



AHPPL/MOEF&CC/2017-18/018

Date: 20/11/2017

To

Additional Principal Chief Conservator of Forests (C),  
Ministry of Environment, Forest and Climate Change,  
Regional Office (WZ), E-5, Kendriya Paryavaran Bhawan,  
E-5 Arera Colony, Link Road-3, Ravishankar Nagar,  
Bhopal - 462016 (Madhya Pradesh)  
Tel. No.: 0755- 2465054, 2465496, 2466525  
Email: rowz.bpl-mef@nic.in

Dear Sir,

**Sub.:** Six Monthly Compliance Report of conditions stipulated in Environment and CRZ Clearance for the development of Multi Cargo Port with Supporting Utilities and Infrastructure Facilities at Hazira, Surat, Gujarat for the period: **Apr., 2017 to Sept., 2017.**

**Ref.:** 1). Environmental and CRZ Clearance issued by MoEF & CC, New Delhi vide letter No.: 11-150/2010-IA.III dated 03<sup>rd</sup> May, 2013.  
2). CRZ Recommendations issued by Forests & Environment Department, Govt. of Gujarat to MoEF & CC, New Delhi vide letter No.: ENV-10-2012-30-E dated 11<sup>th</sup> May, 2012.  
3). Amendment in CRZ/Environment Clearance issued by MoEF & CC, New Delhi vide letter No.: J-16011/11/2003-IA-III, dated 19<sup>th</sup> February, 2007.  
4). CRZ Recommendations issued by Forests & Environment Department, Govt. of Gujarat to MoEF & CC, New Delhi vide letter No.: ENV-10-2006-128-P, dated 05<sup>th</sup> Feb., 2007.  
5). Amendment in CRZ Clearance issued by MoEF & CC, New Delhi vide letter No.: J-16011/11/2003-IA-III, dated 12<sup>th</sup> November, 2003.  
6). CRZ Clearance issued by MoEF & CC, New Delhi vide letter No.: J-16011/11/2003-IA.III dated 26<sup>th</sup> June, 2003.

Please find enclosed herewith point wise Compliance Reports (Hard copy as well as in a CD) of conditions stipulated in the above referred letters.

Thank you,

For, **M/s. Adani Hazira Port Private Limited,**

**(Pranav Choudhary)**  
Chief Executive Officer

Encl.: As above

**Cc to:**

1. The Director (Monitoring - IA Division), Ministry of Environment, Forests & Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110 003.
2. The Director, Forests & Environment Department, Block - 14, 8<sup>th</sup> Floor, Sachivalaya, Gandhinagar, Gujarat - 382 010.
3. The Zonal Officer, Central Pollution Control Board, Zonal Office Vadodara, Parivesh Bhawan, Opp. VMC Ward Office No.:10, Subhanpura, Vadodra-390 023.
4. The Chairman, Gujarat Pollution Control Board, Parvayaran Bhawan, Sector - 10A, Gandhinagar-382 010 (Gujarat).
5. The Regional Officer, Gujarat Pollution Control Board, Belgium Square, Ring Road, Surat-395003, (Gujarat).

Adani Hazira Port Pvt Ltd  
At & PO Hazira  
Choryashi  
Surat 394 270  
Gujarat, India  
CIN: U45209GJ2009PTC058789

Tel +91 261 220 7780  
Fax +91 261 220 7777  
info@adani.com  
www.adani.com

LIST OF APPENDIXES

APPENDIX NO.	DETAILS
1.	Compliance To The Conditions Stipulated In CRZ Recommendations Issued By Forests & Environment Department, Government Of Gujarat To MOEF & CC, New Delhi Vide Letter No.: ENV-10-2012-30-E, Dated 11 <sup>th</sup> May, 2012.
2.	Compliance To The Conditions Stipulated In CRZ Recommendations Issued By Forests And Environment Department, Government Of Gujarat Vide Letter No.: ENV-10-2003-29-P1 Dated 09 <sup>th</sup> July, 2003.
3.	Compliance To The Conditions Stipulated In Letter Dated 19 <sup>th</sup> February, 2007 For Amendment In Certain Conditions Of CRZ/Environmental Clearance vide letter No.: J-16011/11/2003-IA-III dated 26 <sup>th</sup> June, 2003.

\*\*\*





LIST OF ANNEXURES


ANNEXURE NO.	DETAILS
1.	Action Plan And Compliance Status On The Issues Raised During The Public Hearing.
2.	Details Of The Csr Activities Along With Budgetary Provisions And Expenditures For The Financial Year: 2017-18.
3.	Compliance Status Of Environmental Management Plan As Per Integrated EIA Report - September, 2012.
4.	Environmental Monitoring / Analysis Results For The Period From April, 2017 To September, 2017.
5.	Organogram Of AHPPL - Environment Management Cell.
6.	Details Of Environment Management Budget For The Financial Year: 2017-18.
7.	Compliance Report Of Conditions Stipulated in Consent To Establish (CTE-77767) issued By Gujarat Pollution Control Board, Gandhinagar (Gujarat) Vide Letter No.: GPCB/CCA-SRT-1314(6)/ID_35352/352537, Dated 16.04.2016.
8.	Copy of CHWIF/TSDf Site Membership Certificate.
9.	Detail of Wastes Collection & Disposed Off From Vessels By GPCB Approved Third Party During The Financial Year: 2017-18.
10.	Consolidated Report on Mangrove Plantation on an area of 200 hectares at Village: Kantiyajal, Taluka: Hansot and Village: Nada-Devla, Taluka: Jambusar, District: Bharuch (Gujarat) developed by M/s. SAVE Limited, Ahmedabad.



SIX MONTHLY COMPLIANCE REPORT  
OF  
ENVIRONMENT AND CRZ CLEARANCE ISSUED BY MOEF & CC, NEW DELHI  
VIDE LETTER NO.: 11-150/2010-IA.III, DATED 03<sup>RD</sup> MAY, 2013  
FOR  
THE DEVELOPMENT OF MULTI CARGO PORT WITH SUPPORTING UTILITIES AND  
INFRASTRUCTURE FACILITIES AT HAZIRA, SURAT, GUJARAT  
BY  
M/S. ADANI HAZIRA PORT PVT. LTD.




- A. Six Monthly Compliance Report for Environmental and CRZ Clearance issued by MoEF & CC, New Delhi vide letter No.: **11-150/2010-IA.III dated 03<sup>rd</sup> May, 2013** for the development of Multi Cargo Port with supporting utilities and infrastructure facilities at Hazira, Surat, Gujarat by M/s. Adani Hazira Port Pvt. Ltd.: -

S. No.	Stipulated Conditions	Compliance Status															
<b>6.</b>	<b>Specific Conditions</b>																
i.	<p>"Consent for Establishment" shall be obtained from State Pollution Control Board under Air &amp; Water Act and a copy shall be submitted to the Ministry before start of any construction work at site.</p>	<p>Complied, AHPPL has obtained Consent to Establish (NOC) from Gujarat Pollution Control Board on 05.10.2012 and same was submitted on 16.05.2012 prior to obtaining the Environment and CRZ clearances. Subsequently there were amendments in the Consent to Establish which were also submitted to the MoEF&amp;CC before start of respective construction as per the details given below: -</p> <table border="1"> <thead> <tr> <th>Consent No.</th><th>Issued On</th><th>Submitted To MoEF &amp; CC On</th></tr> </thead> <tbody> <tr> <td>CTE_49766</td><td>05.10.2012</td><td>Along with Six Monthly Compliance Report dated 19.11.2014 &amp; 19.05.2017.</td></tr> <tr> <td>CTE-64900</td><td>26.09.2014</td><td>Along with Six Monthly Compliance Report dated 12.05.2015 &amp; 19.05.2017.</td></tr> <tr> <td>CTE-74330</td><td>13.01.2016</td><td>Along with Six Monthly Compliance Report dated 23.05.2016 &amp; 19.05.2017.</td></tr> <tr> <td>CTE-77767</td><td>16.04.2016</td><td>Along with Six Monthly Compliance Report dated 21.11.2016 &amp; 19.05.2017.</td></tr> </tbody> </table>	Consent No.	Issued On	Submitted To MoEF & CC On	CTE_49766	05.10.2012	Along with Six Monthly Compliance Report dated 19.11.2014 & 19.05.2017.	CTE-64900	26.09.2014	Along with Six Monthly Compliance Report dated 12.05.2015 & 19.05.2017.	CTE-74330	13.01.2016	Along with Six Monthly Compliance Report dated 23.05.2016 & 19.05.2017.	CTE-77767	16.04.2016	Along with Six Monthly Compliance Report dated 21.11.2016 & 19.05.2017.
Consent No.	Issued On	Submitted To MoEF & CC On															
CTE_49766	05.10.2012	Along with Six Monthly Compliance Report dated 19.11.2014 & 19.05.2017.															
CTE-64900	26.09.2014	Along with Six Monthly Compliance Report dated 12.05.2015 & 19.05.2017.															
CTE-74330	13.01.2016	Along with Six Monthly Compliance Report dated 23.05.2016 & 19.05.2017.															
CTE-77767	16.04.2016	Along with Six Monthly Compliance Report dated 21.11.2016 & 19.05.2017.															
ii.	<p>The action plan on the issues raised during public hearing shall be submitted to the Pollution Control Board. The action plan shall be implemented without fail. Report on compliance shall be submitted to the Regional Office, MOEF along with the six monthly reports.</p> 	<p>Complied. Public hearing was conducted on 14.08.2012. All the issues have been addressed adequately and to the satisfaction of the stakeholders. The key points raised during PH were: -</p> <ol style="list-style-type: none"> <li>1) Preference to be given to the local people for employment and transport &amp; other contracts. M/s. AHPPL is giving preference to the locals for contracts, such as M/s. Hazira Vikas Samiti has been engaged for providing transport facilities for employees. M/s. AHPPL also giving preference for skilled local candidates for employment as per suitable requirements. As on 07<sup>th</sup> Nov., 2017 total 180 out of 211 on roll employees are from Gujarat.</li> <li>2) Villagers were anxious about their displacement due to port development. M/s. AHPPL is developing port on approx. 873.27 hectares which is uninhabited and there is no acquisition of private property. The details action status of all other issues raised during the public hearing is enclosed as <b>Annexure-1</b>.</li> </ol>															
iii.	All the recommendations of SCZMA shall be complied with.	<p>Complying with. All the recommendations of the GCZMA is</p>															




S. No.	Stipulated Conditions	Compliance Status
		being complied. Compliance status of the conditions stipulated in GCZMA recommendations vide letter dated 11/05/2012 bearing No.: ENV-10-2012-30-E is enclosed as <b><u>Appendix-1</u></b> .
iv.	Periodical study on shore line changes shall be conducted and mitigation carried out if necessary. The details shall be submitted along with six monthly monitoring reports.	Complied. Shoreline change study was conducted by NIO, Vizag during the period from November, 2014 to December, 2015. Report of the shoreline change study was submitted along with compliance report dated 21.11.2016. Study confirms that there is no significant change in the nearby shoreline except for the approved layout of the AHPPL. The report did not warrant any mitigation measures.
v.	Oil spills if any shall be properly collected and disposed as per Rules. Proper Oil Contingency Management Plan shall be put in the place.	Complied. <ul style="list-style-type: none"> <li>• Till date there is no oil spill occurred.</li> <li>• Oil Spill Contingency Plan has been prepared and the same was approved / vetted by Indian Coast Guard (Letter No.: 7563, dated 09.01.2014).</li> <li>• The same has been implemented at site in order to properly collect and dispose oil spills (if any).</li> </ul>
vi.	The detailed plan with budgetary provisions for the CSR shall be submitted to the ministry.	Complied. <ul style="list-style-type: none"> <li>• CSR activities carried out by Adani Foundation in four verticals i.e.: - (1) Education, (2). Community Health, (3). Sustainable Livelihood and (4). Rural Infrastructure Development.</li> <li>• Detail of the CSR activities along with budgetary provisions and progress are regularly submitted to MoEF &amp; CC as part of six monthly compliance reports.</li> <li>• Total budget allocated for CSR activities is Rs. 301.27/- Lakh for FY: 2017-18 and total expenditure is Rs. 88.16/- Lakh during April, 2017 to September, 2017.</li> <li>• The status of the CSR activities planned during the Financial Year: 2017-18 is enclosed as <b><u>Annexure-2</u></b>.</li> </ul>
vii.	All the recommendation of the EMP and DMP shall be complied within letter and spirit.	Complied. <ul style="list-style-type: none"> <li>• Recommendation given in EMP is being complied in letter and spirit. Status of the same is enclosed as <b><u>Annexure-3</u></b>.</li> <li>• AHPPL is an ISO 14001, ISO 9001 and OHSAS 18001 certified company.</li> <li>• AHPPL has developed and implemented DMP. Regular mock drill to ensure the compliance and preparedness is being done.</li> <li>• Last Mock Drill (On Site) was on : 21.08.17</li> <li>• Last Update of ERP/DMP : 10.03.17</li> <li>• Copy of the Schematic of ERP &amp; DMP communication flow is submitted along with the six monthly compliance report</li> </ul>




S. No.	Stipulated Conditions	Compliance Status
		dated 19.05.2017.
viii.	Periodical monitoring of the sea water quality at the outlet shall be carried out to check the discharge is meeting the standard and not causing any impact to marine life.	<p>Complied.</p> <ul style="list-style-type: none"> <li>AHPPL is not discharging any effluent into the sea.</li> <li>There are no standards prescribed for the sea water quality. Only trends can be observed to ensure that quality of sea water is not changing significantly.</li> <li>Marine water quality is being monitored through M/s. Pollucon Laboratories, Surat (a MoEF&amp;CC and NABL accredited laboratory).</li> <li>Monitoring of sea water quality at three locations is being done on monthly basis. Copy of the Sea Water Quality Monitoring /Analysis Reports for the period <b>April, 2017 to September, 2017</b> is enclosed as <b>Annexure-4E</b>.</li> <li>From the monitoring report it is evident that there is no significant change in the sea water quality which could have impact on the marine life.</li> </ul>
ix.	<p>Transport of cargo shall in closed system and dust control viz. water sprinkler, along conveyor and transfer points shall be provided.</p> 	<p>Complied.</p> <p>Following control measures are in place and effectively working at port to control fugitive dust: -</p> <ol style="list-style-type: none"> <li>1. Transportation of coal from jetty to coal storage yard through 1.7 Km. long conveyor belt with hood.</li> <li>2. Water sprinklers in to the coal yard,</li> <li>3. Dust Suppression System / Spray Nozzles in Conveyor System and Discharge Chute,</li> <li>4. Water spray through Water Browsers,</li> <li>5. Water Mist Canon / Fog System,</li> <li>6. Wind Brake Shield of 14 meters high and 1200 meters long,</li> <li>7. Transportation of cargo from port to hinterland is being done through dumpers / trucks covered with tarpaulin,</li> <li>8. Regular cleaning the roads through Road Sweeping Machines, and</li> <li>9. Company has set up dedicated greenbelt area for plantation at periphery / avenue plantation / landscaping etc. Total greenbelt area developed so far is approx. 63.04 ha within the port premises.</li> </ol>
x.	Construction activity shall be carried out strictly as per the provisions of CRZ notification 2011. No construction work other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone.	<p>Complied.</p> <ul style="list-style-type: none"> <li>Construction activities are as per the provisions of CRZ Notification, 2011.</li> <li>No construction work other than those permitted in CRZ Notification has been done.</li> <li>Development of the port and other ancillary facility is being done as per the approval received under CRZ Notification, 2011 and EIA Notification, 2006.</li> </ul>



S. No.	Stipulated Conditions	Compliance Status
xi.	The project shall be executed in such a manner that there shall not be any disturbance to the fishing activity.	Complied. <ul style="list-style-type: none"> <li>Project execution is being done without any disturbance to fishing activities.</li> <li>Majority of fishing activities are in the river TAPI estuary region which is approx. 3-4 KM away from the project site.</li> <li>There are few "PAGADIA" fishermen doing fishing in the northern side of project area. They are continuing with their activities without any disturbance.</li> </ul>
xii.	It shall be ensured that there is no displacement of people, houses or fishing activity as a result of the project.	Complied. <ul style="list-style-type: none"> <li>There is no displacement of people, houses or fishermen as the port is being developed on reclamation land and land allotted by Government as there is no acquisition of private land</li> <li>Majority of fishing activities are in the river TAPI estuary region which is approx. 3-4 KM away from the project site.</li> <li>There are few "PAGADIA" fishermen doing the fishing in the northern side of project area. They are continuing with their activities without any disturbance.</li> <li>AHPPL is regularly working with fishermen to understand their needs and provide required support.</li> </ul>
xiii.	The project proponent shall set up separate Environment Management Cell for effective implementation of the stipulated environmental safe guards under the supervision of a Senior Executive. 	Complied. <ul style="list-style-type: none"> <li>Environment Management Cell has been set up with qualified staff to ensure the effective implementation of environmental safe guards.</li> <li>In addition to the site Environment Management Cell a well-established corporate environment cell also ensures effective implementation of the environmental safeguards.</li> <li>Environment Management Cell Organogram is enclosed as <b>Annexure-5</b>.</li> </ul>
xiv.	The funds earmarked for environment management plan shall be included in the budget and this shall not be diverted for any other purposes.	Complied. <ul style="list-style-type: none"> <li>Separate budget has been allocated to the HSE Department. Allocated budget for the FY: 2017-18 is INR 276.62/- Lakhs. Detail of the environment budget for the FY: 2017-18 is enclosed as <b>Annexure-6</b>.</li> <li>Environment budget is not being diverted to any other purpose.</li> </ul>
<b>7.</b>	<b>General Conditions</b>	
i.	Appropriate measures must be taken while undertaking digging activities to avoid any degradation of water quality.	Complied. <ul style="list-style-type: none"> <li>Digging activities are involved in the piling, construction of building and other ancillary facilities. Proper care is being given to ensure that no excavated material mixed with the water. Entire excavated material is being used in leveling and grading of project area.</li> </ul>



S. No.	Stipulated Conditions	Compliance Status
		<ul style="list-style-type: none"> <li>Marine, Surface and Ground Water quality is being monitored through M/s. Pollucon Laboratories Pvt. Ltd., Surat (a MoEF &amp; CC and NABL accredited laboratory).</li> <li>Reports show that there are no impacts on the water quality. Copy of the water monitoring reports for the period <b>April, 2017 to September, 2017</b> is enclosed as <b>Annexure-4B, 4C, 4E</b> for ground, surface and marine water quality, respectively.</li> </ul>
ii.	<p>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 plans including the action taken reports in respect of mitigation measures and other environmental protection activities.</p> 	<p>Complying with.</p> <ul style="list-style-type: none"> <li>AHPPL is regularly submitting six monthly compliance reports which comprise compliance to the conditions stipulated in Environment and CRZ clearance, action taken report of Environment Management Plan, environment monitoring reports etc.</li> <li>Last two reports were submitted vide letter dated 21.11.2016 and 19.05.2017.</li> <li>Whenever any authorities such as MoEF&amp;CC, GPCB and GMB etc. visit the AHPPL full support is extended and AHPPL provides all additional information seek by them during the inspection.</li> <li>Last visit by Addl. PCCF, MoEF &amp; CC - RO, Bhopal was on 01 &amp; 02.05.2017.</li> <li>Last visit by RO - GPCB, Surat was on 27.04.2017 and 02.10.2017.</li> </ul>
iii.	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.	<p>Complying with.</p> <p>Six monthly monitoring reports are regularly submitted to the RO - MoEF &amp; CC, Bhopal and other authorities along with Six Monthly Compliance Report of Environment &amp; CRZ Clearance. Please refer the <b>Annexure-4</b> for the monitoring report from <b>April, 2017 to September, 2017</b>.</p>
iv.	Ministry of Environment & Forests or any other competent authority may stipulate any additional conditions or modify the existing ones, if necessary subsequently, if deemed necessary for environmental protection, which shall be complied with.	Noted and agreed to comply with additional conditions stipulated or modify the existing ones by MoEF & CC, if any.
v.	The Ministry reserves the right to revoke this clearance, if any of the conditions stipulated are not complied with to the satisfaction of this Ministry.	Noted and agreed to comply with the directions of the MoEF & CC, if any.
vi.	In the event of a change in project profile or change in the implementation agency, a fresh reference shall be made to Ministry of Environment and Forests.	Noted. There is no change in project profile or implementation agency.
vii.	The project proponents shall inform the Regional Office as well as the	<p>Closed.</p> <p>Financial Closure date is 29<sup>th</sup> September, 2011.</p>

S. No.	Stipulated Conditions	Compliance Status
	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.	Approval from GMB to commence work was obtained on 09 <sup>th</sup> April, 2010 vide letter No.: GMB/N/PVT/923(10)/42/458. Copy of the same has been submitted to the MoEF & CC and other concerned authorities along with the six monthly compliance report dated 19.05.2017.
viii.	A copy of the clearance letter shall be marked to concerned Panchayat/ Local NGO, if any from whom any suggestions/ representations has been received while processing the proposal.	Closed. Copy of the clearance letter was sent to the concerned Panchayat and local NGO. Copy of the RPAD receipt were submitted to MoEF&CC alongwith six monthly compliance report dated 27.11.2013 and again alongwith the six monthly compliance report dated 19.05.2017.
ix.	State 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.	This condition does not belong to M/s. AHPPL.
8.	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 thereafter.	Noted and Complying with 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. AHPPL has obtained: - <ul style="list-style-type: none"> <li>• Environmental and CRZ Clearance issued by MoEF &amp; CC, New Delhi vide letter No.: 11-150/2010-IA.III dated 03<sup>rd</sup> May, 2013.</li> <li>• Amendment in CRZ/Environment Clearance issued by MoEF &amp; CC, New Delhi vide letter No.: J-16011/11/2003-IA-III, dated 19<sup>th</sup> February, 2007.</li> <li>• Amendment in CRZ Clearance issued by MoEF &amp; CC, New Delhi vide letter No.: J-16011/11/2003-IA-III, dated 12<sup>th</sup> Nov., 2003.</li> <li>• CRZ Clearance issued by MoEF &amp; CC, New Delhi vide letter No.: J-16011/11/2003-IA.III dated 26<sup>th</sup> June, 2003.</li> <li>• Consolidated Consent and Authorization under the provisions of Water (Prevention and Control of Pollution) Act 1974, the Air (Prevention and Control of Pollution) Act 1981 vide Consent Order No.: AWH-87176 valid till 14.04.2022.</li> <li>• Public Liability Insurance vide Policy No.: 3133201064763102000 valid up to 31<sup>st</sup> March, 2018.</li> </ul>
9.	All other statutory clearance such as the approvals for storage of diesel from Chief Controller of Explosive, Fire Department, Civil Aviation Department, Forest Conservation Act,	All applicable clearances from respective authorities have been obtained i.e.: - <ol style="list-style-type: none"> <li>1. PESO License from Chief Controller of Explosive, Nagpur vides Order No.: P/HQ/GJ/15/5294 (P270337), Renewed on</li> </ol>





S. No.	Stipulated Conditions	Compliance Status
	1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponent from the respective competent authorities.	31.12.2015 valid till 31.12.2018. Copy of the PESO License is already submitted to MoEF & CC along with six monthly compliance report dated 23 <sup>th</sup> May, 2016. 2. License to work a Factory Adani Hazira Port Pvt. Ltd. (Liquid Terminal) from Director of Industrial Safety and Health, Govt. of Gujarat their vide Registration No.: 3502 / 51410 / 2013 and License No.: 18757, Renewed on 21-01-2017, valid till 31 <sup>st</sup> December, 2018. Copy of the license to work a factory has been submitted to the MoEF & CC along with the six monthly compliance report dated 19.05.2017. 3. Civil Aviation: Not Applicable, 4. Forest Clearance: Shall be obtained. 5. Wildlife Conservation: Not Applicable.
10.	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 Environment and CRZ clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen at Website of the Ministry of Environment & Forests at <a href="http://www.envfor.nic.in">http://www.envfor.nic.in</a> . The advertisement should be made within 10 days from the date of issue of the clearance letter and a copy of the same should be forwarded to the Regional Office of this Ministry at Bhopal.	Closed. • Advertisements were published in Gujarat News Paper "Gujarat Mitra" and English News Paper "The Times of India" on 13/05/2013 (within 10 days of receipt of EC & CRZ clearance). • Copy of the advertisement is submitted to MoEF & CC along with the six monthly compliance report dated 27 <sup>th</sup> November, 2013.
11.	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.	Noted.
12.	Status of Compliance to the various stipulated environmental conditions and environmental safeguards will be uploaded by the project proponent in its website.	Complied. Compliance report of conditions stipulated in Environment and CRZ Clearance is available on the company website i.e.: <a href="http://www.adaniports.com/ports-downloads">http://www.adaniports.com/ports-downloads</a>
13.	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.	Noted.
14.	A copy of the clearance letter shall be sent to concerned Panchayat, Zila Parishad/ Municipal Corporation, Urban Local Body and the Local NGO,	Closed, • Copy of the clearance letter was sent to the concerned Panchayat and local NGO from whom the suggestions/ representations






S. No.	Stipulated Conditions	Compliance Status
	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.	received. <ul style="list-style-type: none"> <li>• Copy of the RPAD receipt is submitted to MoEF &amp; CC along with Six Monthly Compliance Report dated 27.11.2013 and again along with the six monthly compliance report dated 19.05.2017.</li> <li>• Clearance letters is available on website at <a href="http://www.adaniports.com/ports-downloads">http://www.adaniports.com/ports-downloads</a></li> </ul>
15.	The Proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB.	The six monthly compliance report comprising of the status of compliance of the stipulated EC conditions, including results of monitored data is being uploaded on the company website at <a href="http://www.adaniports.com/ports-downloads">http://www.adaniports.com/ports-downloads</a> and submitted to: 1. RO - MoEF & CC, Bhopal, 2. MoEF & CC, New Delhi, 3. DoEF, Gandhinagar, 4. Zonal Office - CPCB, Vadodara, 5. HO - GPCB, Gandhinagar, and 6. RO - GPCB, Surat. Last two reports were submitted vide letter dated 21.11.2016 and 19.05.2017.
16.	The Environmental Statement for each financial year ending 31 <sup>st</sup> 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 status of compliance of EC Conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.	The Environment Statement in Form-V for the Financial Year: 2016-17 is submitted to GPCB vide letter No.: AHPPL/GPCB/2017-18/ 008 dated 31.05.2016 & also uploaded on company website at <a href="http://www.adaniports.com/ports-downloads">http://www.adaniports.com/ports-downloads</a> .  Form-V for FY: 2016-17 has also been sent to Regional Office of MoEF & CC by email to <a href="mailto:rowz.bpl-mef@nic.in">rowz.bpl-mef@nic.in</a> on 18 <sup>th</sup> July, 2017.




SIX MONTHLY COMPLIANCE REPORT  
OF  
CRZ CLEARANCE ISSUED BY MOEF & CC, NEW DELHI  
VIDE LETTER NO.: 160-11/11/2003-IA.III, DATED 26<sup>TH</sup> JUNE, 2003  
FOR THE DEVELOPMENT OF MULTI CARGO PORT WITH SUPPORTING UTILITIES  
AND  
INFRASTRUCTURE FACILITIES AT HAZIRA, SURAT, GUJARAT




**B. Six Monthly Compliance Report for CRZ Clearance issued by MoEF & CC, New Delhi vide letter No.: 160-11/11/2003-IA.III dated 26<sup>th</sup> June, 2003 for the development of Multi Cargo Port with supporting utilities and infrastructure facilities at Hazira, Surat, Gujarat: -**


S. No.	Stipulated Conditions	Compliance Status															
<b>A.</b>	<b>SPECIFIC CONDITIONS</b>																
i.	<p>All the conditions stipulated by the Gujarat Pollution Control Board vide their letter No.: PC NOC-SRT/1241/8995, dated 24<sup>th</sup> March, 2003 shall be effectively implemented.</p> 	<p>Complied, AHPPL has obtained amendment in the Consent to Establish (NOC) from Gujarat Pollution Control Board as per the details given below: -</p> <table border="1"> <thead> <tr> <th>Consent No.</th><th>Issued On</th><th>Submitted To MoEF &amp; CC On</th></tr> </thead> <tbody> <tr> <td>CTE_49766</td><td>05.10.2012</td><td>Along with Six Monthly Compliance Report dated 19.11.2014 &amp; 19.05.2017.</td></tr> <tr> <td>CTE-64900</td><td>26.09.2014</td><td>Along with Six Monthly Compliance Report dated 12.05.2015 &amp; 19.05.2017.</td></tr> <tr> <td>CTE-74330</td><td>13.01.2016</td><td>Along with Six Monthly Compliance Report dated 23.05.2016 &amp; 19.05.2017.</td></tr> <tr> <td>CTE-77767</td><td>16.04.2016</td><td>Along with Six Monthly Compliance Report dated 21.11.2016 &amp; 19.05.2017.</td></tr> </tbody> </table> <p>All conditions mentioned in the above mentioned consents are being effectively implemented. Please refer the <b>Annexure-7</b> for compliance status of the latest CTE.</p>	Consent No.	Issued On	Submitted To MoEF & CC On	CTE_49766	05.10.2012	Along with Six Monthly Compliance Report dated 19.11.2014 & 19.05.2017.	CTE-64900	26.09.2014	Along with Six Monthly Compliance Report dated 12.05.2015 & 19.05.2017.	CTE-74330	13.01.2016	Along with Six Monthly Compliance Report dated 23.05.2016 & 19.05.2017.	CTE-77767	16.04.2016	Along with Six Monthly Compliance Report dated 21.11.2016 & 19.05.2017.
Consent No.	Issued On	Submitted To MoEF & CC On															
CTE_49766	05.10.2012	Along with Six Monthly Compliance Report dated 19.11.2014 & 19.05.2017.															
CTE-64900	26.09.2014	Along with Six Monthly Compliance Report dated 12.05.2015 & 19.05.2017.															
CTE-74330	13.01.2016	Along with Six Monthly Compliance Report dated 23.05.2016 & 19.05.2017.															
CTE-77767	16.04.2016	Along with Six Monthly Compliance Report dated 21.11.2016 & 19.05.2017.															
ii.	All conditions stipulated by the Forest and Environment Department, Government of Gujarat vide their letter No.: ENV.10.2003-29-P1, dated 10 <sup>th</sup> April, 2003 and letter No.: ENV-10-2003-29-P1, dated 29 <sup>th</sup> May, 2003 shall be effectively implemented.	<p>Complying with.</p> <p>Both the letter mentioned in the condition were sent by Forest and Environment Department to MoEF &amp; CC. Conditions mentioned in these letters were communicated to HPPL vide a separate letter dated 09<sup>th</sup> July, 2003 letter bearing No.: ENV-10-2003-29-P1. All the stipulated conditions of the aforesaid letters issued by the Forest and Environment Department, Government of Gujarat are being complied. Compliance status of the same is enclosed at <b>Appendix-2</b>.</p>															
iii.	All the conditions stipulated by Gujarat Maritime Board vide their No.: GMB/ N/Pvt/190(10)/9041, dated 31.12.2002 shall be effectively implemented.	<p>Complied.</p> <p>GMB granted the consent to construction through this letter. Port is being constructed as per the approvals received. Copy of the same is submitted to the MoEF &amp; CC and other concerned authorities along with the six monthly compliance report dated 19.05.2017.</p>															
iv.	The proposals for infrastructure corridor (37 Km of rail line, 10 Km. of road, 3 Km of underground conveyor system and 22 MW CCGT for connectivity) are deferred for lack of adequate details. The proponents are requested to submit a separate, fresh proposal embodying various components of the infrastructure	<p>Closed,</p> <p>The infrastructure corridor was proposed initially is not pursued and there is no development in this regard.</p>															




S. No.	Stipulated Conditions	Compliance Status
	corridor with requisite details. However, the desalination facilities can be taken up. Brine concentrates produced as a result of desalination works should not be disposed of in the sea. Instead, their techno-commercial viability should be explored for optimal utilization.	
v.	No groundwater should be tapped.	Complied with. Ground water is not being used for any purpose in the Port. The entire water requirement is being met through tanker water. An agreement with M/s. KRIBHCO was also signed on 25.07.2014 to use treated waste water from M/s. KRIBHCO in to the Port Operation. Pipeline work from M/s. KRIBHCO to M/s. AHPPL is in progress.
vi.	The area of 22 ha. of the mangrove patch and 8 ha. of buffer area along the mangrove patch should be protected during construction and operation phase of the project. As an additional measure, the 50 ha. of land identified at Kadia Bet located in the vicinity of the project site should be taken up for afforestation and no developmental activity should be taken up in the above mangrove areas. A detailed plan for the afforestation of mangroves at Kadia Bet should be prepared within 3 months and submitted to this Ministry.	Condition is amended and it was substituted with new conditions 6(a) and 6(b), as per communication from MoEF dated 19th February, 2007 bearing No.: J-16011/11/2003-IA-III. Compliance of the amended conditions are enclosed as <b>Appendix-3</b> . 
vii.	Dumping of dredged spoils should be done in the locations approved earlier.	Condition is modified as per communication from MoEF & CC dated 12th November, 2003 bearing letter No.: J-16011/11/2003-IA-III revised conditions states "dumping of dredged spoils should be dumped at the sites A & C as per the following coordinates": - (A) 21° 03' to 21° 05' N & 72° 28' to 72° 30' E (C) 21° 03' to 21° 05' N & 72° 30' to 72° 32' E  No disposal has been done till date. All the dredged material is being utilized for level rising, reclamation and apart from the above activity, excess material (if any) generated will be disposed of at the location approved by the MoEF & CC.
viii.	Environmental Management Plan (EMP) with detailed break-up of item-wise budget as contained in your letter dated 18 <sup>th</sup> June, 2003 shall be strictly implemented. The amount earmarked for EMP should be kept separate and should not be diverted	Complied. <ul style="list-style-type: none"> <li>Separate Budget has been allocated to Environment Management department.</li> <li>Please refer the <b>Annexure-6</b> for details of budget for Environment Management for the FY: 2017-18.</li> <li>Environment budget is not being diverted to</li> </ul>


S. No.	Stipulated Conditions	Compliance Status
	for any other extraneous purpose.	any other purpose.
ix.	Method of disposal of solid wastes and the sites of such disposal shall be intimated to Ministry of Environment & Forests.  	Complied. <ul style="list-style-type: none"> <li>All solid non-hazardous wastes are being disposed off through a local vendor.</li> <li>Hazardous wastes is being disposed to the GPCB authorized CHWIF/TSDf sites i.e.: (1). M/s. SEPPL, Bhachau, Kutch (Gujarat), (2). M/s. BEIL, Ankleshwar, Bharuch (Guj.), (3). M/s. GSPL, Palsana, Surat (Gujarat), and (4). M/s. RSPL, Panoli, Bharuch (Gujarat).</li> <li>Total 30.03 MT Hazardous Waste disposed during April, 2017 to Sept., 2017.</li> <li>Used oil is being recycled through registered recyclers. Approx. 14.54 MT of used oil sent to registered recyclers during April, 2017 to September, 2017.</li> <li>Membership certificates of M/s. SEPPL &amp; M/s. BEIL (CHWIF/TSDf sites) are submitted to the MoEF &amp; CC and other concerned authorities along with the six monthly compliance report dated 19.05.2017.</li> <li>Copy of the CHWIF/TSDf site membership certificate of M/s. RSPL, Panoli is enclosed as <b>Annexure-8</b>.</li> </ul>
x.	The project proponents should find ways to reuse the treated sewage for greenery or any other purpose rather than discharging these into the coastal waters.	Complied. Domestic waste water is being treated in the STP's. Treated water confirming the GPCB standards is being used in the Horticulture purpose within the port premises.
xi.	Proper navigational aids and leading lights should be provided.	Complied. Proper navigational aids and leading lights have been provided.
xii.	Air pollution due to handling of fertilizer, coal should be monitored and kept within permissible limits.	Complied. Ambient air quality monitoring is being carried out through M/s. Pollucon Laboratories (a MoEF&CC and NABL accredited laboratory) within port premises and during current monitoring period all the pollutants are found under the limit. Please refer the <b>Annexure-4A</b> for the Ambient air monitoring Reports for the period <b>April, 2017 to September, 2017</b> .
xiii.	Forest clearances, as applicable, be obtained.	Not applicable under this approval.
xiv.	Construction labour camps should be located outside Coastal Regulation Zone areas and should be provided with adequate cooking and sanitation facilities,	Complied. No labour camps are located in Coastal Regulation Zone area. Labours are managed through contractors and they are from surrounding villages and have been provided residential facilities in the surrounding villages.
xv.	The developer shall provide pollution control facilities for dust separation while handling bulk coal, iron ore and sulphur. Spill boards shall be provided in the berth to prevent cargo spillage into the sea.	Complied. Following control measures are in place and effectively working at port to control fugitive dust: - 1. Transportation of coal from jetty to coal storage yard through 1.7 Km. long conveyor belt with hood.




