

AKBTPL/EnvCell/2021-22/001**Date:** 27.11.2021

To

The Inspector General of Forest / Scientist C,

Integrated Regional Office (IRO),

Ministry of Environment, Forest and Climate Change,

Aranya Bhawan, A Wing, Room No. 409,

Near CH 3 Circle, Sector – 10A,

Gandhinagar – 382007.

E-mail: eccomplinace-guj@gov.in, rowz.bpl-mef@nic.in

Sub : Half yearly Compliance report of Environment and CRZ clearance for the project namely "Construction of berthing & allied facilities off Tekra near Tuna, Gujarat"

Ref : 1) Environment and CRZ clearance issued to M/s Kandla Port Trust (KPT) vide letter no. 10-10/2008-IA-III dated 1st November, 2011 and transferred to M/s Adani Kandla bulk Terminal Private Limited (AKBTPL) vide letter no. 10-10/2008-IA-III dated 10th November, 2014
2) CRZ Recommendation for creation of Berthing and Allied Facilities off Tekra near Tuna issued by Forest and Environment, Govt. of Gujarat vide letter bearing no. ENV-10-2009-1543-E dated 23rd June, 2010.

Dear Sir,

Please refer to the above cited reference for the said subject matter. In connection to the same, it is to state that copy of the compliance report for the Environmental and CRZ Clearance for the period of April-2021 to September-2021 is being submitted through soft copy (e-mail communication & CD).

Kindly consider above submission and acknowledge.

Thank you,

Yours Faithfully,

For **M/s Adani Kandla Bulk Terminal Pvt. Ltd.****Hiren Shah**

Authorized Signatory

Encl: As above**Copy to:**

- 1) The Additional Secretary, MoEF&CC, Regional Office (WZ), E-5, Kendriya, Paryavaran Bhawan, Arera Colony, Link Road No. – 3, Bhopal – 462016.
- 2) The Director (IA Division), Ministry of Environment, Forests & Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110003.
- 3) The Zonal Officer, Regional Office, CPCB – Western Region, Parivesh Bhawan, Opp. VMC Ward Office No. 10, Subhanpura, Vadodara – 390023.
- 4) The Member Secretary, GPCB – Head Office, Paryavaran Bhawan, Sector 10 A, Gandhi Nagar – 382010.
- 5) The Director, Forests & Environment Department, Block – 14, 8th floor, Sachivalaya, Gandhi Nagar – 382010.
- 6) The Regional Officer, Regional Office GPCB (Kutch-East), Gandhidham – 370201.

Environmental and CRZ Clearance Compliance Report

Of



Construction of berthing & allied facilities
off Tekra near Tuna, Gujarat

Of

Adani Kandla Bulk Terminal Pvt. Ltd.

For Period:

April 2021 to September 2021

**Environmental and CRZ Clearance Letter
issued by MoEF&CC**

Compliance to Environmental and CRZ Clearance Letter issued by MoEF&CC

Environmental and CRZ clearance was obtained by Deendayal Port Trust (DPT) [Earlier named as Kandla Port Trust (KPT)] vide MoEF&CC letter dated 01.11.2011. AKBTPL and DPT entered in to concession agreement for development of the dry bulk terminal at Tuna on BOOT basis. Said clearance was then transferred to AKBTPL vide MoEF&CC letter dated 10.11.2014

Half yearly Compliance report of Environment and CRZ Clearance issued by MoEF dated 1st November, 2011 bearing F. No. 10-10/2008-IA-III for Construction of berthing & allied facilities off Tekra near Tuna, Gujarat

Sr. No	Condition	Compliance status as on 30.09.2021															
5.	Specific Condition																
(i)	"Consent for Establishment" shall be obtained from State Pollution Control Board under Air and Water Act and a copy shall be submitted to the Ministry before start of any construction work at site.	<p>Complied.</p> <ul style="list-style-type: none">Consent to Establishment (CtE) and Consent to Operate (CtO) is Obtained and renewed/amended from time to time as per the progress of the project activity. Construction activities are completed and the project is now in operation phase. The present in-force CtO & amended CTE are mentioned below <table><tr><th>Sr. No</th><th>Permission</th><th>Project</th><th>Ref.No./Order No.</th><th>Validity</th></tr><tr><td>1</td><td>Amendment in CTE</td><td>AKBTPL</td><td>CTE-101194</td><td>30.04.2024</td></tr><tr><td>2</td><td>CtO renewal</td><td>AKBTPL</td><td>AWH-105213</td><td>02.12.2024</td></tr></table> <ul style="list-style-type: none">Copies of the stated permissions were already submitted as a part of half yearly compliance reports for the period of Oct'19 to Mar'20.	Sr. No	Permission	Project	Ref.No./Order No.	Validity	1	Amendment in CTE	AKBTPL	CTE-101194	30.04.2024	2	CtO renewal	AKBTPL	AWH-105213	02.12.2024
Sr. No	Permission	Project	Ref.No./Order No.	Validity													
1	Amendment in CTE	AKBTPL	CTE-101194	30.04.2024													
2	CtO renewal	AKBTPL	AWH-105213	02.12.2024													
(ii)	Scientific studies shall be carried out by some expert and reputed organization like BNHS focusing among other things the marine environment in general and preservation of mangroves in particular against any possible adverse impact due to creation of the proposed facilities.	<p>Complied.</p> <ul style="list-style-type: none">M/s. Gujarat Institute of Desert Ecology (GUIDE), Bhuj has conducted scientific studies for preservation and management of mangroves in May 2012. Details related to the same are already submitted as part of half yearly compliance report (Oct-14 to March-15) to MoEF & CC vide letter dated 11.05.2015 and there is no further change.Further, a study to ascertain tidal flushing in mangroves around the project area of the dry bulk terminal at Tuna was carried through M/s. GUIDE, Bhuj in April, 2014 when construction activities were ongoing. Details related to the same were already submitted as part of half yearly compliance report (Oct-2016 to March-2017).Further, in order to understand the impacts of the existing project activity on															

		<p>marine ecology, a study was carried out through M/s. GUIDE. Details related to the same were already submitted as part of half yearly compliance report (Oct-2016 to March-2017).</p> <ul style="list-style-type: none"> It may be noted that GUIDE is one of the authorized agencies of Forest & Environment dept. Govt. of Gujrat.
(iii)	Proponent shall explore the possibilities of plantation of mangrove in the entire mud flat areas and submit the action plan to the Ministry prior to the commencement of the activity.	<p>Complied.</p> <ul style="list-style-type: none"> Based on the scientific studies for preservation and management of mangroves in May 2012 carried out by M/s. GUIDE it was suggested to DPT to carry out mangrove plantation in 500 ha. area. As agreed, AKBTPL has already completed Mangrove plantation in 250 ha area at Sat Saida bet. Balance 250 ha. Mangrove plantation shall be carried out by DPT. Monitoring report prepared by M/s. GUIDE for mangrove plantation in 250 ha carried out at Sat Saida bet was submitted as part of half yearly compliance report (Oct-14 to March-15) to MoEF & CC vide letter dated 11.05.2015.
(iv)	The dredged material shall be reused for low level rising whenever possible and excess shall be dumped into sea at the designated dumping areas identified based on mathematical model studies.	<p>Complied.</p> <ul style="list-style-type: none"> As per the study carried by IIT-Chennai the dredge material is not suitable for reclamation/low level rising. Capital dredging was completed by DPT during the construction phase and the dredge material was disposed by DPT at a location identified by M/s. CWPRS, Pune in their study report. No capital and maintenance dredging carried out during Period Apr'21 to Sep'21
(v)	Though the project proponent has carried out EIA for individual components and it were examined by the committee before the issue of clearance, it is suggested that proponent shall update and submit a comprehensive EMP for the whole project and submit to the Ministry and Regional Office of the Ministry at Bhopal prior to commencement of the activity.	<p>Complied.</p> <ul style="list-style-type: none"> EMP was updated by AKBTPL and submitted to DPT. DPT has submitted the same vide letter dated 03.12.2013 to MoEF&CC as part of compliance report. Further, said EMP was also submitted by AKBTPL as part of half yearly compliance report (Oct-14 to March-15) to MoEF & CC vide letter dated 11.05.2015 and there is no further change.
(vi)	The project proponent shall set up environmental management cell for	Complied.

