: Gujarat Location: Geo Coordinates: Latitude: 21° 04' 39.432" N to 21° 4 39.15 N Longitude: 72°38' 26.93" E to 72°38'58.88" E
5.	Address for Correspondence a) address of Concerned Project Chief Engineer (with pin code & telephone/telex/fax numbers b) Address of Executive project Engineer/manager/ (with pin code fax numbers)	Chief Engineer, Deendayal Port Authority, A.O. Building, Annex, Post Box No.-50, Gandhidham- Kutch. Gujarat Pin – 370201 Tel: 02836-233192, Fax-02836-220050. XEN (RoRo), A.O. Building, Annex, Gandhidham, Gujarat.
6.	Salient features a) Of the Project b) Of the Environmental Management Plan	• Development of 600 m waterfront and 24 ha back up area at Hazira port for RoRo/RoPax facility. Salient Features of EMP prepared for the Development of Ro-Ro/Ro-Pax Facility at Hazira by Deendayal Port Authority has already been communicated with the compliance report dated 05/08/2022.

	Production Details during compliance period and (or) during the previous financial year	N/A. DPA developed Ro-Ro/Ro-Pax facility which is being used for public conveyance and also for trailer, trucks, cars etc.
7.	Breakup of the project area: a) Submergence area: forest & non-forest b) Others	N/A. Project area is 600 m waterfront and 24 ha back up area
8.	Breakup of the project affected population with enumeration of those losing houses/dwelling units only agricultural land & landless laborer's/artisen a) SC. ST/Adivasis b) Others (please indicate whether these figures are based on any scientific and systematic survey carried out of only provisional figures, if a survey is carried out give details and years of survey).	N/A The GMB had allotted land of 24 Hectares to Deendayal Port Authority. N/A N/A
9.	Financial details a) Project cost as originally planned and subsequent revised estimates and the year of prices reference. b) Allocation made for environmental management plans with item wise and year wise break-up c) Benefit cost ratio/ Internal Rate of Return and the year of assessment Whether (c) includes the cost of environmental management plans so far. d) Actual expenditure incurred on the project. e) Actual expenditure incurred on the environmental management plans so far.	69.06 Crores The allocation made under the scheme of "Environmental Services & Clearance thereof other related Expenditure" during RBE 2024-25 is Rs. 585 Lakhs. The project is carried out on public interest; hence, IRR is not possible. 83.41 Crores (Excluding GST) The expenditure made under the scheme of "Environmental Services & Clearance thereof other related Expenditure" is Rs. 136 Lakhs from April, 2025 to September, 2025.

10.	Forest land requirement a) The status of approval for diversion of forest land for non-forestry use b) The status of clear felling c) The status of compensatory a forestation, if any d) Comments on the viability & sustainability of compensatory a forestation programmed in the light of actual field experience so far	Nil (Not Applicable) N/A N/A N/A N/A
11.	The status of clear felling in non-forest areas (such as submergence area of reservoir, approach roads), if any with quantitative information.	N/A
12.	Status of construction: a) Date of commencement (Actual and/or planned) b) Date of completion (Actual and/or planned)	Work Order has been issued on 15/4/2021 and accordingly work has been initiated Date of completion 20/12/2022
13.	Reasons for the delay if the Project is yet to start	N/A
14.	Date of site visited a) The dates on which the project was monitored by the regional office on pervious occasion. if any b) The date site visit for this monitoring report	---
15.	Details of the correspondence with project authorities for obtaining action plans/information on status of compliance to safeguard other than the routine letters for logistic support for site visit. (The first monitoring report may contain the details of all the letters issued so far but the later reports may cover only the letters issued subsequently.)	---