S. No.	Stipulated Conditions	Compliance Status
		2. Water sprinklers in to the coal yard, 3. Dust Suppression System / Spray Nozzles in Conveyor System and Discharge Chute, 4. Water spray through Water Browsers, 5. Water Mist Canon / Fog System, 6. Wind Brake Shield of 14 meters high and 1200 meters long, 7. Transportation of cargo from port to hinterland is being done through dumpers / trucks covered with tarpaulin, 8. Regular cleaning the roads through Road Sweeping Machines, and 9. Company has set up dedicated greenbelt area for plantation at periphery/avenue plantation/landscaping etc. Total greenbelt area developed so far is approx. 63.04 ha within the port premises.
xvi.	The project proponent should ensure that the surface run-off from the stockyard is not let out into the sea/open area causing seawater/groundwater pollution. 	Complied. <ul style="list-style-type: none"> <li>Run off from stockyard is being collected into dump ponds and collected water is being reuse for dust suppression purpose in the coal yard.</li> <li>Quality monitoring of the Sea Water, Ground Water and Dump Pond Water is being done through M/s. Pollucon Laboratories (MoEF &amp; CC and NABL accredited laboratory). No significant change is observed in the reports.</li> <li>Please refer the <b>Annexure-4B &amp; 4E</b> for the Ground &amp; Sea Water Quality Monitoring / Analysis Reports for the period <b>April, 2017 to September, 2017</b>.</li> </ul>
xvii.	All pollution control facilities for handling ballast water and bilge as required under MARPOL convention for servicing ships shall be provided.	Complied. <ul style="list-style-type: none"> <li>AHPPL are providing the facility to collect the solid and liquid waste (ballast and bilge) from the vessel on call basis.</li> <li>AHPPL arranges GPCB approved third party to collect the liquid waste from vessels on call basis and the agency collect the liquid waste from vessels and transport at their facility for further treatment and disposal purpose.</li> <li>Detail of sludge / wastes collected &amp; disposed off from Vessels through GPCB approved agencies during the <b>April, 2017 to September, 2017</b> is enclosed as <b>Annexure-9</b>.</li> <li>Solid and liquid wastes generated from our own tugs is being collected in secure manner and disposed of in environmentally sound manner.</li> </ul>
xviii.	A specific oil spill response plan shall be prepared and submitted to the State Authority with a copy to Ministry of Environment & Forests, before commissioning the project.	Complied. Oil Spill Contingency Plan has been prepared and the same was approved / vetted by Indian Coast Guard (Letter No.: 7563, dated 09.01.2014).


S. No.	Stipulated Conditions	Compliance Status
xix.	The stacking height of sulphur shall not in any case exceed 5 m.	Complied. Sulphur stacking height is being maintained less than 5 m.
xx.	Adequate fire-fighting facilities as per National Fire Protection Code shall be provided in the port area and in the buildings.	Complied. All the fire-fighting facilities are at place according to the National Fire Protection Code.
xxi.	All dredging operations should be restricted to bare minimum extent, the dredge material should be used for reclamation instead of dumping off-shore.	Condition modified as per communication from MoEF & CC dated 12 <sup>th</sup> November, 2003 bearing letter No.: J-16011/11/2003-IA-III revised conditions states "all dredging operations should be restricted to bare minimum extent, the maximum dredged material suitable for reclamation should be used for the said purpose and the remaining material may be used for dumping at the recommended sites mentioned in Para (vii)" Complying with. No disposal has been done till date. All the dredging material is being utilized for level raising, reclamation and apart from the above activity, excess material (if any) generated will be disposed of at the location approved by the MoEF & CC.
xxii.	The dredging operations shall be carried out in a controlled manner such that there is no increase in turbidity levels outside the port area. 	Complied. <ul style="list-style-type: none"> <li>Dredging whenever required is carried out within port limit and as per approved plan only.</li> <li>Marine, water quality is being monitored through M/s. Pollucon Laboratories, Surat (a MoEF&amp;CC and NABL accredited laboratory).</li> <li>Monitoring of turbidity is being done which shows no increase in the turbidity level. Please refer the <b>Annexure-4E</b> for the Sea Water Quality Monitoring / Analysis Reports for the period <b>April, 17 to September, 17</b>.</li> </ul>
xxiii.	A comprehensive water supply and management plan for the multi cargo port without tapping groundwater shall be prepared, in consultation with State Government/ Irrigation Department with a view to make water available for ships calling at the Hazira Port.	Complying with. <ul style="list-style-type: none"> <li>Ground water is not being used for any purpose in the Port.</li> <li>The entire water requirement is being met through tanker water.</li> <li>An agreement with M/s. KRIBHCO was also signed on 25.07.2014 to use treated waste water from M/s. KRIBHCO in to the port operation. Pipeline work from M/s. KRIBHCO to M/s. AHPPL is in progress.</li> <li>Current water requirement of port operation is approx. 1500 KLD.</li> </ul>
xxiv.	During reclamation, setting ponds shall be provided to control silt discharge into the sea.	Complied. During project development phase bunds/ setting ponds were provided to control the dumped soil materials which ensure no discharge of silt into the Sea.
xxv.	A Regional Disaster Management Plan for the Hazira Peninsula, covering all	Complied. Regional DMP for the Hazira Peninsula,




S. No.	Stipulated Conditions	Compliance Status
	major industries and the port shall be prepared in consultation with District Authorities and implemented.	covering all major industries and the port has been prepared in consultation with District Authorities and same is being implemented.
xxvi.	The tugs shall be equipped with fire-fighting facilities and booms to control oil spill in the port area.	Complied. All tugs have been well equipped with fire-fighting facilities and booms to control oil spill in the port area.
xxvii.	A comprehensive Environmental Impact Assessment report for the entire gamut of activities of the multi cargo port at Hazira shall be prepared and submitted within one year from date of receipt of this clearance letter. Any additional environmental safeguards brought out by this comprehensive Environmental Impact Assessment report shall be duly implemented.	Complied. Comprehensive EIA study report prepared by NEERI has been submitted to the Ministry of Environment and Forests, Govt on 19 <sup>th</sup> July, 2004. EIA has been revised during the expansion of the project. Compliance of the recommendation given in the EIA report as EMP is enclosed as <b>Annexure-3</b> .
xxviii.	The project proponent shall engage National Institute of Oceanography, Goa for monitoring the biological parameters of the mangrove areas located within the project site and the additional area 50 ha. identified at Kadia Bet for mangrove afforestation. For the purpose of monitoring the water quality and to study the siltation pattern, National Environmental Engineering Research, Nagpur shall be engaged.	Complied in line with the substituted conditions 6(a) & 6(b) from MoEF & CC, dated 19 <sup>th</sup> February, 2007. Please refer <b>Appendix-3</b> for the status of compliances. 
xxix.	The project proponent shall ensure that NIO and NEERI undertake monitoring as above once in thirty days during construction period. The monitoring schedule should be once in three months during the operational phase of the project. The monitoring reports furnished by NIO and NEERI shall be submitted to the Regional Office of Ministry of Environment & Forests, Bhopal and to Ministry of Environment & Forests, New Delhi.	Complied in line with the substituted conditions 6(a) & 6(b) from MoEF & CC, dated 19 <sup>th</sup> February, 2007. Please refer <b>Appendix-3</b> for the status of compliances.
<b>B.</b>	<b>GENERAL CONDITIONS</b>	
i.	Construction of the proposed structure should be undertaken meticulously conforming to the existing Central/local rules and regulations including Coastal Regulation Zone Notification, 1991 and its amendments. All the construction designs/drawings relating to the proposed construction activities must have approvals of the concerned State Government Department / Agencies.	Complied. Construction of the port is being done in compliance to the CRZ Notification, 1991 which was amended in 2011 and as per the approvals received. All the construction designs/drawings relating to the proposed construction activities have been approved by the concerned State Government Department / Agencies as given below:- <ul style="list-style-type: none"> <li>Environmental and CRZ Clearance issued by MoEF &amp; CC, New Delhi vide letter No.: 11-</li> </ul>


S. No.	Stipulated Conditions	Compliance Status
		<p>150/2010-IA.III dated 03<sup>rd</sup> May, 2013.</p> <ul style="list-style-type: none"> <li>Amendment in CRZ/Environment Clearance issued by MoEF &amp; CC, New Delhi vide letter No.: J-16011/11/2003-IA-III, dated 19<sup>th</sup> February, 2007.</li> <li>Amendment in CRZ Clearance issued by MoEF &amp; CC, New Delhi vide letter No.: J-16011/11/2003-IA-III, dated 12<sup>th</sup> Nov., 2003.</li> <li>CRZ Clearance issued by MoEF &amp; CC, New Delhi vide letter No.: J-16011/11/2003-IA.III dated 26<sup>th</sup> June, 2003.</li> <li>Approval from GMB to commence work was obtained on 09<sup>th</sup> April, 2010 vide letter No.: GMB/N/PVT/923(10)/42 /458.</li> <li>PESO license from Chief Controller of Explosive, Nagpur vides Order No.: P/HQ/GJ/15/5294 (P270337), Renewed on 31.12.2015 valid till 31.12.2018.</li> <li>License to work a Factory Adani Hazira Port Pvt. Ltd. (Liquid Terminal) from Director of Industrial Safety and Health, Govt. of Gujarat their vide Registration No.: 3502 / 51410 / 2013 and License No.: 18757, Renewed on 21-01-2017, valid till 31<sup>st</sup> December, 2018.</li> </ul>
ii.	<p>The proponent shall ensure that as a result of the proposed constructions, ingress of the saline water into the groundwater does not take place. Piezometers shall be installed for regular monitoring for this purpose at appropriate locations on the project site.</p> 	<p>Complied.</p> <ul style="list-style-type: none"> <li>Proper care is being taken during construction activity to avoid salinity ingress and any degradation of water quality.</li> <li>M/s. AHPPL is monitoring the Ground Water Quality at one location on monthly basis. Results show no significant change in the quality.</li> <li>Ground water quality is being monitored through M/s. Pollucon Laboratories, Surat (a MoEF&amp;CC and NABL accredited laboratory).</li> <li>Please refer the <b>Annexure-4B</b> for the Environmental Monitoring / Analysis Reports for the period <b>April, 17 to September, 17.</b></li> </ul>
iii.	<p>Handling, manufacturing, storage and transportation of all hazardous chemicals should be carried out in accordance with MSIHC rules, 1989 and subsequent amendments. All approvals from State and Central nodal agencies including OISD, Chief Controller of Explosives, Chief Inspectorate of Factories must be obtained. A comprehensive contingency plan in collaboration with the concerned authorities must be formulated before commissioning of the project to meet any eventuality in</p>	<p>Complying with and all required statutory approvals has been obtained from the concerned authorities i.e.: -</p> <ol style="list-style-type: none"> <li>PESO License from Chief Controller of Explosive, Nagpur vides Order No.: P/HQ/GJ/15/5294 (P270337), Renewed on 31.12.2015 valid till 31.12.2018.</li> <li>License to work a Factory Adani Hazira Port Pvt. Ltd. (Liquid Terminal) from Director of Industrial Safety and Health, Govt. of Gujarat their vide Registration No.: 3502 / 51410 / 2013 and License No.: 18757, Renewed on 21-01-2017, valid till 31<sup>st</sup> December, 2018. Copy of the License to work a Factory is</li> </ol>



S. No.	Stipulated Conditions	Compliance Status																																
	case of an accident.	submitted to the MoEF & CC and other concerned authorities along with the six monthly compliance report dated 19.05.2017.																																
iv.	<p>A well-equipped laboratory with suitable instruments to monitor the quality of air and water shall be set up as to ensure that the quality of ambient air and water conforms to the prescribed standards. The laboratory will also be equipped with qualified manpower including a marine biologist so that the marine water quality is regularly monitored in order to ensure that the marine life is not adversely affected as a result of implementation of the said project. The quality of ambient air and water shall be monitored periodically in all the seasons and the results should be properly maintained for inspection of the concerned pollution control agencies. The periodic monitoring reports at least once in 6 months must be send to this Ministry (Regional Office at Bhopal) and State Pollution Control Board.</p> 	<p>Complied.</p> <ul style="list-style-type: none"><li>The environmental quality monitoring is being done by M/s. Pollucon Laboratories Pvt. Ltd., Surat a MoEF&amp;CC (F. No. Q-15018/24/2014-CPW letter dated 19.10.2015 and NABL accredited laboratory (Accreditation No.: TC - 5945 (in lieu of T - 0820 &amp; T - 0821) valid till 27.05.2019).</li><li>Details of parameters monitored and frequency is given below: -</li></ul> <table><tr><td>Ambient Air Quality as per NAAQMS</td><td>Weekly Twice</td></tr><tr><td>Ambient Noise Level Monitoring</td><td>Monthly</td></tr><tr><td>Soil Quality Analysis</td><td>Quarterly</td></tr><tr><td>Ground Water Quality Analysis</td><td>Monthly</td></tr><tr><td>Surface Water Quality Analysis</td><td>Monthly</td></tr><tr><td>Drinking Water Quality Analysis</td><td>Monthly</td></tr><tr><td>Sea Water Quality Analysis (Surface &amp; Bottom)</td><td>Monthly</td></tr><tr><td>Sea Sediments Quality Analysis</td><td>Monthly</td></tr><tr><td>HWG Stack Emission Monitoring</td><td>Monthly</td></tr><tr><td>Meteorological Data Monitoring</td><td>Continuous</td></tr><tr><td>ETP Inlet - Quality Analysis</td><td>Weekly Twice</td></tr><tr><td>ETP Outlet - Quality Analysis</td><td>Weekly Twice</td></tr><tr><td>STP Inlet and Outlet - Quality Analysis</td><td>Weekly</td></tr><tr><td>DG Sets Stack Emission Monitoring</td><td>Quarterly</td></tr><tr><td>DG Sets Noise Level Monitoring</td><td>Quarterly</td></tr><tr><td>Dump Pond Water Quality Analysis</td><td>Quarterly</td></tr></table> <ul style="list-style-type: none"><li>Please refer the <b>Annexure-4A, 4B, 4C, 4D &amp; 4E</b> for Environmental Monitoring/Analysis Reports for the period <b>April, 17 to Sept., 17</b>.</li><li>Monitoring report confirms the compliance with standards wherever applicable.</li><li>Reports are being submitted to MoEF&amp;CC and other authorities along with six monthly compliance reports.</li></ul>	Ambient Air Quality as per NAAQMS	Weekly Twice	Ambient Noise Level Monitoring	Monthly	Soil Quality Analysis	Quarterly	Ground Water Quality Analysis	Monthly	Surface Water Quality Analysis	Monthly	Drinking Water Quality Analysis	Monthly	Sea Water Quality Analysis (Surface & Bottom)	Monthly	Sea Sediments Quality Analysis	Monthly	HWG Stack Emission Monitoring	Monthly	Meteorological Data Monitoring	Continuous	ETP Inlet - Quality Analysis	Weekly Twice	ETP Outlet - Quality Analysis	Weekly Twice	STP Inlet and Outlet - Quality Analysis	Weekly	DG Sets Stack Emission Monitoring	Quarterly	DG Sets Noise Level Monitoring	Quarterly	Dump Pond Water Quality Analysis	Quarterly
Ambient Air Quality as per NAAQMS	Weekly Twice																																	
Ambient Noise Level Monitoring	Monthly																																	
Soil Quality Analysis	Quarterly																																	
Ground Water Quality Analysis	Monthly																																	
Surface Water Quality Analysis	Monthly																																	
Drinking Water Quality Analysis	Monthly																																	
Sea Water Quality Analysis (Surface & Bottom)	Monthly																																	
Sea Sediments Quality Analysis	Monthly																																	
HWG Stack Emission Monitoring	Monthly																																	
Meteorological Data Monitoring	Continuous																																	
ETP Inlet - Quality Analysis	Weekly Twice																																	
ETP Outlet - Quality Analysis	Weekly Twice																																	
STP Inlet and Outlet - Quality Analysis	Weekly																																	
DG Sets Stack Emission Monitoring	Quarterly																																	
DG Sets Noise Level Monitoring	Quarterly																																	
Dump Pond Water Quality Analysis	Quarterly																																	
v.	Adequate provisions for infrastructure facilities such as water supply, fuel for cooking, sanitation etc. must be	<p>Complied.</p> <p>No labour camps are located in Coastal Regulation Zone area. Labours are managed</p>																																


S. No.	Stipulated Conditions	Compliance Status
	provided for the laborers during the construction period in order to avoid damage to the environment. Colonies for the laborers should not be located in Coastal Regulation Zone area. It should also be ensured that the construction workers do not cut trees including mangroves for fuel wood purpose.	through contractors and they are from surrounding villages and have been provided residential facilities in the surrounding villages.
vi.	To prevent discharge of sewage and other liquid wastes into the water bodies, adequate system for collection and treatment of the wastes must be provided. No sewage and other liquid wastes without treatment should be allowed to enter into the water bodies.	Complied. Adequate system for collection and treatment of sewage and liquid wastes are in place. Treated sewage water is being utilized for horticulture purpose within the premises.
vii.	Appropriate facility should be created for the collection of solid and liquid wastes generated by the barges/ vessels and their safe treatment and disposal should be ensured to avoid possible contamination of the water bodies.  	Complied. <ul style="list-style-type: none"> <li>AHPPL are providing the facility to collect the solid and liquid waste from the vessel on call basis.</li> <li>Garbage collected from the vessels is disposed of in environment friendly manner by converting bio-compost and used the same in horticulture / gardening purpose.</li> <li>AHPPL arranges GPCB approved third party to collect the liquid waste from vessels on call basis and the agency collect the liquid waste from vessels and transport at their facility for further treatment and disposal purpose.</li> <li>Please refer the <b>Annexure-9</b> for details of sludge/wastes collected &amp; disposed off from Vessels through GPCB approved agencies during <b>April, 2017 to September, 2017</b>.</li> <li>Solid and liquid wastes generated from our own tugs is being collected in secure manner and disposed of in environmentally sound manner.</li> </ul>
viii.	Necessary navigational aids such as channel markers should be provided to prevent accidents. Internationally recognized safety standards shall be applied in case of barge/vessel movements.	Complied. Proper navigational aids and leading lights have been provided. Internationally recognized safety standards are being followed during vessel movement.
ix.	The project authorities should take appropriate community development and welfare measures for villagers in the vicinity of the project site, including drinking water facilities. A separate fund should be allocated for this purpose.	Complied. <ul style="list-style-type: none"> <li>CSR activities carried out by Adani Foundation in four verticals i.e.: - (1) Education, (2). Community Health, (3). Sustainable Livelihood and (4). Rural Infrastructure Development.</li> <li>Detail of the CSR activities along with budgetary provisions and progress are regularly submitted to MoEF &amp; CC as part of six monthly compliance reports.</li> </ul>



S. No.	Stipulated Conditions	Compliance Status
		<ul style="list-style-type: none"> <li>Total budget allocated for CSR activities is Rs. 301.27/- Lakh for FY: 2017-18 and total expenditure is Rs. 88.16/- Lakh during April, 2017 to September, 2017.</li> <li>Please refer the <b>Annexure-2</b> for the status of the CSR activities planned during the Financial Year: 2017-18.</li> </ul>
x.	The quarrying material required for the construction purpose shall be obtained only from the approved quarries/ borrow areas. Adequate safeguard measures shall be taken to ensure that the overburden and rocks at the quarry site do not find their way into water bodies.	Complied. No quarry material has been procured during April, 2017 to September, 2017.
xi.	The dredging operations to be undertaken with the prior approval of this Ministry, shall be executed with appropriate safeguard measures to prevent turbidity conditions in consultation with the expert agencies such CWPRS/NIO.	Condition deleted as per communication from MoEF & CC dated 12 <sup>th</sup> November, 2003 bearing letter No.: J-16011/11/2003-IA-III.
xii.	For employing unskilled, semi-skilled and skilled workers for the project, preference shall be given to local people.	Complying with. AHPPL has always given employment priority to local qualified persons and in future the same will be continued. As on 07 <sup>th</sup> Nov., 2017 total 180 out of 211 on roll employees are from Gujarat.
xiii.	<p>The recommendations made in the Environmental Management Plan and Disaster Management Plan, as contained in the Environmental Impact Assessment and Risk Analysis Reports of the project shall be effectively implemented.</p> 	<p>Complied.</p> <ul style="list-style-type: none"> <li>Recommendation given in EMP is being complied in letter and spirit. Status of the same is enclosed as <b>Annexure-3</b>.</li> <li>AHPPL is an ISO 14001: 2015, ISO 9001: 2015 and OHSAS 18001: 2007 certified company. AHPPL has developed and implemented ER &amp; DMP. Regular mock drill to ensure the compliance and preparedness is being done.</li> <li>Last Mock Drill (On Site) was on : 21.08.2017</li> <li>Last Update of ERP/DMP : 10.03.2017</li> <li>Schematic of ER &amp; DMP communication flow is submitted to the MoEF &amp; CC and other concerned authorities along with the six monthly compliance report dated 19.05.2017.</li> </ul>
xiv.	A separate Environmental Management Cell with suitable qualified staff to carry out various environment related functions should be set up under the charge of a Senior Executive who will report directly to the Chief Executive of the Company.	<p>Complied.</p> <ul style="list-style-type: none"> <li>Environment Management Cell has been set up with qualified staff to ensure the effective implementation of environmental safe guards.</li> <li>In addition to the site Environment Management Cell a well-established corporate environment cell also ensures effective implementation of the</li> </ul>

S. No.	Stipulated Conditions	Compliance Status
		<p>environmental safeguards.</p> <ul style="list-style-type: none"> <li>Please refer the <b>Annexure-5</b> for Environment Management Cell Organogram.</li> </ul>
xv.	The project-affected people, of any should be properly compensated and rehabilitated.	There is no R&R factors involve for development of Port. The entire port is being developed on reclaimed land allotted by Government.
xvi.	The funds earmarked for environment protection measures should be maintained in a separate account and there should be no diversion of these funds for any other purpose. A year-wise expenditure on environmental safeguards should be reported to this Ministry.	<p>Complied.</p> <ul style="list-style-type: none"> <li>Separate Budget is allocated to HSE department. Please refer the <b>Annexure-6</b> for details of budget for Environment Management for the FY: 2017-18.</li> <li>No funds are diverted for any other purposes.</li> </ul>
xvii.	Full support should be extended to the officers of this Ministry's Regional Office at Bhopal and the officers of the Central and State Pollution Control Boards by the project proponent during this inspection for monitoring purposes, by furnishing full details and action plans including the action plans including the action taken reports in respect if mitigative measures and other environmental protection activities.	<p>Complying with.</p> <ul style="list-style-type: none"> <li>AHPPL is regularly submit six monthly compliance reports which comprises compliance to the conditions stipulated in Environment and CRZ Clearance, action taken report of Environment Management Plan, environment monitoring reports etc.</li> <li>Last two reports were submitted vide letter dated 21.11.2016 and 19.05.2017.</li> <li>Whenever any authorities such as MoEF&amp;CC, GPCB and GMB etc. visit the AHPPL full support is extended and AHPPL provides all additional information seek by them during the inspection.</li> <li>Last visit by Addl. PCCF, MoEF &amp; CC - RO, Bhopal was on 01 &amp; 02.05.2017.</li> <li>Last visit by RO - GPCB, Surat was on 27.04.2017 and 02.10.2017.</li> </ul>
xviii.	In case of deviation or alternation in the project including the implementing agency, a fresh reference should be made to this Ministry for modification in the clearance conditions or imposition of new ones for ensuring environmental protection. The project proponents should be responsible for implementing the suggested safeguard measures.	<p>Noted and Complied.</p> <p>There is no change in project profile / implementation agency, if any.</p>
xix.	This Ministry reserves the right to revoke this clearance, if any of the conditions stipulated are not complied with to the satisfaction of this Ministry.	Noted and comply with the MoEF & CC directions, if any.
xx.	This Ministry or any other competent authority may stipulate any additional conditions subsequently, if deemed necessary for environmental protection, which shall be complied with.	Noted and comply with the additional conditions stipulated by the MoEF & CC, if any.



S. No.	Stipulated Conditions	Compliance Status
xxi.	The project proponent should advertise at least in two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned informing that the project has been accorded environmental clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen at Website of the Ministry of Environment & Forests at <a href="http://www.envfor.nic.in">http://www.envfor.nic.in</a> . The advertisement should be made within 7 days from the date of issue of the clearance letter and a copy of the same should be forwarded to the Regional Office of this Ministry at Bangalore.	Closed, Advertisements were published in Gujarati News Paper "Gujarat Samachar" on 12/07/2003 and English News Paper "The Times Of India" on 10/07/2003.  
xxii.	The project proponents should 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.	Closed, <ul style="list-style-type: none"> <li>Financial Closure date is 29<sup>th</sup> September, 2011.</li> <li>Approval from GMB to commence work was obtained on 09<sup>th</sup> April, 2010 vide letter No.: GMB/N/PVT/923(10)/42/458. Copy of the same has been submitted to the MoEF &amp; CC and other concerned authorities along with the six monthly compliance report dated 19.05.2017.</li> </ul>

\*\*\*


**APPENDIX-1:**

**COMPLIANCE TO THE CONDITIONS STIPULATED IN CRZ RECOMMENDATIONS  
ISSUED BY FORESTS & ENVIRONMENT DEPARTMENT,  
GOVERNMENT OF GUJARAT TO MOEF & CC, NEW DELHI  
VIDE LETTER NO.: ENV-10-2012-30-E, DATED 11<sup>TH</sup> MAY, 2012  
FOR MODIFICATION / EXPANSION OF MULTI - CARGO PORT FACILITY AT HAZIRA, DIST. -  
SURAT BY M/S. ADANI HAZIRA PORT PVT. LIMITED**





**Appendix -1:** Compliance to the conditions stipulated in CRZ recommendation issued by Forests & Environment Department, Government of Gujarat to MoEF & CC, New Delhi vide letter No.: ENV-10-2012-30-E dated 11<sup>th</sup> May, 2012 for modification / expansion of Multi-Cargo Port Facility at Hazira, Dist. - Surat by M/s. Adani Hazira Port Pvt. Limited: -

S. No.	Conditions	Compliance Status
<b>A.</b>	<b>Specific Condition</b>	
1.	The provision of CRZ Notification 2011 shall be strictly adhered by M/s. AHPPL. No activity in contradiction to the provision of CRZ Notification shall be carried out by M/s. AHPPL.	Complied. <ul style="list-style-type: none"> <li>Construction activities are as per the provisions of CRZ Notification, 2011.</li> <li>No construction work other than those permitted in CRZ Notification has been done.</li> <li>Development of the port and other ancillary facility is being done as per the approval received under CRZ Notification, 2011 and EIA Notification, 2006 and subsequent amendments.</li> </ul>
2.1	M/s. AHPPL shall not construct any storage facilities for material / chemicals in the CRZ area except for those permissible as per Annexure - II of CRZ Notification 2011.	Noted. Only permissible activities being carried out in CRZ area.
2.2	Also for other hazardous chemicals, outside CRZ Areas, the AHPPL shall consult SDMA for Disaster Management Plan.	Complied, Disaster Management Plan has been submitted to GSDMA vide letter dated 20.10.2012. Comments vide GSDMA letter No.: GSDMA / SM / Ind. Safety / 770560 dated 03.12.2012. The Revised Plan was submitted to GSDMA on 23.05.2014.
3.	All necessary permissions from different Government Departments / agencies shall be obtained by M/s. AHPPL before commencing the activities. 	All the statutory permissions from the concerned statutory authorities are obtained i.e.: - <ol style="list-style-type: none"> <li>Environment and CRZ Clearance from MoEF &amp; CC, GOI vide order No.: F.No.:11-150/2010-IA-III dated 03.05.2013.</li> <li>PESO License from Chief Controller of Explosive, Nagpur vide order No.: P/HQ/GJ/15/5294 (P270337), Renewed on 31.12.2015 valid till 31.12.2018.</li> <li>License to work a Factory Adani Hazira Port Pvt. Ltd. (Liquid Terminal) from Director of Industrial Safety and Health, Govt. of Gujarat their vide Registration No.: 3502 / 51410 / 2013 and License No.: 18757, Renewed on 21-01-2017, valid till 31<sup>st</sup> December, 2018.</li> </ol>
4.	The AHPPL shall ensure that there shall be no damage to the existing mangrove patches near the site and also ensure the free flow of water to avoid damage to the mangrove.	Noted and complied with. There are no adverse impacts on mangrove as well as flow of water with respect to development activities.
5.	No dredging, reclamation or any other project related activities shall be carried out in CRZ area categorized as CRZ-I (A) and it shall have to be	Complied. All activities are being carried out as per Environment and CRZ clearance accorded. No mangrove habitats and other ecologically

S. No.	Conditions	Compliance Status
	ensured that the mangrove habitats and other ecologically important and significant areas, if any in the region are not affected due to any of the project activities.	important and significant areas are present within port limit.
6.	The dredging material shall be disposed of at the location already approved by the Ministry of Environment and Forests, Government of India.	Condition is amended. Modified as per communication from MoEF&CC dated 12 <sup>th</sup> November, 2003 bearing letter No.: J-16011/11/2003-IA-III revised conditions states "dumping of dredged spoils should be dumped at the sites A & C as per the following coordinates: - (A) 21°03' to 21°05' N & 72°28' to 72°30' E (C) 21°03' to 21°05' N & 72°30' to 72°32' E  No disposal has been done till date. All the dredging material is being utilized for level rising, reclamation and apart from the above activity, if any excess material generated will be disposed of at the location already approved by the MoEF&CC.
7.	All the recommendations and suggestions given by M/s. NIO and Cholamandalam MS Risk Services Ltd, Chennai in their EIA reports for conservation / protection and betterment of environment shall be implemented strictly by M/s. AHPPL.	Complied. All the recommendations and suggestions for conservation/protection and betterment of environment are being implemented strictly.
8.	The construction and operational activities shall be carried out in such a way that there is no negative impact on mangroves, if any and other important coastal / marine / habitats. The construction activities shall be carried out only under the guidance/supervision of reputed institute/organization.	There are no mangroves and other important coastal / marine / habitats presents within the port area. The Port development work is supervised by Gujarat Maritime Board (GMB).
9.	M/s. AHPPL shall strictly ensure that no creeks or rivers are blocked due to any activity at Shipyard.	All the activities are carried out as per EC & CRZ clearance and no creeks are blocked due to development activities. Shipyard is not envisaged in our proposal.
10.	The construction debris and / or any other type of waste shall not be disposed of into the sea, creek or in CRZ areas. The debris shall be removed from construction site immediately after the construction is over.	Complied with, Construction debris removed from construction site immediately after completion of the construction work.
11.	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	Complied. No labour camps are located in Coastal Regulation Zone area. Labours are managed through contractors and they are from surrounding villages and have been provided residential facilities in the surrounding villages.



S. No.	Conditions	Compliance Status
	deteriorated by construction labours.	
12.	M/s. AHPPL shall prepare and regularly update their Local Oil Spill Contingency and Disaster Management Plan in consonance with National Oil Spill and Disaster Contingency Plan and shall submit the same to this department after having it vetted through Indian Coast Guard.	Complied. <ul style="list-style-type: none"> <li>Oil Spill Contingency Plan has been prepared and the same was approved/ vetted by Indian Coast Guard (Letter No.: 7563, dated 09.01.2014).</li> <li>Disaster Management Plan has been submitted to GSDMA vide letter dated 20.10.2012. Comments vide GSDMA letter No.: GSDMA/SM/Ind. Safety/ 770560 dated 03.12.2012. The Revised Plan was submitted to GSDMA on 23.05.2014.</li> </ul>
13.	M/s. AHPPL shall bear the cost of external agency that may be appointed by this department for supervision / monitoring of proposed activities and the environment impact of the proposed activities.	Noted and agreeing to bear the cost of external agency, if any that may be appointed by this department.
14.	The jetty and most of the approach would be supported on piles allowing adequate flow of water without significant obstruction.	Complied. Jetty approach is supported by piles allowing adequate flow of water.
15.	The ground water shall not be tapped within the CRZ areas by the AHPPL to meet with the water requirements in any case.	Complied with. Ground water is not being used for any purpose in the Port. The entire water requirement is being met through tanker water. An agreement with M/s. KRIBHCO was also signed on 25/07/2014 to use treated waste water from M/s. KRIBHCO in to the Port operation. Pipeline work from M/s. KRIBHCO to M/s. AHPPL is in progress.
16.	M/s. AHPPL shall take up massive greenbelt development activities in consultation with Forest Dept. / GEER Foundation / Gujarat Ecology Commission. A comprehensive plan for this purpose has to be submitted to the Forests and Environment Department.	Complied with. Company has set up dedicated green belt area for plantation at periphery / avenue plantation / landscaping etc. Total greenbelt area developed so far is approx. 63.04 ha within the port premises.
17.	Mangrove plantation in 200 Ha. shall be carried out in consultation with Gujarat Ecology Commission / Forest Dept. by M/s. AHPPL with in a period of two years from the issuance of CRZ clearance by MoEF, GoI and an action plan in this regard shall be submitted to this Department along with satellite images and GPS readings with Latitudes and Longitudes.	Complied with. Company has carried out mangrove afforestation in an area of 200 hectares i.e.: 20 hectares in Kantiyajal and 180 hectares in Village Nada-Devla of District - Bharuch and same is completed. Consolidated report on mangrove plantation on an area of 200 hectares at Village: Kantiyajal, Taluka: Hansot and Village: Nada-Devla, Taluka: Jambusar, District: Bharuch (Gujarat) developed by M/s. SAVE Limited, Ahmedabad is enclosed as <b>Annexure-10</b> .

S. No.	Conditions	Compliance Status
18.	The AHPPL shall have to take up bio-shielding development programme as part of CSR in consultation with Forest Department / PCCF and action plan in this regard shall have to be submitted to the MoEF - Gol and this Department.	Complied with. <ul style="list-style-type: none"> <li>Communication has been initiated with PCCF, Forest Dept., GoG vide our letter 29<sup>th</sup> May, 2012 and District Forest Officer, Surat Forest Range vide our letter dated 05<sup>th</sup> May, 2014.</li> <li>AHPPL has initiated the development of Bio-Shield Pilot Project at Village - Tankari Bandar, Taluka - Jambusar, District - Bharuch (Gujarat) on an area of 18 hectares with the help of local NGO.</li> </ul>
19.	M/s. AHPPL shall have to contribute financially for taking up the socio-economic upliftment activities in this region in consultation with Forest and Environment Dept. and the District Collector / District Development Officer.	Complied with. CSR activities carried out by Adani Foundation in four verticals i.e.: - (1) Education, (2). Community Health, (3). Sustainable Livelihood and (4). Rural Infrastructure Development. Appropriate financial contribution is being made. Schemes promoted by District Authorities and Forest & Environment Department, GoG are also included. Please refer the <b>Annexure-2</b> for the status of the CSR activities planned during the Financial Year: 2017-18.
20.	A separate budget shall be earmarked for environment management and socio-economic activities including green belt development / mangrove plantation and details thereof shall be furnished to this Department as well as the MoEF, Gol. The details with respect to the expenditure from this budget head shall also be furnished along with the compliance report.	Complied with. <ul style="list-style-type: none"> <li>Environmental Management Plan is in place and the funds earmarked are being utilized for effective implementation of environmental safeguards and environment monitoring. Key components are Environment monitoring, Mangrove plantation, environmental studies etc.</li> <li>Please refer the <b>Annexure-6</b> for details of budget for Environment Management for the FY: 2017-18.</li> <li>CSR activities carried out by Adani Foundation in four verticals i.e.: - (1) Education, (2). Community Health, (3). Sustainable Livelihood and (4). Rural Infrastructure Development.</li> <li>Please refer the <b>Annexure-2</b> for the status of the CSR activities planned during the Financial Year: 2017-18.</li> </ul>
21.	A separate Environment Management Cell with qualified personnel shall be created for environmental monitoring and management during construction and operational phases of the project.	Complied. <ul style="list-style-type: none"> <li>Environment Management Cell has been set up with qualified staff to ensure the effective implementation of environmental safe guards.</li> <li>In addition to the site Environment Management Cell a well-established corporate environment cell also ensures effective implementation of the environmental safeguards.</li> <li>Please refer the <b>Annexure-5</b> for Environment Management Cell Organogram.</li> </ul>





S. No.	Conditions	Compliance Status
22.	Environment Audit Report including the changes, if any, with respect to baseline environmental quality in the coastal and marine environment shall be submitted every year by M/s. AHPPL to this Department as well as MoEF, Gol.	Complied. <ul style="list-style-type: none"> <li>Regular Environmental Monitoring/ Analysis are being done through M/s. Pollucon Laboratories, Surat (a MoEF&amp;CC and NABL accredited laboratory) and others concerned authorities along with Six Monthly Compliance Report.</li> <li>No significant changes observed with respect to baseline.</li> </ul>
23.	A six monthly report on compliance of the conditions mentioned in this letter shall have to be furnished by M/s. AHPPL on a regular basis to this Department as well as MoEF, Gol.	<ul style="list-style-type: none"> <li>Noted and complied with, six monthly compliance reports are being submitted to all the concerned authorities on regular basis.</li> <li>Last two reports were submitted vide letter dated 21.11.2016 &amp; 19.05.2017.</li> </ul>
24.	Any other condition that may be stipulated by this Department / MoEF, Gol from time to time for environment protection / management purpose shall have to be complied with by M/s. AHPPL.	Noted and comply with the additional conditions stipulated by the MoEF & CC, if any.