	effective implementation of the stipulated environmental safeguards under the supervision of a Senior Executive.	<ul style="list-style-type: none"> AKBTPL has environment management cell with qualified manpower for implementation of environmental safeguards and management. The site environment team directly reports to the Site Head. Further, the site environment cell continuously remains in loop with Corporate Environment Cell. Please refer Annexure - 2 for further details.
(vii)	The funds earmarked for environmental management plan shall be included in the budget and this shall not be diverted for any other purpose.	<p>Complied.</p> <ul style="list-style-type: none"> Environmental Management Plan is in place and the funds earmarked (budgeted separately for the each financial year) are being utilized for effective implementation of environmental safeguards and environment monitoring. All the expenses related to environment management plan are recorded in advanced accounting system of the organization. Expenditure on environmental safeguards (including horticulture) is approx. INR 287.91 Lakh for the period of Apr'21 to Sep'21. Please refer. Annexure - 1 for further details
6	General Condition	
(i)	Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality.	<p>Complied.</p> <ul style="list-style-type: none"> Construction activities of the project are completed in March, 2015. The project is now in operation phase and no digging activities are carried out during Oct'20 to Mar'21.
(ii)	Full support shall be extended to the officers of this Ministry/Regional Office at Bhopal by the project proponent during inspection of the project for monitoring purposes by furnishing full details and action plan including action taken reports in respect of mitigation measures and other environmental protection activities.	<p>Complied.</p> <ul style="list-style-type: none"> AKBTPL is always extending full support to the regulatory authorities during their visit to the project site. Details related to the last visit of Scientist 'D', MoEF&CC, from Regional Office, Bhopal, were submitted as part of half yearly compliance report (Oct-2016 to March-2017).
(iii)	A six monthly monitoring report shall need to be submitted by the project proponent to the Regional Office of this Ministry at Bhopal regarding the	<p>Complied.</p> <p>Compliance report of EC conditions is uploaded regularly. Last compliance report including results of monitoring data for the</p>

	implementation of the stipulated conditions.	<p>period of Oct'20 to Mar'21 was submitted to Regional Office of MoEF&CC @ Bhopal, Zonal Office of CPCB @ Baroda, GPCB @ Gandhinagar & Gandhidham and Dept. of Forests & Env., Gandhinagar vide our letter dated 24.05.2021. Copy of the same is also available on our web site https://www.adaniports.com/Downloads A soft copy of the same was also submitted through e-mail on 26.05.2021 to all the concern authorities. Please refer below for the details regarding past six compliance submissions.</p> <table border="1"> <thead> <tr> <th>SNo.</th><th>Compliance period</th><th>Date of submission</th></tr> </thead> <tbody> <tr> <td>1</td><td>Apr'18 to Sep'18</td><td>25.11.2018</td></tr> <tr> <td>2</td><td>Oct'18 to Mar'19</td><td>16.05.2019</td></tr> <tr> <td>3</td><td>Apr'19 to Sep'19</td><td>21.11.2019</td></tr> <tr> <td>4</td><td>Oct'19 to Mar'20</td><td>11.05.2020</td></tr> <tr> <td>5</td><td>Apr'20 to Sep'20</td><td>27.11.2020</td></tr> <tr> <td>6</td><td>Oct'20 to Mar'21</td><td>31.05.2021</td></tr> </tbody> </table>	SNo.	Compliance period	Date of submission	1	Apr'18 to Sep'18	25.11.2018	2	Oct'18 to Mar'19	16.05.2019	3	Apr'19 to Sep'19	21.11.2019	4	Oct'19 to Mar'20	11.05.2020	5	Apr'20 to Sep'20	27.11.2020	6	Oct'20 to Mar'21	31.05.2021
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6	Oct'20 to Mar'21	31.05.2021																					
(iv)	Ministry of Environment & Forests or any other competent authority may stipulate any additional conditions or modify the existing ones, if necessary in the interest of environment and the same shall be complied with.	<p>Point Noted.</p> <ul style="list-style-type: none"> All applicable conditions in the interest of environment will be complied. 																					
(v)	The Ministry reserves the right to revoke this clearance if any of the conditions stipulated are not complied with the satisfaction of the Ministry.	<p>Point Noted.</p> <ul style="list-style-type: none"> During the last compliance verification visit as mentioned in the sr. no ii of General Conditions above, there was no non-compliance observed. 																					
(vi)	In the event of a change in the project profile or change in the implementation agency, a fresh reference shall be made to the Ministry of Environment and Forests.	<p>Complied.</p> <ul style="list-style-type: none"> Details related to transfer of EC/CRZ clearance in the name of AKBTPPL are submitted as part of half yearly compliance report (Oct-14 to March-15) to MoEF & CC vide letter dated 11.05.2015. Please refer point no. I of specific conditions for further details. 																					
(vii)	The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and date of start of land development work.	<p>Complied.</p> <ul style="list-style-type: none"> DPT has informed about the Financial closure vide their letter no. EG/WK /4604(EC)/562 dated 26th December, 2012. There is no further change. 																					

(viii)	A copy of the clearance letter shall be marked to concern Panchayat /local NGO, if any, from whom any suggestion /representation have been made, received while processing the proposal.	<ul style="list-style-type: none"> Condition is not applicable to AKBTPL.
(ix)	State Pollution Control Board shall display a copy of the clearance letter at the Regional Office, District Industries Centre and Collector's Office/ Tehsildar's office for 30 days.	<ul style="list-style-type: none"> Condition is not applicable to AKBTPL.
7	These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 1994 including the amendments and rules made thereafter.	<p>Complied.</p> <ul style="list-style-type: none"> Permissions under the applicable rules and acts mentioned are already obtained. Please refer point no. 1 of specific conditions for further details.
8	All other statutory clearances such as the approvals for the storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980, Wildlife (Protection) Act, 1972 etc shall be obtained as applicable by the project proponents from the respective competent authorities.	<p>Not Applicable.</p> <ul style="list-style-type: none"> The permissions from the authorities mentioned in the condition are not applicable to this project.
9	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 Env. Clearance and copies of clearances letters are available with the State Pollution Control Board and may also be seen on the website of the Ministry of Environment and Forests at http://www.envfor.nic.in . The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to RO of this Ministry at Bhopal.	<p>Complied.</p> <ul style="list-style-type: none"> DPT has published advertisement regarding accordance of the Environmental and CRZ clearance within 10 days from the date of receipt of the Clearance letter in two local newspapers (Aaj Kal and Divya Bhaskar) and copy of the same was submitted to the Regional office, MoEF&CC Bhopal by DPT vide letter no. EG/WK/4604(EC)/1036 dated 25th November, 2011.
10	Environmental 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	<ul style="list-style-type: none"> Noted and same will be complied based on further directions given by concerned authorities in this regard.

	Petition (Civil) No. 460 of 2004 as may be applicable to this project.	
11	Status of compliance to the various stipulated environmental conditions and environmental safeguards will be uploaded by the project proponent in its website.	Complied. <ul style="list-style-type: none"> Please refer Point No. iii (Main Point 6 – General Condition) for compliance submission
12	A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad/Municipal Corporation, Urban Local Body and the Local NGO, if any from whom suggestions / representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.	Complied. <ul style="list-style-type: none"> Clearance letter is uploaded on our website: https://www.adaniports.com/Downloads
13	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.	Complied. <p>Please refer Above point no. 11 of General conditions</p>
14	The environmental statement for each financial year ending 31 st March in Form –V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environmental (Protection) Rules, 1986 as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.	Complied. <ul style="list-style-type: none"> Environment Statement for FY 2020– 21 has already been submitted to GPCB vide letter No. AKBTPL /ENVSTATEMENT /2020-21 dated 12.05.2021. Copy of the same is attached as Annexure – 3. The said Environment Statement is also uploaded on our website: https://www.adaniports.com/Downloads

Compliance to CRZ Recommendation Letter

**Issued by Forest and Environment
Department, Govt. of Gujarat**

Half yearly Compliance report of CRZ Recommendation for creation of Berthing and Allied Facilities off Tekra near Tuna issued by Forest and Environment, Govt. of Gujarat vide letter bearing no. ENV-10-2009-1543-E dated 23rd June, 2010

Sr. No	Condition	Compliance
1	The provisions of the CRZ notification of 1991 and subsequent amendments issued from time to time shall be strictly adhered to by the KPT. No activity in contradiction to the provisions of the CRZ Notification shall be carried out by the KPT.	Complied. <ul style="list-style-type: none"> All activities are in line with the CRZ Notification 1991 and its subsequent amendment.
2	No dredging reclamation or any other project related activities shall be carried out in the CRZ area categorized as CRZ I (i) and it shall have to be ensured that the mangroves habitats and other ecologically important and significant areas, if any, in the region are not affected due to any of the project activities.	Complied. <ul style="list-style-type: none"> Construction of the project is completed in March, 2015. All construction activities were carried out as per the environmental and CRZ clearance granted vide MoEF&CC letter dated 01.11.2011. All necessary precautions such as allowing free flow of water in the mangrove areas, waste management as per the applicable laws, treatment of sewage, dust suppression measures etc. are taken to ensure that the mangroves habitats and other ecologically important and significant areas in the region are not affected due to any of the project activities.
3	The KPT shall participate financially for installing and operating the Vessel Traffic Management System in the Gulf of Kutch and shall also take lead in preparing and operational sing the Regional Oil Spill Contingency plan in the Gulf of Kutch.	<ul style="list-style-type: none"> Complied. M/s Kandla Port Trust contributed an amount of INR 41.25 Cr for installing and operating VTMS in Gulf of Kutch. Information was submitted to MoEF&CC New Delhi (as part of half yearly compliance report (Apr – Sept, 2014) vide letter dated 13th November, 2014. Please refer condition No.15 regarding Oil spill contingency plan. Regional Level Pollution Response exercise "SWACHCHH SAMUDRA-NW 2019" was carried out by Indian Coast Guard on 18th Dec, 2019. All participants from various Oil Handling Agencies and Stakeholders (ICG, GMB Port, DPT Vadinar, IOCL, RIL, NAYARA Energy, BORL, ESBTL Salaya, APSEZL, HMEL, GSFC, PCB, Forest Dept.,

Half yearly Compliance report of CRZ Recommendation for creation of Berthing and Allied Facilities off Tekra near Tuna issued by Forest and Environment, Govt. of Gujarat vide letter bearing no. ENV-10-2009-1543-E dated 23rd June, 2010

Sr. No	Condition	Compliance
		Customs, Fisheries & DPT Kandla) were participated in this exercise.
4	The KPT shall strictly ensure that no creeks or rivers are blocked due to any activity at Kandla.	<ul style="list-style-type: none"> • Complied. • No rivers are present at the project site. 3 Bridges and 8 culverts have been provided with total cost of 2.01 crores to allow free flow of water through creeks. • Further, a study to ascertain tidal flushing in mangroves around the project area of the dry bulk terminal at Tuna was carried through M/s. GUIDE, Bhuj in April, 2014 when construction activities were ongoing. As outcome of that study is all water parameters are well within prescribe limit and no gross contamination could be discerned showing that the costal water in and around the jetty is clean and unpolluted. Also observed spatial variations in zooplankton density, composition was normal and no events negatively influencing the zooplankton community was noticed during the study. Details related to the same are already submitted as part of half yearly compliance report (Oct-2016 to March-2017). The conditions as mentioned in the report are maintained.
5	Mangrove plantation in an area of 1000 ha. Shall be carried out by the KPT within 5 years in a time bound manner on Gujarat coastline either within or outside the Kandla Port Trust area and six monthly compliance reports along with the satellite images shall be submitted to Ministry of Environment and Forests as well as to this department without fail.	<p>Complied.</p> <ul style="list-style-type: none"> • AKBTPL being BOOT operator, DPT requested AKBTPL to carry out mangrove plantation in 250 ha area. As agreed, AKBTPL has completed Mangrove plantation in 250 ha area at Sat Saida bet. For further information regarding mangrove plantation activity, please refer reply to specific condition no ii and iii of the Environmental and CRZ clearance letter above.

Half yearly Compliance report of CRZ Recommendation for creation of Berthing and Allied Facilities off Tekra near Tuna issued by Forest and Environment, Govt. of Gujarat vide letter bearing no. ENV-10-2009-1543-E dated 23rd June, 2010

Sr. No	Condition	Compliance
6	No activities other than those permitted by the competent authority under the CRZ Notification shall be carried out.	Complied. <ul style="list-style-type: none"> All activities are being carried out as per the Environmental and CRZ clearance granted vide MoEF&CC letter dated 01.11.2011, amended till date.
7	No ground water shall be tapped for any purpose during the proposed expansion/modernization activities.	Complied. <ul style="list-style-type: none"> AKBTPL does not draw any ground water for the water requirement. Present source of water for various operation activities is Narmada water through Gujarat Water Infrastructure Limited (GWIL). Average water consumption is 1124.96 KLD for the period of Apr'21 to Sep'21
8	All necessary permission from different Government Departments/ agencies shall be obtained by the KPT before commencing the expansion activities.	Not applicable at present <ul style="list-style-type: none"> All construction activities are completed in March, 2015. No expansion activities are carried out. All necessary permissions will be obtained in future before commencing the expansion activities. However, an application for carrying out additional capital dredging in the existing approach channel, berth pockets and turning circles (in order to handle capsized vessels, not to expand the approved project activity) to obtain Environment and CRZ clearance is in process with the MoEF&CC. the said activity will be carried out only after obtaining the requisite permissions.
9	No effluent or sewage shall be discharged into the sea/creek or in the CRZ area and it shall be treated to conform to the norms prescribed by the Gujarat Pollution Control Board and would be reused/recycled within the plant premises.	Complied. <ul style="list-style-type: none"> No effluent is generated at the project site. Average 6.26 KLD of domestic sewage generated during the period of Apr'21 to Sep'21. Which is treated in 25 KLD capacities STP based on FAB technology and treated water is being used for horticulture purpose within plant premises. Third party analysis of the treated water is being carried out once in a month by NABL and MoEF&CC

Half yearly Compliance report of CRZ Recommendation for creation of Berthing and Allied Facilities off Tekra near Tuna issued by Forest and Environment, Govt. of Gujarat vide letter bearing no. ENV-10-2009-1543-E dated 23rd June, 2010

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		<p>accredited agency namely M/s. Pollucon Laboratories Pvt. Ltd. Summary of the same for duration from Apr-21 to Sep-21 is mentioned below.</p> <table><tr><th>Parameter</th><th>Unit</th><th>Max</th><th>Min</th><th>Perm. Limit^s</th></tr><tr><td>pH</td><td>-</td><td>7.69</td><td>7.15</td><td>6.5-9</td></tr><tr><td>TSS</td><td>mg/L</td><td>24</td><td>13</td><td>30</td></tr><tr><td>BOD (3 Days @ 27 °C)</td><td>mg/L</td><td>18.4</td><td>9.8</td><td>20</td></tr><tr><td>Fecal Coliform</td><td>MPN/100 MI</td><td>350</td><td>63</td><td><1000</td></tr></table> <p>'as per CC&A granted by GPCB'</p> <ul style="list-style-type: none">Please refer Annexure – 4 for detailed analysis reports. Total expenditures of the Environment monitoring for the period (Apr'21 to Sep'21) are INR 4.31 lakh.	Parameter	Unit	Max	Min	Perm. Limit ^s	pH	-	7.69	7.15	6.5-9	TSS	mg/L	24	13	30	BOD (3 Days @ 27 °C)	mg/L	18.4	9.8	20	Fecal Coliform	MPN/100 MI	350	63	<1000
Parameter	Unit	Max	Min	Perm. Limit ^s																							
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Fecal Coliform	MPN/100 MI	350	63	<1000																							
10	All the recommendations and suggestions given by the NIOT in their Comprehensive Environment Impact Assessment report for conservation /protection and betterment of environment shall be implemented strictly by the KPT.	<p>Complied.</p> <ul style="list-style-type: none">The EMP prepared by NIOT in the EIA report was updated by AKBTPPL (based on the condition mentioned in the EC and CRZ clearance) and submitted to DPT. DPT has submitted the same vide letter dated 03.12.2013 to MoEF&CC as part of compliance report. All the measures mentioned in the updated EMP prepared by AKBTPPL are implemented for environment protection.																									
11	The construction and operation activities shall be carried out in such a way that there is no negative impact on mangroves and other coastal/marine habitats. The construction activities and dredging shall be carried out only under the constant supervision and guidelines of the NIOT.	<p>Complied.</p> <ul style="list-style-type: none">All construction and operation activities are carried out meticulously to ensure that there is no negative impact on mangroves and other coastal / marine habitats. Please refer to Sr. no. ii and iii of the specific conditions of the EC and CRZ clearance above for further details.Construction activities have been completed in March, 2015 based on the NIOT recommendations. During construction phase capital dredging was carried out by DPT and the dredge																									

Half yearly Compliance report of CRZ Recommendation for creation of Berthing and Allied Facilities off Tekra near Tuna issued by Forest and Environment, Govt. of Gujarat vide letter bearing no. ENV-10-2009-1543-E dated 23rd June, 2010

Sr. No	Condition	Compliance
		<p>material was disposed at a location identified by M/s. CWPRS, Pune in their study report.</p> <ul style="list-style-type: none"> No dredging activities are carried out during Apr'21 to Sep'21
12	The KPT shall contribute financially for any common study or project that may be proposed by this Department for environmental management/ conservation / improvement for the Gulf of Kutch.	<ul style="list-style-type: none"> Noted and same will be complied on receipt of such recommendations from concerned authorities
13	The construction debris and/or any other type of waste shall not be disposed-off into the sea, creek or in the CRZ areas. The debris shall be removed from the construction site immediately after construction is over.	<p>Complied.</p> <ul style="list-style-type: none"> Construction of the project is completed in March, 2015.
14	The construction camps shall be located outside the CRZ area and the construction labour shall be provided with the necessary amenities, including sanitation, water supply and fuel and it shall be ensured that the environmental conditions are not deteriorated by the construction labours.	<p>Complied.</p> <ul style="list-style-type: none"> Construction of the project is completed in March, 2015 and during construction of the project we have provided necessary amenities like sanitation, water supply and fuel to the construction labours. Also we have ensured that environmental conditions are not deteriorated by the construction labours during the construction activities.
15	The KPT shall regularly update its Local Oil Spill Contingency and Disaster Management Plan in consonance with the National Oil Spill and Disaster Contingency Plan and shall submit the same to the MoEF, GOI and this Department after having it vetted through the Indian Coast Guard.	<p>Complied.</p> <ul style="list-style-type: none"> DPT is already having updated Disaster Management Plan as well as Oil Spill Contingency Plan. DPT has also executed MoU with oil companies i.e. IOCL, HPCL, BPCL etc. for setting up of their Tier I facility for combating Oil Spill at Kandla. Necessary action will be taken by AKBTPPL in consultation with DPT to combat with emergency situations.
16	The KPT shall bear the cost of the external agency that may be appointed by this Department for supervision/ monitoring of proposed activities and the environmental impacts of proposed activities.	<ul style="list-style-type: none"> Noted and same will be complied on receipt of such recommendations from concerned authorities