**APPENDIX-2:**

**COMPLIANCE TO THE CONDITIONS STIPULATED IN CRZ RECOMMENDATIONS ISSUED BY  
FORESTS AND ENVIRONMENT DEPARTMENT, GOVERNMENT OF GUJARAT VIDE LETTER  
NO.: ENV-10.2003-29-P1 DATED 09<sup>TH</sup> JULY, 2003**






**APPENDIX-2: Compliance To The Conditions Stipulated In CRZ Recommendation Issued By  
Forest And Environment Department, Government Of Gujarat Vide Letter No.:  
ENV-10.2003-29-P1 Dated 09<sup>th</sup> July, 2003: -**

Conditions specified in letter dated 10 <sup>th</sup> April, 2003 from Forest and Environment Dept. Government of Gujarat to the Ministry and Forests, Government of India		
S. No.	Conditions	Compliance Status
<b>A.</b>	<b>Specific Condition</b>	
1.	The provision of CRZ Notification, 1991 and its amendments issued from time to time shall be strictly complied with by the HPPL.	<p>Complied. CRZ Notification has been amended in 2011.</p> <ul style="list-style-type: none"> <li>Construction activities are as per the provisions of CRZ Notification, 2011.</li> <li>No construction work other than those permitted in CRZ Notification has been done.</li> <li>Development of the port and other ancillary facility is being done as per the approval received under CRZ Notification, 2011 and EIA Notification, 2006 &amp; subsequent amendments.</li> </ul>
2.	The HPPL shall take up / develop only those activities proposed to be commissioned before the end of the year 2008 as mentioned in the Rapid EIA report and the bar chart submitted by HPPL. A separate clearance shall be obtained by HPPL for construction of the berths bearing nos. 2, 6, 7, 11, and 12 and its back up facilities as amended in the drawings submitted with the CRZ application after demonstrating the compliance of the conditions, ecological upliftment activities undertaken successfully and mitigative measures implemented while developing the other port facilities.	<ul style="list-style-type: none"> <li>AHPPL has obtained amendment in the environment and CRZ clearance vide letter No.: 11-150/2010-IA.III dated 03rd May, 2013.</li> <li>Development of the port and other ancillary facility is being done as per the approval received under CRZ Notification, 2011 and EIA Notification, 2006.</li> <li>Detailed EMP has been proposed in the EIA-2012 for ecological upliftment and environment protection. Status of EMP is enclosed as <b>Annexure-3</b>.</li> </ul>
3.	The ground water shall not be tapped in any case to meet with the water requirements during construction and / or operational phases.	<p>Complied with.</p> <p>Ground water is not being used for any purpose in the Port. The entire water requirement is being met through tanker water. An agreement with M/s. KRIBHCO was also signed on 25/07/2014 to use treated waste water from M/s. KRIBHCO in to the Port operation. Pipeline work from M/s. KRIBHCO to M/s. AHPPL is in progress.</p>
4.	Before commissioning of the construction activities the construction design for the port as well as the infrastructure corridor shall be validated / approved by the CWPRS, Pune to ensure that there is no negative impact on the costal morphology, hydrodynamic and ecological systems. The mitigative measures as may be suggested shall	<p>Complied with.</p> <p>CWPRS study has been completed for Multi-Cargo Port. No significant impact on morphology is envisaged.</p>



S. No.	Conditions	Compliance Status
	be implemented by the HPPL.	
5.	The HPPL shall ensure that the free flow of water in the intertidal area is not hampered due to proposed construction activities for infrastructure corridor. The corridor shall be developed away from the residential areas to ensure that the local inhabitants are not affected due to proposed development.	Complied. <ul style="list-style-type: none"> <li>Port construction has been done in such a way that free flow of water in the intertidal area is not hampered.</li> <li>The infrastructure corridor was proposed initially is not pursued and there is no development in this regard.</li> </ul>
6.	The HPPL shall take up massive plantation activities through the forests department in at least 200 ha. of areas suitable identified in consultation with the forests dept. as well as this dept. the HPPL shall bear the cost of the said land as well as cost of the plantation of mangroves up to its sustenance. The HPPL has also to ensure that the planted mangroves survive.	Complied. <ul style="list-style-type: none"> <li>Total 1371 ha. of mangrove plantation has been achieved by the HPPL in Hazira area with support of local communities.</li> <li>Above mangrove plantation area has been verified by DCF and DILR. Supporting documents of the same submitted to MoEF &amp; CC and other authorities along with the six monthly compliance report dated 19.05.2017.</li> </ul>
7.	The HPPL shall also provide technical and financial assistance for development of ecological park for the purpose of Env. awareness and education at an appropriate site duly identified in consultation with this Dept.	Complied With. Initially Ecological and Mangrove Interpretation Centre was established to create awareness about mangroves is being done by NGO Nature Club in 5 villages of Hazira Peninsula.
8.	In addition to the mangrove plantation the HPPL shall also taken up massive green belt development in and around the project site in consultation with the Forest Dept.	Complying with. Company has set up dedicated green belt area for plantation at periphery / avenue plantation / landscaping etc. Total greenbelt area developed so far is approx. 63.04 ha within the port premises.
9.	The HPPL shall provide financial contribution as may be decided by this dept. for any common study like Regional Env. Assessment as well as for any common facilities including the Vessel Traffic Mgmt. System in the Gulf of Chambhat, for the purpose of the Env. protection/mgmt.	Agreed to comply. AHPPL will contribute reasonable cost for any common study as and when suitable proposal comes.
10.	The HPPL shall provide financial and technical support in implementation of the Functional Green Crops Scheme (being implemented) in Gujarat by the GEER Foundation in Surat District in consultation with this Dept.	Agreed to comply AHPPL will contribute reasonable cost as and when required by GEER.
11.	The HPPL shall bear the cost of the external agency that may be appointed by this Department for supervision/monitoring of their activities during construction and /or operational phases.	Agreed to comply. AHPPL will bear the cost of external agency, if any that may be appointed by this department.
12.	The HPPL shall not use any other port	Complied with.



S. No.	Conditions	Compliance Status
	facilities for transportation of quarrying material without prior EIA done and without permission of this department.	EIA has been done in 2012 and environment and CRZ clearance has been obtained vide letter No.: 11-150/2010-IA.III dated 03 <sup>rd</sup> May, 2013.
13.	The dredged material shall be disposed of at a location suitably identified in consultation with the NEERI/NIO after due consideration of various environmental aspects and ensuring no significant negative impact due to the same.	Condition is amended. Modified as per communication from MoEF&CC dated 12 <sup>th</sup> November, 2003 bearing letter No.: J-16011/11/2003-IA-III revised conditions states "dumping of dredged spoils should be dumped at the sites A & C as per the following coordinates: - (A) 21°03' to 21°05' N & 72°28' to 72°30' E (C) 21°03' to 21°05' N & 72°30' to 72°32' E  No disposal has been done till date. All the dredging material is being utilized for level rising, reclamation and apart from the above activity, if any excess material generated will be disposed of at the location already approved by the MoEF&CC.
14.	No waste including construction debris, oily waste from construction equipments, untreated sewage would be disposed of into the sea/ river/ creek or in the CRZ areas. The treated sewage meeting with the norms fixed by the Gujarat Pollution Control Board and the reject water from the RO plant shall be disposed off at a point suggested by the NIO.	Complied. <ul style="list-style-type: none"> <li>No waste including construction debris, oily waste from construction equipments, untreated sewage has been disposed of into the sea/river/creek or in the CRZ areas.</li> <li>The treated sewage meeting with the norms fixed by the Gujarat Pollution Control Board is being used in horticulture purpose.</li> <li>RO plant is not installed as of now.</li> </ul>
15.	The Gujarat Maritime Board shall ensure that the Vessel Traffic Management System for safe navigation in the Gulf of Chambhat shall be established and commissioned before commissioning of the Hazira Port by the HPPL. The HPPL shall follow up for this with various stockholders and provide financial and Technical inputs for the same.	Vessel Traffic Management System is already in operation since 2010 at AHPPL, Hazira. 
16.	A mutual aid scheme for the Hazira shall be developed to meet with any unforeseen circumstance or to meet with any accident at condition. The HPPL shall take a lead for this by involving other stakeholders.	Complying with. Regional DMP for the Hazira Peninsula, covering all major industries and the port has been prepared in consultation with District Authorities and same is being implemented.
17.	A detailed Risk Assessment and Disaster Management Plan shall be worked out before commissioning of the TFC and Multi Cargo Port by the HPPL and the mitigative measures shall be identified.	Complied. Disaster Management Plan has been prepared and submitted to GSDMA vide letter dated 20.10.2012. Comments vide GSDMA letter No.: GSDMA / SM / Ind. Safety / 770560 dated 03.12.2012. The Revised Plan was submitted to GSDMA on 23.05.2014.
18.	Proper rehabilitation scheme shall be	Complied with.

S. No.	Conditions	Compliance Status
	worked out for local fisherman communities in consultation with the District Contactor/ the Commissioner of Fisheries, GoG.	The project has not displaced any person or interfered with little fishing that exists in the area. The project is on reclaimed land and entails no private land acquisition.
19.	The construction labour shall be provided amenities/facilities including water supply, sanitation and fuel to ensure that the existing environmental condition is not deteriorated by them. The camps for the construction labour shall be kept outside the CRZ areas. The HPPL shall ensure that there is no confrontation among the local villagers and construction labour.	Complied. No labour camps are located in Coastal Regulation Zone area. Labours are managed through contractors and they are from surrounding villages and have been provided residential facilities in the surrounding villages.
20.	All possible social and health impacts due to proposed development shall be assessed in detail in the comprehensive EIA and detailed management plan shall be developed to mitigate the same.	Complied with. EIA has been done and detail covering all possible social and health impacts due to proposed development. Management plan of the same has also been presented in the EIA.
21.	The HPPL shall work out a detailed socio-economic upliftment programme in consultation with the District Collector and District Development Office and shall implement the same. Separate budgetary provisions shall be earmarked for this purpose.	Complied. <ul style="list-style-type: none"> <li>• CSR activities carried out by Adani Foundation in four verticals i.e.: - (1) Education, (2). Community Health, (3). Sustainable Livelihood and (4). Rural Infrastructure Development.</li> <li>• Detail of the CSR activities along with budgetary provisions and progress are regularly submitted to MoEF &amp; CC as part of six monthly compliance reports.</li> <li>• Total budget allocated for CSR activities is Rs. 301.27/- Lakh for FY: 2017-18 and total expenditure is Rs. 88.16/- Lakh during April, 2017 to September, 2017.</li> <li>• Please refer the <b>Annexure-2</b> for the status of the CSR activities planned during the Financial Year: 2017-18.</li> </ul>
22.	An environmental Management Cell with persons having proper background shall be constituted. A separate budgetary provision shall be kept for implementation of the Environmental Management Plan.	Complied. <ul style="list-style-type: none"> <li>• Environment Management Cell has been set up with qualified staff to ensure the effective implementation of environmental safe guards.</li> <li>• In addition to the site Environment Management Cell a well-established corporate environment cell also ensures effective implementation of the environmental safeguards.</li> <li>• Please refer the <b>Annexure-5</b> for Environment Management Cell Organogram.</li> <li>• Separate Budget has been allocated to HSE department for the Financial Year: 2017-18 is Rs. 276.62/- Lakhs.</li> <li>• Environment Budget is not being diverted to any other purpose. Details of the</li> </ul>





S. No.	Conditions	Compliance Status
		<p>environment budget are enclosed.</p> <ul style="list-style-type: none"> <li>Please refer the <b>Annexure-6</b> for details of budget for Environment Management for the FY: 2017-18.</li> </ul>
23.	Post project environmental monitoring shall be carried out through a reputed institute.	<p>Complied.</p> <p>Environmental Monitoring/Analysis are being done through M/s. Pollucon Laboratories, Surat (a MoEF&amp;CC and NABL accredited laboratory) within port premises and during current monitoring period all the pollutants are found under the limit. Please refer the <b>Annexure-4</b> for the Environmental Monitoring / Analysis Reports for the period <b>April, 2017 to September, 2017</b>.</p>
24.	No construction activities shall be carried out in any of the Forest areas without obtaining prior permission from the Forest Dept.	No construction activities will be done prior to obtaining Forest Land.
25.	All necessary clearances from different Government Department/Agencies shall be obtained before commissioning any construction activities.	<p>All the statutory permissions from the concerned statutory authorities are obtained i.e.:-</p> <ol style="list-style-type: none"> <li>Environment and CRZ Clearance from MoEF &amp; CC, GOI vide order No.: F.No.:11-150/2010-IA-III dated 03.05.2013.</li> <li>PESO License from Chief Controller of Explosive, Nagpur vides order No.: P/HQ/GJ/15/5294 (P270337), Renewed on 31.12.2015 valid till 31.12.2018.</li> <li>License to work a Factory Adani Hazira Port Pvt. Ltd. (Liquid Terminal) from Director of Industrial Safety and Health, Govt. of Gujarat their vide Registration No.: 3502 / 51410 / 2013 and License No.: 18757, Renewed on 21-01-2017, valid till 31<sup>st</sup> December, 2018.</li> </ol>
26.	A six monthly compliance report with respect to the above mentioned conditions as well as implementation of the suggestions/recommendations of the EIA report shall be furnished to this Department without fail at regular interval.	Six monthly compliance reports are being submitted to the concerned authorities.
27.	The HPPL shall also comply with any conditions as may be imposed by this Department from time to time.	Noted and agreed to comply with additional conditions stipulated or modify the existing ones by MoEF & CC, if any.

\*\*\*

**Conditions specified in letter dated 29<sup>th</sup> May, 2003 from Forest and Environment Dept.  
Government of Gujarat to the Ministry and Forests, Government of India**

S. No.	Conditions	Compliance Status
1.	The revised proposal of changed land use / development plan furnished by the HPPL vide their letter dated 13-5-2003, may be studied in detail as how feasible is the same to achieve its objectives of avoiding / minimizing the impacts on the existing mangroves.	The revised design as per IAI 13 <sup>th</sup> May, 2003 was developed in consultation with NEERI/NIO and was presented before MoEF in May, 2003, based on which environmental clearance was granted. However condition related to mangroves is complied with in line with the substituted condition 6(a) & 6(b) from MoEF, dated 19 <sup>th</sup> February, 2007.
2.	Inspite of submitting the revised land use/ development plan, the HPPL shall take up mangrove plantation activity through the Forest Department of Gujarat State in the areas not less than 200 ha.	Complied. Total 1371 ha. of mangrove plantation has been achieved by the HPPL in Hazira area with support of local communities. Above mangrove plantation area has been verified by DCF and DILR. Supporting documents of the same submitted to MoEF & CC and other authorities along with the six monthly compliance report dated 19.05.2017.
3.	All the conditions mentioned in our earlier letter dated 10-4-2003 addressed to the MoEF, Gol, shall be implemented by the HPPL.	Complied. Compliance report of stipulated conditions in the aforesaid letter is enclosed as <u>Appendix-2</u> .

\*\*\*





**APPENDIX-3:**

COMPLIANCE TO THE CONDITIONS STIPULATED IN  
LETTER DATED 19<sup>TH</sup> FEBRUARY, 2007  
FOR AMENDMENT IN CERTAIN CONDITIONS OF CRZ / ENVIRONMENTAL CLEARANCE  
ISSUED ON 03<sup>RD</sup> MAY, 2003



**Appendix - 3:** Compliance to the conditions stipulated in letter dated 19<sup>th</sup> February, 2007 for amendment in certain conditions of CRZ / Environmental Clearance issued on 26<sup>th</sup> June, 2003: -

S. No.	Stipulated Conditions	Compliance Status
<b>A.</b>	<b>SPECIFIC CONDITIONS</b>	
6(a)	M/s. HPPL should undertake compensatory mangrove plantation in 200 ha. While 250 ha fresh mangrove plantation should be done by M/s Niko Resources Limited. The mangrove afforestation programme of 450 ha by the HPPL and Niko resources will be monitored by the sub-Committee constituted by the NCZMA and report to the Chairman periodically.	Complied. Total 1371 ha. of mangrove plantation has been achieved by the HPPL in Hazira area with support of local communities. Above mangrove plantation area has been verified by DCF and DILR. Supporting documents of the same submitted to MoEF & CC and other authorities along with the six monthly compliance report dated 19.05.2017.
6(b)	The yearly monitoring of the afforestation programme of mangrove will be also be carried out through time series satellite imagery in 1:25,000 scale by the respective units and submit a monitoring report to the NCZMA.	Complied. As the original clearance was granted to HPPL, the said condition is being compiled jointly by the two companies i.e.: Hazira LNG Private Limited (HLPL) and Hazira Port Private Limited (HPPL). As informed by them the information related to the condition; latest report on mangrove afforestation monitoring by using remote sensing techniques from November to December, 2016 satellite data images of Feb., 2016 was submitted to Principal Secretary, Forest and Environment Department, Gandhinagar vide letter No.: HLPL/HSE/ ECR/Port/2017/1 dated 10.02.2017.

\*\*\*





**ANNEXURE-1:****ACTION PLAN AND COMPLIANCE STATUS ON THE ISSUES RAISED DURING THE PUBLIC  
HEARING**

**Annexure-1: Action plan and compliance status on the issues raised during the public hearing:**


S. No.	Details of Representation	Response from M/s. AHPPL	Compliance Status
1.	On behalf of Hazira village, I welcome the expansion project of M/s. Adani Hazira Port Pvt. Ltd. at Hazira. Priority will be given to thousands of people of Hazira and surrounding villages for transport, business and employment opportunities. Company has provided training to the people of Hazira and surrounding villages for crane operation at Mundra and given employment as crane operator at Hazira Port.	Rohitbhai, we are happy to note that on behalf of Hazira gram panchayat you have given warm welcome for this project. We whole heartedly thank you for this gesture. We assure you that our conduct and approach in managing activities would be in reciprocation to your welcome.	Closed.
	I believe that company will install latest technology for pollution control. Proposed project will surely care for human life. Due to proposed port Hazira people will surely get water, health and education facilities. I request that company would take required precautions for accident prevention and safety. Adani Foundation has provided required support as and when needed by Hazira village. I request that fishermen's concerns be taken care.	Port Business consists of handling of cargo and port business is a service industry not any process industry as there is no processing involved in port activities. We will ensure the pollution levels are within limit. As part of Adani Foundation CSR Activities are already in place and to provide support to fisher folks. Adani foundation intends to improve their livelihood and propose the following steps: 1). Fishermen Equipment Aid Scheme, 2). Equipment's worth Rs. 15 lacks for support programme, 3). Education and awareness through Video shows, 4). Exposure Visit Safety measures for workman ship is also already in place and implementation of the same is being driven by Health & Safety Department.	There is no adverse effect on Environment observed and the pollution levels are within limit. The results of Environmental Monitoring conducted by M/s. Pollucon Laboratories, Surat (a MoEF&CC and NABL accredited laboratory) are regularly submitted to concerned authorities. Adani foundation is taking care of CSR activities in and around surrounding area. Details are submitted along with compliance report. Please refer the <b>Annexure-2.</b>
	I welcome this port as we are getting transport related business opportunities and we hope that same would be continued in future.	Adani will continue to give priority to locals for transportation business.	Preference is given to local transporters.
	Please clarify how much priority will be given to people from Hazira and surrounding areas for employment.	First preference will be given to Hazira and surrounding areas villagers for employment provided candidates satisfy qualification and medium of experience requirements.	M/s. AHPPL is giving preference to the locals for contracts, such as M/s. Hazira Vikas Samiti has been engaged for





S. No.	Details of Representation	Response from M/s. AHPPL	Compliance Status
			providing transport facilities for employees. M/s. AHPPL also giving preference for skilled local candidates for employment as per suitable requirements. As on 07 <sup>th</sup> Nov., 2017 total 180 out of 211 on roll employees are from Gujarat.
	Forest land is also requested for development of port at Hazira. So kindly clarify for compensation/afforestation.	As part of State CRZ recommendation competent authority has advised us to do mangrove plantation to the tune of 200 ha. on obtaining Environment Clearance (EC). We will comply the same on obtaining EC.	M/s. AHPPL has developed mangrove plantation on 200 ha. area i.e.: 20 ha. in Kantiyajal and 180 ha. in Village Nada-Devla of District - Bharuch. Please refer the <b>Annexure-10</b> .
	Please clarify what arrangements have been made by company if calamities like Tsunami, Earthquake or Flood arise after implementation of the proposed project.	In the context of natural calamities, we have done modeling studies to understand the risk of oil spillage. We have also prepared Disaster Management Plan. This plan is being presented to the District Collector. After his approval it will go to State Disaster Management Authority at Gandhinagar for necessary approval and guidance. During natural calamities all local industrial units and government organizations work together to mitigate impacts of natural calamities. In that situation we would work under the guidance of District Collector and police authorities to do the needful. Disaster Management Plan is structured in such a way.	Disaster Management Plan has been submitted to District & State Authorities vide letter dated 20.10.2012. Suggestions / comments received from authority vide letter No.: GSDMA/SM/ Ind. Safety/ 770560 dated 03.12.2012. Suggestions are incorporated and revised plan has been submitted to GSDMA on 23.05.2014. GSDMA has also prepared a comprehensive Disaster Management Plan for entire Hazira Region.
2.	We welcome this public hearing. It is good that you are giving preference to local affected people and hearing them during public hearing. We don't have any objection against the development of Adani Group along with other industrial development in	Thanks for welcoming our project. CSR Activities are already in place by Adani Foundation. We also ensure that priority will be given for employment to local's people and provide business opportunities to small & big local transporters. For affected	AHPPL has always given employment priority to local qualified persons and in future the same will be continued. No fishing activity has been affected by the port. However,




S. No.	Details of Representation	Response from M/s. AHPPL	Compliance Status
	Hazira leading to development of Gujarat and the Nation. Adani company is complying with the environmental laws promulgated by the State and Union Government. In fact, it is duty of Adani Port to do so. Under their CSR activities Adani Group should provide support for development of Hazira village and employment to unemployed people. All transport businesses should be given to small & big local transporters of Hazira only. Youth from families of affected fishermen should be provided required training and employment. New transport route should be proposed as the present route to take containers is very narrow.	Fisherman Youth Adequate training will be given and based on performance during training, employment preference will be given. National Highway - 6 is being widened. On completion of widening the constriction and congestion that we see today will be behind us. As mentioned in the EIA in the first 5 years of the multi cargo port maximum number of 1200 trucks is expected to ply in the national highway connecting the port. After the railway line is developed and the trains start plying 60% of the transportation load will be conveyed through rail transport only 40% will come on the national highway. That is a moderate load.	we are always ready to give required training to fishermen or any other persons as per their needs. Adani Foundation is taking care of training programs under our CSR activities. The Hazira bypass Road is now taken over by NHAI and upgraded to four lanes. Additionally, AHPPL is planning to transport cargo through dedicated Rail Route. The development work of Rail corridor is under process in consultation with Govt. Agencies.
	We thank Adani Group for giving support for the construction of classrooms for standard 11 & 12 in Navchetan school.		Closed.
	I thank you for making me successful in providing compensation to the affected fishermen.		Closed.
	I request for employment to locals people and transport contract to local transporters only. We support the development of Adani Port in our area. We don't have any objection to the project in this public hearing.		AHPPL has always given employment priority to local qualified persons and in future the same will be continued.
3.	As this is biggest port in the South Gujarat and as there is no government land left, we wish that there will not be resettlement of the Junagam village due to this proposed expansion project of Adani Port. There is a fear in the people of the village that they will have to vacate the village in future. So we request collector to give us guarantee in writing that we will be able to live with peace where we are today.	We want to assure you that we do not intend to take any private land of farmers or any house site land. If you carefully see the development plan we have just presented, the map will alleviate your uncalled fears. There would not be any question of rehabilitation of any village. Moreover, we will take care that your property, your assets and convenience are not jeopardized by our action.	There is no R&R factors involve for development of Port. The entire port is being developed on reclaimed land allotted by Government.



S. No.	Details of Representation	Response from M/s. AHPPL	Compliance Status
	Berths will be developed through dredging up to -15 meters. We are getting ground water from the depth of 20 to 65 ft in some of the areas, which we are using for drinking purpose. What will be the impact on the ground water due to dredging up to -15 meters?	Dredging activity is carried out in marine area i.e. sub tidal area and not in terrestrial part. Dredging is limited to turning circle and basin area. Due to this ground water is not going to be polluted in any way.	Ground water quality in vicinity of the project is being monitored by MoEF & CC and NABL accredited laboratory. There is no adverse impact observed on ground water quality.
	After construction of liquid berth No.: 3 which will handle & store 1.95 Million Tones by 2017-18, what emergency steps would be required to save the human life incase just like Bhopal if there will be gas leakage due to Tsunami, Earthquake or terrorist activities.	In the context of natural calamities, we have done modeling studies to understand the risk of oil spillage. We have also prepared Disaster Management Plan. This plan is being presented to the District Collector. After his approval it will go to State Disaster Management Authority at Gandhinagar for necessary approval and guidance. During natural calamities all local industrial units and government organizations work together to mitigate impacts of natural calamities. In that situation we would work under the guidance of District Collector and police authorities to do the needful. Disaster Management Plan is structured in such a way.	Disaster Management Plan has been submitted to District & State Authorities vide letter dated 20.10.2012. Suggestions / comments received from authority vide letter No.: GSDMA/ SM/ Ind. Safety/ 770560 dated 03.12.2012. Suggestions are incorporated and revised plan has been submitted to GSDMA on 23.05.2014. GSDMA has also prepared a comprehensive Disaster Management Plan for entire Hazira Region.
	We welcome Adani Port & they require land for the container and coal storage. However, all industries located in the Hazira area have acquired government land and another 2000 acre land is allotted to tourism department. Sir therefore, I request you to declare remaining land of Junagam, Suvali, Damka & Batlai as residential area or agricultural zone. This is to ensure that in future we will not be displaced. As the port is to be constructed at the coast line, there are chances of spillage of liquid into sea and impact of solid hazardous waste. In this condition explain plan to mitigate	Thanks for welcoming our project and as we mentioned above we are not going to acquire any land apart from our port layout area mentioned in EIA report. So far as declaring rest of Govt. land as residential and agricultural zone is concerned authorities may take a call on it, which is not in our control. Our Oil Spill Response Plan and Disaster Management plan is addressed to above questions and fisherman community our CSR activities are addressed in response to Rohitbhai Jayantibhai Patel, Sarpanch, Hazira.	Closed.




S. No.	Details of Representation	Response from M/s. AHPPL	Compliance Status
	<p>impact on fisher man community.</p> <p>Secondly there is a question of unemployment of the youth of the Hazira area. As told by the company 700 people will be employed, youth from local families presently engaged in farming, animal husbandry and fisheries should be trained. Due to development of the port people from different states of India will come and therefore, there are chances of crime such as gang rape, hooliganism and terrorist attack. Is there any plan to control these potential evils? Training to unemployed women and employment is being planned. In future we and Adani Port would like to work together with full cooperation. On behalf of Junagam village and villagers, I welcome the expansion of the terminal.</p>	<p>The port has opportunities for both technical and non-technical employment. Moreover indirect employment in transport and other services will also be there. All these opportunities may be taken by local residents. To facilitate them to take this opportunity we will provide necessary training to enhance their competence, so that they may not only get employment in Adani port but else were also. Some of you have expressed concern about terrorist activity creating great risk to our chemical terminals with attendant adverse consequences in our neighborhood. We are going to be ISPS compliant; as a result of this discipline only authorized persons and material can enter into the port. More over district administration and police also take precautionary measures to intercept terrorist activities. Coast guards contribute to this effort. In a sense the entire nation is collectively fighting against terrorism.</p>	<p>Port has obtained ISPS, NSPC and other clearances from concerned authorities.</p> <p>Port authority is closely coordinating with Marine Police Station to maintain law and order. No serious increase in law and order issues so far.</p>
4.	<p>Plantation of the mangroves has been carried out between well numbers 4 to 7. This plantation has been destroyed by dredging and area is filled up.</p> 	<p>As per Environment Clearance 2003 there were mangroves of 22 ha. and it was informed to protect the same vide specific condition (vi). But an amendment was issued on 19<sup>th</sup> Feb., 2007 for deleting the specific condition and instruction was given to HPPL to do compensatory mangrove plantation to the tune of 200 ha. AHPPL has not destroyed any mangrove directly or indirectly.</p>	<p>M/s. AHPPL has developed mangrove plantation on 200 hectares area i.e.: 20 hectares in Kantiyajal and 180 hectares in Village Nada-Devla of District - Bharuch. Please refer the <u><a href="#">Annexure-10</a></u>.</p>
	<p>In this area fisherman used to catch prawns, crabs and sustain their livelihood. Through dredging company has destroyed Mangroves.</p>	<p>As above</p>	<p>Closed</p>
	<p>There are approximately 2500 fishermen, belonging to, Halpathi and Koli Patel</p>	<p>M/s. AHPPL had provided compensation to affected fisherman by identifying</p>	<p>M/s. AHPPL had provided monetary help to needy</p>





S. No.	Details of Representation	Response from M/s. AHPPL	Compliance Status
	communities living in the village. These people will be unemployed as fishing activity will be stopped due to dredging up to 20 meter by the company. Is it development or destruction?	effected fisher man with the help of the Sarpanch, Hazira.	fishermen who were affected by reduced catch in this area well before arrival of AHPPL by identifying effected fishermen and women with the help of the Sarpanch, Hazira. No fishing activities have been affected by dredging which is strictly as per EC.
	If fishermen get sand from the river by the boat in the Magdalla area, they have to pay royalty for the same. But why companies are given permission for dredging without royalty? What about approximately 2500 fishermen?	In regard to impact on fisherman, I want to point out the real situation that we are not in the river mouth, but just outside of it. The port development is only in a stretch of 4 km of coast line. We have not displaced any fisherman. The surrounding areas are open for fishing. Nevertheless we have compensated fisherman who were identified by the Grampanchayat to be active in the areas where we are now operating. As Sushmaben mentioned we will support fisherman by giving them tools, nets etc. and be help full to them. A charge on sand procured from riverbanks is a subject of Govt. Policy. Dredging may be treated differently because without dredging no port can be created. Moreover, reclaimed land remains under ownership of Government.	No further action required by AHPPL.
5.	As our friends have already given suggestion for safety and employment, it is not required to repeat the same. Foundation should provide employment opportunity to the land looser, fisherman, individual engaged in animal husbandry who are above 50 years and uneducated.	The port has opportunities for both technical and non-technical employment. Moreover indirect employment in transport and other services will also be there. All these opportunities may be taken by local residents. To facilitate them to take this opportunity we will provide necessary training to enhance their competence, so that they may not only get employment in Adani port but else were also.	M/s AHPPL is giving preference to the locals for contracts, such as M/s Hazira Vikas Samiti has been engaged for providing transport facilities for employees. M/s. AHPPL also giving preference for skilled local candidates for employment as per suitable requirements. As on




S. No.	Details of Representation	Response from M/s. AHPPL	Compliance Status
			07 <sup>th</sup> Nov., 2017 total 180 out of 211 on roll employees are from Gujarat.
	Unemployed youth of this area should be provided training and given opportunity for the employment. Company should control the pollution arising due to transportation of chemical or coal. Earlier Shell company used to avoid overloading. So Adani Port should also not do the overloading to prevent the accidents. There is no medical facility available for treatment in case of emergency. As there is drought this year, company should consider providing drinking water in surrounding area.	This port will have focus on container cargo. Container cargo comes in boxes and is clean by nature. So the question of fugitive dust emission on the road is not expected to be severe for this port. The coal handling will be done taking care that all the trucks are properly covered so that there is no dust emitted on the road. As you know practically all our transporters are from this area. It is their responsibility to take care of overloading. If transporters do not overload there would not be any spillage on the roads. It is not only responsibility of GPCB or the company but we all have to collectively work together for spillage free coal transportation. We have taken note of your needs. In CSR activities we would include public health related measures.	AHPPL is following best practices of port operation to reduce pollution and prevent accidents. Port is maintaining an Occupational Health Centre with qualified officers, ambulance and proper antidotes for all types of chemicals being handled in port. Tie-up with reputed hospitals in the city exists to cater to more serious cases.
6.	(During the representation of the Shri. Divyeshbhai there was an aggressive representation of Shri Jayesh Patel resident of village Dihen that he wants to present his questions. Honourable Collector replied that resident or stakeholders from affected villages should represent first. During this time Shri Jayesh Patel and his henchmen created disturbance which was controlled by Panel and then representation from Mr. Divyeshbhai continued.)		No further action required by AHPPL
	Why this public hearing is kept at Junagam even it is of Hazira Village? Now we will talk about the pollution. Lots of dust is observed in the houses of the hazira village during the night hours. As per information particles of dust have been found in the lungs	Public Hearing is conducted at Junagam as this location is central for all the stakeholders and keeping in view of the convenience of all the stakeholders this site was decided duly taking an opinion of GPCB. You have informed that lots of dust is observed in	Closed.




S. No.	Details of Representation	Response from M/s. AHPPL	Compliance Status
	of the woman. If this information proves to be true we will file a petition in the High Court. During the widening of the National Highway No. 6 land in the surroundings villages will be taken. As National Highway is not passing through Hazira, the villagers need to travel 8 Kilometers extra. Why it is not extended straight? Fishermen are being told that there is no fish in the sea but slabs are cast in the corners of the sea due to which some fish die. Dolphin is also found at present in the Hazira area. We welcome the project if the port company is ready to give written assurance regarding employment.	the houses of Hazira. As you are aware there is a very big processing industry behind the residential area of Hazira village. Ours is a service industry which will not contribute significantly to pollution levels and our project is exactly on the sea front not very near village settlements. National Highway exists as it used to be before we started our project. We have not created any disturbance in the road network. Marine EIA does not reveal that there are Dolphins in the area. Method of our jetty construction keeps the fish out of harm's way and we have not observed any fish fatality in the jetty construction area.	
7.	<p>I raise my objections against proposed expansion project of AHPPL for which public hearing is organized and I request that my objections should be included.</p> <p>M/s. Shell India has got environment clearance in 2003 in which clearance was given for development of three berths. These berths are constructed at places other than shown earlier. So I request collector to remove these three berths.</p> <p>Out of proposed 7 berths for container and 4 for bulk terminal 3 have been already constructed and port is functional. In this situation I request to include in this public hearing what actions have been taken by collector against Adani for functioning of port &amp; disposal of coal in Hazira and what actions have been taken by GPCB against company for disposal of coal in open.</p>	<p>M/s. Shell got approval for construction of 11 berths and the berths have been constructed at approved location only.</p> <p>As on date totally 5 berths are developed and this public hearing is only for one additional berth i.e. liquid terminal. Further, coal is stored in dedicated area with proper windshield arrangement to avoid blowing of coal. To avoid fine dust emission fire hydrants were arranged for regular sprinkling and to avoid fire accident two fire tenders have been arranged on permanent basis.</p> 	Closed
	This project is being developed on the mouth of river Tapi therefore it is my feeling and request that it should not be given	I want to point out the real situation that we are not in the river mouth, but just outside of it.	No further action required by AHPPL.