Half yearly Compliance report of CRZ Recommendation for creation of Berthing and Allied Facilities off Tekra near Tuna issued by Forest and Environment, Govt. of Gujarat vide letter bearing no. ENV-10-2009-1543-E dated 23rd June, 2010

Sr. No	Condition	Compliance
17	The KPT shall take up massive greenbelt development activities in and around Kandla and also within the KPT limits.	<p>Complied.</p> <ul style="list-style-type: none"> Plantation activity is an on-going process. As part of the same, greenbelt within and along the periphery of the back-up area is being developed on regular basis. Approx. 15.89 hectare area is developed till Sep'21 as greenbelt so far with various types of trees Approx. 43,734 saplings (Trees & Plants) and lawn. Please refer Annexure - 5 for further details regarding greenbelt development. Total expenditures of the horticulture dept. for the period of Apr'21 to Sep'21 are INR 25 lakh.
18	The KPT shall have to contribute financially for taking up the socio-economic upliftment activities in this region in consultation with the Forest and Environment Department and the District Collector/District Development Officer.	<p>Complied.</p> <ul style="list-style-type: none"> Adani Foundation is the CSR wing of Adani group. All CSR activities are planned out at Tuna by Adani Foundation. AF works in the following four main areas: <ol style="list-style-type: none"> Education Community Health Sustainable livelihood Rural Infrastructure Development Various activities related to above mentioned areas are being carried out on regular basis for socio-economic upliftment of surrounding villages by Adani Foundation. Details of the activities carried out are shared with FOKIA (Federation of Kutch Industries Association) chaired by District Collector quarterly. Total expenditures of the CSR activities are INR 31.10 lakh for the period Apr'21 to Sep'21. Please refer Annexure - 6 for details.
19	A separate budget shall be earmarked for environmental management and socio-	Complied.

Half yearly Compliance report of CRZ Recommendation for creation of Berthing and Allied Facilities off Tekra near Tuna issued by Forest and Environment, Govt. of Gujarat vide letter bearing no. ENV-10-2009-1543-E dated 23rd June, 2010

Sr. No	Condition	Compliance																																			
	economic activities 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.	<ul style="list-style-type: none">Main constituents of the environmental management plan are environmental monitoring; greenbelt development; mangrove plantation; maintaining bridges/ culverts for protection of creeks; treatment and disposal of wastes; mechanization of operations etc.Approximately INR 287.91 Lakh is spent during period (Apr'21 to Sep'21) for various activities mentioned here. Please refer to Annexure – 1 for details related to environmental expenditures and Annexure – 6 for expenditures related to CSR activities.																																			
20	A separate environmental 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">AKBTPL has environment management cell with qualified manpower for implementation of environmental safeguards and management. The Environment Cell continuously remains in loop with Corporate Environment Cell. Please refer Annexure – 2 for further details.																																			
21	An Environmental report indicating the changes, if any, with respect to the baseline environment quality in the coastal and marine environment shall be submitted every year by the KPT to this Department as well as to the MoEF, Gol.	Complied. <ul style="list-style-type: none">Ambient Air Quality (twice in a week), Ambient Noise (once in a month) level monitoring at 4 Nos locations and marine water and sediment monitoring (once in a month) at 2 Nos locations are being carried out by NABL and MoEF&CC accredited agency namely M/s. Pollucon Laboratories Pvt. Ltd. Summary of the same for duration from Apr-21 to Sep-21 is mentioned below. <table><tr><th colspan="5">AAQM and Ambient Noise Monitoring</th></tr><tr><th>Parameter</th><th>Unit</th><th>Max</th><th>Min</th><th>Perm. Limit^s</th></tr><tr><td>PM₁₀</td><td>µg/m³</td><td>94.63</td><td>46.36</td><td>100</td></tr><tr><td>PM_{2.5}</td><td>µg/m³</td><td>53.50</td><td>15.36</td><td>60</td></tr><tr><td>SO₂</td><td>µg/m³</td><td>26.28</td><td>6.25</td><td>80</td></tr><tr><td>NO₂</td><td>µg/m³</td><td>43.56</td><td>14.25</td><td>80</td></tr><tr><td>Noise</td><td>Unit</td><td>Leq Max</td><td>Leq Min</td><td>Leq Perm. Limit*</td></tr></table>	AAQM and Ambient Noise Monitoring					Parameter	Unit	Max	Min	Perm. Limit ^s	PM ₁₀	µg/m ³	94.63	46.36	100	PM _{2.5}	µg/m ³	53.50	15.36	60	SO ₂	µg/m ³	26.28	6.25	80	NO ₂	µg/m ³	43.56	14.25	80	Noise	Unit	Leq Max	Leq Min	Leq Perm. Limit*
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Half yearly Compliance report of CRZ Recommendation for creation of Berthing and Allied Facilities off Tekra near Tuna issued by Forest and Environment, Govt. of Gujarat vide letter bearing no. ENV-10-2009-1543-E dated 23rd June, 2010

Sr. No	Condition	Compliance																																																																																																												
		<table><tr><td>Day Time</td><td>dB(A)</td><td>74.5</td><td>52.8</td><td>75</td></tr><tr><td>Night Time</td><td>dB(A)</td><td>69.9</td><td>44.6</td><td>70</td></tr></table> <p>* as per NAAQ standards, 2009 (IS 9876/IS 9989) * as per CC&A granted by GPCB</p> <p>Marine water and sediment sampling locations: 2 Nos.</p> <table><tr><th rowspan="2">Parameter</th><th rowspan="2">Unit</th><th colspan="2">Surface</th><th colspan="2">Bottom</th></tr><tr><th>Max</th><th>Min</th><th>Max</th><th>Min</th></tr><tr><td>pH</td><td>--</td><td>8.31</td><td>8.09</td><td>8.27</td><td>8.02</td></tr><tr><td>TDS</td><td>mg/L</td><td>38126</td><td>35549</td><td>38420</td><td>35984</td></tr><tr><td>TSS</td><td>mg/L</td><td>125</td><td>92</td><td>109</td><td>85</td></tr><tr><td>BOD (3 Days @ 27 °C)</td><td>mg/L</td><td>3.5</td><td>2.6</td><td>ND*</td><td>ND*</td></tr><tr><td>DO</td><td>mg/L</td><td>6</td><td>5.8</td><td>5.9</td><td>5.6</td></tr><tr><td>Salinity</td><td>ppt</td><td>36.70</td><td>33.84</td><td>36.90</td><td>34.30</td></tr><tr><td>COD</td><td>mg/L</td><td>27.8</td><td>10.5</td><td>19.4</td><td>8.6</td></tr></table> <p>ND* - NOT DETECTED</p> <table><tr><th rowspan="2">Parameter</th><th rowspan="2">Unit</th><th colspan="2">Sediment</th></tr><tr><th>Max</th><th>Min</th></tr><tr><td>Organic Matter</td><td>%</td><td>0.51</td><td>0.37</td></tr><tr><td>Phosphorus as P</td><td>mg/kg</td><td>719</td><td>573</td></tr><tr><td>Aluminium as Al</td><td>%</td><td>4.82</td><td>4.13</td></tr><tr><td>Total Chromium as Cr+3</td><td>mg/kg</td><td>158</td><td>106</td></tr><tr><td>Manganese as Mn</td><td>mg/kg</td><td>813</td><td>653</td></tr><tr><td>Iron as Fe</td><td>%</td><td>4.76</td><td>4.19</td></tr><tr><td>Nickel as Ni</td><td>%</td><td>56</td><td>35</td></tr><tr><td>Copper as Cu</td><td>mg/kg</td><td>49</td><td>31.8</td></tr><tr><td>Zinc as Zn</td><td>mg/kg</td><td>136</td><td>102</td></tr><tr><td>Lead as Pb</td><td>mg/kg</td><td>3.27</td><td>1.78</td></tr></table> <ul style="list-style-type: none">Please refer Annexure – 4 for detailed analysis reports. Approx. INR 4.31 Lakh is spent for all environmental monitoring activities during the period of Apr’21 to Sep’21.	Day Time	dB(A)	74.5	52.8	75	Night Time	dB(A)	69.9	44.6	70	Parameter	Unit	Surface		Bottom		Max	Min	Max	Min	pH	--	8.31	8.09	8.27	8.02	TDS	mg/L	38126	35549	38420	35984	TSS	mg/L	125	92	109	85	BOD (3 Days @ 27 °C)	mg/L	3.5	2.6	ND*	ND*	DO	mg/L	6	5.8	5.9	5.6	Salinity	ppt	36.70	33.84	36.90	34.30	COD	mg/L	27.8	10.5	19.4	8.6	Parameter	Unit	Sediment		Max	Min	Organic Matter	%	0.51	0.37	Phosphorus as P	mg/kg	719	573	Aluminium as Al	%	4.82	4.13	Total Chromium as Cr+3	mg/kg	158	106	Manganese as Mn	mg/kg	813	653	Iron as Fe	%	4.76	4.19	Nickel as Ni	%	56	35	Copper as Cu	mg/kg	49	31.8	Zinc as Zn	mg/kg	136	102	Lead as Pb	mg/kg	3.27	1.78
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22	The KPT shall have to contribute financially to support the National Green Corps Scheme being implemented in the Gujarat by GEER Foundation, Gandhi agar, in consultation with Forest and Environment Department.	<p>Complied.</p> <ul style="list-style-type: none">National Green Corps Scheme is being implemented by GEER foundation. AKBTPL requested GEER foundation to provide details of the program and financial assistance required so that necessary support may be provided. Further to the communication from GEER foundation, various activities were carried out on 21 March, international Day of Forests in 2014, at a school in Rampar, under National Green Corps. Details regarding the same were submitted as part of the compliance period Oct’ 13 to Mar’14.																																																																																																												

Half yearly Compliance report of CRZ Recommendation for creation of Berthing and Allied Facilities off Tekra near Tuna issued by Forest and Environment, Govt. of Gujarat vide letter bearing no. ENV-10-2009-1543-E dated 23rd June, 2010

Sr. No	Condition	Compliance
		Support will be extended to GEER foundation for any such activities in future
23	A six monthly report on compliance of the conditions mentioned in this letter shall have to be furnished by the KPT on a regular basis to this Department/MoEF, GOI.	Complied. For further details, please refer point no. iii (Main Point No. 6 – General Condition).
24	The KPT before commencing any activity, at the location under the consideration, shall have the latest CRZ map prepared through one of the authorized agencies and the map shall have land use features within the area of 5 km radius from the location along with the HTL and LTL and CRZ boundary and inland if any or mangroves area shall be used for the proposed development.	Complied. <ul style="list-style-type: none"> CRZ map including land features prepared by institute of Remote sensing, Anna University, Chennai is already submitted by DPT to MoEF&CC vide letter no. EG/WK/4604 (EC)/146 dated 14.02.2012.
25	The entire jetty and approach shall be constructed on piles to ensure the free flow of water and that no creeks are blocked in any way.	Complied. <ul style="list-style-type: none"> As per the Environmental/ CRZ clearance obtained from MoEF&CC approach road of 2 km is constructed on rubble mound and 1.7 km approach road below low water line is constructed on piles. Entire jetty is constructed on piles. Bridges are constructed at three creeks and box/piped culverts are placed with total cost of 2.01 crores at various locations to allow free flow of water. Photographs of the same were already submitted as part of half yearly compliance report (Oct-14 to March-15) to MoEF & CC vide letter dated 11.05.2015 and there is no further change.
26	The KPT shall create a full-fledged and environmental cell for implementation of the Environment Management Programme and monitoring of the environmental parameters/post project monitoring.	Complied. <ul style="list-style-type: none"> Please refer above point no. (vi) of Specific conditions.

Half yearly Compliance report of CRZ Recommendation for creation of Berthing and Allied Facilities off Tekra near Tuna issued by Forest and Environment, Govt. of Gujarat vide letter bearing no. ENV-10-2009-1543-E dated 23rd June, 2010

Sr. No	Condition	Compliance
27	The KPT shall have to take up in-situ biodiversity conservation project for mangroves at least in 5 ha. of area in addition to plantation of mangrove in 1000 ha.	Complied. <ul style="list-style-type: none"> 5 ha in-situ biodiversity conservation project for mangroves is carried out at sat saida bet (location identified by DPT). M/s GUIDE has prepared a final report of the same. Details related to the same are already submitted (as part of half yearly compliance report Apr-2017 to Sep-2017).
	General conditions	
28	A separate budget shall be earmarked for environmental management and socio-economic activities 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.	Complied. <ul style="list-style-type: none"> Please refer point no. 19 above for the reply to this condition.
29	Any other condition that may be stipulated by this Department from time to time for environment protection /management purpose shall also have to be complied with by the KPT.	<ul style="list-style-type: none"> Agreed.

Annexure – 1

Expenditure Details on Environmental Safeguards

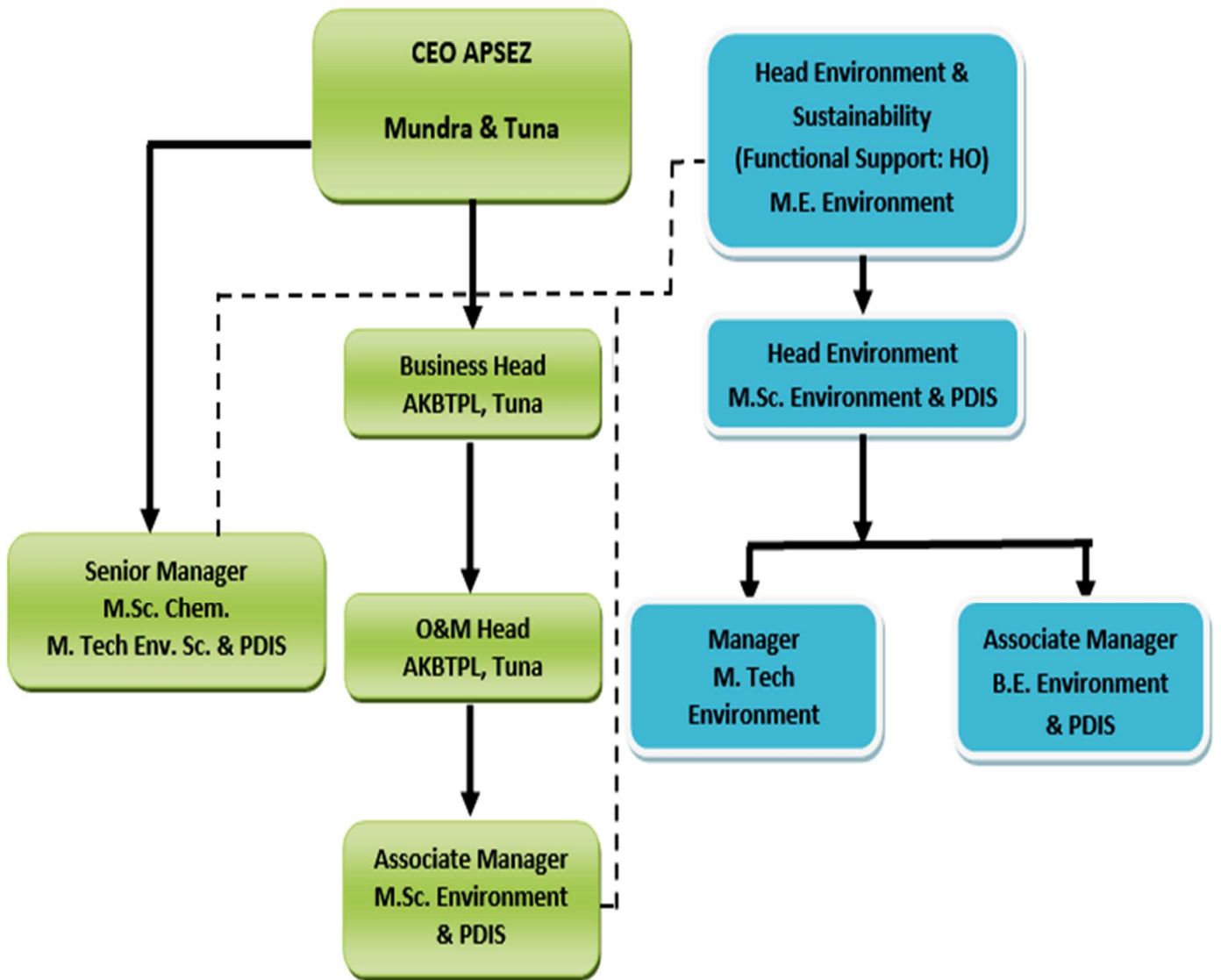
Expenditure Details on Environmental Safeguards

Sr. No.	Activity	Cost incurred (INR in Lacs)			Budgeted Cost (INR in Lacs)
		2019 - 20	2020 - 21	2021 - 22 (Apr'21 to Sep'21)	2021 - 22
1.	Environmental Monitoring	8.12	7.04	4.31	9.18
2.	Environment Days Celebration, Awareness Program, Award Application	1.03	0.82	0.76	2
3.	Greenbelt development	43.64	38.17	25	40
4.	Treatment and Disposal of Bio-medical Waste	0.79	0.84	0.49	1
5.	Hazardous/Non Hazardous waste management & Disposal	7.36	11.95	3.46	13.5
6.	O&M of sewage treatment plant and OWC plant	7.53	7.35	3.98	9
7.	Dust Suppression Equipment.	221.73	223.21	133.09	306.32
8.	Dust Suppression for Water Cost.				
9.	Maintenance of conveyor belt.	87.40	167.39	116.82	198.04
10.	EMC Cost	11	12	6.1	13
Total		388.06	468.77	294.01	592.04

Annexure – 2

Details of Environmental Management Cell

Environmental Management Cell (AKBTPL, Tuna)



Annexure – 3

FORM-V: Environmental Statement for 2020 – 21

FORM-V: Environmental Statement for 2020 – 21

adani

Ports and
Logistics

016
PCB ID: 46110

Ref No. AKBTPL/ENVSTATEMENT/2020-21

Date: 20th April, 2021

To,
Member Secretary
Gujarat Pollution Control Board
Paryavaran Bhavan,
Sector-10-A, Gandhinagar-382010

Sub: Environmental Statement for the financial year ending 31st March, 2021 for M/s
Adani Kandla Bulk Terminal Pvt Ltd (AKBTPL)

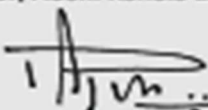
Ref: PCB ID: - 46110, Consent Order No. AWH - 105213

Dear Sir,

With reference to the above mentioned subject and reference, please find enclosed Environmental Statement in Form-V prescribed under Rule 14 of the Environment (Protection) Rules 1986, for M/s Adani Kandla Bulk Terminal Pvt Ltd, Ta. Anjar for the financial year ending 31st March 2021.