S. No.	Details of Representation	Response from M/s. AHPPL	Compliance Status
	Environment Clearance.		
	EIA study does not include the objections of the report of Sugnaben Commission which was set up by Gujarat Government in 2006 in the aftermath of Surat flood.	The report objects only to construction that may potentially obstruct seaward flow in Tapi River. Our port is so located that it cannot have any such effect.	No further action required by AHPPL.
	Hazira is located on the mouth of Vindhola & Tapi river. As per ICMAM report of Tapi river, erosion effect had spread up to Dumas because of filling of Tapi river due to Industrialization in this area. Erosion of shore is up to 2500 m towards Dumas. ICMAM report is not studied. There is no clarity on what steps are required to control the erosion of shore near Dumas, so it is my request that it should not be given Environment Clearance.	We have done modeling of all activities in marine area. There is not even any remote chance of this port construction leading to erosion in Dumas. These are disjoint or unconnected matters. 	No further action required by AHPPL.
	This area is declared reserved for vultures. As per survey there are about 150 vultures in the forest area. This report does not include what would happen to vultures, where they would go and what would be impact on Environment. So it is my request that it should not be given Environment Clearance.	The figures are exaggerated beyond proportion. Forest department survey vulture population periodically. This area is not identified by forest department to be eco-sensitive from that prospective.	No further action required by AHPPL.
	There are approximately 2500-3000 fishermen families. There will be crisis for their livelihood. There is no clarity for rehabilitation and resettlement from Adani. So it is my feeling and request that it should not be given Environment Clearance.	In regard to impact on fisherman, I want to point out the real situation that we are not in the river mouth, but just outside of it. The port development is only in a stretch of 4 km of coast line. We have not displaced any fisherman. The surrounding areas are open for fishing, Nevertheless we have compensated fisherman who were identified by the Gram Panchayat to be active in the areas where we are now operating. As Sushmaben mentioned we will support fisherman by giving them tools, nets etc. and be help full to them	AHPPL has supported fishermen by providing them tool and net.
	Routes to sea are almost closed specifically for Pagadia fishermen who do fishing on	The compensation is appropriate because nobody deprived of livelihood & fishing	No further action required by AHPPL.




S. No.	Details of Representation	Response from M/s. AHPPL	Compliance Status
	foot. There is a big problem of their livelihood. Due to loss of fishing activities now they will not get thousands of crores of rupees which they were supposed to get due to fishing activities. Rs. 15 lacs are not sufficient compensation for that.	can be continued. Fish catch in the area used to be scanty. Mudskippers do not fetch good market price. Your claims are factually incorrect.	
	This area comes under CRZ-IA. Specific fish called "Levta" grows in the mudflat and fishermen catch that fish in this mud and earn their livelihood. Due to excavation and reclamation there will be damage to biological mud and destruction of marine ecology. EIA report does not have clarity on what actions are required. So it is my feeling and request that it should be clarified in EIA report or not be given Environment Clearance.		No further action required by AHPPL.
	Before Adani came there was mangrove forest in the area of 40 ha. As per survey today mangroves survive in the area of 15 ha only. Due to destruction of mangrove there will be damage to environment and coastal erosion. This study is not covered in EIA so it is my feeling and request that it should not be given Environment Clearance.	It is clearly shows that whatever allegation made against project is with half knowledge or due to vested interest. There are no mangroves within the port limit. There used to be a mangrove patch of 22ha and the same was reclaimed by M/s. HPPL with due permission of MoEF dated 19 <sup>th</sup> Feb.' 2007. When Adani took position of the site there was not even single mangrove tree available within port limit.	No further action required by AHPPL.
	Five ports from 15 different companies and two big ports within 5 Km is coming in this area. The cumulative impact on road & rail transport due to operation of both ports i.e. Adani & Essar is not studied while preparing the impacts on land environment. Six-lane-road is also not going to be sufficient for this. So I request that Environment clearance should be given only after doing cumulative study.	There are no five ports in the area, though there are isolated captive jetties in the Tapi River. We are outside river mouth. In fact there are only two ports Magdalla & Hazira.	No further action required by AHPPL
	As reported levels of SS & PHC is high as compared to desired levels in water. Levels of pollution in the areas of water,	In Marine EIA & Terrestrial EIA reports, it is clearly mentioned the baseline date, Pollution levels are within the limit,	Closed.

S. No.	Details of Representation	Response from M/s. AHPPL	Compliance Status
	air and land is already high as compared to other locations in the country. EIA report does not have clarity on what steps will be taken to bring down the pollution. So it is my feeling and request that it should not be given Environment Clearance. <b>(It is to be noted that Mr. Jayshbhai Patel belongs to Dihen village which is approx. 18 Km away from the port)</b>	except AAQ recorded high in Hazira village that is due to other industrial activities.	
8.	Employment is given to 30-35 people in the form of contract but we insist that it should be permanent in nature.	Though employment was given on contract basis, his/her performance will be rated based on the performance decision would be taken.	Closed.
	For this liquid cargo transport, it will be storage of chemicals or processing of chemicals? If it is processing then hazards will increase so I request to provide information on what measures Adani will take for health and safety?	There is no processing envisaged in the project. It's a commercial port and we are entitled to only handle the commodities. However Oil spill response plan and Disaster Management Plan is in place. Please refer to earlier responses given to other stakeholders.	Closed.
	Please provide information if this project has got any clearance from Central Government like what they have got from State Government.	M/s. HPPL received Environment Clearance in 2003 and further amendment in 2007. The same is transferred to AHPPL. Further our project received Consent to Operate for based on 2003 EC from GPCB. Also received GCZMA recommendations.	Closed.
	Adani has declared only 4-5 villages as affected. Will there not be any impact on Mora, Kawas or Interior of Ichhapur while trucks pass through them?	EIA shows and we believe there would be no significant impact in Mora, Kawas and Ichhapur.	Closed.
	There are 10-12 big companies in this area and they have developed residential township with all facilities for their employees. Is it not possible that each company will take one village from 10-12 villages and also provide them same facilities?	This suggestion you might like to address to Hazira Area Development Authority. 	No further action required by AHPPL.
	For this MOU is necessary and matters related to self-employment & development of village should be mentioned. We will be benefited in future	This matter should be addressed by Hazira Industrial Development Authority. Who alone can bring all the developers & Industrial units	No further action required by AHPPL.



S. No.	Details of Representation	Response from M/s. AHPPL	Compliance Status
	only if there will be MOU. (It is to be noted that Mr. Dhansukhbhai Patel belongs to Kawas Village which does not fall within 10 Km. radius of the study area)	into a common platform	
9.	I welcome the expansion project of Adani company. Due to proposed port priority would be given to Hazira and surrounding area for employment and business. I request that fishermen's concerned would be taken care by this project. Adani Foundation of Adani Company has given commitment for the various activities for the development of village. So I welcome the project and declare my support for the Port of Adani Company at Hazira.	Thanks for your support all the concerns raised by you are responded by us in above raised queries. Hope no need to repeat the same.	Closed.
10.	(Collector informed Mohanbhai to raise those issues only which were not raised earlier) Adani Company has told that 700 people will be employed. Please clarify whether it will be permanent or contractual basis? Thousands of people are working on contractual basis in the surrounding companies but nobody gets permanent employment.	 This number includes both permanent and contractual employees. Part of staff workers requirement is of temporary nature. Our recruitment would be need based.	
	Then Regional Officer, GPCB again informed the concerned persons to raise other issues if any. The employment issue will be addressed by the company. As per survey carried out by NIO out of 1600 km. of Gujarat coast nearly 25% is already filled due to construction of ports at other places. As a consequence of this, there will be huge damage to agriculture in the surrounding area and there would also be ingress of sea water in the area.	Our port is a commercial port and it is not envisaged or allowed it for captive operations. This port water front area covers hardly 4 Km. stretch.	Status unchanged no agriculture land or private land is required for port development nor affected by same.
	Adani Company has decided to pay compensation of Rs. 15 Lacs to 40 fishermen but what arrangement company will	Company is talking about the fisherman's who were active in our port premises area and AHPPL is not responsible for	There are no R&R activities required on account Port Project. Adani Foundation is

S. No.	Details of Representation	Response from M/s. AHPPL	Compliance Status
	make for the 4000 fishermen in the surrounding villages?	entire fisher folks in 10 Km radius. AHPPL is not stopping them do fishing in other areas.	working at reskilling of marginal fishermen as CSR activities. Fishing is not affected due to port project.
	Adani Company is developing their project on 31428 ha of land. Is this land private or government? If it is on private land then whole Junagam village would be vacated. Survey numbers are also not shown for this land. <b>(It is to be noted that Mr. Mohanbhai Patel belongs to Vaswa village which does not fall within 10 Km radius of the study area)</b>	Please see our port layout in EIA report which clearly indicates total area required for development is 873.27 Hectors and not even single private property is falling within the port development area.	Closed.
11.	You all will go away after this public hearing but whom should we contact regarding pollution in our area? Then Collector informed him that regarding pollution he may contact GPCB. Regional Officer, GPCB also informed him that regarding pollution he can submit in writing.	Assurances that we give today would be lasting and not fickle.  	Closed.

\*\*\*



**ANNEXURE-2:****DETAILS OF THE CSR ACTIVITIES PLANNED DURING THE FINANCIAL YEAR: 2017-18**

**Annexure-2: Details of CSR Activities Carried Out By Adani Foundation, Hazira (CSR Wing) for M/s. Adani Hazira Port Pvt. Ltd. During The First Half Of Financial Year: 2017-18 -**

Adani Foundation the CSR wing of Adani Groups functions in four core areas i.e. Education, Community Health, Sustainable Livelihood Development and Rural Infrastructure Development. Adani Foundation - Hazira is working in 15 villages surrounding project location. Also certain activities are planned in other new villages in nearby locations.

**Following activities have been carried out during the first half of Financial Year: 2017-18: -**

S. NO.	ACTIVITIES	BENEFICIARIES
<b>A.</b>	<b>EDUCATION:-</b>	
1.	Strengthening Pragyna Project	We have launched "VaGaLe" project to improve Reading, Mathematics and Writing skills. As part of this project, total 30 Nos of kits will be provided to schools under this project. We are planning to distribute this material by January 2018.
2.	Material Support to Needy Students	We are planning to provide material to needy students so that they interest in study can be increased.
3.	Spoken English & Computer Training	We are extending training for spoken English and Computer in the nearby area schools. We have already completed 8 batches.
4.	VaGaLe Project	This is a special project which is implemented from the current year only. The objective of this project is to improve Reading, Writing and Mathematical Skills in students. We are covering 10 schools from 8 villages under this project.
5.	School Support Programme	Under this project we have extended support to migrant students by providing them school bags.
6.	BaLa Project	This is innovative painting project which helps students to learn by seeing pictures. We are planning to cover two schools during the current FY.
7.	Career Guidance Seminars	We have already completed on seminar in which more than 200 students have taken benefits.
8.	Support to Navchetan Vidhyalay, Junagam	Navchetan Vidyalaya at Junagam was adopted by Adani Foundation in 2014, the Foundation has constructed a new building for the school and is now supporting 321 students and 21 staff members. This school is having students from surrounding rural areas only.
<b>B.</b>	<b>COMMUNITY HEALTH:-</b>	
1.	General Medical Camp for Villagers	We have been organizing General Medical Camps in Rural areas. Till date we have completed 3 village level camps and one multi-specialty camp.
2.	De-addiction Programme	We have been creating awareness about de-addiction in village areas & schools and also sending cases to de-addiction center for improvement.



3.	Medical Camp for Truckers	We have been organizing general health, eye and teeth checkup camps for truckers. We have already completed 2 camps.
4.	SUPOSHAN project	We are working for eradication of malnutrition from the region. We have implemented structured programme in the surrounding area. The have started observing improvement in the areas of malnutrition.
<b>C. SUSTAINABLE LIVELIHOOD DEVELOPMENT:-</b>		
1.	Strengthening existing SHGs	With an aim to empower the women, Adani Foundation is Strengthening existing Self Help Groups (SHGs) in Hazira region benefitting large number of rural women. We are providing them appropriate training for skill development.
2.	Community Engagement Programmes	The aim of this project is to promote local sports and to increase engagement with rural youth. We are supporting a team of Frisbee from rural area and also planning to organise volleyball tournament.
3.	Livelihood Development for Fishermen	We are extending support by providing material like fishing net and other fishing tools.
4.	Animal Husbandry Project	The project is launched from current year itself. The primary objective of this project is to promote better animal husbandry practices.
<b>D. RURAL INFRASTRUCTURE DEVELOPMENT: -</b>		
1.	Rural Infrastructure Development	The rural infrastructure development projects under Adani Foundation have majorly focused more on enhancing community level needs. We are constructing community halls, water tanks, cremation ground development, anganwad building construction etc. All work is in progress.

Details of the Budget and Expenditure for the FY 2017-18 are given in the table below: -

S. No.	Activity	Budget Amount (INR In Lakh)	Expenditure Amount (INR In Lakh)
1.	Education	93.27	32.27
2.	Community Health	7.00	3.59
3.	Sustainable Livelihood Development	27.00	4.00
4.	Rural Infrastructure Development	174.00	48.30
<b>Total Amount (INR In Lakh)</b>		<b>301.27</b>	<b>88.16</b>

\*\*\*

**ANNEXURE-3:**

**COMPLIANCE STATUS OF ENVIRONMENTAL MANAGEMENT PLAN AS PER INTEGRATED EIA  
REPORT, SEPTEMBER, 2012**






**Annexure-3: Compliance Status of EMP as mentioned in the Integrated EIA Report, Sep., 2012:**


S. No.	EMP Conditions	Compliance Status
I.	<b>AS PER TERRESTRIAL ENVIRONMENTAL IMPACT ASSESSMENT REPORT: -</b>	
A	<b>CONSTRUCTION PHASE:-</b>	
1.	<b>Dredged Soils Management Plan:</b> AHPPL has been permitted to dredge about 37 million cubic meter of soil, which shall be reused for backfilling in the project site. The dredged soil samples will be collected and analysed periodically for designated pollutants as per the recommendations of statutory authorities.	Complied. No disposal has been done till date. All the dredging material is being utilized for level raising, reclamation. Complied with. If any excess material generated will be disposed of at the location already approved by the MoEF&CC.
2.	<b>Air Quality Management:</b> Fugitive dust will be generated during construction phase of the project due to handling of wet dredged and excavated soils. Dust control program will be implemented to reduce the dust generation during construction at project site. Water sprinkling will be adopted on haulage roads and construction site.	Complying with. Water sprinkling is being done on haulage roads and construction site on regular basis.
3.	<b>Noise Control Programs:</b> 1. Onsite fabrication activities should be undertaken at a designated location, which should be located away from the office buildings and any other working areas. 2. In case noise emissions from the fabrication activities exceed a level of 85 dB (A) at the fence-line of the fabrication yard, temporary noise barrier can be installed. 3. Portable diesel engine generators and diesel engine driven compressors, if any, should be covered with noise enclosures.	Comply with. Fabrication activities have been done at a designated location away from the office buildings and working areas. Complied with. Noise level was below 85 dB(A) during the fabrication. Currently no fabrication activities are going on. Complied. In-built noise enclosures are available in portable diesel engine generators and diesel engine driven compressors to reduce the noise level.
4.	<b>Sewage Management Program:</b> Sewage generated from the construction site will be treated in modular STP and shall be used for green belt development / landscaping after achieving prescribed standards by GPCB.	Complied with. Sewage generated from the construction site is being treated in STP and treated water is being used for greenbelt development.
5.	<b>Solid and Hazardous Waste Management Program:</b> The solid waste generated should be segregated and categorized under various rules such as HWM 2008, SWM 2000, the Batteries Rules 2001 including processing of used oil by authorized recyclers should be carried out by the rules and procedures prescribed by CPCB and also meet the requirements of GPCB.	Complied with. All the wastes are being segregate at source and handled as per applicable rules/ guidelines and disposed off through GPCB approved agency.
6.	<b>Construction Phase Storm Water Runoff:</b> It has been recommended to adopt soil stabilization plans and storm water sedimentation basins to control the silt before discharging the storm water into sea.	Complied with. Separate storm water channels have been developed to discharge the storm water.




7.	<b>Sanitation:</b> The facilities presently available with the nearby villages will continued to be used during construction activities and no major sanitation problem is expected during construction period. The workers at the project site will be provided with proper sanitation arrangement.	Complied with. Proper sanitation arrangements are available for workers at project site.
B.	<b>OPERATION PHASE: -</b>	
1.	<b>Air Quality Management:</b>	
i.	<b>Cargo-Handling Equipment:</b> 1. Retrofitting the old equipment to meet the vehicular emission standards. 2. All the vehicles and equipment will be certified with PUC norms shall be deployed.	Complied with. All the deployed vehicles and equipment are PUC certified.
ii.	<b>Standby Diesel Generators:</b> DG Sets will be operated on clean diesel fuel with sulphur content less than 0.5%. Minimum stack height of 30m will be provided to disperse the gases into the atmosphere as per the guidelines suggested by Central Pollution Control Board.	Complied with. DG Sets are being operated on clean diesel fuel with sulphur content less than 0.5% and provided the adequate stack height are being provided as per CPCB/GPCB norms to disperse the gases into the atmosphere.
iii.	<b>Fugitive Coal Dust Control Program:</b> The management of AHPPL has proposed to adopt the following fugitive coal dust control measures: - <b>a. Dry Fog System</b> - A new, proven and cost effective technique to control dust is "Dry Fog" system to suppress the dust from the air. The name fog is just what it implies small droplets of water injected into the air. Fogging works by releasing very small droplets of water into the air. Airborne dust particles adhere to the water droplet and agglomerate. If the fog is generated in the right way, by using pressurized water, the energy required can be very low between 2 to 3 kW for a system requiring hundreds of nozzles, e.g.: A large stockpile tripper conveyor - giving considerable operating cost savings when compared to other techniques, The sprinkler droplet sizes should be maintained less than 100 microns. <b>b. Sprinklers:</b> Once stockpiled, water can be sprayed on the stockpiles to keep them damped down. Swivelling sprinklers should be used along the lengths of the stockpile with caution, however, as the volume of water required can be significant, causing drainage and run-off treatment problems.	Complied. Following control measures are in place and effectively working at port to control fugitive dust: - 1. Transportation of coal from jetty to coal storage yard through 1.7 Km. long conveyor belt with hood. 2. Water sprinklers in to the coal yard, 3. Dust Suppression System / Spray Nozzles in Conveyor System and Discharge Chute, 4. Water spray through Water Browsers, 5. Water Mist Canon / Fog System, 6. Wind Brake Shield of 14 meters high and 1200 meters long, 7. Transportation of cargo from port to hinterland is being done through dumpers / trucks covered with tarpaulin, 8. Regular cleaning the roads through Road Sweeping Machines, and 9. Company has set up dedicated greenbelt area for plantation at periphery / avenue plantation / landscaping etc. Total greenbelt area developed so far is approx. 63.04 ha within the port premises.
2.	<b>Noise Control Program:</b> The following source noise control plans have been suggested: - ➤ Covering of sound intensive components with insulation.	Complied. All the sound intensive components (DG Set and Compressor) are with acoustic enclosures.




	<ul style="list-style-type: none"> <li>➤ Using noise absorbing building materials if required for housing compressors and diesel generators etc. as per the guidelines suggested by Central Pollution Control Board.</li> <li>➤ Adopting low noise driving (Eco-driving)</li> <li>➤ Using silent exhaust pipes for major diesel engine vehicles and heavy trucks operated inside the port.</li> <li>➤ Planting trees which act as barrier to arrest dispersion of noise levels.</li> <li>➤ Using electricity powered equipment inside the port instead of diesel powered ones will be explored to the extent possible.</li> </ul>	<p>Complied.</p> <p>Complied. Green belt development is in progress.</p> <p>Complied. All RTGs and Quay Cranes are electricity operated.</p>
<b>3.</b>	<p><b>Waste Water Management:</b> Port handling operations would generate wastewater from the following sources: -</p> <ol style="list-style-type: none"> <li>1. Ship ballast water,</li> <li>2. Ship deck wastewater including sewage,</li> <li>3. Rejects from desalination plant,</li> <li>4. Workshop and vehicle maintenance shop wastewater,</li> <li>5. Leachate from coal stock yard,</li> <li>6. Floor cleaning and tank cleaning wastewater from the liquid tank farm,</li> <li>7. Sewage from port facilities. The proposed wastewater treatment and reuse program has been presented hereunder: -</li> </ol> <p>A variety of vessels use the waters within the port, including bulk coal ships, tugs and line boats. Discharges from bulk ships are not expected to occur within the port because these large ships normally have on-board storage and sewage treatment plants, allowing discharge of treated effluent at sea as per the provision of MARPOL.</p> <ul style="list-style-type: none"> <li>➤ Except monsoon, leachate from coal stock yard is not envisaged. However small quantities, if any, will be treated in the effluent treatment plant. Wastewater from vehicle work-shops will also be treated in the proposed onsite effluent treatment plant.</li> <li>➤ As far as possible all chemical spills at liquid handling facilities will be treated with dry spill absorbing material and water will not be used. Spillage if any occurs will be treated in a dedicated onsite wastewater treatment plant, which consists of an oil removal unit, primary chemical treatment unit and biological treatment units followed by activated carbon unit. Biologically treated wastewater will be further treated in the central sewage treatment plant. Treated wastewater will be used</li> </ul>	<p>Complied with.</p> <p>AHPPL is not accepting Ballast/ Sewage water from Ships. Desalination plant not yet installed. --</p> <p>There is no leachate from dump pond. Tank cleaning wastewater is being treated into ETP. Domestic waste water is being treated in the STP and then used for horticulture purpose within the port premises. Complied with.</p>  <p>Complied. Dedicated coal dump pond is being provided to collect the runoff (if any) from coal yard and it is further reused for dust suppression purpose into coal yard.</p> <p>Complied with. Till date there is no spill occurred. If, spills occurred, spilled material/chemical will be treated into ETP and treated waste water will be reused in greenbelt development / plantation purpose.</p>

	for dust suppression and horticulture applications at the facility. No treated wastewater will be discharged outside the port facilities.	
<b>4.</b>	<b>Storm Water Management Plan:</b> <ul style="list-style-type: none"> <li>➤ Storm water from the coal stockpile area will be passed through a series of sediment traps to remove the majority of the coal sediment before discharging into the natural drains. It has been proposed to construct a garland drain for all bulk storage facilities to avoid silting into the marine eco-system.</li> <li>➤ All liquid storage tanks will be provided with dykes to avoid any cross contamination of storm water from chemical spills. Storm water drains shall be designed in order to avoid any flooding of the coal stock yard and liquid chemical tank farm areas.</li> </ul>	<p>Complied. Garland drain for all bulk storage facilities are provided to avoid silting into the marine eco-system. Storm water from the coal stockpile area is collected into dump ponds to remove the coal sediment.</p> <p>Complied. All liquid storage tanks are provided with dykes to avoid any cross contamination of storm water from chemical spills. Storm water drains are separate drains and effluents drains are separate.</p>
<b>5.</b>	<b>Solid and Hazardous Waste Management:</b> <ul style="list-style-type: none"> <li>➤ Solid wastes generated from the port handling facilities consist of packaging waste such as wood, paper/carton, steel scrap etc.</li> </ul>  <ul style="list-style-type: none"> <li>➤ All the hazardous wastes and solid wastes such as Oil containing cargo residue, Chemical containing cargo residue and sludge, contaminated cotton waste, spent exchange resin and ETP Sludge, etc. shall be segregated at source and stored at the earmarked area.</li> <li>➤ Recyclable wastes will be collected and disposed to waste recycling vendors through certified recyclers wherever applicable.</li> <li>➤ Hazardous wastes include contaminated chemical spills, spent dry adsorbing spill absorbing material used for large marine and onshore chemical spills, used lubricating oils and greases. The chemicals spill inventories and spent dry absorbing material will be stored in a dedicated onsite tank and will be disposed to authorized hazardous waste incinerators.</li> <li>➤ Spent lube oils and greases will be disposed to authorized used oil recycling vendors.</li> <li>➤ A dedicated and completely enclosed shed</li> </ul>	<p>Complied. Solid wastes generated during port development i.e.: construction &amp; demolition wastes are reused for level rising of low lying area within the port premises. Kitchen/Food, Horticulture/Garden wastes are being disposed off in Organic Waste Converter (OWC) to convert it into compost and reused as manure in greenbelt/plantation. Packaging materials generated from the cargo handling i.e.: Wood, Paper/Carton, Steel Scrap, Plastic/Tarpaulin etc. are collected and sold out to recyclers.</p> <p>Complied. All the wastes are segregated at source and stored at a dedicated Hazardous Waste storage shed/yard.</p> <p>Complied. Recyclable wastes is being collected and disposed of through CPCB/GPCB registered recyclers.</p> <p>Complied. Till date there is no spill occurred.</p> <p>Complied. Recyclable wastes is being collected and disposed of through CPCB/GPCB registered recyclers.</p> <p>Complied. All the wastes are stored at a dedicated hazardous waste storage</p>



	<p>will be identified to store the hazardous wastes in order to avoid any cross contamination from storm water.</p> <p>➤ All the waste should be segregated, collected, categorized as per the HWM Rules 2008, SWM Rules 2000 and Batteries Rules 2001 prescribed by CPCB under Environmental Protection Act, 1986.</p>	<p>shed/yard.</p> <p>Complied with. All the wastes are being segregate at source and handled as per applicable rules/guidelines.</p>
<b>6. Greenbelt and Plantation:</b>	<p>➤ AHPPL will develop thick green belt plantation in and around the proposed project facility covering 81.27 Ha. Efforts will be taken to increase the green cover in and around the project boundary using local species with a view to ameliorating project related disturbances and enhancing the ecological value of the area. Greenbelt would be developed as per the CPCB guidelines.</p> <p>➤ A capital cost of Rs. 1.62 Crore and an annual recurring budget of Rs. 0.65 Crore will be earmarked for this purpose.</p>	<p>Complying with.</p> <p>Company has set up dedicated greenbelt area for plantation at periphery / avenue plantation / landscaping etc. Total greenbelt area developed so far is approx. 63.04 ha till September, 2017.</p> <p>For details of Horticulture activities budget, please refer <b><u>Annexure-6</u></b>.</p>
<b>7. Community Development Plan:</b>	<p>AHPPL has identified focused areas for community development and implement developmental program. The identified activities under CSR program are as follows: -</p> <ol style="list-style-type: none"> <li>1. Infrastructure development for educational facilities like building of schools, computer rooms, multipurpose activity halls</li> <li>2. Supporting education through distribution of stationary, scholarships, science kits, bicycles to children, conducting education camps, competitions.</li> <li>3. Strengthening the community health by arranging health camps, AID awareness camps, providing financial support to senior citizens and poor people, building dispensaries and mobile dispensaries.</li> <li>4. Improvement of rural sanitation by conducting mass awareness campaign, helping villagers for constructing and maintaining household toilets, school toilets.</li> <li>5. Improvement in animal husbandry and agriculture by arranging camps for farmers and cattle owners, conducting programs to use new irrigation technologies, organic farming, and free fodder supply.</li> <li>6. Organizing need based skill development program to women and youth for their empowerment.</li> <li>7. Rural infrastructure development by construction of rainwater harvesting ponds, check dams, roads, bus stops, drainage systems, fish landing shed, solar street lamps.</li> </ol> <p>AHPPL has committed to spend about Rs.</p>	<p>Complied.</p> <ul style="list-style-type: none"> <li>• CSR activities carried out by Adani Foundation in four verticals i.e.: - (1) Education, (2). Community Health, (3). Sustainable Livelihood and (4). Rural Infrastructure Development.</li> <li>• Detail of the CSR activities along with budgetary provisions and progress are regularly submitted to MoEF &amp; CC as part of six monthly compliance reports.</li> <li>• Total budget allocated for CSR activities is Rs. 301.27/- Lakh for FY: 2017-18 and total expenditure is Rs. 88.16/- Lakh during April, 2017 to September, 2017.</li> <li>• Please refer the <b><u>Annexure-2</u></b> for the status of the CSR activities planned during the Financial Year: 2017-18.</li> </ul> 

	<p>8.21 Crore in the first five years of the operation towards various rural upliftment and community development programs and tentative budget has been presented in the below table - Budgeted Expenditure for CSR and Community Development Activities:-</p> <table border="1" data-bbox="284 434 882 786"> <thead> <tr> <th>S. No.</th><th>Descriptions</th><th>Budgeted Amount For 1<sup>st</sup> 5 year Period (Amount rupees in Crore)</th></tr> </thead> <tbody> <tr> <td>1</td><td>Education</td><td>2.29</td></tr> <tr> <td>2</td><td>Community Health</td><td>1.18</td></tr> <tr> <td>3</td><td>Sustainable Livelihood Activities</td><td>1.43</td></tr> <tr> <td>4</td><td>Rural Infrastructure Development</td><td>2.04</td></tr> <tr> <td>5</td><td>Entry Point Activities</td><td>1.27</td></tr> <tr> <td colspan="2"><b>Total</b></td><td><b>8.21</b></td></tr> </tbody> </table>	S. No.	Descriptions	Budgeted Amount For 1 <sup>st</sup> 5 year Period (Amount rupees in Crore)	1	Education	2.29	2	Community Health	1.18	3	Sustainable Livelihood Activities	1.43	4	Rural Infrastructure Development	2.04	5	Entry Point Activities	1.27	<b>Total</b>		<b>8.21</b>	
S. No.	Descriptions	Budgeted Amount For 1 <sup>st</sup> 5 year Period (Amount rupees in Crore)																					
1	Education	2.29																					
2	Community Health	1.18																					
3	Sustainable Livelihood Activities	1.43																					
4	Rural Infrastructure Development	2.04																					
5	Entry Point Activities	1.27																					
<b>Total</b>		<b>8.21</b>																					
<b>II.</b>	<b>MARINE ENVIRONMENT MANAGEMENT PLAN:</b>																						
<b>A.</b>	<p><b>CONSTRUCTION PHASE: -</b></p> <ul style="list-style-type: none"> <li>➤ The dredge spoil generated during capital dredging will be used for land reclamation for the port development and associated utilities.</li> <li>➤ Unused dredged material will be disposed off at approved dump sites to the north of port area including dredged soil generated through maintenance dredging.</li> <li>➤ Appropriate dredging methodology shall be adopted to control the generation of high levels of suspended solids. If the suspended solids concentration increases, the dredging operation should be stopped till the normal conditions are achieved.</li> <li>➤ General clean up along the corridor used for construction related activities, adjacent intertidal areas, creeks etc. should be undertaken and all the discarded materials must be removed from the site and aesthetic quality of the surroundings to be restored, once the construction activities are completed.</li> </ul>	<p>Complied. No disposal has been done till date. All the dredging material is being utilized for level raising, reclamation.</p> <p>Complied with. If any excess material generated will be disposed of at the location already approved by the MoEF&amp;CC.</p> <p>Noted &amp; complying with. Monitoring of turbidity level in the sea water is being done and there is no abnormal increase observed.</p> <p>Noted &amp; complied with. Cleanup of the area is regularly being done.</p> 																					
<b>B.</b>	<p><b>OPERATION PHASE: -</b></p> <p>The following mitigation measures are recommended during port operation: -</p> <ul style="list-style-type: none"> <li>➤ Sewage generated from the port operations will be treated in sewage treatment plant and treated water shall be used for horticulture and green belt development.</li> <li>➤ All the solid waste generated from the port will be properly segregated, stored and disposed as per the applicable statutory requirement.</li> <li>➤ All the structures shall be designed in such a way that it should not restrict the prevailing tidal ingress in the creek and mangrove habitats in the vicinity to ensure good</li> </ul>	<p>Complied. Sewage generated from the port operations is being treated in STP and treated water is being used for horticulture and green belt development.</p> <p>Complied. All the solid waste generated from the port is properly segregated, stored and disposed as per the applicable rules.</p> <p>Complied with.</p>																					



<p>health condition.</p> <ul style="list-style-type: none"> <li>➤ Coastline between Suwali Point and Tapti Estuary mouth and around the port area will be periodically surveyed to assess erosion and accretion. Should the need arises the corrective action in terms of shore stabilization shall be undertaken.</li> <li>➤ All the minor and major spillages of chemicals will be effectively controlled with appropriate tools and equipments.</li> <li>➤ An oil/chemical spill management plan shall be evolved and be in place for tier-1 (100t) and tier-2 (700t) spills in consultation with Gujarat Maritime Board/Coast Guard.</li> <li>➤ All the marine outfall shall meet the Gujarat Pollution Control Board Effluent Discharge Criteria for Seawater Disposal Standards.</li> <li>➤ Monitoring of water area of the port and effluent disposal sited shall be studied for pH and Corg, Suspended Solids, DO, BOD in order to identify for deviations if any from the baseline environmental quality.</li> <li>➤ The mitigation measures suggested for effluent release and maintaining of effluent disposal sites should also be adopted for effluent release by NIKO should be implemented.</li> </ul>	<p>Complied. Shoreline change study was conducted by NIO, Vizag during the period from November, 2014 to December, 2015. Study confirms that there is no significant change in the nearby shoreline except for the approved layout of the AHPPL. The report did not warrant any mitigation measures.</p> <p>Noted and complied with. There is not oil spill till date.</p> <p>Complied. Oil Spill Contingency Plan has been prepared and the same was approved/vetted by Indian Coast Guard (Letter No.: 7563, dated 09.01.2014).</p> <p>Noted and complied with. No effluent is being discharged.</p> <p>Complied. Please refer the <b>Annexure-4E</b> for the Sea Water Quality Monitoring / Analysis Reports for the period <b>April, 2017 to September, 2017</b>.</p> <p>Noted, AHPPL is not discharging any effluent outside the port premises.</p>
---	--

\*\*\*



**ANNEXURE-4:**

**ENVIRONMENTAL MONITORING / ANALYSIS RESULTS FOR THE  
PERIOD: APRIL, 2017 TO SEPTEMBER, 2017**





**ANNEXURE-4A:****AMBIENT AIR QUALITY MONITORING RESULTS****PERIOD: APRIL, 2017 TO SEPTEMBER, 2017**

## Environmental Monitoring Reports For The Period From April 2017 to September 2017

### 1.0 AMBIENT AIR QUALITY MONITORING: -

**Table No.: 1.1 - Ambient Air Quality Monitoring Results At Near Port Gate No.: 2:-**

Date of Sampling	Location-1: Near Port Gate No.: 2 (N 21° 05.426'E 72° 37.739')											
	PM <sub>10</sub>	PM <sub>2.5</sub>	Pb	BaP	As	Ni	CO	C <sub>6</sub> H <sub>6</sub>	NH <sub>3</sub>	SO <sub>2</sub>	NO <sub>x</sub>	O <sub>3</sub>
	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	ng/m <sup>3</sup>	ng/m <sup>3</sup>	ng/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>
03-04-2017	66.32	36.37	BDL*	BDL*	BDL*	BDL*	0.86	BDL*	22.16	8.46	19.27	21.64
06-04-2017	52.22	22.57	BDL*	BDL*	BDL*	BDL*	0.71	BDL*	44.02	11.45	25.77	29.40
10-04-2017	79.27	45.57	BDL*	BDL*	BDL*	BDL*	0.44	BDL*	30.47	20.35	42.62	25.48
13-04-2017	61.18	26.34	BDL*	BDL*	BDL*	BDL*	0.38	BDL*	54.18	18.64	35.35	30.34
17-04-2017	75.63	44.50	0.60	BDL*	2.36	10.87	0.72	BDL*	48.33	22.75	29.41	20.83
20-04-2017	68.42	33.44	BDL*	BDL*	BDL*	BDL*	0.58	BDL*	34.48	16.01	38.44	19.39
24-04-2017	89.29	49.75	0.52	BDL*	2.56	10.34	0.82	BDL*	65.57	12.33	30.29	22.47
27-04-2017	92.61	53.51	BDL*	BDL*	2.01	10.52	0.92	BDL*	31.40	24.42	44.61	26.07
01-05-2017	48.49	16.72	BDL*	BDL*	BDL*	BDL*	0.74	BDL*	28.93	19.50	37.60	30.71
04-05-2017	71.62	41.39	BDL*	BDL*	BDL*	BDL*	0.53	BDL*	36.63	22.60	41.55	28.44
08-05-2017	86.50	37.62	BDL*	BDL*	BDL*	BDL*	0.78	BDL*	53.56	24.73	32.86	22.68
11-05-2017	77.61	47.66	BDL*	BDL*	BDL*	BDL*	0.94	BDL*	35.40	26.33	28.45	29.21
15-05-2017	83.61	39.46	0.70	BDL*	2.13	BDL*	0.89	BDL*	62.49	13.37	34.84	24.77
18-05-2017	62.88	32.61	BDL*	BDL*	BDL*	BDL*	0.64	BDL*	37.55	17.74	42.37	21.41
22-05-2017	56.38	22.57	BDL*	BDL*	BDL*	BDL*	0.40	BDL*	32.63	20.65	36.72	25.41
25-05-2017	65.50	30.52	BDL*	BDL*	BDL*	BDL*	0.87	BDL*	23.70	9.34	22.35	23.53
29-05-2017	52.38	20.48	BDL*	BDL*	BDL*	BDL*	0.73	BDL*	47.40	12.33	29.33	27.14
01-06-2017	90.57	41.39	0.76	BDL*	2.34	10.87	0.70	BDL*	47.49	23.51	29.22	19.13
05-06-2017	85.30	47.66	0.65	BDL*	BDL*	10.52	0.64	BDL*	31.16	25.50	26.25	23.31
08-06-2017	54.33	21.74	BDL*	BDL*	BDL*	BDL*	0.65	BDL*	40.23	18.46	35.56	27.70
12-06-2017	79.83	45.57	BDL*	BDL*	BDL*	BDL*	0.47	BDL*	62.62	21.46	39.39	24.58
15-06-2017	88.21	33.58	0.84	BDL*	2.56	10.22	0.82	BDL*	54.15	12.48	33.74	22.34
19-06-2017	65.58	36.37	BDL*	BDL*	BDL*	BDL*	0.36	BDL*	29.04	19.42	40.29	29.31
22-06-2017	72.42	42.64	BDL*	BDL*	BDL*	BDL*	0.78	BDL*	33.58	16.54	27.56	21.69
26-06-2017	61.59	28.43	BDL*	BDL*	BDL*	BDL*	0.58	BDL*	25.41	11.44	20.59	18.56
29-06-2017	58.22	23.41	BDL*	BDL*	BDL*	BDL*	0.68	BDL*	19.36	9.59	15.56	25.86