Thank you,

For, Adani Kandla Bulk Terminal Pvt Ltd


Authorized Signatory
Ajit Pisharody (OBM Head - AKBTPL)

Encl: As above.

Copy to:

1. The Regional Officer, Gujarat Pollution Control Board, Gandhidham,

Adani Kandla Bulk Terminal Pvt Ltd
Adani House,
Nr Mithakhali Circle, Navrangpura
Ahmedabad 380 009
Gujarat, India
CIN: U63090GJ2012PTC069305

Tel: +91 79 2656 5801
Fax: +91 79 2555 6490
info@adani.com
www.adani.com

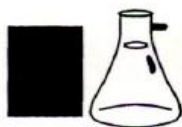
Registered Office: Adani House, Nr Mithakhali Circle, Navrangpura, Ahmedabad 380 009, Gujarat, India

2012-5-21
Received
Gujarat Pollution Control Board
Regional Office
Kutch (East)

Annexure – 4

**Six Monthly Environment Monitoring Report
(Apr '21 to Sep'21)**

Attached in Next..

**POLLUCON****LABORATORIES PVT. LTD.**

Environmental Auditors, Consultants & Analysts.
Cleaner Production / Waste Minimization Facilitator

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

"ENVIRONMENTAL MONITORING REPORT"

For

**ADANI KANDLA BULK TERMINAL PRIVATE LIMITED.
KANDLA, KUTCH.**

APRIL 2021 TO SEPTEMBER 2021

H. T. Shah
Lab Manager

Dr. ArunBajpai
Lab Manager (Q)



POLLUCON LABORATORIES PVT. LTD.

Environmental Auditors, Consultants & Analysts.
Cleaner Production / Waste Minimization Facilitator

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

METHODS AND EQUIPMENTS USED FOR SAMPLING AND ANALYSIS

SR. NO.	Monitoring Details	Equipments Used	Sampling and Analysis Method
1	Ambient Air Quality Monitoring	RDS,FDS, Gaseous Attachment with Impinger	CPCB Guideline/IS:5182
2	Noise Monitoring	Noise Meter	IS 9876/IS 9989
3	Sea Water Monitoring	Depth Sampler	IS:3025/APHA/USEPA/ASTM
4	Sea Sediment Monitoring	Grab Sampler	CPCB Guideline/ IS/APHA/USEPA/ASTM
5	Drinking Water Analysis	Sealed & Sterile Bottle	IS:10500:2012
6	Sewage water Analysis	Sealed & Sterile Bottle	APHA/IS:3025
7	Stack Monitoring	Stack Monitoring Sampler/Kit	IS:11255/NDIR Gas Analyzer
8	Dump Pond Discharge	Sealed & Sterile Bottle	APHA/IS:3025
9	Wind Rose Diagram	Online Weather Station	Wind Rose Plotting Software

H. T. Shah
Lab Manager

Dr. ArunBajpai
Lab Manager (Q)

**POLLUCON****LABORATORIES PVT. LTD.**Environmental Auditors, Consultants & Analysts.
Cleaner Production / Waste Minimization Facilitator

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

NATIONAL AMBIENT AIR QUALITY STANDARDS**DATED 16TH NOV.2009, CPCB NEW DELHI.**

SR. NO.	TEST PARAMETER	UNIT	Concentration in ambient air	Method Of Measurement
1	Particulate Matter (PM ₁₀)	µg/m ³	100	IS:5182(Part 23) SOP AAQM SPM -01
2	Particulate Matter (PM _{2.5})	µg/m ³	60	SOP AAQM PM2.5 – 06
3	Sulphur Dioxide (SO ₂)	µg/m ³	80	IS:5182(Part 2): Improved West and Gaeke
4	Oxides of Nitrogen (NO ₂)	µg/m ³	80	IS:5182(Part6)Modified Jacob &Hochheiser (Na-Arsenite)

NS#: Not Specified, ** National Ambient Air Quality Standards Dated: 18/11/2009 as per Central Pollution Control Board, New Delhi.

H. T. Shah
Lab Manager**Dr. ArunBajpai**
Lab Manager (Q)

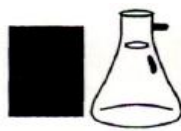


Recognised by MoEF, New Delhi Under Sec. 12 of Environmental (Protection) Act-1986

TABLE NO. 1 RESULTS OF AAQM FOR LC GATE NO.2 [APRIL 2021 TO SEPTEMBER 2021]

Sr No.	Date of Sampling	Particulate Matter (PM ₁₀) (µg/m ³)	Particulate Matter (PM _{2.5}) (µg/m ³)	Sulphur Dioxide (SO ₂)(µg/m ³)	Oxides of Nitrogen (NO ₂) (µg/m ³)
1	01/04/2021	50.27	26.42	11.20	22.44
2	05/04/2021	68.42	32.51	7.68	14.25
3	08/04/2021	57.58	21.29	12.86	28.54
4	12/04/2021	71.54	34.56	15.26	20.30
5	15/04/2021	62.63	28.67	8.24	16.50
6	19/04/2021	54.63	33.64	13.44	32.69
7	22/04/2021	49.54	24.67	10.63	19.28
8	26/04/2021	70.58	36.40	6.29	21.67
9	29/04/2021	59.32	27.59	16.22	24.59
10	03/05/2021	63.67	32.43	15.69	29.42
11	06/05/2021	81.52	44.53	13.38	21.27
12	10/05/2021	62.21	35.35	9.54	24.20
13	13/05/2021	74.57	39.40	12.36	17.82
14	17/05/2021	65.68	29.55	10.67	20.24
15	20/05/2021	56.32	36.56	16.40	23.43
16	24/05/2021	64.26	27.55	11.63	26.44
17	27/05/2021	53.47	24.54	14.36	22.43
18	31/05/2021	70.35	28.21	7.61	19.87
19	03/06/2021	65.43	24.63	10.26	21.67
20	07/06/2021	75.24	30.26	15.25	27.52
21	10/06/2021	68.48	33.43	8.58	17.54
22	14/06/2021	55.25	23.58	6.54	30.27
23	17/06/2021	64.24	35.64	14.54	26.57
24	21/06/2021	70.65	31.51	11.62	22.64
25	24/06/2021	53.33	28.63	7.59	15.32
26	28/06/2021	71.55	32.43	13.35	23.65
27	01/07/2021	59.38	28.59	7.56	23.46
28	05/07/2021	74.33	38.44	11.25	26.31
29	08/07/2021	64.24	29.43	14.67	29.44
30	12/07/2021	44.62	21.54	9.48	19.54
31	15/07/2021	69.37	41.53	15.24	25.34
32	19/07/2021	58.33	24.50	10.32	30.27
33	22/07/2021	70.35	33.47	8.57	18.68
34	26/07/2021	63.45	30.55	12.37	28.63
35	29/07/2021	51.35	23.54	18.40	20.26
36	02/08/2021	74.64	36.56	9.61	22.64
37	05/08/2021	52.44	26.46	16.44	33.53
38	09/08/2021	73.58	34.68	10.34	36.56
39	12/08/2021	63.46	30.47	13.51	29.35
40	16/08/2021	65.35	29.47	6.58	23.64
41	19/08/2021	54.65	25.33	8.66	26.50
42	23/08/2021	61.23	22.62	11.37	30.24
43	26/08/2021	50.37	28.63	7.52	25.41
44	30/08/2021	71.55	35.39	15.50	27.67
45	02/09/2021	56.34	29.43	10.32	17.68
46	06/09/2021	69.33	36.40	7.61	14.36
47	09/09/2021	54.65	23.46	12.80	27.61
48	13/09/2021	48.62	20.37	14.53	23.47
49	16/09/2021	52.41	31.68	11.54	28.42
50	20/09/2021	66.48	34.56	9.44	25.62
51	23/09/2021	46.36	15.36	15.31	21.23
52	27/09/2021	55.83	24.37	8.86	24.53
53	30/09/2021	62.48	30.30	6.45	15.64

H. T. Shah
Lab Manager**Dr. ArunBajpai**
Lab Manager (Q)

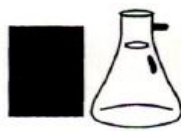


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TABLE NO. 2 RESULTS OF AAQM FOR STARTING OF PILE APPROACH [APRIL 2021 - SEPTEMBER 2021]