Authorized Signatory

Page 1 of 32





03-07-2017	46.42	18.39	BDL*	BDL*	BDL*	BDL*	0.31	BDL*	34.73	9.64	24.32	28.14
06-07-2017	76.29	45.57	BDL*	BDL*	BDL*	BDL*	0.56	BDL*	40.22	21.58	30.60	17.83
10-07-2017	66.50	31.35	BDL*	BDL*	BDL*	BDL*	0.42	BDL*	49.66	11.72	42.35	26.46
13-07-2017	73.21	40.55	0.62	BDL*	2.45	10.23	0.57	BDL*	27.73	25.41	26.78	20.81
17-07-2017	51.48	20.57	0.53	BDL*	2.26	10.76	0.53	BDL*	38.08	14.44	21.52	18.42
20-07-2017	58.21	26.75	BDL*	BDL*	BDL*	BDL*	0.85	BDL*	13.41	13.52	22.46	25.18
24-07-2017	63.32	23.41	BDL*	BDL*	BDL*	BDL*	0.63	BDL*	29.55	22.54	39.21	26.71
27-07-2017	48.62	17.56	BDL*	BDL*	BDL*	BDL*	0.72	BDL*	47.83	10.52	41.65	24.83
31-07-2017	65.18	29.68	BDL*	BDL*	BDL*	BDL*	0.89	BDL*	28.64	6.64	29.55	30.50
03-08-2017	38.39	23.41	BDL*	BDL*	BDL*	BDL*	0.45	BDL*	38.33	15.44	31.44	25.53
07-08-2017	57.30	29.26	BDL*	BDL*	BDL*	BDL*	0.31	BDL*	55.39	26.42	35.28	18.50
10-08-2017	63.70	43.48	BDL*	BDL*	BDL*	BDL*	0.80	BDL*	45.81	19.39	25.78	28.33
14-08-2017	70.39	37.62	0.62	BDL*	2.84	10.49	0.62	BDL*	30.54	24.66	38.45	26.48
17-08-2017	82.21	40.30	0.70	BDL*	2.64	10.28	0.74	BDL*	53.60	18.62	34.49	19.43
21-08-2017	45.58	19.65	BDL*	BDL*	BDL*	BDL*	0.26	BDL*	28.74	16.33	18.55	30.56
24-08-2017	85.50	46.40	BDL*	BDL*	BDL*	BDL*	0.53	BDL*	32.94	10.76	36.41	27.62
28-08-2017	51.49	24.66	BDL*	BDL*	BDL*	BDL*	0.22	BDL*	15.57	14.61	17.55	20.07
31-08-2017	77.61	21.74	BDL*	BDL*	BDL*	BDL*	0.90	BDL*	33.84	20.36	33.42	24.43
04-09-2017	74.51	36.37	BDL*	BDL*	BDL*	BDL*	0.82	BDL*	27.67	11.40	40.57	27.62
07-09-2017	62.41	33.44	BDL*	BDL*	BDL*	BDL*	0.36	BDL*	38.27	16.61	20.06	23.33
11-09-2017	56.32	39.71	BDL*	BDL*	BDL*	BDL*	1.01	BDL*	30.61	21.57	28.39	25.68
14-09-2017	69.41	29.68	0.56	BDL*	2.38	10.28	0.86	BDL*	42.39	23.33	35.30	22.45
18-09-2017	40.30	18.47	BDL*	BDL*	BDL*	BDL*	0.41	BDL*	20.60	17.44	27.44	29.05
21-09-2017	48.19	24.66	BDL*	BDL*	BDL*	BDL*	0.31	BDL*	10.01	9.60	24.72	19.39
25-09-2017	66.22	35.53	BDL*	BDL*	BDL*	BDL*	0.94	BDL*	24.43	27.41	42.35	30.47
28-09-2017	71.18	38.46	BDL*	BDL*	BDL*	BDL*	1.03	BDL*	45.62	20.46	39.45	26.33

**Observation:** Above given Result are within the norms Specified Limit as per CPCB Notification NoB-29016/20/90/PCI-I dt: 18/11/2009 National Ambient Air Quality Standards, New Delhi , for 24 hourly or 8 hourly or 1 hourly monitored values

BDL\* : - Below Detection Limit: Ozone as  $O_3$  ( $\mu g/m^3$ ): 10  
BDL\* : - Below Detection Limit - Lead as Pb ( $\mu g/m^3$ ): 0.5  
BDL\* : - Below Detection Limit - Carbon Monoxide as CO ( $mg/m^3$ ): 0.01  
BDL\* : - Below Detection Limit - Ammonia  $NH_3$  ( $\mu g/m^3$ ): 10  
BDL\* : - Below Detection Limit - Benzene as  $C_6H_6$  ( $\mu g/m^3$ ): 2  
BDL\* : - Below Detection Limit - Benzo (a) Pyrene (BaP) - Particulate Phase only ( $ng/m^3$ ): 0.5  
BDL\* : - Below Detection Limit - Arsenic as As ( $ng/m^3$ ): 2  
BDL\* : - Below Detection Limit - Nickel as Ni ( $ng/m^3$ ): 10





**Table No.: 1.2 - Ambient Air Quality Monitoring Results At HSE Building Terrace:-**

Date of Sampling	Location-2: HSE Building Terrace (N 21° 05.043' E 72° 38.491')											
	PM <sub>10</sub>	PM <sub>2.5</sub>	Pb	BaP	As	Ni	CO	C <sub>6</sub> H <sub>6</sub>	NH <sub>3</sub>	SO <sub>2</sub>	NO <sub>x</sub>	O <sub>3</sub>
	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	ng/m <sup>3</sup>	ng/m <sup>3</sup>	ng/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>
03-04-2017	42.38	22.42	BDL*	BDL*	BDL*	BDL*	0.24	BDL*	14.67	10.61	30.35	28.31
06-04-2017	73.62	34.47	BDL*	BDL*	BDL*	BDL*	0.55	BDL*	27.50	14.61	34.55	18.59
10-04-2017	64.22	41.53	BDL*	BDL*	BDL*	BDL*	0.21	BDL*	18.33	8.37	26.43	23.32
13-04-2017	78.32	31.56	BDL*	BDL*	BDL*	BDL*	0.27	BDL*	33.92	20.42	24.58	26.29
17-04-2017	69.31	38.62	BDL*	BDL*	BDL*	BDL*	0.48	BDL*	37.28	18.60	36.30	25.27
20-04-2017	51.58	24.50	BDL*	BDL*	BDL*	BDL*	0.40	BDL*	29.33	12.56	18.26	22.84
24-04-2017	68.22	43.60	BDL*	BDL*	BDL*	BDL*	0.54	BDL*	39.11	5.46	15.46	19.57
27-04-2017	75.38	32.39	BDL*	BDL*	BDL*	BDL*	0.81	BDL*	10.39	9.66	21.35	21.51
01-05-2017	81.70	49.42	0.54	BDL*	BDL*	10.27	0.68	BDL*	34.53	14.44	32.62	25.55
04-05-2017	59.61	38.62	BDL*	BDL*	BDL*	BDL*	0.22	BDL*	20.17	9.74	29.55	27.53
08-05-2017	66.51	33.64	BDL*	BDL*	BDL*	BDL*	0.52	BDL*	41.56	20.64	41.59	30.18
11-05-2017	70.58	19.52	BDL*	BDL*	BDL*	BDL*	0.88	BDL*	11.61	10.48	37.65	24.39
15-05-2017	61.18	26.58	BDL*	BDL*	BDL*	BDL*	0.57	BDL*	43.39	6.60	17.45	28.08
18-05-2017	48.41	22.42	BDL*	BDL*	BDL*	BDL*	0.77	BDL*	32.39	13.70	20.25	26.30
22-05-2017	72.39	31.56	BDL*	BDL*	BDL*	BDL*	0.29	BDL*	27.19	22.73	28.31	29.75
25-05-2017	41.50	18.69	BDL*	BDL*	BDL*	BDL*	0.24	BDL*	15.28	11.71	33.60	22.40
29-05-2017	69.30	35.71	BDL*	BDL*	BDL*	BDL*	0.58	BDL*	29.33	16.38	39.17	20.77
01-06-2017	76.18	36.13	BDL*	BDL*	BDL*	BDL*	0.46	BDL*	35.13	18.35	39.55	17.19
05-06-2017	80.40	45.68	0.58	BDL*	BDL*	BDL*	0.79	BDL*	39.34	8.40	35.26	21.22
08-06-2017	68.33	34.47	BDL*	BDL*	BDL*	11.33	0.61	BDL*	25.82	11.68	31.25	25.40
12-06-2017	54.21	38.62	BDL*	BDL*	BDL*	BDL*	0.19	BDL*	21.62	19.64	27.15	29.25
15-06-2017	72.78	30.73	BDL*	BDL*	BDL*	BDL*	0.53	BDL*	40.24	14.53	19.33	30.24
19-06-2017	82.58	46.51	0.54	BDL*	2.42	BDL*	0.25	BDL*	23.42	21.43	25.35	18.39
22-06-2017	56.27	32.39	BDL*	BDL*	BDL*	BDL*	0.22	BDL*	43.54	12.53	33.40	23.29
26-06-2017	48.47	24.50	BDL*	BDL*	BDL*	BDL*	0.71	BDL*	30.03	15.38	18.63	27.21
29-06-2017	52.39	19.52	BDL*	BDL*	BDL*	BDL*	0.39	BDL*	17.12	13.56	21.23	19.57
03-07-2017	57.52	24.50	BDL*	BDL*	BDL*	BDL*	0.21	BDL*	24.53	11.61	21.58	22.41
06-07-2017	65.49	37.37	BDL*	BDL*	BDL*	BDL*	0.44	BDL*	32.30	19.65	40.56	19.52
10-07-2017	81.59	46.51	0.52	BDL*	BDL*	BDL*	0.17	BDL*	19.56	9.42	27.63	28.33
13-07-2017	68.19	34.47	BDL*	BDL*	BDL*	BDL*	0.70	BDL*	36.33	13.69	36.63	30.47



17-07-2017	58.21	29.48	BDL*	BDL*	BDL*	BDL*	0.64	BDL*	26.71	17.56	18.62	25.75
20-07-2017	42.31	18.69	BDL*	BDL*	BDL*	BDL*	0.14	BDL*	16.77	7.68	19.57	23.40
24-07-2017	77.62	38.62	BDL*	BDL*	BDL*	BDL*	0.48	BDL*	22.36	20.78	26.33	17.55
27-07-2017	39.61	15.36	BDL*	BDL*	BDL*	BDL*	0.34	BDL*	35.71	14.40	29.41	21.62
31-07-2017	49.23	15.36	BDL*	BDL*	BDL*	BDL*	0.19	BDL*	38.51	10.75	34.51	26.36
03-08-2017	48.29	18.69	BDL*	BDL*	BDL*	BDL*	0.30	BDL*	27.47	10.64	19.47	19.25
07-08-2017	77.42	47.75	BDL*	BDL*	BDL*	BDL*	0.24	BDL*	21.36	22.37	26.40	27.33
10-08-2017	57.12	36.54	BDL*	BDL*	BDL*	BDL*	0.52	BDL*	35.40	16.50	34.35	30.10
14-08-2017	64.42	25.75	BDL*	BDL*	BDL*	BDL*	0.36	BDL*	43.64	12.76	31.15	28.40
17-08-2017	75.50	27.41	0.52	BDL*	BDL*	BDL*	0.47	BDL*	38.45	15.76	27.25	20.51
21-08-2017	52.48	22.42	BDL*	BDL*	BDL*	BDL*	0.21	BDL*	22.28	11.60	23.36	17.69
24-08-2017	74.30	39.45	BDL*	BDL*	BDL*	BDL*	0.29	BDL*	40.29	13.57	30.66	29.50
28-08-2017	47.52	21.59	BDL*	BDL*	BDL*	BDL*	0.19	BDL*	18.62	5.37	15.45	22.53
31-08-2017	72.79	32.39	BDL*	BDL*	BDL*	BDL*	0.69	BDL*	25.03	17.48	22.59	18.73
04-09-2017	64.72	27.41	BDL*	BDL*	BDL*	BDL*	0.53	BDL*	34.50	16.62	34.27	25.37
07-09-2017	74.58	42.36	0.57	BDL*	2.24	10.60	0.40	BDL*	29.40	11.44	17.59	20.41
11-09-2017	51.47	30.73	BDL*	BDL*	BDL*	BDL*	0.80	BDL*	38.40	19.69	38.46	27.46
14-09-2017	60.47	37.37	BDL*	BDL*	BDL*	BDL*	0.93	BDL*	24.30	17.34	25.44	29.23
18-09-2017	47.52	15.36	BDL*	BDL*	BDL*	BDL*	0.32	BDL*	18.30	13.51	21.58	22.50
21-09-2017	37.50	19.52	BDL*	BDL*	BDL*	BDL*	0.19	BDL*	15.60	5.50	15.43	16.48
25-09-2017	56.40	25.75	BDL*	BDL*	BDL*	BDL*	0.62	BDL*	36.30	15.72	35.64	24.40
28-09-2017	66.09	31.56	BDL*	BDL*	BDL*	BDL*	0.74	BDL*	32.70	18.29	31.11	19.50

**Observation:** Above given Result are within the norms Specified Limit as per CPCB Notification NoB-29016/20/90/PCI-I dt: 18/11/2009 National Ambient Air Quality Standards, New Delhi , for 24 hourly or 8 hourly or 1 hourly monitored values

BDL\*: - Below Detection Limit: Ozone as O<sub>3</sub> (µg/m<sup>3</sup>): 10  
 BDL\*: - Below Detection Limit - Lead as Pb (µg/m<sup>3</sup>): 0.5  
 BDL\*: - Below Detection Limit - Carbon Monoxide as CO (mg/m<sup>3</sup>): 0.01  
 BDL\*: - Below Detection Limit - Ammonia NH<sub>3</sub> (µg/m<sup>3</sup>): 10  
 BDL\*: - Below Detection Limit - Benzene as C<sub>6</sub>H<sub>6</sub> (µg/m<sup>3</sup>): 2  
 BDL\*: - Below Detection Limit - Benzo (a) Pyrene (BaP) - Particulate Phase only (ng/m<sup>3</sup>): 0.5  
 BDL\*: - Below Detection Limit - Arsenic as As (ng/m<sup>3</sup>): 2  
 BDL\*: - Below Detection Limit - Nickel as Ni (ng/m<sup>3</sup>): 10



● FSSAI Approved Lab ● Recognised by MoEF, New Delhi Under  
 Sec. 12 of Environmental (Protection) Act-1986

● GPCB approved  
 schedule II auditor

● ISO 14001

● OHSAS 18001

● ISO 9001

Page 4 of 32

"Pollucon House", Plot No. 5 & 6, Opp. Balaji Industrial Society, Old Shantinath Silk Mill Lane, Near Gaytri Farsan Mart,  
 Navjivan Circle, Udhana Magdalla Road, Surat-395007, Gujarat, India.

Phone : 0261-2635750, 0261-2635751, 0261-2635775, 07016605174, WEB: www.polluconlab.com, E. mail: pollucon@gmail.com, info@polluconlab.com



**Table No.: 1.3 - Ambient Air Quality Monitoring Results At Central Water Pump House:-**

Date of Sampling	Location-3: Central Water Pump House (N 21° 04.697'E 72° 38.420')											
	PM <sub>10</sub>	PM <sub>2.5</sub>	Pb	BaP	As	Ni	CO	C <sub>6</sub> H <sub>6</sub>	NH <sub>3</sub>	SO <sub>2</sub>	NO <sub>x</sub>	O <sub>3</sub>
	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	ng/m <sup>3</sup>	ng/m <sup>3</sup>	ng/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>
03-04-2017	52.62	27.37	BDL*	BDL*	BDL*	BDL*	0.74	BDL*	30.57	12.46	15.64	19.41
06-04-2017	68.62	29.44	BDL*	BDL*	BDL*	BDL*	0.42	BDL*	16.20	9.58	18.59	20.60
10-04-2017	47.60	24.68	BDL*	BDL*	BDL*	BDL*	0.36	BDL*	25.38	5.74	23.85	28.27
13-04-2017	86.29	37.56	BDL*	BDL*	BDL*	BDL*	0.70	BDL*	38.52	11.69	20.44	24.44
17-04-2017	54.55	33.38	BDL*	BDL*	BDL*	BDL*	0.30	BDL*	18.65	14.74	32.49	30.15
20-04-2017	76.30	30.36	BDL*	BDL*	BDL*	BDL*	0.84	BDL*	20.48	8.46	25.40	27.32
24-04-2017	56.31	20.35	BDL*	BDL*	BDL*	BDL*	0.33	BDL*	28.43	15.45	21.59	25.63
27-04-2017	67.49	39.40	BDL*	BDL*	BDL*	BDL*	0.15	BDL*	42.80	13.66	27.48	29.42
01-05-2017	66.71	32.50	BDL*	BDL*	BDL*	BDL*	0.18	BDL*	17.43	21.67	25.55	23.52
04-05-2017	44.51	22.51	BDL*	BDL*	BDL*	BDL*	0.39	BDL*	27.52	5.39	23.44	30.30
08-05-2017	51.47	30.74	BDL*	BDL*	BDL*	BDL*	0.15	BDL*	20.18	16.62	38.38	18.42
11-05-2017	60.59	35.47	BDL*	BDL*	BDL*	BDL*	0.30	BDL*	46.47	13.66	30.52	21.22
15-05-2017	50.58	18.36	BDL*	BDL*	BDL*	BDL*	0.47	BDL*	30.27	18.45	24.62	26.37
18-05-2017	71.48	26.51	BDL*	BDL*	BDL*	BDL*	0.55	BDL*	22.62	9.70	28.48	32.23
22-05-2017	82.40	34.64	BDL*	BDL*	BDL*	BDL*	0.76	BDL*	18.65	12.47	22.34	27.53
25-05-2017	46.20	25.54	BDL*	BDL*	BDL*	BDL*	0.54	BDL*	33.94	14.48	17.34	20.59
29-05-2017	61.62	29.50	BDL*	BDL*	BDL*	BDL*	0.45	BDL*	15.59	10.63	20.58	22.71
01-06-2017	57.57	30.36	BDL*	BDL*	BDL*	BDL*	0.14	BDL*	20.43	14.56	36.22	21.64
05-06-2017	66.28	41.56	BDL*	BDL*	BDL*	BDL*	0.27	BDL*	41.16	12.72	28.55	18.20
08-06-2017	78.17	37.67	BDL*	BDL*	BDL*	BDL*	0.40	BDL*	13.82	20.42	24.31	20.40
12-06-2017	47.60	27.54	BDL*	BDL*	BDL*	BDL*	0.34	BDL*	34.25	15.44	21.57	26.40
15-06-2017	52.52	25.46	BDL*	BDL*	BDL*	BDL*	0.44	BDL*	26.44	19.58	34.32	24.89
19-06-2017	88.71	50.46	0.68	BDL*	2.16	BDL*	0.69	BDL*	16.23	11.72	29.85	22.64
22-06-2017	68.22	39.40	BDL*	BDL*	BDL*	BDL*	0.48	BDL*	29.45	8.75	16.16	19.69
26-06-2017	53.42	26.41	BDL*	BDL*	BDL*	BDL*	0.41	BDL*	14.42	10.62	26.43	28.39
29-06-2017	40.23	15.39	BDL*	BDL*	BDL*	BDL*	0.13	BDL*	10.52	7.48	19.78	17.49
03-07-2017	68.19	31.64	BDL*	BDL*	BDL*	BDL*	0.44	BDL*	14.84	7.53	19.24	18.65
06-07-2017	50.32	27.71	BDL*	BDL*	BDL*	BDL*	0.71	BDL*	19.47	15.63	36.45	21.21
10-07-2017	70.20	36.37	BDL*	BDL*	BDL*	BDL*	0.30	BDL*	31.53	13.49	22.54	23.54
13-07-2017	59.59	39.64	BDL*	BDL*	BDL*	BDL*	0.24	BDL*	21.64	16.40	28.74	19.40



17-07-2017	63.18	33.38	BDL*	BDL*	BDL*	BDL*	0.36	BDL*	34.62	12.63	25.38	27.59
20-07-2017	54.21	22.66	BDL*	BDL*	BDL*	BDL*	0.27	BDL*	10.82	5.77	15.21	20.36
24-07-2017	72.41	35.50	BDL*	BDL*	BDL*	BDL*	0.40	BDL*	16.07	14.67	31.64	22.44
27-07-2017	51.20	19.48	BDL*	BDL*	BDL*	BDL*	0.22	BDL*	24.42	18.37	27.73	16.68
31-07-2017	42.54	24.37	BDL*	BDL*	BDL*	BDL*	0.65	BDL*	26.89	9.38	17.23	28.68
03-08-2017	56.42	29.50	BDL*	BDL*	BDL*	BDL*	0.64	BDL*	17.62	12.41	25.43	27.78
07-08-2017	63.42	34.64	BDL*	BDL*	BDL*	BDL*	0.44	BDL*	36.45	16.37	20.19	30.87
10-08-2017	52.57	27.71	BDL*	BDL*	BDL*	BDL*	0.96	BDL*	22.48	14.72	30.76	19.36
14-08-2017	58.32	31.71	BDL*	BDL*	BDL*	BDL*	0.42	BDL*	26.73	9.37	24.55	23.43
17-08-2017	71.39	36.72	BDL*	BDL*	BDL*	BDL*	0.40	BDL*	19.74	11.56	32.45	29.31
21-08-2017	61.40	28.65	BDL*	BDL*	BDL*	BDL*	0.18	BDL*	15.49	7.62	21.57	26.66
24-08-2017	54.39	20.35	BDL*	BDL*	BDL*	BDL*	0.24	BDL*	30.38	18.68	15.49	24.50
28-08-2017	38.29	18.62	BDL*	BDL*	BDL*	BDL*	0.14	BDL*	10.33	10.69	19.62	20.29
31-08-2017	65.49	25.66	BDL*	BDL*	BDL*	BDL*	0.60	BDL*	18.53	13.43	26.84	25.88
04-09-2017	47.42	22.66	BDL*	BDL*	BDL*	BDL*	0.38	BDL*	23.29	21.42	20.40	22.54
07-09-2017	68.39	36.37	BDL*	BDL*	BDL*	BDL*	0.22	BDL*	32.55	18.68	26.52	24.64
11-09-2017	80.38	45.46	BDL*	BDL*	BDL*	BDL*	0.92	BDL*	15.53	15.69	34.22	17.26
14-09-2017	55.41	30.46	BDL*	BDL*	BDL*	BDL*	0.76	BDL*	35.24	13.57	29.64	27.47
18-09-2017	62.49	28.38	BDL*	BDL*	BDL*	BDL*	0.30	BDL*	13.44	8.48	24.48	19.21
21-09-2017	42.52	21.38	BDL*	BDL*	BDL*	BDL*	0.16	BDL*	18.51	11.43	27.51	21.60
25-09-2017	51.18	29.44	BDL*	BDL*	BDL*	BDL*	0.66	BDL*	20.60	25.31	30.70	18.62
28-09-2017	60.28	26.41	BDL*	BDL*	BDL*	BDL*	0.64	BDL*	16.42	16.52	36.49	28.41

**Observation:** Above given Result are within the norms Specified Limit as per CPCB Notification NoB-29016/20/90/PCI-I dt: 18/11/2009 National Ambient Air Quality Standards, New Delhi , for 24 hourly or 8 hourly or 1 hourly monitored values

BDL\* : - Below Detection Limit: Ozone as O<sub>3</sub> (µg/m<sup>3</sup>): 10  
 BDL\* : - Below Detection Limit - Lead as Pb (µg/m<sup>3</sup>): 0.5  
 BDL\* : - Below Detection Limit - Carbon Monoxide as CO (mg/m<sup>3</sup>): 0.01  
 BDL\* : - Below Detection Limit - Ammonia NH<sub>3</sub> (µg/m<sup>3</sup>): 10  
 BDL\* : - Below Detection Limit - Benzene as C<sub>6</sub>H<sub>6</sub> (µg/m<sup>3</sup>): 2  
 BDL\* : - Below Detection Limit - Benzo (a) Pyrene (BaP) - Particulate Phase only (ng/m<sup>3</sup>): 0.5  
 BDL\* : - Below Detection Limit - Arsenic as As (ng/m<sup>3</sup>): 2  
 BDL\* : - Below Detection Limit - Nickel as Ni (ng/m<sup>3</sup>): 10





**Table No.: 1.4 - Ambient Air Quality Monitoring Results At Container Terminal:-**

Date of Sampling	Location-4: Container Terminal (N 21° 05.187'E 72° 37.774)											
	PM <sub>10</sub>	PM <sub>2.5</sub>	Pb	BaP	As	Ni	CO	C <sub>6</sub> H <sub>6</sub>	NH <sub>3</sub>	SO <sub>2</sub>	NO <sub>x</sub>	O <sub>3</sub>
	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	ng/m <sup>3</sup>	ng/m <sup>3</sup>	ng/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>
03-04-2017	56.91	34.40	BDL*	BDL*	BDL*	BDL*	0.32	BDL*	18.52	16.66	26.29	23.44
06-04-2017	60.50	25.39	BDL*	BDL*	BDL*	BDL*	0.68	BDL*	10.63	5.68	13.76	25.63
10-04-2017	71.80	39.37	BDL*	BDL*	BDL*	BDL*	0.18	BDL*	13.36	15.47	29.36	18.32
13-04-2017	50.32	21.55	BDL*	BDL*	BDL*	BDL*	0.66	BDL*	29.15	8.74	15.86	22.46
17-04-2017	63.32	35.64	BDL*	BDL*	BDL*	BDL*	0.52	BDL*	24.29	10.45	23.68	28.50
20-04-2017	58.38	28.60	BDL*	BDL*	BDL*	BDL*	0.45	BDL*	15.49	14.47	32.45	21.96
24-04-2017	76.39	37.46	BDL*	BDL*	BDL*	BDL*	0.60	BDL*	33.40	7.55	18.90	26.69
27-04-2017	48.58	24.45	BDL*	BDL*	BDL*	BDL*	0.22	BDL*	20.95	17.53	25.34	19.11
01-05-2017	55.61	29.43	BDL*	BDL*	BDL*	BDL*	0.26	BDL*	23.38	12.47	28.60	27.52
04-05-2017	68.82	33.71	BDL*	BDL*	BDL*	BDL*	0.19	BDL*	19.43	17.59	32.41	20.39
08-05-2017	59.38	25.70	BDL*	BDL*	BDL*	BDL*	0.65	BDL*	27.63	11.50	26.64	22.70
11-05-2017	46.29	22.38	BDL*	BDL*	BDL*	BDL*	0.23	BDL*	22.77	18.68	35.25	26.54
15-05-2017	66.52	34.40	BDL*	BDL*	BDL*	BDL*	0.62	BDL*	37.65	9.57	20.45	21.59
18-05-2017	75.58	39.37	BDL*	BDL*	BDL*	BDL*	0.41	BDL*	17.61	15.60	36.33	24.59
22-05-2017	48.18	15.40	BDL*	BDL*	BDL*	BDL*	0.69	BDL*	29.45	19.36	17.57	30.61
25-05-2017	52.70	28.60	BDL*	BDL*	BDL*	BDL*	0.34	BDL*	15.49	7.40	29.15	25.66
29-05-2017	74.56	38.55	BDL*	BDL*	BDL*	BDL*	0.72	BDL*	11.23	14.49	15.34	29.47
01-06-2017	63.20	28.18	BDL*	BDL*	BDL*	BDL*	0.55	BDL*	35.51	10.42	24.49	24.19
05-06-2017	59.54	30.38	BDL*	BDL*	BDL*	BDL*	0.21	BDL*	28.65	16.65	38.41	22.91
08-06-2017	48.54	26.53	BDL*	BDL*	BDL*	BDL*	0.23	BDL*	10.15	18.75	39.60	29.15
12-06-2017	73.40	42.69	BDL*	BDL*	BDL*	BDL*	0.17	BDL*	45.06	11.68	29.42	18.28
15-06-2017	68.43	24.45	0.66	BDL*	BDL*	BDL*	0.30	BDL*	32.52	8.72	25.53	30.33
19-06-2017	51.17	35.64	BDL*	BDL*	BDL*	BDL*	0.62	BDL*	24.77	17.70	16.65	27.88
22-06-2017	62.29	31.63	BDL*	BDL*	BDL*	BDL*	0.31	BDL*	16.71	13.61	31.41	25.83
26-06-2017	72.08	34.40	BDL*	BDL*	BDL*	BDL*	0.37	BDL*	19.10	9.66	33.75	20.59
29-06-2017	46.50	21.55	BDL*	BDL*	BDL*	BDL*	0.60	BDL*	13.13	5.68	17.22	23.54
03-07-2017	41.49	15.75	BDL*	BDL*	BDL*	BDL*	0.11	BDL*	10.42	5.35	16.63	26.70
06-07-2017	58.32	34.55	BDL*	BDL*	BDL*	BDL*	0.50	BDL*	34.64	11.40	26.39	24.54
10-07-2017	75.61	41.45	BDL*	BDL*	BDL*	BDL*	0.15	BDL*	43.53	15.40	31.49	18.97
13-07-2017	55.19	31.50	BDL*	BDL*	BDL*	BDL*	0.39	BDL*	32.49	19.36	40.15	27.10



17-07-2017	69.48	38.55	BDL*	BDL*	BDL*	BDL*	0.32	BDL*	42.61	10.43	34.18	20.91
20-07-2017	72.18	29.43	BDL*	BDL*	BDL*	BDL*	0.33	BDL*	19.31	9.61	25.63	17.84
24-07-2017	50.20	20.39	BDL*	BDL*	BDL*	BDL*	0.25	BDL*	26.67	18.55	44.48	28.37
27-07-2017	44.61	21.55	BDL*	BDL*	BDL*	BDL*	0.52	BDL*	29.73	12.51	18.85	22.57
31-07-2017	53.42	18.65	BDL*	BDL*	BDL*	BDL*	0.26	BDL*	15.63	19.56	33.71	25.67
03-08-2017	43.60	21.55	BDL*	BDL*	BDL*	BDL*	0.23	BDL*	11.15	16.31	27.53	22.48
07-08-2017	69.61	41.62	BDL*	BDL*	BDL*	BDL*	0.37	BDL*	49.40	14.68	23.54	29.55
10-08-2017	47.40	33.57	BDL*	BDL*	BDL*	BDL*	0.72	BDL*	39.46	10.56	20.37	25.81
14-08-2017	49.62	29.43	BDL*	BDL*	BDL*	BDL*	0.56	BDL*	35.85	17.39	34.47	30.35
17-08-2017	65.52	22.38	BDL*	BDL*	BDL*	BDL*	0.27	BDL*	44.58	9.69	29.42	27.37
21-08-2017	57.60	25.70	BDL*	BDL*	BDL*	BDL*	0.16	BDL*	18.38	5.47	26.30	24.50
24-08-2017	63.31	35.38	BDL*	BDL*	BDL*	BDL*	0.39	BDL*	17.17	19.38	28.70	21.69
28-08-2017	33.39	15.34	BDL*	BDL*	BDL*	BDL*	0.11	BDL*	13.56	8.43	24.46	18.31
31-08-2017	44.81	19.48	BDL*	BDL*	BDL*	BDL*	0.38	BDL*	28.92	11.76	37.47	20.90
04-09-2017	56.22	24.45	BDL*	BDL*	BDL*	BDL*	0.60	BDL*	14.51	18.35	30.55	29.88
07-09-2017	79.31	39.54	BDL*	BDL*	BDL*	BDL*	0.17	BDL*	35.54	10.64	35.40	21.43
11-09-2017	65.60	42.69	BDL*	BDL*	BDL*	BDL*	0.52	BDL*	25.47	12.63	22.55	23.42
14-09-2017	45.52	26.53	BDL*	BDL*	BDL*	BDL*	0.81	BDL*	29.61	15.51	41.49	25.51
18-09-2017	52.59	25.70	BDL*	BDL*	BDL*	BDL*	0.22	BDL*	15.10	6.58	18.60	30.52
21-09-2017	32.32	18.65	BDL*	BDL*	BDL*	BDL*	0.27	BDL*	13.62	13.74	21.20	15.28
25-09-2017	46.37	21.64	BDL*	BDL*	BDL*	BDL*	0.87	BDL*	31.69	20.58	39.27	26.73
28-09-2017	50.20	23.62	BDL*	BDL*	BDL*	BDL*	0.42	BDL*	38.50	11.43	33.44	24.59

**Observation:** Above given Result are within the norms Specified Limit as per CPCB Notification NoB-29016/20/90/PCI-I dt: 18/11/2009 National Ambient Air Quality Standards, New Delhi , for 24 hourly or 8 hourly or 1 hourly monitored values

BDL\*:- Below Detection Limit: Ozone as O<sub>3</sub> (µg/m<sup>3</sup>): 10  
 BDL\*:- Below Detection Limit - Lead as Pb (µg/m<sup>3</sup>): 0.5  
 BDL\*:- Below Detection Limit - Carbon Monoxide as CO (mg/m<sup>3</sup>): 0.01  
 BDL\*:- Below Detection Limit - Ammonia NH<sub>3</sub> (µg/m<sup>3</sup>): 10  
 BDL\*:- Below Detection Limit - Benzene as C<sub>6</sub>H<sub>6</sub> (µg/m<sup>3</sup>): 2  
 BDL\*:- Below Detection Limit - Benzo (a) Pyrene (BaP) - Particulate Phase only (ng/m<sup>3</sup>): 0.5  
 BDL\*:- Below Detection Limit - Arsenic as As (ng/m<sup>3</sup>): 2  
 BDL\*:- Below Detection Limit - Nickel as Ni (ng/m<sup>3</sup>): 10




● FSSAI Approved Lab ● Recognised by MoEF, New Delhi Under Sec. 12 of Environmental (Protection) Act-1986

● GPCB approved schedule II auditor

● ISO 14001

● OHSAS 18001

● ISO 9001

**Authorized Signatory**

Page 8 of 32

"Pollucon House", Plot No. 5 & 6, Opp. Balaji Industrial Society, Old Shantinath Silk Mill Lane, Near Gaytri Farsan Mart, Navjivan Circle, Udhana Magdalla Road, Surat-395007, Gujarat, India.

Phone : 0261-2635750, 0261-2635751, 0261-2635775, 07016605174, WEB: www.polluconlab.com, E. mail: pollucon@gmail.com, info@polluconlab.com





**Table No.: 1.5 - Ambient Air Quality Monitoring Results At Hazira Village:-**

Date of Sampling	Location-5: Hazira Village (N 21° 05.44' E 72° 38.44')											
	PM <sub>10</sub>	PM <sub>2.5</sub>	Pb	BaP	As	Ni	CO	C <sub>6</sub> H <sub>6</sub>	NH <sub>3</sub>	SO <sub>2</sub>	NO <sub>x</sub>	O <sub>3</sub>
	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	ng/m <sup>3</sup>	ng/m <sup>3</sup>	ng/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>
03-04-2017	74.82	32.68	BDL*	BDL*	BDL*	BDL*	0.57	BDL*	30.19	21.45	34.56	25.82
06-04-2017	92.61	41.47	BDL*	BDL*	BDL*	BDL*	0.62	BDL*	15.55	7.54	21.50	22.37
10-04-2017	83.62	49.43	0.68	BDL*	2.68	10.33	0.53	BDL*	36.29	18.40	37.55	26.42
13-04-2017	71.60	34.35	BDL*	BDL*	BDL*	BDL*	0.87	BDL*	42.70	13.61	40.16	19.15
17-04-2017	88.22	48.60	0.84	BDL*	2.82	10.56	0.41	BDL*	53.37	19.45	29.35	21.42
20-04-2017	94.22	55.72	0.76	BDL*	2.36	BDL*	0.78	BDL*	39.34	22.54	42.73	29.27
24-04-2017	80.28	33.51	BDL*	BDL*	BDL*	10.30	0.88	BDL*	23.48	17.68	26.30	20.23
27-04-2017	72.10	36.45	BDL*	BDL*	BDL*	BDL*	0.49	BDL*	46.05	15.41	31.22	30.53
01-05-2017	60.67	25.55	BDL*	BDL*	BDL*	BDL*	0.92	BDL*	40.26	10.46	40.25	21.64
04-05-2017	76.73	44.41	0.61	BDL*	2.36	10.50	0.71	BDL*	46.36	19.44	43.59	29.64
08-05-2017	80.19	42.73	BDL*	BDL*	2.45	10.78	0.37	BDL*	60.39	26.51	35.63	27.23
11-05-2017	65.37	31.42	BDL*	BDL*	BDL*	BDL*	0.56	BDL*	52.76	17.51	33.44	26.51
15-05-2017	77.89	29.33	BDL*	BDL*	BDL*	BDL*	0.96	BDL*	26.53	20.48	30.15	19.50
18-05-2017	88.78	36.45	0.76	BDL*	2.08	10.33	0.66	BDL*	43.31	25.65	45.55	28.47
22-05-2017	69.22	27.65	BDL*	BDL*	BDL*	BDL*	0.90	BDL*	35.38	15.41	31.57	22.55
25-05-2017	71.82	33.51	BDL*	BDL*	BDL*	BDL*	0.61	BDL*	48.49	22.43	37.48	18.23
29-05-2017	89.63	45.66	0.84	BDL*	2.18	BDL*	0.63	BDL*	19.52	8.79	23.49	25.67
01-06-2017	84.18	47.34	0.62	BDL*	2.24	10.61	0.33	BDL*	52.45	23.62	33.19	26.41
05-06-2017	72.61	35.61	BDL*	BDL*	BDL*	BDL*	0.52	BDL*	45.56	17.58	30.55	28.90
08-06-2017	62.19	30.58	BDL*	BDL*	BDL*	BDL*	0.80	BDL*	17.68	9.64	20.83	19.36
12-06-2017	86.31	48.60	0.56	BDL*	2.15	10.22	0.63	BDL*	68.64	25.35	23.77	21.92
15-06-2017	93.61	51.53	0.75	BDL*	2.86	11.01	0.89	BDL*	23.68	16.72	27.65	17.56
19-06-2017	76.80	42.73	BDL*	BDL*	BDL*	BDL*	0.74	BDL*	33.27	26.59	39.55	20.21
22-06-2017	82.77	45.66	BDL*	BDL*	BDL*	BDL*	0.50	BDL*	38.06	22.53	36.80	29.53
26-06-2017	58.60	32.68	BDL*	BDL*	BDL*	BDL*	0.32	BDL*	18.28	13.69	16.39	25.50
29-06-2017	65.62	25.55	BDL*	BDL*	BDL*	BDL*	0.40	BDL*	15.29	11.49	24.25	27.63
03-07-2017	52.73	21.37	BDL*	BDL*	BDL*	BDL*	0.23	BDL*	29.28	14.74	29.66	24.60
06-07-2017	69.10	41.47	BDL*	BDL*	BDL*	BDL*	0.33	BDL*	49.63	27.42	33.79	26.20
10-07-2017	89.22	38.54	0.56	BDL*	2.24	10.22	0.58	BDL*	59.18	20.74	24.42	20.72
13-07-2017	78.82	27.65	0.78	BDL*	2.76	10.58	0.47	BDL*	39.15	23.55	32.49	29.46





17-07-2017	83.59	45.66	0.66	BDL*	BDL*	BDL*	0.29	BDL*	63.50	19.48	17.66	23.65
20-07-2017	48.18	15.50	BDL*	BDL*	BDL*	BDL*	0.24	BDL*	21.58	11.38	28.60	27.36
24-07-2017	66.41	28.49	BDL*	BDL*	BDL*	BDL*	0.82	BDL*	31.44	25.50	41.48	19.76
27-07-2017	56.51	23.46	BDL*	BDL*	BDL*	BDL*	0.13	BDL*	20.65	16.59	25.65	30.48
31-07-2017	70.28	32.68	BDL*	BDL*	BDL*	BDL*	0.46	BDL*	33.91	17.65	39.55	22.38
03-08-2017	62.58	27.65	BDL*	BDL*	BDL*	BDL*	0.82	BDL*	32.72	19.47	20.29	29.41
07-08-2017	50.41	37.70	BDL*	BDL*	BDL*	BDL*	0.71	BDL*	66.34	18.57	41.18	25.30
10-08-2017	59.78	40.64	BDL*	BDL*	BDL*	BDL*	0.50	BDL*	56.35	24.64	37.20	23.31
14-08-2017	76.60	45.66	0.54	BDL*	2.46	10.85	0.25	BDL*	48.17	21.67	28.14	19.70
17-08-2017	87.40	48.60	0.84	BDL*	2.24	10.52	0.78	BDL*	30.29	13.59	22.54	24.27
21-08-2017	67.39	31.42	BDL*	BDL*	BDL*	BDL*	0.32	BDL*	25.45	9.35	30.43	28.41
24-08-2017	78.39	42.73	BDL*	BDL*	BDL*	BDL*	0.66	BDL*	37.56	16.54	33.21	30.90
28-08-2017	55.59	25.55	BDL*	BDL*	BDL*	BDL*	0.17	BDL*	21.21	12.42	21.17	26.38
31-08-2017	60.39	30.58	BDL*	BDL*	BDL*	BDL*	0.94	BDL*	35.14	23.39	35.58	21.52
04-09-2017	69.27	33.51	BDL*	BDL*	BDL*	BDL*	1.02	BDL*	30.67	25.66	37.82	20.50
07-09-2017	86.68	45.66	0.65	BDL*	2.46	10.78	0.26	BDL*	46.46	14.40	23.34	19.42
11-09-2017	72.40	48.60	BDL*	BDL*	BDL*	BDL*	0.77	BDL*	27.40	23.54	40.33	29.67
14-09-2017	82.37	40.64	0.71	BDL*	2.55	10.88	0.98	BDL*	22.63	26.37	38.44	26.46
18-09-2017	60.21	30.58	BDL*	BDL*	BDL*	BDL*	0.47	BDL*	25.31	10.69	30.40	17.91
21-09-2017	54.50	27.65	BDL*	BDL*	BDL*	BDL*	0.37	BDL*	20.55	7.62	18.55	23.55
25-09-2017	62.11	32.68	BDL*	BDL*	BDL*	BDL*	0.39	BDL*	44.67	22.37	31.18	27.34
28-09-2017	76.29	36.45	0.58	BDL*	2.74	10.96	0.58	BDL*	26.80	13.49	28.34	21.27

**Observation:** Above given Result are within the norms Specified Limit as per CPCB Notification No.B-29016/20/90/PCI-I dt: 18/11/2009 National Ambient Air Quality Standards, New Delhi , for 24 hourly or 8 hourly or 1 hourly monitored values,

BDL\*: - Below Detection Limit: Ozone as  $O_3$  ( $\mu g/m^3$ ): 10  
BDL\*: - Below Detection Limit - Lead as Pb ( $\mu g/m^3$ ): 0.5  
BDL\*: - Below Detection Limit - Carbon Monoxide as CO ( $mg/m^3$ ): 0.01  
BDL\*: - Below Detection Limit - Ammonia  $NH_3$  ( $\mu g/m^3$ ): 10  
BDL\*: - Below Detection Limit - Benzene as  $C_6H_6$  ( $\mu g/m^3$ ): 2  
BDL\*: - Below Detection Limit - Benzo (a) Pyrene (BaP) - Particulate Phase only ( $ng/m^3$ ): 0.5  
BDL\*: - Below Detection Limit - Arsenic as As ( $ng/m^3$ ): 2  
BDL\*: - Below Detection Limit - Nickel as Ni ( $ng/m^3$ ): 10



● FSSAI Approved Lab

● Recognised by MoEF, New Delhi Under  
Sec. 12 of Environmental (Protection) Act-1986

● GPCB approved  
schedule II auditor

● ISO 14001

● OHSAS 18001

● ISO 9001

**Authorized Signatory**

Page 10 of 32

"Pollucon House", Plot No. 5 & 6, Opp.Balaji Industrial Society, Old Shantinath Silk Mill Lane, Near Gaytri Farsan Mart,  
Navjivan Circle,Udhana Magdalla Road, Surat-395007, Gujarat, India.

Phone : 0261-2635750, 0261-2635751, 0261-2635775, 07016605174, WEB: www.polluconlab.com, E. mail: pollucon@gmail.com, info@polluconlab.com

**ANNEXURE-4B:****GROUND WATER QUALITY MONITORING RESULTS****PERIOD: APRIL, 2017 TO SEPTEMBER, 2017**



## 2.0 GROUND WATER QUALITY MONITORING:-

**Table No.: 2.1 - Ground Water Quality Analysis Results for the period: April 2017 to September 2017:-**

Sr. NO.	TEST PARAMETERS	UNIT	GROUND WATER OPEN WELL (HAZIRA VILLAGE)					
			APR-17	MAY-17	JUN-17	JUL-17	AUG-17	SEPT-17
			20/04/17	18/05/17	05/06/17	31/07/17	29/08/17	28/09/17
1	Colour	Hazen	< 1.0	< 1.0	2.0	<1.0	2.0	1.0
2	Odour	--	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	Taste	--	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Turbidity	NTU	0.67	0.39	0.77	0.06	0.2	0.28
5	pH Value	--	8.03	7.71	7.76	7.81	7.77	7.52
6	Total Hardness as CaCO <sub>3</sub>	mg/L	526	350	406	358	240	198
7	Iron as Fe	mg/L	0.017	0.029	0.027	0.026	0.056	0.094
8	Chloride as Cl	mg/L	162	86.97	87.08	67.9	46.98	40.9
9	Residual Free Chlorine	mg/L	< 0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10	Fluoride as F	mg/L	0.63	0.03	0.61	0.09	0.12	0.4
11	Total Dissolved Solids	mg/L	810	640	704	684	496	418
12	Calcium as Ca	mg/L	26.4	74.4	99.24	81.6	134	48
13	Magnesium as Mg	mg/L	50.5	39.36	40.9	36.94	25.44	18.72
14	Copper as Cu	mg/L	0.022	0.024	0.019	0.017	0.012	0.016
15	Manganese as Mn	mg/L	0.013	BDL*	0.022	BDL*	BDL*	BDL*
16	Sulphate as SO <sub>4</sub>	mg/L	45.36	28.2	38.4	18.2	20.6	16.2
17	Nitrate Nitrogen as NO <sub>3</sub>	mg/L	0.23	BDL*	0.41	0.16	0.14	0.1
18	Phenolic compounds as C <sub>6</sub> H <sub>5</sub> OH	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
19	Mercury as Hg	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
20	Cadmium as Cd	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
21	Selenium as Se	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
22	Arsenic as As	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
23	Cyanide as CN	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
24	Lead as Pb	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
25	Zinc as Zn	mg/L	0.019	0.037	0.033	0.024	0.032	0.022
26	Anionic Detergents as MBAS	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
27	Chromium as Cr <sup>+6</sup>	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
28	Mineral Oil	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
29	Alkalinity	mg/L	420	408	340	380	284	252
30	Aluminum as Al	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
31	Boron as B	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32	<b>Pesticides</b>							
32.1	Alachor	µg/l	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.2	Atrazine	µg/l	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.3	Aldrin/Dieldrine	µg/l	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.4	Alpha HCH	µg/l	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.5	Beta HCH	µg/l	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.6	Butachlor	µg/l	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.7	Chlorpyrifos	µg/l	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*



Sr. NO.	TEST PARAMETERS	UNIT	GROUND WATER OPEN WELL (HAZIRA VILLAGE)					
			APR-17	MAY-17	JUN-17	JUL-17	AUG-17	SEPT-17
			20/04/17	18/05/17	05/06/17	31/07/17	29/08/17	28/09/17
32.8	Delta HCH	µg/l	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.9	2,4- Dichlorophenoxy acetic acid	µg/l	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.10	DDT (o,p & p,p-Isomers of DDT, DDE & DDD	µg/l	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.11	Endosulfan (alpha, beta, and sulphate)	µg/l	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.12	Ethion	µg/l	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.13	Gamma – HCH (Lindane)	µg/l	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.14	Isoproturon	µg/l	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.15	Malathion	µg/l	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.16	Methyl Parathion	µg/l	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.17	Monocrotophos	µg/l	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.18	Phorate	µg/l	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
33	Coliform	/100 ml	Absent	Absent	Absent	Absent	Absent	Absent
34	E-Coli	/100 ml	Absent	Absent	Absent	Absent	Absent	Absent

\*Below detection limit.

**Observation:** From the above results it is concluded that there is No Significant Changes in the Quality of Ground Water.



● FSSAI Approved Lab ● Recognised by MoEF, New Delhi Under Sec. 12 of Environmental (Protection) Act-1986

**Authorized Signatory**

● GPCB approved schedule II auditor

● ISO 14001 ● OHSAS 18001 ● ISO 9001

Page 12 of 32

"Pollucon House", Plot No. 5 & 6, Opp. Balaji Industrial Society, Old Shantinath Silk Mill Lane, Near Gaytri Farsan Mart, Navjivan Circle, Udhana Magdalla Road, Surat-395007, Gujarat, India.

Phone : 0261-2635750, 0261-2635751, 0261-2635775, 07016605174, WEB: www.polluconlab.com, E. mail: pollucon@gmail.com, info@polluconlab.com



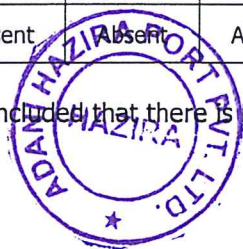
**ANNEXURE-4C:****SURFACE WATER QUALITY MONITORING RESULTS****PERIOD: APRIL, 2017 TO SEPTEMBER, 2017**

### 3.0 SURFACE WATER QUALITY MONITORING:-

**Table No.: 3.1 - Surface Water (Pond) Quality Analysis Results for the period: April 2017 to September 2017**

Sr. No.	Parameters	Unit	At Mora Village (Surface Water – Pond)					
			APR-17	MAY-17	JUN-17	JUL-17	AUG-17	SEPT-17
			20-04-17	18-05-17	05-06-17	31-07-17	29-08-17	28-09-17
1	Odour	--	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
2	Colour	Hazen	2	< 1.0	3	4	2	10
3	Taste	--	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	pH Value	--	7.96	7.77	8.11	8.42	7.76	7.9
5	Turbidity	NTU	2.14	1.92	1.73	0.94	4.14	4.96
6	Total Dissolved Solids	mg/L	670	882	674	488	960	840
7	Total Hardness as CaCO <sub>3</sub>	mg/L	436	188	184	212	236	202
8	Chloride as Cl	mg/L	168	176	148	51.99	212	199
9	Fluoride as F	mg/L	0.73	0.62	0.59	0.83	0.48	0.3
10	Iron as Fe	mg/L	0.017	0.19	0.091	0.27	0.22	0.24
11	Coliform	/100 ml	Absent	Absent	Absent	Present	Present	Present
12	E-Coli	/100 ml	Absent	Absent	Absent	Absent	Absent	Absent

**Observation:** From the above results it is concluded that there is No Significant Changes in the Quality of Surface Water.





**ANNEXURE-4D:****DRINKING WATER QUALITY MONITORING RESULTS****PERIOD: APRIL, 2017 TO SEPTEMBER, 2017**

#### 4.0 DRINKING WATER QUALITY MONITORING:-

**Table No.: 4.1 - Drinking Water Quality Analysis Results for the period: April 2017 to September 2017:-**

SR. NO.	PARAMETERS	UNIT	APR-17	MAY-17	JUN-17	JUL-17	AUG-17	SEPT-17
			20-04-17	18-05-17	05-06-17	31-07-17	29-08-17	28-09-17
1	Colour	Hazen	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	1.0
2	Odour	--	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	Taste	--	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Turbidity	NTU	0.18	0.22	0.36	0.01	0.17	0.11
5	pH Value	--	7.55	8.1	7.52	8.02	7.9	7.35
6	Total Hardness as CaCO <sub>3</sub>	mg/L	16	17	12	15	22	30
7	Iron as Fe	mg/L	0.011	0.013	0.021	0.015	0.023	0.018
8	Chloride as Cl	mg/L	20.44	48.18	19.22	42.9	77.97	60.9
9	Residual Chlorine Free	mg/L	<0.1	< 0.1	< 0.1	< 0.1	<0.1	<0.1
10	Fluoride as F	mg/L	0.03	BDL*	0.058	0.032	0.041	0.024
11	Total Dissolved Solids	mg/L	52	129	48	112	156	148
12	Calcium as Ca	mg/L	3.84	2.00	4.02	3.00	3.6	4.00
13	Magnesium as Mg	mg/L	1.54	2.88	1.63	2.4	3.12	4.8
14	Copper as Cu	mg/L	0.012	0.031	0.024	0.014	0.018	0.01
15	Manganese as Mn	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
16	Sulphate as SO <sub>4</sub>	mg/L	5.28	8.24	4.72	3.4	17.94	10.6
17	Nitrate Nitrogen as NO <sub>3</sub>	mg/L	BDL*	BDL*	0.17	0.12	0.09	1.2
18	Phenolic compounds as C <sub>6</sub> H <sub>5</sub> OH	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
19	Mercury as Hg	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
20	Cadmium as Cd	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
21	Selenium as Se	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
22	Arsenic as As	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
23	Cyanide as CN	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
24	Lead as Pb	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
25	Zinc as Zn	mg/L	BDL*	0.022	0.011	0.012	0.02	0.015
26	Anionic Detergents as MBAS	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
27	Chromium as Cr <sup>+6</sup>	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
28	Mineral Oil	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*





29	Alkalinity	mg/L	41.8	31	24	40	60	48
30	Aluminum as Al	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
31	Boron as B	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32	<b>Pesticide</b>							
32.1	Alachor	µg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.2	Atrazine	µg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.3	Aldrin/Dieldrine	µg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.4	Alpha HCH	µg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.5	Beta HCH	µg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.6	Butachlor	µg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.7	Chlorpyrifos	µg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.8	Delta HCH	µg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.9	2,4-Dichlorophenoxy acetic acid	µg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.10	DDT (o,p & p,p- Isomers of DDT, DDE & DDD	µg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.11	Endosulfan (alpha, beta, and sulphate)	µg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.12	Ethion	µg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.13	Gamma - HCH (Lindane)	µg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.14	Isoproturon	µg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.15	Malathion	µg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.16	Methyl Parathion	µg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.17	Monocrotophos	µg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.18	Phorate	µg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
<b>Microbiological Parameters</b>								
33	Coliform	/100 ml	Absent	Absent	Absent	Absent	Absent	Absent
34	E-Coli	/100 ml	Absent	Absent	Absent	Absent	Absent	Absent

BDL\*: Below Detection Limit, Minimum Detection Limit, Iron as Fe:0.1 mg/L Nitrate Nitrogen as NO<sub>3</sub>:0.15 mg/L, Phenolic compounds as C<sub>6</sub>H<sub>5</sub>OH: 0.001 mg/L, Mercury as Hg: 0.00025 mg/L, Selenium as Se: 0.002 mg/L, Arsenic as As: 0.00015 mg/L, Cyanide as CN: 0.0001 mg/L, Anionic Detergents as MBAS: 0.06 mg/L, Chromium as Cr<sup>+6</sup>: 0.02 mg/L, Mineral Oil: 1.0 mg/L, Aluminum as Al: 0.03 mg/L, Cadmium as Cd:0.001 mg/L.

**Observation :** From the above results it is concluded that there is No Significant Changes in the Quality of Drinking Water.



**ANNEXURE-4E:****SEA WATER QUALITY MONITORING RESULTS****PERIOD: APRIL, 2017 TO SEPTEMBER, 2017**



## 5.0 SEA WATER QUALITY MONITORING:-

**Table No.: 5.1 - Sea Water Quality Analysis Results of CB2 South End towards Landside from the Sea Basin for the period: April 2017 to September 2017:-**

S. NO.	TEST PARAMETERS	UNIT	RESULTS OF SEA WATER QUALITY ANALYSIS											
			CB2 SOUTH END TOWARDS LANDSIDE FROM SEA BASIN(N 21° 5'1.92", E 72°37'56.58")											
			APR-17		MAY-17		JUN-17		JUL-17		AUG-17		SEPT-17	
			Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
1	pH	--	8.02	8.18	7.81	8.08	7.93	7.75	7.63	7.87	7.89	8.02	7.64	7.80
2	Temperature	°C	30	30	30	29	28	29	28	29	28	29	29	30
3	Total Suspended Solids	mg/L	340	410	274	324	240	330	260	326	280	360	258	318
4	BOD (3 Days @ 27 °C)	mg/L	BDL*	BDL*	7	3	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
5	Dissolved Oxygen	mg/L	5.16	4.62	5.40	4.40	5.60	4.40	5.80	4.60	5.20	4.60	5.80	4.60
6	Salinity	ppt	34.84	35.24	37.80	38.40	35.20	36.30	36.20	36.90	35.63	36.71	36.24	36.98
7	Oil & Grease	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
8	Nitrate as NO <sub>3</sub>	μmole /L	0.05	0.06	0.09	0.06	0.06	0.08	0.05	0.06	0.05	0.08	0.05	0.06
9	Nitrite as NO <sub>2</sub>	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
10	Ammonical Nitrogenas NH <sub>3</sub>	mg/L	2.61	3.86	2.24	3.68	2.60	4.80	2.02	3.86	2.10	3.72	2.04	3.88
11	Phosphates as PO <sub>4</sub>	mg/L	0.34	0.37	1.16	1.74	0.42	0.45	0.36	0.42	0.65	0.70	0.54	0.41
12	Total Nitrogen	mg/L	2.66	3.92	2.33	3.74	2.66	4.88	2.07	3.92	2.15	3.80	2.09	3.94
13	Petroleum Hydrocarbon	μg/L	10.80	BDL*	11.20	BDL*	10.00	BDL*	10.60	BDL*	10.20	BDL*	13.60	BDL*
14	Total Dissolved Solids	mg/L	42240	42680	42180	43920	31464	32894	42830	43218	38240	39960	43020	43810
15	COD	mg/L	23	21	26	18	32	30	28	24	26	16	22	16
16	Oxidisable Particular Organic Carbon	%	1.34	0.62	0.96	0.64	0.80	0.30	1.33	0.66	0.57	0.74	0.68	0.81
17	Turbidity	NTU	15.40	14.10	14.80	26.00	24.00	16.30	18.10	22.60	14.00	18.40	19.00	16.00
A Flora and Fauna														
17.1	Primary Productivity	mgC/ L/day	1.47	0.44	1.89	0.33	1.91	0.64	2.58	0.67	1.76	0.55	2.40	1.80
B Phytoplankton														
18.1	Chlorophyll	mg/m <sub>3</sub>	2.930	0.930	1.175	0.241	1.762	0.828	2.610	0.480	1.700	0.632	1.340	0.670
18.2	Phaeophytin	mg/m <sub>3</sub>	BDL*	0.841	0.769	1.549	0.256	0.816	BDL*	BDL*	0.202	1.010	BDL*	1.700
18.3	Cell Count	Unit x 10 <sup>3</sup> /L	288	22	129	10	370	88	203	69	270	78	296	76
18.4	Name of Group Number and name of group species of each group	--	Bacillario phyceae Coscinodiscus sp. Asterionella sp. Gomphonema sp. Rhizosolenia sp. Cyanophyceae Oscillatoria sp. Spirulina sp. Green Algae Spirogyra sp. Pediastrum sp.	Bacillario phyceae Biddulphia sp. Navicula sp. Fragillaria sp. Cymbella sp. -- -- -- -- -- --	Bacillario phyceae Navicula sp. Gyrosigma sp. Biddulphia sp. Nitzschia sp. Pinnularia sp. Green Algae Chlorella sp. Scenedesmus sp. Spirogyra sp. Cyanophyceae	Green Algae Asterionella sp. Spirogyra sp. Gyrosigma sp. Synedra sp. -- -- -- -- -- --	Bacillario phyceae Fragillaria sp. Melosira sp. Synedra sp. Pinnularia sp. Skeletocema sp. Biddulphia sp. Asterionella sp. Gomphonema sp. Cyanophyceae Anabaena sp.	Bacillario phyceae Gomphonema sp. Biddulphia sp. Gyrosigma sp. Synedra sp. Pinnularia sp. Cyanophyceae Microcystis sp. Oscillatoria sp. Green Algae Chlorella sp. Pediastrum sp.	Bacillario phyceae gyrosigma sp. Pinnularia sp. Thalassiosira sp. Asterionella sp. Pleurosigma sp. Coscinodiscus sp. Asterionella sp. Biddulphia sp. Cyanophyceae Oscillatoria sp. Spirulina sp.	Bacillario phyceae Fragillaria sp. Melosira sp. -- -- -- -- -- -- -- -- --	Bacillario phyceae Gomphonema sp. Biddulphia sp. -- -- -- -- -- -- -- -- --	Bacillario phyceae Nitzschia sp. -- -- -- -- -- -- -- -- --	Bacillario phyceae Fragillaria sp.	





					Oscillatoria sp. Spirulina sp.		Oscillatoria sp. Green Algae Ankistrodesmus sp. Pandorina sp. Scenedesmus sp.	-- -- -- --	Green Algae Chlorella sp. Pandorina sp. Pediastrum sp. Ulothrix sp.					
<b>C Zooplanktons</b>														
19.1	Abundance (Population)	no/m <sup>2</sup>	210	30	188	52	220	60	375	125	320	370	190	280
19.2	Name of Group Number and name of group species of each group	--	Bivalves crabs Copepods	Gastropods Snail	Copepods Decapods Amphipods	Polychaete worms Fish egg	Chaetognaths Copepods Crustaceans Decapods Krill Cyclops	Ctenophora Ostracods Copepods	Nauplius larvae Cyclops Decapods Isopods	Decapods Rotifers Copepods Absent	Chaetognaths Copepods Crustaceans Decapods Krill	Ctenophora Ostracods Copepods	Polychaete worms Isopods Decapods	Nematodes Echinoderms
19.3	Total Biomass	ml/100 m <sup>3</sup>	112	1.10	145	2.34	82.60	4.70	--	--	300	110	317	50
<b>D Microbiological Parameters</b>														
20.1	Total Bacterial Count	CFU/ml	1980	1720	1840	1670	1650	1480	1340	1260	1680	1460	1310	1240
20.2	Total Coliform	/ml	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent
20.3	E.coli	/ml	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent
20.4	Enterococcus species	/ml	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent
20.5	Salmonella species	/ml	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent
20.6	Shigella species	/ml	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent
20.7	Vibrio species	/ml	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent

BDL\* - Below Detection Limit

**Observation:** From the above results it is concluded that there is No Significant Changes in the Quality of Sea Water.







S. NO.	TEST PARAMETERS	UNIT	RESULTS OF SEA WATER QUALITY ANALYSIS											
			MP1 WEST END TOWARDS CHANNEL FROM SEA BASIN (N 21° 5'9.78" ,E 72°37'24.48")											
			APR-17		MAY-17		JUN-17		JUL-17		AUG-17		SEPT-17	
			Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
1	pH	--	7.75	7.89	8.21	8.34	7.94	7.84	7.82	7.90	7.83	8.13	8.11	8.23
2	Temperature	°C	31	30	29	28	29	30	28.70	29.50	29	30	29	30
3	Total Suspended Solids	mg/L	310	322	420	470	250	300	690	710	270	320	242	326
4	BOD (3 Days @ 27 °C)	mg/L	BDL*	BDL*	6.00	4.00	BDL*	BDL*	7.00	5.00	BDL*	BDL*	BDL*	BDL*
5	Dissolved Oxygen	mg/L	5.40	4.60	5.60	4.80	5.20	4.60	4.80	4.40	5.00	4.40	5.40	4.20
6	Salinity	ppt	37.10	37.90	37.50	38.70	35.50	36.00	38.00	30.60	34.96	35.60	34.80	35.70
7	Oil & Grease	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
8	Nitrate as NO <sub>3</sub>	µmole /L	0.062	0.071	0.052	0.069	0.045	0.061	0.028	0.064	0.042	0.058	0.061	0.076
9	Nitrite as NO <sub>2</sub>	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
10	Ammonical Nitrogen as NH <sub>3</sub>	mg/L	0.740	0.980	0.301	0.614	1.700	4.000	2.700	2.900	2.300	3.200	5.060	3.240
11	Phosphates as PO <sub>4</sub>	mg/L	0.180	0.760	0.583	0.640	0.384	0.288	0.210	0.110	0.444	0.376	0.860	0.580
12	Total Nitrogen	mg/L	0.802	1.051	0.353	0.683	1.745	4.061	2.728	2.964	2.342	3.258	5.121	3.316
13	Petroleum Hydrocarbon	µg/L	10.20	BDL*	10.60	BDL*	11.00	BDL*	12.40	BDL*	14.00	BDL*	14.20	BDL*
14	Total Dissolved Solids	mg/L	43280	44526	44520	45110	30894	32547	41520	42170	35720	37340	33650	34750
15	COD	mg/L	25	15	22	16	24	20	19	18	22	14	19	14
16	Oxidisable Particular Organic Carbon	%	0.90	0.51	0.50	0.19	1.10	0.56	0.41	0.32	0.67	0.98	0.84	0.60
17	Turbidity	NTU	19.80	18.60	16.00	32.00	14.80	21.00	16.80	23.90	12.60	16.40	20.60	18.80
A	Flora and Fauna													
17.1	Primary Productivity	mgC/ L/day	1.75	0.22	1.24	0.56	2.02	1.46	2.10	1.90	1.56	0.15	2.47	0.45
B	Phytoplankton													
18.1	Chlorophyll	mg/m <sub>3</sub>	2.850	0.870	1.575	0.214	1.816	0.748	2.400	1.500	1.754	0.640	2.430	0.881
18.2	Phaeophytin	mg/m <sub>3</sub>	BDL*	1.880	0.088	1.581	0.446	0.729	1.100	1.300	0.110	1.140	0.206	1.960
18.3	Cell Count	Unit x 10 <sup>3</sup> /L	202	24	148	5	356	98	110	79	280	80	201	62
18.4	Name of Group Number and name of group species of each group	--	Bacillario phyceae Nitzschia sp. Synedra sp. Coscinodiscus sp. Asterionella sp. Thallasionema sp. Rhizosolenia sp. Pinnularia sp. Green Algae Scenedesmus sp. Pedicellina sp.	Bacillario phyceae Navicula sp. Fragillaria sp. Pinnularia sp. Nitzschia sp. Gyrodinium sp.	Bacillario phyceae Cyclotella sp. Navicula sp. Skeletonema sp. Synedra sp. Cymbella sp. Green Algae Spirogyra sp. Chlorella sp. Ankistrodesmus sp. Cyanophyceae Lyngbya	Bacillario phyceae Navicula sp. Chlorella sp. Cymbella sp. -- -- -- -- -- -- -- -- -- --	Bacillario phyceae Achnanthes sp. Scenedesmus sp. Asterionella sp. Biddulphia sp. Cocconeis sp. Gomphonema sp. Fragillaria sp. Pinnularia sp. Thallasiosira sp. Cyanophyceae Anabaena sp. Oscillatoria sp.	Bacillario phyceae Fragillaria sp. Pleurosigma sp. Pinnularia sp. Coscinodiscus sp. Cyanophyceae Microcystis sp. Oscillatoria sp. Spirulina sp. Anabaena sp. -- -- -- --	Amphora sp. Melosira sp. Navicula sp. Fragillaria sp. Rhizosolenia sp.	Bacillario phyceae Achnanthes sp. Scenedesmus sp. Asterionella sp. Biddulphia sp.	Bacillario phyceae Fragillaria sp. Pleurosigma sp. -- -- --	Bacillario phyceae Nitzschia sp. Fragillaria sp.	Bacillario phyceae Fragillaria sp. Navicula sp.	





					sp. Microcyst is sp.		Spirulina sp. Green Algae Chlorella sp Pandorin a sp.	-- --						
<b>C Zooplanktons</b>														
19.1	Abundance (Population)	no/m <sup>2</sup>	263	38	150	63	242	80	314	377	298	354	216	278
19.2	Name of Group Number and name of group species of each group	--	Echinoderms Gastropods Nematodes	Polychaete worms -- --	Chaetognaths Crustaceans Copepods Gastropods	Fiss egg Gastropods -- --	Copepods Decapods Crustaceans Ostracods Chaetognaths Krill	Copepods Gastropods Polychaete worms -- -- --	Copepods Decapods Isopods Gastropods	Copepods Ostracods -- --	Copepods Decapods Crustaceans Ostracods Chaetognaths --	Copepods Gastropods Polychaete worms -- -- --	Isopods Decapods Gastropods	Molluscs Foraminifera --
19.3	Total Biomass	ml/10 0 m <sup>3</sup>	99.6	1.54	158	2.37	92.5	7.89	--	--	250	40.0	217	33.0
<b>D Microbiological Parameters</b>														
20.1	Total Bacterial Count	CFU/ ml	1760	1550	1790	1530	1820	1490	1830	1420	1520	1350	1880	1640
20.2	Total Coliform	/ml	Absent	Absent	Absent	Absent	Absent	Absent	Present	Present	Absent	Absent	Absent	Absent
20.3	E.coli	/ml	Absent	Absent	Absent	Absent	Absent	Absent	Present	Present	Absent	Absent	Absent	Absent
20.4	Enterococcus species	/ml	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent
20.5	Salmonella species	/ml	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent
20.6	Shigella species	/ml	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent
20.7	Vibrio species	/ml	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent

BDL\* - Below Detection Limit

**Observation:** From the above results it is concluded that there is No Significant Changes in the Quality of Sea Water.