Sr No.	Date of Sampling	Particulate Matter (PM ₁₀) (µg/m ³)	Particulate Matter (PM _{2.5}) (µg/m ³)	Sulphur Dioxide (SO ₂)(µg/m ³)	Oxides of Nitrogen (NO ₂) (µg/m ³)
1	01/04/2021	66.97	33.49	15.61	25.20
2	05/04/2021	79.32	42.44	18.34	28.21
3	08/04/2021	85.63	36.20	20.35	31.29
4	12/04/2021	78.37	41.57	22.46	37.56
5	15/04/2021	69.58	37.57	16.17	27.24
6	19/04/2021	80.21	44.56	19.37	39.21
7	22/04/2021	72.54	35.24	12.71	23.48
8	26/04/2021	83.43	45.31	14.27	30.53
9	29/04/2021	75.36	38.57	21.54	33.42
10	03/05/2021	73.55	40.57	12.57	32.43
11	06/05/2021	86.34	52.68	10.50	36.26
12	10/05/2021	76.36	39.44	14.52	30.29
13	13/05/2021	84.42	43.23	16.29	27.58
14	17/05/2021	72.54	32.29	18.33	25.56
15	20/05/2021	81.31	46.56	20.27	31.28
16	24/05/2021	69.42	33.62	17.54	33.65
17	27/05/2021	77.28	41.19	19.55	37.62
18	31/05/2021	82.33	45.31	22.56	35.63
19	03/06/2021	70.33	28.67	19.53	30.40
20	07/06/2021	81.55	45.60	22.57	33.48
21	10/06/2021	78.66	40.19	16.28	28.36
22	14/06/2021	68.66	38.40	20.46	36.42
23	17/06/2021	73.68	42.44	17.59	34.52
24	21/06/2021	82.65	48.56	13.68	29.46
25	24/06/2021	67.52	34.58	18.66	35.62
26	28/06/2021	76.51	46.52	15.57	26.83
27	01/07/2021	79.63	32.58	13.58	33.40
28	05/07/2021	88.35	47.60	17.62	38.42
29	08/07/2021	75.37	51.26	20.37	31.63
30	12/07/2021	59.46	28.46	18.60	35.47
31	15/07/2021	74.52	45.31	21.40	27.53
32	19/07/2021	77.65	39.82	14.28	36.47
33	22/07/2021	83.52	42.57	19.18	28.31
34	26/07/2021	73.51	38.49	16.50	39.25
35	29/07/2021	60.24	31.58	23.48	26.54
36	02/08/2021	80.36	42.36	17.54	36.34
37	05/08/2021	68.58	35.66	14.53	30.36
38	09/08/2021	86.58	44.52	21.49	33.31
39	12/08/2021	79.63	39.53	15.63	37.66
40	16/08/2021	81.58	41.23	19.32	41.24
41	19/08/2021	67.62	34.58	16.52	34.56
42	23/08/2021	87.63	45.31	20.29	38.59
43	26/08/2021	72.54	40.24	13.23	35.41
44	30/08/2021	82.34	46.56	22.27	31.20
45	02/09/2021	74.12	39.40	16.56	24.64
46	06/09/2021	82.42	42.40	20.63	28.65
47	09/09/2021	72.62	36.28	18.64	34.26
48	13/09/2021	62.36	30.42	21.54	29.37
49	16/09/2021	84.34	47.52	23.50	32.45
50	20/09/2021	78.67	40.28	12.54	35.35
51	23/09/2021	56.84	22.26	17.70	27.55
52	27/09/2021	65.43	46.31	19.54	31.42
53	30/09/2021	76.82	38.86	14.23	25.48

H. T. Shah
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Lab Manager (Q)

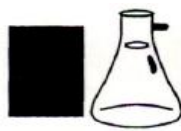
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TABLE NO. 3 RESULTS OF AAQM FOR SOUTH WEST CORNER AT PUMP HOUSE [APRIL 2021 - SEPTEMBER 2021]

Sr No.	Date of Sampling	Particulate Matter (PM ₁₀) (µg/m ³)	Particulate Matter (PM _{2.5}) (µg/m ³)	Sulphur Dioxide (SO ₂)(µg/m ³)	Oxides of Nitrogen (NO ₂) (µg/m ³)
1	01/04/2021	56.32	37.46	9.22	15.60
2	05/04/2021	62.31	22.52	15.36	18.38
3	08/04/2021	72.66	42.48	10.52	22.57
4	12/04/2021	65.61	31.52	17.57	32.10
5	15/04/2021	57.62	23.65	11.60	23.65
6	19/04/2021	69.44	36.41	16.49	35.31
7	22/04/2021	55.61	28.67	18.60	26.51
8	26/04/2021	75.46	41.56	12.90	27.52
9	29/04/2021	64.27	34.32	14.10	20.24
10	03/05/2021	54.26	24.65	10.26	20.41
11	06/05/2021	76.26	36.54	18.26	26.36
12	10/05/2021	52.38	31.52	12.49	29.53
13	13/05/2021	67.56	34.61	14.42	23.86
14	17/05/2021	55.34	25.53	6.52	16.23
15	20/05/2021	65.25	33.40	13.57	27.64
16	24/05/2021	57.56	22.52	15.23	18.23
17	27/05/2021	69.53	37.50	11.58	21.54
18	31/05/2021	62.46	32.40	16.67	25.22
19	03/06/2021	52.57	20.51	6.38	14.26
20	07/06/2021	70.24	34.53	10.53	21.95
21	10/06/2021	56.36	23.44	14.26	19.53
22	14/06/2021	62.43	35.66	8.40	24.56
23	17/06/2021	53.66	26.83	12.46	17.67
24	21/06/2021	63.56	37.50	9.24	26.36
25	24/06/2021	48.68	24.57	11.28	23.43
26	28/06/2021	61.54	27.58	7.69	15.65
27	01/07/2021	74.47	30.64	11.52	28.28
28	05/07/2021	80.32	43.53	6.57	31.55
29	08/07/2021	70.68	33.57	9.69	20.54
30	12/07/2021	49.52	24.65	13.44	25.43
31	15/07/2021	58.62	35.37	10.48	21.51
32	19/07/2021	66.50	21.85	8.33	33.77
33	22/07/2021	77.56	38.59	12.35	22.57
34	26/07/2021	68.45	34.53	14.25	26.27
35	29/07/2021	56.24	28.34	7.67	15.25
36	02/08/2021	53.54	39.39	13.55	26.37
37	05/08/2021	62.41	31.52	7.88	17.64
38	09/08/2021	79.55	28.50	16.77	21.52
39	12/08/2021	57.52	25.32	11.24	23.41
40	16/08/2021	70.51	33.65	17.61	27.51
41	19/08/2021	60.57	30.22	10.50	19.54
42	23/08/2021	74.58	35.41	6.25	25.34
43	26/08/2021	56.63	32.48	9.17	22.56
44	30/08/2021	77.56	38.55	12.37	20.66
45	02/09/2021	50.36	27.54	12.59	20.32
46	06/09/2021	74.52	39.47	9.75	18.66
47	09/09/2021	58.63	32.48	14.30	31.22
48	13/09/2021	52.52	22.60	10.70	19.33
49	16/09/2021	67.36	25.41	20.24	25.39
50	20/09/2021	57.55	26.37	6.51	28.34
51	23/09/2021	51.36	19.42	8.63	17.36
52	27/09/2021	60.42	28.46	15.77	29.57
53	30/09/2021	68.72	34.57	11.20	21.58

H. T. Shah
Lab Manager**Dr. ArunBajpai**
Lab Manager (Q)

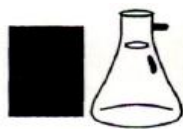


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TABLE NO. 4 RESULTS OF AAQM FOR NORTH EAST CORNER OF BACK UP AREA [APRIL 2021 - SEPTEMBER 2021]