**Table No.: 5.3 - Sea Water Quality Analysis Results of CB1 End towards Channel from the Sea Basin for the period: April 2017 to September 2017:-**

S. NO.	TEST PARAMETERS	UNIT	RESULTS OF SEA WATER QUALITY ANALYSIS CB1 END TOWARDS CHANNEL FROM SEA BASIN (N 21° 5'14.67", E 72°37'40.14")											
			APR-17		MAY-17		JUN-17		JUL-17		AUG-17		SEPT-17	
			Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
1	pH	--	7.72	7.88	8.19	8.41	7.97	7.95	7.40	7.85	7.66	8.03	8.22	8.30
2	Temperature	°C	28	29	30	29	28	29	28	29	29	30	28	30
3	Total Suspended Solids	mg/L	246	332	314	346	328	370	580	630	280	520	360	480
4	BOD (3 Days @ 27 °C)	mg/L	6	BDL*	10	6	BDL*	BDL*	10	8.00	BDL*	BDL*	BDL*	BDL*
5	Dissolved Oxygen	mg/L	5.60	4.40	5.40	4.40	5.30	4.80	4.60	4.30	5.20	4.40	5.60	4.40
6	Salinity	ppt	36.80	37.20	38.60	39.40	35.30	36.40	27.80	28.10	34.76	36.52	33.28	34.30
7	Oil & Grease	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
8	Nitrate as NO <sub>3</sub>	µmole/L	0.044	0.062	0.027	0.033	0.091	0.100	0.048	0.052	0.088	0.074	0.06	0.08
9	Nitrite as NO <sub>2</sub>	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
10	Ammonical Nitrogen as NH <sub>3</sub>	mg/L	1.980	2.820	0.296	0.352	2.200	2.700	2.600	2.930	2.400	5.300	2.34	2.95
11	Phosphates as PO <sub>4</sub>	mg/L	0.740	0.830	0.112	0.116	0.391	0.432	0.220	0.240	0.590	0.680	0.56	0.75
12	Total Nitrogen	mg/L	2.024	2.882	0.323	0.385	2.291	2.800	2.648	2.982	2.488	5.374	2.40	3.03
13	Petroleum Hydrocarbon	µg/L	12.00	BDL*	10.20	BDL*	10.80	BDL*	15.28	12.80	13.20	BDL*	13.80	BDL*
14	Total Dissolved Solids	mg/L	43110	43560	48380	49520	31350	32262	41260	42890	34010	35010	41620	42530
15	COD	mg/L	23	17	24	14	26	22	30	26	18	12	20	15
16	Oxidisable Particular Organic Carbon	%	0.88	0.42	0.46	0.27	0.83	0.51	0.48	0.26	0.73	0.52	0.69	0.44
17	Turbidity	NTU	17.40	16.70	14.60	16.20	15.60	17.20	15.20	20.40	17.80	20.20	21.60	18.20
<b>A Flora and Fauna</b>														
17.1	Primary Productivity	mgC/L/day	2.29	0.78	1.60	0.79	2.13	0.56	1.50	1.10	1.86	0.43	1.57	0.23
<b>B Phytoplankton</b>														
18.1	Chlorophyll	mg/m <sup>3</sup>	2.510	0.561	1.736	0.587	1.255	0.854	1.900	1.600	1.380	0.440	1.760	0.107
18.2	Phaeophytin	mg/m <sup>3</sup>	BDL*	1.570	BDL*	1.095	1.007	1.200	1.000	0.800	0.902	1.130	0.817	2.472
18.3	Cell Count	Unit x 10 <sup>3</sup> /L	236	74	141	11	304	75	74	66	385	70	234	85
18.4	Name of Group Number and name of group species of each group	--	Bacillar iophyc eae Navicula sp. Nitzschia sp. Gyrosigma sp. Rhizosolenia sp. Skeletonema sp. Asterionella sp. Cymbella sp. Desmids Coscinodiscus	Bacillar iophyc eae Navicula sp. Nitzschia sp. Fragillaria sp. Pinnularia sp. Cymbella sp. Green Algae Chlorella sp. Cyanophyceae Oscillatoria sp. Anabaena sp.	Bacillar iophyc eae Fragillaria sp. Cyclotella sp. Rhizosolenia sp. Skeletonema sp. Green Algae Chlorella sp. Cyanophyceae Oscillatoria sp. Anabaena sp.	Bacillar iophyc eae Cyclotella sp. Rhizosolenia sp. Oscillatoria sp. Gyrosigma sp. Pinnularia sp. Skeletonema sp. Cyanophyceae Anabaena sp.	Bacillar iophyc eae Cheatoceus sp. Cocconeis sp. Fragillaria sp. Coscinodiscus sp. Gyrosigma sp. Pinnularia sp. Skeletonema sp. Cyanophyceae Ulothrix sp.	Bacillar iophyc eae Biddulphia sp. Cymbella sp. Fragillaria sp. Gomphonema sp. Pinnularia sp. Cyanophyceae Microcystis sp. Green Algae Ulothrix sp.	Asterionella sp. Rhizosolenia sp. Skeletonema sp.	Fragillaria sp. Melosira sp.	Bacillar iophyc eae Cheatoceus sp. Cocconeis sp.	Bacillar iophyc eae Biddulphia sp. Cymbella sp.	Bacillar iophyc eae Navicula sp. Skeletonema	Bacillar iophyc eae Fragillaria sp.







			rium sp. Closterium sp. Green Algae Ankistrodesmus sp. Volvox sp.		Nostoc sp.		na sp. Oscillatoria sp. Spirulina sp. Green Algae Ankistrodesmus sp. Chlorella sp. Scenedesmus sp.	Chlorella sp. -- -- -- -- --						
<b>C Zooplanktons</b>														
19.1	Abundance (Population)	no/m <sup>2</sup>	170	10	213	75	200	50	240	308	248	294	312	388
19.2	Name of Group Number and name of group species of each group	--	Decapods Molluscs Polychaete worms	Gastropods --	Foraminiferans Nematodes Copepods Crustaceans	Crustaceans Gastropods --	Copepods Gastropods Ctenophores Crustaceans Ostracods Cyclops	Decapods Crustaceans -- -- --	Gastropods Isopods Decapods	Copepods Amphipods Isopods	Copepods Gastropods	Decapods Crustaceans	Polychaete worms Gastropods	Nematodes --
19.3	Total Biomass	ml/100 m <sup>3</sup>	216	1.90	138	2.75	89	6.80	82.5	1.28	248	75.00	267	17.0
<b>D Microbiological Parameters</b>														
20.1	Total Bacterial Count	CFU/ml	1540	1500	1630	1510	1660	1450	2280	2160	1620	1380	1700	1430
20.2	Total Coliform	/ml	Absent	Absent	Absent	Absent	Absent	Absent	Present	Present	Absent	Absent	Absent	Absent
20.3	E.coli	/ml	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent
20.4	Enterococcus species	/ml	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent
20.5	Salmonella species	/ml	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent
20.6	Shigella species	/ml	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent
20.7	Vibrio species	/ml	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent

BDL\* - Below Detection Limit,

Minimum Detection Limit, BOD: 3.0 mg/L, Oil & Grease: 1.0mg/L, Petroleum Hydrocarbon: 10µg/L, Nitrite as NO<sub>2</sub>: 0.002 mg/L, Pheophytin: 0.1 mg/m<sup>3</sup>

**Observation:** From the above results it is concluded that there is No Significant Changes in the Quality of Sea Water.





**ANNEXURE-4F:****DUMP POND DISCHARGE WATER QUALITY MONITORING RESULTS****PERIOD: APRIL, 2017 TO SEPTEMBER, 2017**

**6.0 DUMP POND DISCHARGE WATER QUALITY MONITORING:-****Table No.: 6.1-Dump Pond Water Quality Monitoring Results for the Period: April 2017 to September 2017:-**

Sr. No.	Parameters	Unit	Apr-17	May-17	Aug-17
			Coal Yard	Coal Yard	Coal Yard
1	pH	--	8.53	8.85	8.35
2	Total Dissolved Solids	mg/L	6670	11025	1344
3	Total Suspended Solids	mg/L	72	126	84
4	Turbidity	NTU	6.6	3.18	152
5	BOD (3 Days @ 27 °C)	mg/L	22	14	32
6	Dissolved Oxygen	mg/L	4.8	5.2	5
7	COD	mg/L	88	60	122
8	Salinity	ppt	2.98	7.67	1.287
9	Oil & Grease	mg/L	BDL*	BDL*	1.2
10	Total Hardness as CaCO <sub>3</sub>	mg/L	4336	800	72
11	Fluoride as F	mg/L	BDL*	0.9	1.2
12	Chloride as Cl	mg/L	1650	4248	699
13	Zinc as Zn	mg/L	0.094	0.063	0.084
14	Cadmium as Cd	mg/L	BDL*	BDL*	BDL*
15	Lead as Pb	mg/L	0.054	BDL*	BDL*
16	Mercury as Hg	mg/L	BDL*	BDL*	BDL*

BDL\*: Below Detection Limit, Minimum Detection Limit, Mercury as Hg: 0.00025 mg/L, Oil & Grease: 1.0 mg/L, Cadmium as Cd: 0.001 mg/L, Lead as Pb: 0.005 mg/L, Fluoride: 0.01 mg/L.

**Observation:** From the above results it is concluded that there is No Significant Changes in the Quality of Dump Pond Discharge Water.

**Authorized Signatory**



**ANNEXURE-4G:****AMBIENT NOISE LEVEL MONITORING RESULTS****PERIOD: APRIL, 2017 TO SEPTEMBER, 2017**



## 7.0 AMBIENT NOISE LEVEL MONITORING:-

**Table No.: 7.1 - Ambient Noise Level Monitoring Results during the Day Time in Leq. dB(A) for the period: April 2017 to September 2017:-**

Sampling Location	1 - Near Port Gate No.: 2					
Longitude Latitude	N 21° 05.426'E 72°37.739'					
Date of Monitoring	03-04-17	01-05-17	01-06-17	03-07-17	04-08-17	04-09-17
6:00-7:00	51.3	55.6	54.1	58.4	53.2	56.8
7:00-8:00	56.7	68.5	61.2	63.2	60.3	62.4
8:00-9:00	52.9	54.6	56.2	51.3	50.4	49.5
9:00-10:00	74.0	70.5	71.1	68.1	72.6	69.3
10:00-11:00	67.4	64.3	58.6	55.1	66.2	61.5
11:00-12:00	60.2	66.8	67.1	57.4	69.3	71.7
12:00-13:00	58.1	60.2	66.3	70.5	59.4	65.7
13:00-14:00	70.9	58.5	68.3	69.4	65.6	57.8
14:00-15:00	48.4	51.2	49.8	53.5	54.6	46.5
15:00-16:00	66.7	69.8	64.2	67.6	62.2	68.9
16:00-17:00	65.4	53.1	59.7	64.9	63.6	66.8
17:00-18:00	62.4	59.3	57.4	61.2	56.5	60.3
18:00-19:00	61.3	62.8	60.7	71.2	57.6	70.5
19:00-20:00	68.6	71.1	69.8	66.5	55.9	67.8
20:00-21:00	57.7	63.1	62.6	65.7	58.7	64.9
21:00-22:00	59.4	67.1	65.1	62.3	61.7	63.4

#dB(A) Leq. denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.

Day Time shall mean from 6:00 am to 10:00 pm and Night Time shall mean from 10:00 pm to 06:00 am.

**Table No.: 7.2 - Ambient Noise Level Monitoring Results during the Night Time in Leq. dB(A) for the period: April 2017 to September 2017:-**

Sampling Location	1 - Near Port Gate No.: 2					
Longitude Latitude	N 21° 05.426'E 72°37.739'					
Date of Monitoring	03-04-17 & 04-04-17	01-05-17 & 02-05-17	01-06-17 & 02-06-17	03-07-17 & 04-07-17	04-08-17 & 05-08-17	04-09-17 & 05-09-17
22:00-23:00	57.0	64.2	60.4	61.5	66.3	62.5
23:00-00:00	59.1	54.3	51.4	60.7	62.6	52.9
00:00-01:00	64.8	62.5	67.3	65.3	63.6	66.2
01:00-02:00	61.7	60.9	59.1	58.2	56.3	57.4
02:00-03:00	53.9	50.4	54.1	55.3	52.1	56.3
03:00-04:00	56.7	53.6	57.2	54.1	60.6	55.2
04:00-05:00	54.8	51.9	55.3	57.4	65.3	58.7
05:00-06:00	48.7	41.2	47.2	45.1	50.5	46.8

#dB(A) Leq. denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.

Day Time shall mean from 6:00 am to 10:00 pm and Night Time shall mean from 10:00 pm to 06:00 am.

**Observation:** Above given Results are within the specified norms as per The Noise Pollution (Regulation and Control) Rules 2000.





**Table No.: 7.3 - Ambient Noise Level Monitoring Results during the Day Time in Leq. dB(A) for the period: April 2017 to September 2017:-**

Sampling Location	2 - HSE Building Terrace					
Longitude Latitude	N 21° 05.043' E 72° 38.491'					
Date of Monitoring	13-04-17	04-05-17	05-06-17	06-07-17	08-08-17	07-09-17
6:00-7:00	70.1	60.9	64.1	62.3	69.6	61.3
7:00-8:00	42.4	47.2	44.8	45.9	49.7	46.5
8:00-9:00	66.1	58.3	59.6	60.7	43.6	57.4
9:00-10:00	69.1	65.2	61.3	63.7	68.5	62.6
10:00-11:00	59.2	62.1	67.7	61.3	66.7	65.4
11:00-12:00	64.9	63.4	58.2	57.3	67.1	59.9
12:00-13:00	73.5	68.3	69.7	71.8	53.7	72.5
13:00-14:00	58.2	57.1	60.3	68.5	61.4	63.9
14:00-15:00	60.1	61.9	56.8	65.7	62.6	64.2
15:00-16:00	65.1	72.2	70.4	58.7	71.9	66.8
16:00-17:00	56.3	66.1	63.4	64.1	65.2	67.2
17:00-18:00	71.2	67.3	68.4	70.5	58.4	69.4
18:00-19:00	62.8	69.4	71.2	67.6	70.1	58.3
19:00-20:00	61.7	64.1	62.9	59.1	63.8	60.5
20:00-21:00	63.8	70.3	66.1	69.2	64.8	68.9
21:00-22:00	57.4	55.5	54.3	50.9	60.1	51.4

\*dB(A) Leq. denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.

Day Time shall mean from 6:00 am to 10:00 pm and Night Time shall mean from 10:00 pm to 06:00 am.

**Table No.: 7.4 - Ambient Noise Level Monitoring Results during the Night Time in Leq. dB(A) for the period: April 2017 to September 2017:-**

Sampling Location	2 - HSE Building Terrace					
Longitude Latitude	N 21° 05.043' E 72° 38.491'					
Date of Monitoring	13-04-17 & 14-04-17	04-05-17 & 05-05-17	05-06-17 & 06-06-17	06-07-17 & 07-07-17	08-08-17 & 09-08-17	07-09-17 & 08-09-17
22:00-23:00	62.8	60.6	59.1	64.2	63.3	65.4
23:00-00:00	61.6	64.2	65.1	62.4	60.2	59.3
00:00-01:00	64.9	55.1	66.3	61.5	65.2	63.8
01:00-02:00	59.0	58.5	51.3	50.8	55.9	54.2
02:00-03:00	57.5	56.1	58.7	59.6	61.3	55.4
03:00-04:00	58.5	63.2	55	60.7	62.9	61.6
04:00-05:00	54.3	52.1	53.4	55.2	56.7	57.0
05:00-06:00	50.7	51.3	54.9	52.8	58.2	53.8

\*dB(A) Leq. denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.

Day Time shall mean from 6:00 am to 10:00 pm and Night Time shall mean from 10:00 pm to 06:00 am.

**Observation:** Above given Results are within the specified norms as per The Noise Pollution (Regulation and Control) Rules 2000.





**Table No.: 7.5 - Ambient Noise Level Monitoring Results during the Day Time in Leq. dB(A) for the period: April 2017 to September 2017:-**

Sampling Location	3 - Central Water Pump House					
Longitude Latitude	N 21° 04.697' E 72° 38.420'					
Date of Monitoring	06-04-17	08-05-17	08-06-17	10-07-17	11-08-17	11-09-17
6:00-7:00	51.8	52.1	53.5	56.3	59.9	55.4
7:00-8:00	68.3	67.3	69.4	63.2	50.1	70.9
8:00-9:00	62.2	66.1	63.5	61.2	49.7	60.9
9:00-10:00	66.9	61.7	64.2	62.4	72.9	63
10:00-11:00	63.5	68.3	65.8	72.6	53.7	71.2
11:00-12:00	52.1	57.5	51.2	53.6	44.7	56.9
12:00-13:00	67.9	59.7	66.7	68.4	55.3	62.9
13:00-14:00	61.3	70.1	71.3	69.5	73.4	68.9
14:00-15:00	69.7	65.2	70.4	64.7	62.1	66.8
15:00-16:00	70.4	71.3	72.5	67.9	68.2	61.9
16:00-17:00	71.6	69.2	59.3	58.1	64.8	57.2
17:00-18:00	72.3	64.4	68.6	70.2	67.6	69.9
18:00-19:00	55.2	54.8	56.3	52.1	57.3	58.5
19:00-20:00	65.8	63.9	62.7	59.3	56.7	54.1
20:00-21:00	59.4	60.1	61.4	65.3	47.2	64.2
21:00-22:00	64.9	62.2	67.8	66.1	63.3	65.4

#dB(A) Leq. denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.

Day Time shall mean from 6:00 am to 10:00 pm and Night Time shall mean from 10:00 pm to 06:00 am.

**Table No.: 7.6 - Ambient Noise Level Monitoring Results during the Night Time in Leq. dB(A) for the period: April 2017 to September 2017:-**

Sampling Location	3 - Central Water Pump House					
Longitude Latitude	N 21° 04.697' E 72° 38.420'					
Date of Monitoring	06-04-17 & 07-04-17	08-05-17 & 09-05-17	08-06-17 & 09-06-17	10-07-17 & 11-07-17	11-08-17 & 12-08-17	11-09-17 & 12-09-17
22:00-23:00	52.9	53.2	56.4	57.5	60.7	68.5
23:00-00:00	66.2	57.6	64.2	62.1	65.5	67.4
00:00-01:00	64.4	62.5	68.7	63.3	66.1	65.6
01:00-02:00	53.9	56.4	51.6	50.4	54.8	52.3
02:00-03:00	55.3	54.8	58.6	59.7	56.3	60.1
03:00-04:00	54.3	52.1	50.4	55.9	53.6	57.3
04:00-05:00	50.1	55.3	54.3	56.3	52.9	53.4
05:00-06:00	60.2	64.1	66.8	65.3	62.7	63.2

#dB(A) Leq. denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.

Day Time shall mean from 6:00 am to 10:00 pm and Night Time shall mean from 10:00 pm to 06:00 am.

**Observation:** Above given Results are within the specified norms as per The Noise Pollution (Regulation and Control) Rules 2000.



**Table No.: 7.7 - Ambient Noise Level Monitoring Results during the Day Time in Leq. dB(A) for the period: April 2017 to September 2017:-**

Sampling Location	4 - Container Terminal					
Longitude Latitude	N 21° 05.187' E 72° 37.774'					
Date of Monitoring	10-04-17	11-05-17	12-06-17	14-07-17	15-08-17	14-09-17
6:00-7:00	67.2	59.1	70.9	58.6	51.3	62.9
7:00-8:00	57.4	65.2	64.8	67.3	54.4	70.4
8:00-9:00	52.3	56.1	54.1	55.2	57.1	53.7
9:00-10:00	66.1	63.1	62.4	64.3	68.2	67.8
10:00-11:00	61.5	55.4	58.1	59.7	64.2	60.5
11:00-12:00	64.3	69.2	68.1	71.9	59.4	58.2
12:00-13:00	58.1	60.8	59.3	68.7	63.3	57.2
13:00-14:00	62.4	68.5	60.1	65.3	50.2	64.6
14:00-15:00	59.7	62.4	57.3	56.1	48.9	61.8
15:00-16:00	73.5	66.9	65.8	54.2	55.8	72.1
16:00-17:00	56.3	72	67.2	70.2	71.6	69.5
17:00-18:00	68.8	71.2	69.9	72.5	70.4	73.2
18:00-19:00	60.3	64.5	61.1	62.3	65.6	63.4
19:00-20:00	63.1	70.8	71.3	66.1	69	65.8
20:00-21:00	70.3	67.8	66.4	69.5	56.4	68.7
21:00-22:00	65.5	58.3	63.7	60.7	52.7	59.8

#dB(A) Leq. denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.

Day Time shall mean from 6:00 am to 10:00 pm and Night Time shall mean from 10:00 pm to 06:00 am.

**Table No.: 7.8 - Ambient Noise Level Monitoring Results during the Night Time in Leq. dB(A) for the period: April 2017 to September 2017:-**

Sampling Location	4 - Container Terminal					
Longitude Latitude	N 21° 05.187' E 72° 37.774'					
Date of Monitoring	10-04-17 & 11-04-17	11-05-17 & 12-05-17	12-06-17 & 13-06-17	14-07-17 & 15-07-17	15-08-17 & 16-08-17	14-09-17 & 15-09-17
22:00-23:00	58.2	61.3	66	67.1	68.8	69.2
23:00-00:00	54.8	51.2	55.6	52.1	56.8	53.5
00:00-01:00	59.3	56.8	60	61.9	62.8	58.5
01:00-02:00	68.5	69.1	64.7	66.4	65.1	67.8
02:00-03:00	53.2	52.2	54.3	57.6	63.6	55.3
03:00-04:00	48.0	47.5	46.3	49.3	61.3	50.4
04:00-05:00	55.3	54.1	53.2	59.9	58.9	60.2
05:00-06:00	57.7	55.1	56.1	54.3	60.6	61.4

#dB(A) Leq. denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.

Day Time shall mean from 6:00 am to 10:00 pm and Night Time shall mean from 10:00 pm to 06:00 am.

**Observation:** Above given Results are within the specified norms as per The Noise Pollution (Regulation and Control) Rules 2000.





**Table No.: 7.9 - Ambient Noise Level Monitoring Results during the Day Time in Leq. dB(A) for the period: April 2017 to September 2017:-**

Sampling Location	5 - Hazira Village					
Longitude Latitude	N 21° 05.44' E 72° 38.44'					
Date of Monitoring	17-04-17	15-05-17	19-06-17	17-07-17	18-08-17	18-09-17
6:00-7:00	54.4	50.2	52.6	51.4	43.6	56.6
7:00-8:00	67.8	69.2	66.2	58.8	61.5	59.9
8:00-9:00	53.1	63.7	61.9	65.9	67.3	69.9
9:00-10:00	70.2	52.3	56.3	54.8	48.6	55
10:00-11:00	66.3	54.6	69.2	71.8	70.4	68.2
11:00-12:00	71.8	64.1	68.7	57.9	59.9	58.8
12:00-13:00	55.3	62.9	57.4	59.6	54.4	60.5
13:00-14:00	57.8	61.3	62.7	66.9	72.7	64.2
14:00-15:00	65.2	68.7	67.5	61.4	56.5	66.7
15:00-16:00	62.9	67.8	65.4	69.2	71.6	70.7
16:00-17:00	68	65.9	55	64.6	51.2	72.2
17:00-18:00	64.2	66.8	63.9	67.5	68.4	65.7
18:00-19:00	59.9	57.6	58.2	60.3	69.4	61.6
19:00-20:00	60.7	56.8	54.4	53.7	73.8	52.9
20:00-21:00	58.9	71.2	60.1	63.1	65.1	62.9
21:00-22:00	61.2	60.4	64.8	62.3	66.8	63.7

\*dB(A) Leq. denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.

Day Time shall mean from 6:00 am to 10:00 pm and Night Time shall mean from 10:00 pm to 06:00 am.

**Table No.: 7.10 Ambient Noise Level Monitoring Results during the Night Time in Leq. dB(A) for the period: April 2017 to September 2017:-**

Sampling Location	5 - Hazira Village					
Longitude Latitude	N 21° 05.44' E 72° 38.44'					
Date of Monitoring	17-04-17 & 18-04-17	15-05-17 & 16-05-17	19-06-17 & 20-06-17	17-07-17 & 18-07-17	18-08-17 & 19-08-17	18-09-17 & 19-09-17
22:00-23:00	66.3	65.1	69.1	64.3	63.3	68.9
23:00-00:00	50.9	44.2	45.5	46.7	55.1	47.9
00:00-01:00	53.0	49.9	57.7	58.8	66.6	54.4
01:00-02:00	58.9	59.9	50.5	49.9	69.7	52.4
02:00-03:00	44.8	42.4	46.1	47.2	65.1	48.2
03:00-04:00	55.5	50.7	58.4	56.1	67.5	57.4
04:00-05:00	56.3	51.9	52.1	54.8	68.6	55.9
05:00-06:00	54.9	52.9	53.0	51.7	64.8	50.8

\*dB(A) Leq. denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.

Day Time shall mean from 6:00 am to 10:00 pm and Night Time shall mean from 10:00 pm to 06:00 am.

**Observation:** Above given Results are within the specified norms as per The Noise Pollution (Regulation and Control) Rules 2000

**Note:** The Noise Level of Hazira Village is compare with the Industrial area Norms as Hazira Village is Surround By Numbers of industries.



**ANNEXURE-4H:****DG SETS & HWG STACK EMISSION AND NOISE LEVEL MONITORING RESULTS****PERIOD: APRIL, 2017 TO SEPTEMBER, 2017**

## 8.0 DG SETS STACK EMISSION AND NOISE LEVEL MONITORING & HOT WATER GENERATOR (HWG) STACK EMISSION:-

**Table No.: 8.1 – DG Sets Stack Emission Monitoring Results for the period: April 2017 to September 2017:-**

Sr. No.	Parameters	Unit	DG SET TOYO DENKI -1		DG SET TOYO DENKI -2		DG SET TOYO DENKI -3	
			MAY-17	AUG-17	MAY-17	AUG-17	MAY-17	AUG-17
1	Particulate Matter	mg/Nm <sup>3</sup>	19.81	28.69	15.69	21.83	24.54	23.40
2	Sulphur Dioxide	ppm	8.55	5.7	6.61	8.58	7.52	4.66
3	Oxide of Nitrogen	ppm	35.63	38.57	32.57	30.57	29.79	35.68
4	Carbon Monoxide (CO)	mg/m <sup>3</sup>	8.38	9.54	7.43	7.05	8.81	9.04
5	Non Methyl Hydro Carbon (NMHC)	mg/m <sup>3</sup>	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*

**Table No.: 8.2 - DG Sets Noise Level Monitoring Results for the period: April 2017 to September 2017:-**

Sr. No.	DG Set Average Noise Level In Leq. dB(A)		
	Sampling Location	At 1 M Distance From The Enclosure	
	Sampling Date	MAY-17	AUG-17
1.	DG SET TOYO DENKI -1	69.4	71.5
2.	DG SET TOYO DENKI -2	67.2	70.1
3.	DG SET TOYO DENKI -3	68.1	72.4

**Table No.: 8.3 - Hot Water Generator (HWG) Stack Emission Monitoring Results for the period: April- 2017 to September- 2017**

S. No.	Parameters	Unit	Hot Water Generator Stack Monitoring					
			APR-17	MAY-17	JUN-17	JUL-17	AUG-17	SEPT-17
1	Particulate Matter	mg/Nm <sup>3</sup>	Not In Operation	BDL*	BDL*	BDL*	BDL*	BDL*
2	Sulphur Dioxide	ppm	"	4.45	3.27	2.88	3.73	2.85
3	Oxide of Nitrogen	ppm	"	18.79	21.78	17.62	20.48	18.47

**Note:** BDL\* - Below Detection Limit, Minimum Detection Limit of Particulate Matter - 10 mg/m<sup>3</sup>



**ANNEXURE-4I:****SEA SEDIMENT QUALITY MONITORING RESULTS****PERIOD: APRIL, 2017 TO SEPTEMBER, 2017**



## 9.0 SEA SEDIMENT QUALITY MONITORING:-

**Table No.: 9.1 - Sea Sediment Quality Results of CB2 South End towards Landside for the period: April 2017 to September 2017:-**

S. NO.	PARAMETERS	UNIT	CB2 SOUTH END TOWARDS LANDSIDE FROM SEA BASIN (N 21° 5'1.92", E 72°37'56.58")					
			APR-17	MAY-17	JUN-17	JUL-17	AUG-17	SEPT-17
1	Organic Matter	%	0.688	0.596	0.680	0.700	0.626	0.724
2	Phosphorus as P	µg/kg	206	189	170	194	192	292
3	Texture	--	Sandy silt	Sandy silt	Sandy silt	Sandy	Sandy silt	Sandy silt
4	Petroleum Hydrocarbon	µg/kg	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
5	<b>Heavy Metals</b>							
5.1	Aluminum as Al	%	5.20	5.12	5.42	5.46	5.38	5.47
5.2	Total Chromium as Cr <sup>+3</sup>	µg/kg	131	108	96	115	109	117
5.3	Manganese as Mn	µg/kg	620	653	690	596	618	596
5.4	Iron as Fe	%	1.92	2.27	2.08	1.84	1.96	1.86
5.5	Nickel as Ni	µg/kg	60.70	42.65	72.00	70.00	64.00	70.00
5.6	Copper as Cu	µg/kg	68.54	55.50	52.20	52.00	50.00	52.00
5.7	Zinc as Zn	µg/kg	168	211	200	218	192	218
5.8	Lead as Pb	µg/kg	1.22	1.68	1.38	1.09	1.56	1.09
5.9	Mercury as Hg	µg/kg	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
6	<b>Benthic Organisms</b>							
6.1	Macrobenthos (No and name of groups present, No and name of species of each group present)	--	Decapods Mysids Echinoderms	Polychaete worms Bivalves Sponges	Polychaete worms Echinoderms Amphipods Decapods	Gastropods Polychaetes	Isopods Sponges	Polychaete worms Echinoderms Mysids Decapods
6.2	MeioBenthos (No and name of groups present, No and name of species of each group present)	--	Foraminiferans Nematodes	Foraminiferans Bryozoans	Nematodes Foraminiferans	Loopds Nemertines	Copepods Foraminiferans	Nematodes Copepods
6.3	Population	No./m <sup>2</sup>	335	288	440	338	236	337

BDL\* - Below Detection Limit

**Observation:** From the above results it is concluded that there is No Significant Changes in the Quality of Sea Sediment.



**Table No.: 9.2 - Sea Sediment Quality Results of MP1 West End towards Channel of Sea Basin for the period: April 2017 to September 2017: -**

S. NO.	PARAMETERS	UNIT	MP1 WEST END TOWARDS CHANNEL OF SEA BASIN (N 21° 5'9.78", E 72°37'24.48")					
			APR-17	MAY-17	JUN-17	JUL-17	AUG-17	SEPT-17
1	Organic Matter	%	0.622	0.639	0.660	0.600	0.670	0.580
2	Phosphorus as P	µg/kg	165	186	250	560	350	244
3	Texture	--	Sandy Silt	Sandy Silt	Sandy Silt	Sandy	Sandy Silt	Sandy silt
4	Petroleum Hydrocarbon	µg/kg	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
5	<b>Heavy Metals</b>							
5.1	Aluminum as Al	%	5.59	5.32	5.40	7.10	5.52	5.22
5.2	Total Chromium as Cr <sup>+3</sup>	µg/kg	104	113	140	290	132	130
5.3	Manganese as Mn	µg/kg	589	668	720	830	702	590
5.4	Iron as Fe	%	2.46	2.57	2.88	6.70	2.94	2.22
5.5	Nickel as Ni	µg/kg	76.00	52.44	65.00	86.00	70.60	68.00
5.6	Copper as Cu	µg/kg	66.20	37.16	42.00	95.00	54.22	54.00
5.7	Zinc as Zn	µg/kg	196	180	148	89	142	156
5.8	Lead as Pb	µg/kg	1.44	1.71	1.76	1.50	1.52	1.41
5.9	Mercury as Hg	µg/kg	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
6	<b>Benthic Organisms</b>							
6.1	Macrobenthos (No and name of groups present, No and name of species of each group present)	--	Polychaete worms Decapods Crabs Mysids	Echinoderms Corals Polychaete worms	Echinoderms Isopods Decapods	Gastropods Pelecypods Peneails	Mysids Isopods Echinoderms	Echinoderms Polychaete worms Isopods Mysids
6.2	MeioBenthos (No and name of groups present, No and name of species of each group present)	--	Foraminiferans	Nematodes Gastrotrophic Ciliates	Gastropods Bryozoans Foraminiferans	Nematodes	Nematodes	--
6.3	Population	No./m <sup>2</sup>	336	240	377	339	307	314

BDL\* - Below Detection Limit

**Observation:** From the above results it is concluded that there is No Significant Changes in the Quality of Sea Sediment.



**Table No.: 9.3 - Sea Sediment Quality Results of CB1 End towards Channel for the period: April 2017 to September 2017: -**

S. NO.	PARAMETERS	UNIT	CB 1 WEST END TOWARDS CHANNEL OF SEA BASIN (N 21° 5'14.67" , E 72°37'40.14")					
			APR-17	MAY-17	JUN-17	JUL-17	AUG-17	SEPT-17
1	Organic Matter	%	0.560	0.781	0.780	0.400	0.594	0.540
2	Phosphorus as P	µg/kg	116	184	242	810	236	492
3	Texture	--	Sandy Silt	Sandy Silt	Sandy Silt	Sandy	Sandy Silt	Sandy Silt
4	Petroleum Hydrocarbon	µg/kg	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
5	<b>Heavy Metals</b>							
5.1	Aluminum as Al	%	5.63	5.56	5.60	6.72	5.14	6.47
5.2	Total Chromium as Cr <sup>+3</sup>	µg/kg	98.0	97.96	147	230	152	227
5.3	Manganese as Mn	µg/kg	597	642	521	660	490	616
5.4	Iron as Fe	%	2.38	2.16	2.24	5.80	3.56	3.80
5.5	Nickel as Ni	µg/kg	66.00	48.40	60.00	62.00	65.40	86.00
5.6	Copper as Cu	µg/kg	49.90	40.98	53.90	76.20	49.66	72.00
5.7	Zinc as Zn	µg/kg	198	154	181	102	176	110
5.8	Lead as Pb	µg/kg	1.37	1.86	1.70	2.20	1.47	2.10
5.9	Mercury as Hg	µg/kg	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
6	<b>Benthic Organisms</b>							
6.1	Macrobenthos (No and name of groups present, No and name of species of each group present)	--	Mysids Isopods Polychaete worms	Sea anemones Bivalves Polychaete worms	Polychaete worms Echinoderms Amphipods	Gastropods Isopods	Decapods Echinoderms	Echinoderms Polychaete worms Decapods Mysids
6.2	MeioBenthos (No and name of groups present, No and name of species of each group present)	--	Copepods	Nematodes Copepods Molluscs	Hydrozoa Copepods Bryozoans	Nematodes	Molluscs Copepods	Nematodes Copepods
6.3	Population	No./m <sup>2</sup>	198	384	385	280	313	320

BDL\* - Below Detection Limit

**Observation:** From the above results it is concluded that there is No Significant Changes in the Quality of Sea Sediment.





**ANNEXURE-4J:****SOIL QUALITY MONITORING RESULTS****PERIOD: APRIL, 2017 TO SEPTEMBER, 2017**

**10.0 SOIL QUALITY MONITROING: -****Table No.: 10.1 - Soil Quality Testing Results for the period: April 2017 to September 2017: -**

SR. NO.	PARAMETERS	UNIT	NEAR LT CANTEEN PARKING			NEAR PORT GATE NO.: 2		
			08-06-17	24-07-17	28-09-17	08-06-17	24-07-17	28-09-17
1	Type	--	Clay	Clay	Clay	Clay	Clay	Clay
<b>Grain Size Analysis</b>								
2	Gravel	%	6.0	4.8	4.0	5.0	5.0	5.2
3	Coarse Sand	%	4.6	4.6	5.0	5.0	4.8	5.0
4	Medium Sand	%	10	10	12	12	11	14
5	Fine Sand	%	61.4	60.5	54.0	56.0	56.0	48.4
6	Total Sand	%	82.0	79.9	75.0	78.0	76.8	72.6
7	Silt + Clay	%	18.0	20.1	25.0	22.0	23.2	27.4
8	pH (1:5)	--	9.88	9.86	8.44	9.67	9.44	8.60
9	Electricity Conductivity	µmho/cm	2022	2020	1790	1640	1620	1540
10	Alkali matter	mg/kg	726	766	510	634	802	710
11	Cation Exchange Capacity	meq/100 gm	54	58	44	48	50	46
12	Sodium Absorption Ratio	--	14.48	13.06	10.40	12.74	12.72	11.20
13	Organic Matter	mg/kg	0.57	0.70	0.60	0.52	0.56	0.38
14	Available Nitrogen	meq/100 gm	0.04	0.04	0.02	0.04	0.05	0.03
15	Available Potassium	mg/kg	2006	2210	1990	2208	2090	1710
16	Available Phosphorus	mg/kg	0.48	0.42	0.34	0.41	0.36	0.52
17	Available Sodium	mg/kg	0.90	0.83	0.94	0.87	0.81	0.89
18	Permeability	cm/sec	4.2X10 <sup>-5</sup>	3.8X10 <sup>-4</sup>	3.4X10 <sup>-4</sup>	4.2X10 <sup>-5</sup>	4.2X10 <sup>-5</sup>	4.0X10 <sup>-5</sup>

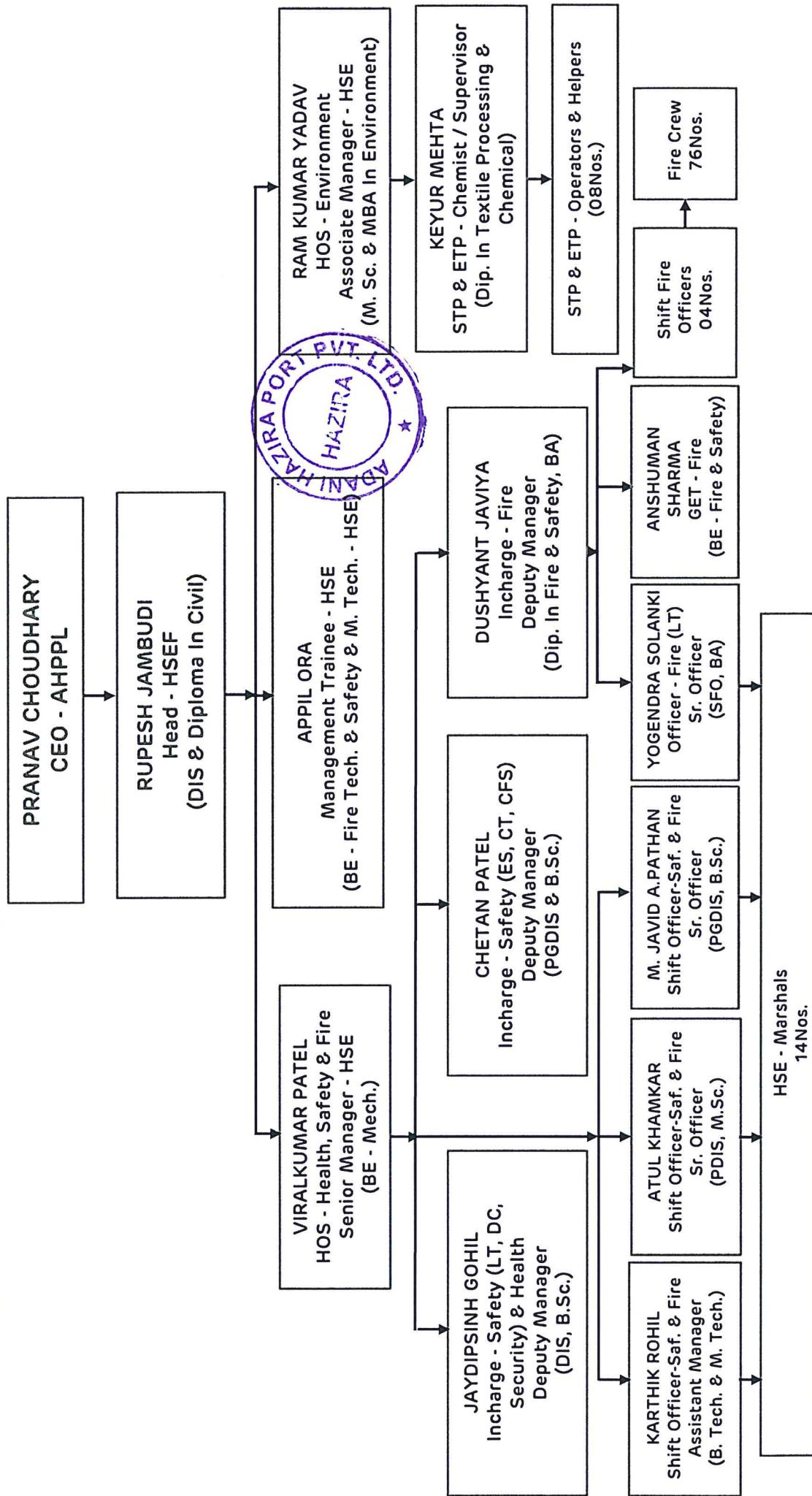
**Observation:** From the above results it is concluded that there is No Significant Changes in the Quality of Soil Quality.





**ANNEXURE-5:****ORGANOGRAM OF AHPPL - ENVIRONMENT MANAGEMENT CELL**

Annexure-5: Organogram Of AHPPL - Environment Management Cell:-





**ANNEXURE-6:****DETAILS OF ENVIRONMENT MANAGEMENT BUDGET****FOR THE FINANCIAL YEAR: 2017-18**

**Annexure-6: Details of Environment Management Budget For The Financial Year: 2017-18**

S. No.	Activities	Budget Amount (In Lacs)
1.	Coat of Environmental Professionals, Environmental Study / Audit and Consultancy Services and Legal & Statutory Expenses	37.20/-
2.	Environmental Monitoring Services	17.82/-
3.	Mangrove Afforestation/Plantation & Bio-Shielding Pilot Project	12.50/-
4.	Hazardous Waste Management & Disposal	5.00/-
5.	Horticulture Development - Greenery and Plantation	160.00/-
6.	O&M of Sewage Treatment Plants and Effluent Treatment Plant	38.29/-
7.	Environment Day Celebration	2.50/-
8.	Treatment and Disposal of Bio-Medical Waste	0.82/-
9.	Environmental Initiatives & Others Miscellaneous	2.50/-
Total Amount (INR In Lacs)		276.62/-





**ANNEXURE-7:**

COMPLIANCE REPORT OF CONDITIONS STIPULATED IN CONSENT TO ESTABLISH  
(CTE-77767) ISSUED BY GUJARAT POLLUTION CONTROL BOARD, GANDHINAGAR (GUJARAT)  
VIDE LETTER NO.: GPCB/CCA-SRT-1314(6)/ID\_35352/352537, DATED 16/04/2016



**Annexure-7:** Compliance Report for Consent to Establish (CTE-77767) granted by Gujarat Pollution Control Board vide letter No.: GPCB/CCA-SRT/1314(6)/ID\_35352/352537, dated 16/04/2016 to setting up of DG Set (Stand by) of Capacity 750 KVA located at Near Hazira Pvt. Ltd., Hazira: 394270, Tal.: Chorasi, Dist.: Surat.

S. No.	Conditions	Compliance Status						
<b>SPECIFIC CONDITIONS:</b>								
	<ul style="list-style-type: none"> <li>The Validity period of the order will be Five years i.e. 30/03/2021</li> </ul>	Noted.						
	<ul style="list-style-type: none"> <li>Unit shall provide arrangement for acoustic enclosure to keep Noise levels within Norms.</li> </ul>	Complied. All the sound intensive components (DG Sets and Compressor) are with acoustic enclosures. Noise level is being monitored through M/s. Pollucon Laboratories, Surat (a MoEF&CC and NABL accredited laboratory). Monitoring reports show that noise level is well within the norms at project boundary. Please refer the noise level monitoring reports for the period <b>April, 2017 to September, 2017</b> is enclosed as <b>Annexure-4G</b> .						
	<ul style="list-style-type: none"> <li>Unit shall obtain CCA-amendment for D.G. Sets.</li> </ul>	Complied. AHPPL obtained the CC&A from Gujarat Pollution Control Board CCA Order No.: AWH-77379 vide letter No.: GPCB/CCA-SRT-1314(6)/ID_35352/352538 dated 16/04/2016.						
<b>The Conditions under Air Act 1981 shall be read as:</b>								
1.	<p>The following shall be used as fuel only in D.G. Set (Stand By).</p> <table border="1"> <thead> <tr> <th>Sr. No.</th><th>Fuel</th><th>Total Quantity</th></tr> </thead> <tbody> <tr> <td>1</td><td>Diesel</td><td>160 Lit./Hr.</td></tr> </tbody> </table>	Sr. No.	Fuel	Total Quantity	1	Diesel	160 Lit./Hr.	Complied with. Diesel is being used for DG set.
Sr. No.	Fuel	Total Quantity						
1	Diesel	160 Lit./Hr.						
2.	<p>The applicant shall install &amp; operate a comprehensive adequate air pollution control system in order to achieve prescribed norms.</p> 	<p>Complied.</p> <p>AHPPL has installed &amp; operate a comprehensive adequate air pollution control system in order to achieve prescribed norms.</p> <p>Following control measures are in place and effectively working at port to control fugitive dust:</p> <ol style="list-style-type: none"> <li>1. Transportation of coal from jetty to coal storage yard through 1.7 Km. long conveyor belt with hood.</li> <li>2. Water sprinklers in to the coal yard,</li> <li>3. Dust Suppression System / Spray Nozzles in Conveyor System and Discharge Chute,</li> <li>4. Water spray through Water Browsers,</li> </ol>						



		5. Water Mist Canon / Fog System, 6. Wind Brake Shield of 14 meters high and 1200 meters long, 7. Transportation of cargo from port to hinterland is being done through dumpers / trucks covered with tarpaulin, 8. Regular cleaning the roads through Road Sweeping Machines, and 9. Company has set up dedicated greenbelt area for plantation at periphery / avenue plantation / landscaping etc. Total greenbelt area developed so far is approx. 63.04 ha within the port premises.																				
3.	<p>The flue gas emission through Proposed D.G. Sets stack shall conform to the following standards:</p> <table><tr><th>Stack No.</th><th>Stack attached to</th><th>Stack Height In Meter</th><th>Air Pollution Control System</th><th>Parameters</th><th>Permissible Limit</th></tr><tr><td>1.</td><td>D.G. Set (Stand By) 750 KVA</td><td>11</td><td>--</td><td>PM SO<sub>2</sub> NO<sub>x</sub></td><td>150 mg/NM<sup>3</sup> 100 ppm 50 ppm</td></tr></table>	Stack No.	Stack attached to	Stack Height In Meter	Air Pollution Control System	Parameters	Permissible Limit	1.	D.G. Set (Stand By) 750 KVA	11	--	PM SO <sub>2</sub> NO <sub>x</sub>	150 mg/NM <sup>3</sup> 100 ppm 50 ppm	Complied. Stack emission monitoring is being carried out through M/s. Pollucon Laboratories (a MoEF&CC and NABL accredited laboratory) within port premises and during current monitoring period all the pollutants are found under the limit. Please refer the <b>Annexure-4H</b> for the DG Sets stack emission Monitoring / Analysis Reports for the period <b>April, 17 to Sept., 17</b> .								
Stack No.	Stack attached to	Stack Height In Meter	Air Pollution Control System	Parameters	Permissible Limit																	
1.	D.G. Set (Stand By) 750 KVA	11	--	PM SO <sub>2</sub> NO <sub>x</sub>	150 mg/NM <sup>3</sup> 100 ppm 50 ppm																	
4.	Stack monitoring facilities like port hole, platform/ladder etc., shall be provided with stacks/vents chimney in order to facilitate sampling of gases being emitted into the atmosphere.	Complied. AHPPL has provided the adequate stack monitoring facilities i.e.: Port hole, Platform/ladder etc. to facilitate the sampling of gases being emitted into the atmosphere.																				
5.	<p>Ambient air quality within and outside the premises of the unit shall conform National Ambient Air Quality standards notified by MOEF vide notification dated 16/11/2009 and mainly to the following standards:-</p> <table><tr><th>Sr. No.</th><th>Pollutant</th><th>Time Weighted Average</th><th>Concentration in Ambient Air</th></tr><tr><td>1.</td><td>Sulphur Dioxide (SO<sub>2</sub>), µg/M<sup>3</sup></td><td>Annual 24 Hours</td><td>50 80</td></tr><tr><td>2.</td><td>Nitrogen Dioxide (NO<sub>2</sub>), µg/M<sup>3</sup></td><td>Annual 24 Hours</td><td>40 80</td></tr><tr><td>3.</td><td>Particulate Matter (Size less than 10 µm) OR PM<sub>10</sub> µg/M<sup>3</sup></td><td>Annual 24 Hours</td><td>60 100</td></tr><tr><td>4.</td><td>Particulate matter (Size less than 2.5 µm) OR PM<sub>2.5</sub> µg/M<sup>3</sup></td><td>Annual 24 Hours</td><td>40 60</td></tr></table>	Sr. No.	Pollutant	Time Weighted Average	Concentration in Ambient Air	1.	Sulphur Dioxide (SO <sub>2</sub> ), µg/M <sup>3</sup>	Annual 24 Hours	50 80	2.	Nitrogen Dioxide (NO <sub>2</sub> ), µg/M <sup>3</sup>	Annual 24 Hours	40 80	3.	Particulate Matter (Size less than 10 µm) OR PM <sub>10</sub> µg/M <sup>3</sup>	Annual 24 Hours	60 100	4.	Particulate matter (Size less than 2.5 µm) OR PM <sub>2.5</sub> µg/M <sup>3</sup>	Annual 24 Hours	40 60	Complied. Ambient air quality monitoring is being carried out through M/s. Pollucon Laboratories (a MoEF&CC and NABL accredited laboratory) within port premises and during current monitoring period all the pollutants are found under the limit. Please refer the <b>Annexure-4A</b> for the Environmental Monitoring/Analysis Reports for the period <b>April, 2017 to September, 2017</b> .
Sr. No.	Pollutant	Time Weighted Average	Concentration in Ambient Air																			
1.	Sulphur Dioxide (SO <sub>2</sub> ), µg/M <sup>3</sup>	Annual 24 Hours	50 80																			
2.	Nitrogen Dioxide (NO <sub>2</sub> ), µg/M <sup>3</sup>	Annual 24 Hours	40 80																			
3.	Particulate Matter (Size less than 10 µm) OR PM <sub>10</sub> µg/M <sup>3</sup>	Annual 24 Hours	60 100																			
4.	Particulate matter (Size less than 2.5 µm) OR PM <sub>2.5</sub> µg/M <sup>3</sup>	Annual 24 Hours	40 60																			
6.	The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standards in respect of noise to less	Complied. Ambient Noise Level Monitoring is being carried out through M/s. Pollucon Laboratories (a MoEF&CC and																				

	than 75 dB(A) during day time and 70 dB(A) during night time. Day time is reckoned in between 6 a.m. and 10 p.m. and night time is reckoned between 10 p.m. and 6 a.m.	NABL accredited laboratory) within port premises and during current monitoring period all the noise level are found under the norms. Please refer the <b><u>Annexure-4G</u></b> for the Ambient Noise Level Monitoring Reports for the period <b>April, 2017 to September, 2017</b> .
7.	The applicant shall provide proper ventilation and exhaust facilities so as to maintain healthy working atmosphere within the factory premises.	Complied with. AHPPL has provided proper ventilation and exhaust facilities to maintained healthy working atmosphere within the port premises.
8.	The other conditions of the Consent Order No.: <b>WH-47069 Dated: 21/05/2015 Valid up to Dated- 04/04/2017</b> shall remain unchanged.	Noted. The correct reference of the Consent Order No.: 47069 vide letter No.: GPCB/CCA-SRT-1314/ID_35352/112716 dated 21/05/2012. All the conditions mentioned in same are being complied with.





ANNEXURE-8:

COPY OF CHWIF / TSDF MEMBERSHIP CERTIFICATE



**Annexure-8: Membership Certificate of RSPL - CHWIF Site****PROVISIONAL CERTIFICATE**GPCH ID : 11376  
Client Code : CPXW1A0058

Date : 07/11/2017

To,

ADANI HAZIRA PORT PVT LTD  
NEAR LNG TERMINAL,  
AT & PO HAZIRA,  
CHORYASHI  
SURAT- 394270

Sub. : Membership for Waste Mix Processing Facility (Alternate Fuel Resource Facility)

Dear Sir,

We have received your necessary documents for membership of our Waste Mix Processing Facility. We give our principle acceptance that we will accept your wastes and we will enroll you as our member for Waste Mix Processing Facility. We will issue Membership Certificate in due course of time.

We assure you that we work in most economical way, as per the legal requirement and in the environmentally suitable manner.

Validity of this letter is 6 months from the date of issuance.

Please feel free to write us at [marketing@rs-pl.com](mailto:marketing@rs-pl.com) for any query or clarification.

Thanking You,

Yours Faithfully,

For Recycling Solutions Private Limited

Authorized Signatory





**ANNEXURE-9:**

**DETAIL OF WASTE COLLECTION AND DISPOSAL OFF FROM VESSELS**



<b>adani</b>	<b>Adani Hazira Port Private Limited</b>	<b>From : Apr., 2017 To : Sept., 2017</b>
--------------	--	---

**Annexure-9: Detail of Liquid/Wastes Collection & Disposed Off From Vessels By GPCB Approved Third Party During The April, 2017 To September, 2017**

Detail of Wastes Collection & Disposed Off From Vessels			
S. No.	Vessel Name	Party Name	Quantity (MT)
1.	MV SERPENTINE	United Shipping Company	18.13
2.	VOLVOX ASIA	United Shipping Company	51.75
3.	MV BEAUTRIUMPH	Atlas Organics Pvt. Ltd.	19.64
4.	MV AS VALDIVIA	Atlas Organics Pvt. Ltd.	21.38
5.	MT JEIL CRYSTAL	Atlas Organics Pvt. Ltd.	10.42
6.	MT BOCHEM MUMBAI	Atlas Organics Pvt. Ltd.	75.77
Total Waste Quantity (In MT)			197.09





**ANNEXURE-10:**

CONSOLIDATED REPORT ON MANGROVE PLANTATION ON AN AREA OF 200 HECTARES AT  
VILLAGE: KANTIYAJAL, TALUKA: HANSOT AND VILLAGE: NADA-DEVLA, TALUKA: JAMBUSAR,  
DISTRICT: BHARUCH (GUJARAT) DEVELOPED BY M/S. SAVE LIMITED, AHMEDABAD.



**Annexure-10:****CONSOLIDATED REPORT ON MANGROVE PLANTATION****At Village: Kantiyajal, Taluka: Hansot, District: Bharuch****&****At Village: Nada-Devla, Taluka: Jambusar, District: Bharuch****PROJECT PERIOD: June, 2013 To November, 2016****NAME OF THE CLIENT:**

**M/s. Adani Hazira Port Private Limited,  
Near Hazira LNG Port Pvt. Ltd., At & PO: Hazira, Taluka: Choryasi,  
District: Surat - 394 270**

**IMPLEMENTING AGENCY:**

**SAVE Ltd. - Saline Area Vitalisation Enterprise Limited,  
Ishavasyam, Opp. Lajpatnagar Society, Eeshita towers Road, Navrangpura,  
Ahmedabad - 380 014**

**CONTACT:**

**E-mail: - [saveltd1995@gmail.com](mailto:saveltd1995@gmail.com)  
Tel. No.: 079 - 26404263, 26403715**

**March, 2017**



**CONTENTS**

1. PROJECT BACKGROUND
2. THE PROJECT
3. OBJECTIVES
4. PROJECT LOCATION
  - A. PROJECT LOCATION FOR MANGROVE PLANTATION AT VILLAGE: KANTIYAJAL
  - B. PROJECT LOCATION FOR MANGROVE PLANTATION AT VILLAGE: NADA-DEVLA
  - C. MANGROVE PLANTATION AT VILLAGE: KANTIYAJAL
  - D. MANGROVE PLANTATION AT VILLAGE: NADA-DEVLA
5. PICTURE GALLERY OF MANGROVE PLANTATION ACTIVITIES

Figure-1: Map Showing Location One At Village: Kantiyajal

Figure-2: Map Showing Location Two At Village: Nada & Devla

Figure-3: Google Map Showing Mangrove Plantation In 20 Hectares Area

Figure-4: Google Map Showing Mangrove Plantation In 180 Hectares Area



**1. PROJECT BACKGROUND: -**

Adani Hazira Port Private Limited assigned the task to SAVE Ltd. (Saline Area Vitalisation Enterprise Limited, to carry out plantation of mangroves in 200 hectares area along the coast of Southern Gujarat. This is part of the commitment of the company to carry out compensatory plantation in the state.

**2. THE PROJECT: -**

The project is divided in to three phases. First phase was to identify probable site for 200 hectares of mangrove plantation. Second phase was to plant in 100 hectares and third in remaining 100 hectares.

The project was initiated at village Kantiyajal of Hansot taluka in Bharuch district during the year 2013-14. Kantiyajal is a coastal village in Southern Gujarat. This village has been experiencing constant soil erosion and intrusion of sea in to the farmlands. This site was finalized through a joint visit from technical persons of Adani, Hazira and SAVE Ltd.

In the year 2013-14, Mangroves were planted in 50 (fifty) hectares of costal land by nursery plantation and direct dibbling method.

In month of June, 2014, the site faced extensive erosion because of heavy tidal activities, resulting in to erosion of large area of coastal land. Almost 80% of planted mangroves were uprooted and/or washed away. Only 20 (twenty) hectares of mangrove plantation had survived.

The collective decision was to shift the site and carry out mangrove plantation at village Nada- Devla of Jambusar taluka of Bharuch district.

**3. OBJECTIVES: -**

1. To plant mangroves in 200 hectares on the coast and improve the ecosystem.
2. Create awareness and sensitivity towards mangroves.
3. Engage local community in mangrove plantation activity.
4. Generate wage employment for the local community.



## 4. PROJECT LOCATION: -

## A. Location One - Village Kantiyajal:-

Kantiyajal is a Village in Hansot Taluka of Bharuch District of Gujarat State, India. It is located 44 KM towards west from district headquarters – Bharuch and 18 KM from Hansot town,

S. No.	Taluka	Village	Location	Coordinates	Remarks
1.	Hansot	Kantiyajal	Entering point at the site	N-21°27'06.6" E-72°38' 44.7"	There is an approximate 200 hectares of area for mangrove plantation.

The site is 02 kilometers from the village, situated along the coast. Extensively covered by mudflats formed by silt deposition of river Narmada & Kim, the site also has naturally grown mangroves.

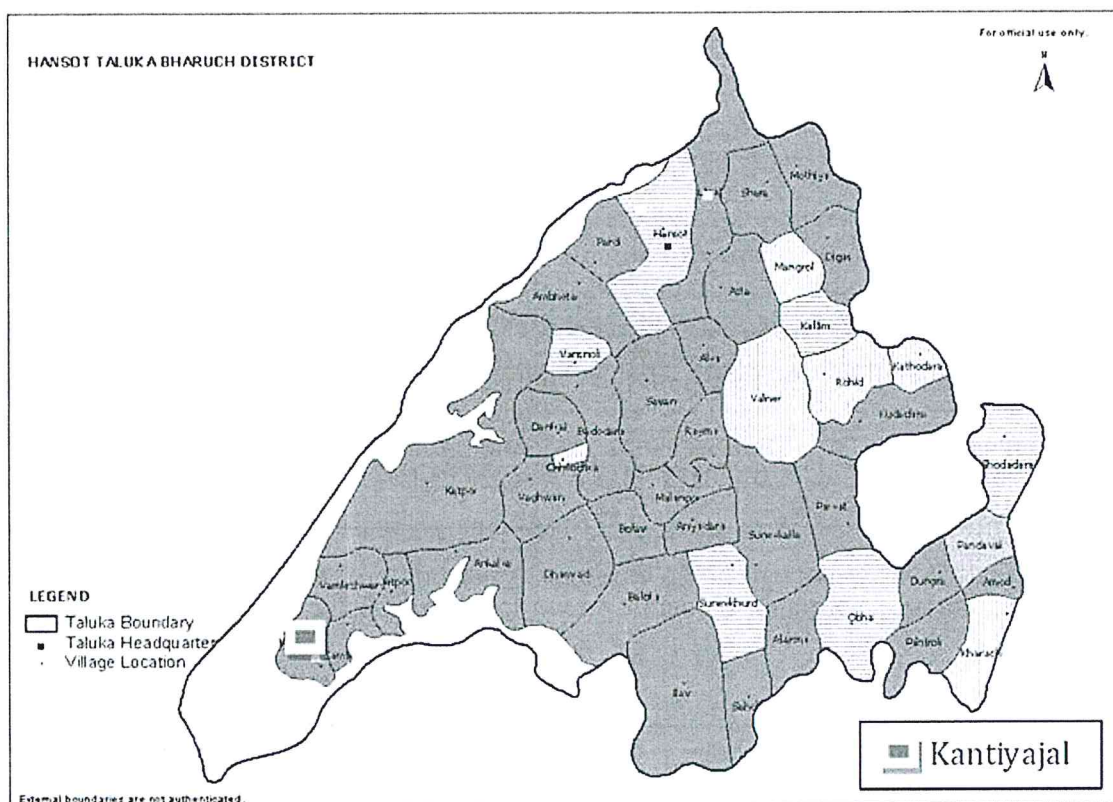


Figure -1: Map Showing Location One At Village: Kantiyajal



**B. Location Two At Village: Nada-Devla:-**

Nada is a small coastal Village in Jambusar taluka in Bharuch District of Gujarat State. It is located 60 Km towards west from district headquarter Bharuch. The village population comprises of small and marginal farmers, agricultural laborers, salt pan worker and fishermen. Approximate population count is 5,200

Situated towards the Northern side of Nada is Village Devla with a population of more than 6,000 people. Here too the community comprises of small and marginal farmers, agriculture laborers, salt pan workers and fishermen.

This site is 02 kilometers from Nada village of Jambusar Taluka. The site of 180 hectares extends in a stretch through village Nada towards its neighboring village Devla. There are mudflats making this region suitable for mangrove plantation. As this site is near Jambusar town it is well connected by road and hence easily approachable.

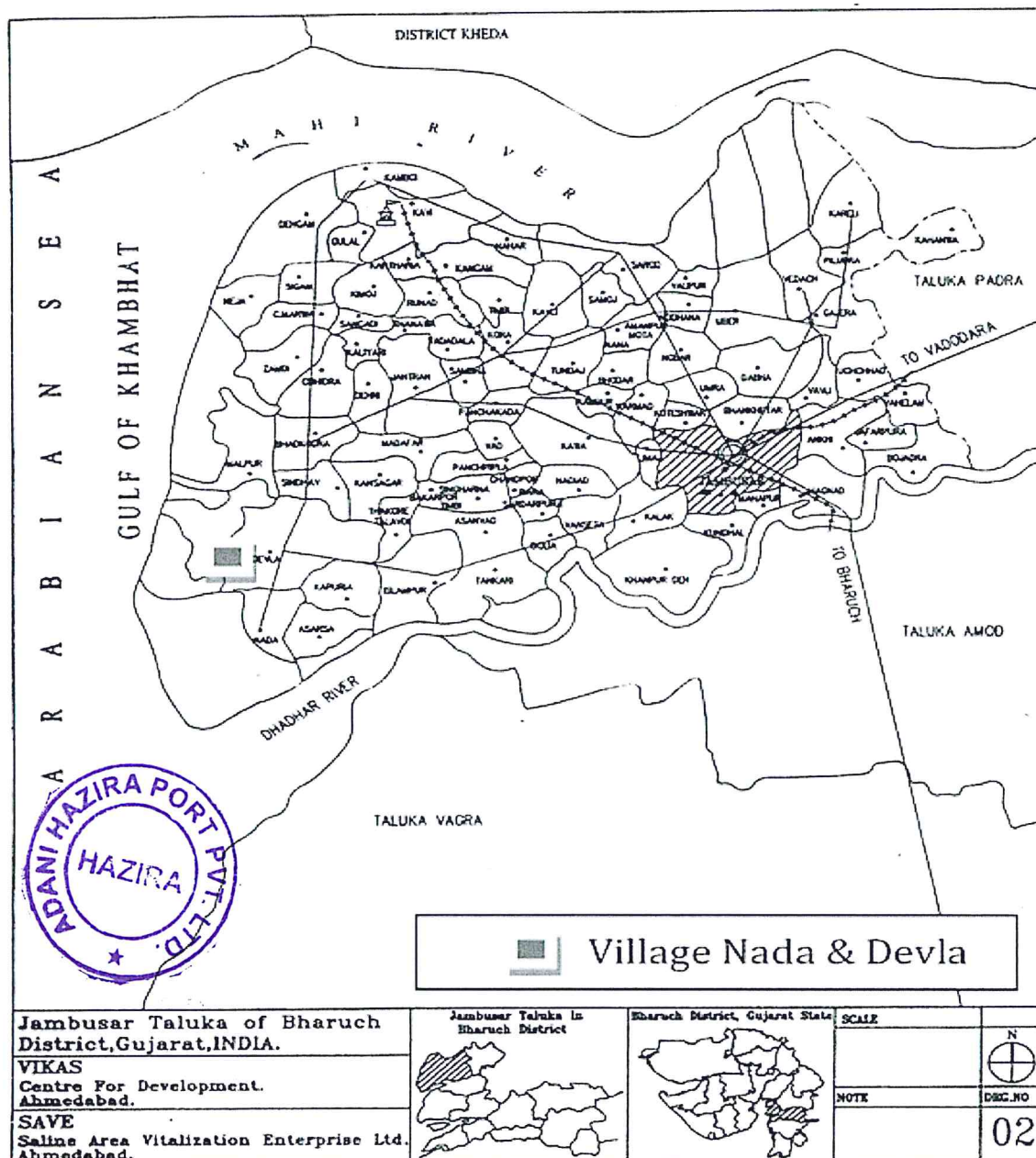


Figure-2: Map Showing Location Two At Village: Nada & Devla

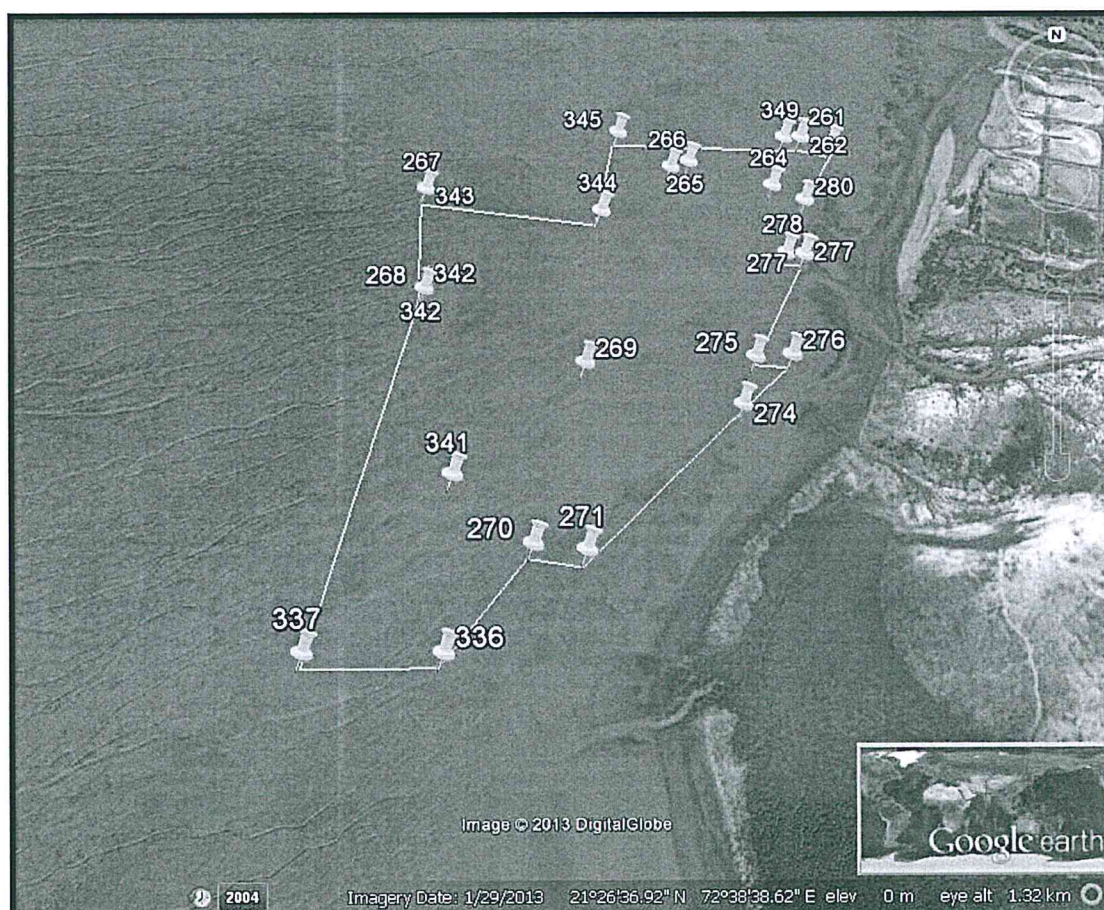


**C. Mangrove Plantation At Village: Kantiyajal: -**

<b>Location</b>	Village: Kantiyajal Taluka: Hansot, District: Bharuch
<b>Coordinates</b>	N 21°27'15.12" E 72°39'39.97"
<b>Area</b>	20 Hectares
<b>Topography</b>	Mudflats
<b>Average rainfall</b>	1008 mm in the area
<b>Soil pH</b>	8.6
<b>Salinity</b>	Alkaline
<b>Land elevation</b>	Flat plain 6 Mt
<b>Sedimentation</b>	5-7 cm/annum
<b>Dominant species</b>	Avicenna marina
<b>Source of propagules</b>	Available within 0 km from the site
<b>Available propagules</b>	Avicenna marina
<b>Project Period</b>	2013-2016
<b>Implementing Agency</b>	Saline Area Vitalization Enterprise Ltd., Ahmedabad
<b>Community Based Organization</b>	Janshakti Parishad, Jambusar



At village Kantiyajal Mangrove plantation was carried out in 50 hectares out of which survival was in 20 hectares only. Almost 75,000 mangroves were planted in this area. The plantation was carried out through formation of Nursery followed by plantation.



**Figure-3: Google Map Showing Mangrove Plantation In 20 Hectares Area**

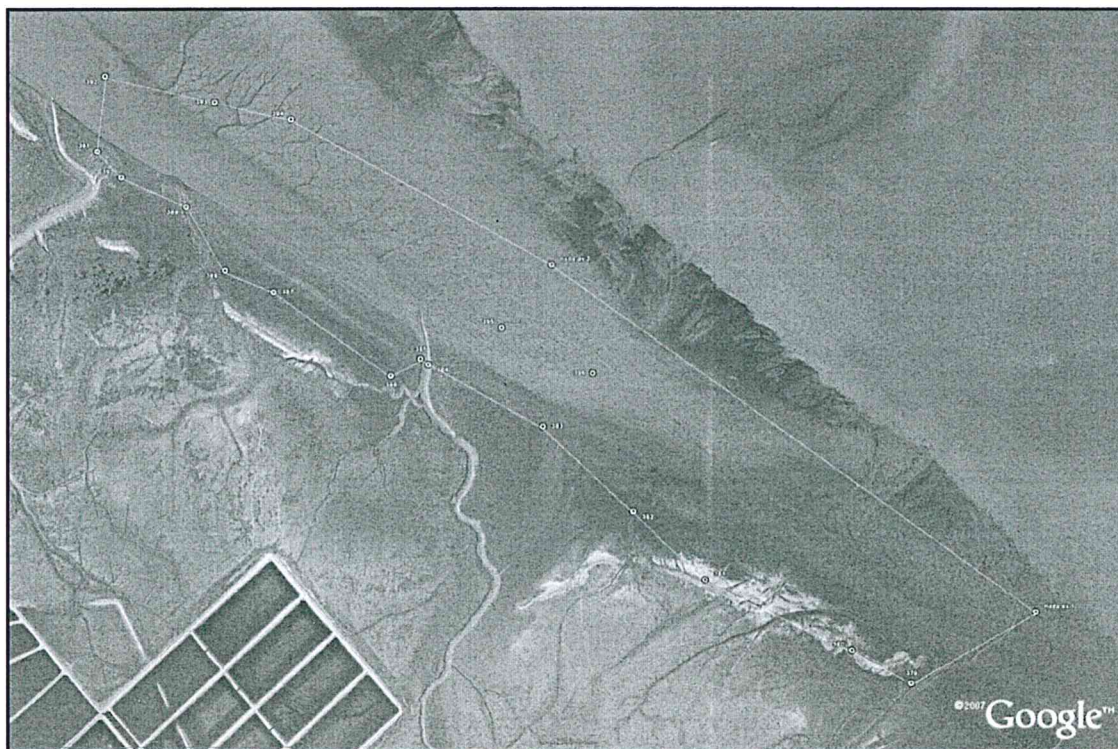


**D. Mangrove Plantation At Village: Nada-Devla**

<b>Location</b>	Village: Nada & Devla, Taluka: Jambusar, District: Bharuch (Gujarat)
<b>Coordinates</b>	N 21°56'18.7" E 72°30.2'7.7", - Nada Village N 21°56'15.7" E 72°23.0'16.1" - Devla Village
<b>Area</b>	180 Hectares
<b>Topography</b>	Mudflats
<b>Average rainfall</b>	605.42 mm
<b>Soil pH</b>	8.4
<b>Salinity</b>	Alkaline
<b>Land elevation</b>	Flat plain 6 Mt
<b>Sedimentation</b>	5-7 cm/annum
<b>Dominant species</b>	Avicenna marina
<b>Source of propagules</b>	Available within 5 km from the site
<b>Available propagules</b>	Avicenna marina
<b>Project Period</b>	2013-2016
<b>Implementing Agency</b>	Saline Area Vitalisation Enterprise Ltd., Ahmedabad
<b>Community Based Organization</b>	Janshakti Parishad, Jambusar



At this site mangrove plantation was carried out through Direct Dibbling and Nursery formation & plantation. Till date the planted area is 180 hectares, with more than 3,000 mangrove plants per hectare.



**Figure-4: Google Map Showing Mangrove Plantation In 180 Hectares Area**



## 5. PICTURE GALLERY OF MANGROVE PLANTATION / AFFORESTATION ACTIVITIES:-



Picture-1: Mangrove Plantation Activity



Picture-2: Mangrove Plantation Activity





**Picture-3: Mangrove Plantation Activity**



**Picture-4: Mangrove Plantation Activity**





**Picture-5: Mangrove Plantation Activity**



**Picture-6: Mangrove Plantation Activity**

\*\*\*