Sr No.	Date of Sampling	Particulate Matter (PM ₁₀) (µg/m ³)	Particulate Matter (PM _{2.5}) (µg/m ³)	Sulphur Dioxide (SO ₂)(µg/m ³)	Oxides of Nitrogen (NO ₂) (µg/m ³)
1	01/04/2021	76.52	30.58	19.58	28.38
2	05/04/2021	86.36	46.35	13.19	31.56
3	08/04/2021	78.80	49.34	22.36	36.27
4	12/04/2021	84.21	45.35	25.62	41.26
5	15/04/2021	79.61	34.53	20.62	38.33
6	19/04/2021	93.46	52.63	23.68	42.33
7	22/04/2021	77.64	42.35	15.18	30.21
8	26/04/2021	91.27	48.59	17.28	33.52
9	29/04/2021	83.65	44.35	24.29	37.24
10	03/05/2021	68.55	37.57	14.27	26.24
11	06/05/2021	92.38	31.24	12.69	37.52
12	10/05/2021	82.44	43.56	18.55	42.46
13	13/05/2021	90.28	46.51	22.45	34.57
14	17/05/2021	84.31	39.44	16.53	30.45
15	20/05/2021	94.25	53.42	25.24	35.26
16	24/05/2021	78.52	38.19	19.18	38.22
17	27/05/2021	81.22	44.60	24.59	28.50
18	31/05/2021	76.88	36.24	20.37	31.85
19	03/06/2021	79.53	35.61	22.60	33.52
20	07/06/2021	93.44	49.59	25.57	38.66
21	10/06/2021	84.55	29.46	19.89	31.57
22	14/06/2021	75.66	44.52	16.56	40.21
23	17/06/2021	82.42	48.22	21.57	29.54
24	21/06/2021	90.23	51.55	17.90	32.45
25	24/06/2021	59.62	30.54	23.84	28.55
26	28/06/2021	87.52	43.39	18.41	35.43
27	01/07/2021	86.36	38.44	15.61	37.52
28	05/07/2021	94.54	53.50	22.34	42.37
29	08/07/2021	81.55	48.64	25.40	35.34
30	12/07/2021	65.36	36.45	20.58	39.46
31	15/07/2021	87.56	47.55	19.54	33.52
32	19/07/2021	70.47	34.74	16.29	43.56
33	22/07/2021	90.42	50.63	14.54	25.68
34	26/07/2021	83.58	46.51	17.62	34.52
35	29/07/2021	68.35	35.41	21.29	30.67
36	02/08/2021	87.38	45.68	24.35	42.61
37	05/08/2021	76.54	38.32	19.60	36.51
38	09/08/2021	92.52	39.57	12.50	26.46
39	12/08/2021	69.38	34.32	21.39	34.27
40	16/08/2021	88.25	46.22	23.45	35.32
41	19/08/2021	73.61	37.57	13.68	28.32
42	23/08/2021	80.24	42.31	15.37	41.53
43	26/08/2021	67.87	36.57	20.28	30.43
44	30/08/2021	94.63	51.55	17.35	38.42
45	02/09/2021	80.37	43.43	14.68	31.55
46	06/09/2021	90.36	50.26	16.36	34.31
47	09/09/2021	82.34	40.23	21.27	40.22
48	13/09/2021	68.42	26.50	18.35	33.55
49	16/09/2021	73.41	42.31	26.28	37.56
50	20/09/2021	81.25	45.35	15.66	38.41
51	23/09/2021	64.58	31.54	19.39	35.64
52	27/09/2021	70.58	44.10	23.66	39.54
53	30/09/2021	83.62	47.60	12.76	32.54

H. T. Shah
Lab Manager**Dr. ArunBajpai**
Lab Manager (Q)

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AMBIENT AIR QUALITY ANALYSIS REPORT OBSERVATIONS

Ambient Air Quality Monitoring Sample Analysis									
Sr.No.	Month	Particulate Matter (PM ₁₀) (µg/m ³)		Particulate Matter (PM _{2.5}) (µg/m ³)		Sulphur Dioxide (SO ₂)(µg/m ³)		Oxides of Nitrogen (NO ₂) (µg/m ³)	
		Max	Min	Max	Min	Max	Min	Max	Min
L.C. Gate No.2									
1	April-21	71.54	49.54	36.40	21.29	16.22	6.29	32.69	14.25
2	May-21	81.52	53.47	44.53	24.54	16.40	7.61	29.42	17.82
3	June-21	75.24	53.33	35.64	23.58	15.25	6.54	30.27	15.32
4	July-21	74.33	44.62	41.53	21.54	18.40	7.56	30.27	18.68
5	August-21	74.64	50.37	36.56	22.62	16.44	6.58	36.56	22.64
6	September-21	69.33	46.36	36.40	15.36	15.31	6.45	28.42	14.36
Starting Of Pile Approach (Near SS2 Building)									
1	April-21	85.63	66.97	45.31	33.49	22.46	12.71	39.21	23.48
2	May-21	86.34	69.42	52.68	32.29	22.56	10.50	37.62	25.56
3	June-21	82.65	67.52	48.56	28.67	22.57	13.68	36.42	26.83
4	July-21	88.35	59.46	51.26	28.46	23.48	13.58	39.25	26.54
5	August-21	87.63	67.62	46.56	34.58	22.27	13.23	41.24	30.36
6	September-21	84.34	56.84	47.52	22.26	23.50	12.54	35.35	24.64
South West Corner Of Back Up Area									
1	April-21	75.46	55.61	42.48	22.52	18.60	9.22	35.31	15.60
2	May-21	76.26	52.38	37.50	22.52	18.26	6.52	29.53	16.23
3	June-21	70.24	48.68	37.50	20.51	14.26	6.38	26.36	14.26
4	July-21	80.32	49.52	43.53	21.85	14.25	6.57	33.77	15.25
5	August-21	79.55	53.54	39.39	25.32	17.61	6.25	27.51	17.64
6	September-21	74.52	50.36	39.47	19.42	20.24	6.51	31.22	17.36
North East Corner Of Back Up Area									
1	April-21	93.46	76.52	52.63	30.58	25.62	13.19	42.33	28.38
2	May-21	94.25	68.55	53.42	31.24	25.24	12.69	42.46	26.24
3	June-21	93.44	59.62	51.55	29.46	25.57	16.56	40.21	28.55
4	July-21	94.54	65.36	53.50	34.74	25.40	14.54	43.56	25.68
5	August-21	94.63	67.87	51.55	34.32	24.35	12.50	42.61	26.46
6	September-21	90.36	64.58	50.26	26.50	26.28	12.76	40.22	31.55

H. T. Shah
Lab Manager**Dr. ArunBajpai**
Lab Manager (Q)



RESULTS OF NOISE LEVEL MONITORING

Sampling Date	: As Per Table
Test Method	: IS 9876/IS 9989
Sampling Location	: As Per Table
Sampling By	: Pollucon Laboratories Pvt. Ltd.
Protocol (purpose)	: Environmental Monitoring

TABLE NO. 5 RESULTS OF DAY TIME NOISE LEVEL MONITORING [APRIL 2021 TO SEPTEMBER 2021]

Noise Level Day Time dB(A)Leq*									
Sr. No.	Name of Location	LC Gate No.2		Starting Of Pile Approach		South West Corner at Pump House		North East Corner of Back up Area	
	Month	Max	Min	Max	Min	Max	Min	Max	Min
1.	April-21	63.2	52.8	65.6	56.3	64.8	56.7	61.5	53.8
2.	May-21	73.1	60.5	74.4	61.2	74.5	60.3	72.4	59.5
3.	June-21	71.4	60.2	70.6	58.6	69.1	59.8	67.7	58.2
4.	July-21	71.0	58.4	68.4	57.1	69.8	60.1	67.4	58.2
5.	August-21	70.4	55.7	67.6	55.4	70.9	62.4	64.5	59.4
6.	September-21	70.2	56.7	70.8	53.7	71.6	57.6	66.9	56.9

TABLE NO. 6 RESULTS OF NIGHT TIME NOISE LEVEL MONITORING [APRIL 2021 TO SEPTEMBER 2021]

Noise Level Night Time dB(A)Leq*									
Sr. No.	Name of Location	LC Gate No.2		Starting Of Pile Approach		South West Corner at Pump House		North East Corner of Back up Area	
	Month	Max	Min	Max	Min	Max	Min	Max	Min
1.	April-21	60.2	50.5	62.3	55.2	62.5	54.9	60.1	52.3
2.	May-21	69.7	59.9	69.9	61.1	69.8	57.2	66.9	59.4
3.	June-21	69.5	51.1	60.8	49.7	58.4	47.5	65.1	46.9
4.	July-21	68.4	50.2	66.6	48.6	58.9	47.6	63.1	45.0
5.	August-21	65.6	52.4	64.2	51.6	57.6	51.5	66.0	44.6
6.	September-21	60.1	47.6	62.4	53.6	62.8	44.6	57.7	51.5

AMBIENT AIR QUALITY STANDARDS FOR NOISE SPECIFIED BY CPCB

Area Code	Category of Area/Zone	Limits in dB(A) Leq [#]	
		Day time	Night time
A	Industrial area	75	70
Notes:			
1. Day time shall mean from 6.00 a.m. to 10.00 p.m.			
2. Night time shall mean from 10.00 p.m. to 06.00 a.m.			
[#] dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing			

H. T. Shah
Lab Manager

Dr. ArunBajpai
Lab Manager (Q)

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AMBIENT AIR QUALITY MONITORING & NOISE QUALITY MONITORING LOCATIONS

Sr. No	Name of Location	GPS Coordinate
1.	LC Gate No.2	N 22° 58' 14.29"E 70° 05' 51.07'
2.	Starting Of Pile Approach	N 22° 54' 27.47' E 70° 06' 15.63'
3.	South West Corner at Pump House	N 22° 55' 22.98' E 70° 06' 7.37'
4.	North East Corner Of Back Up Area	N 22° 55' 53.09 E 70° 06' 27.17'

FIGURE NO. 1 GOOGLE EARTH IMAGE OF AMBIENT AIR QUALITY MONITORING & NOISE QUALITY MONITORING LOCATION**H. T. Shah**
Lab Manager**Dr. ArunBajpai**
Lab Manager (Q)



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RESULTS OF SEA WATER MONITORING
TABLE NO. 7 RESULTS OF SEA WATER [APRIL 2021 TO SEPTEMBER 2021]

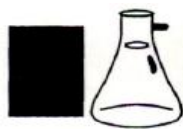
Description of Sample	: Sea Water (Surface & Bottom)	Quantity/No. of Samples	: 10 Lit/12
Sampling By	: Pollucon Laboratories Pvt. Ltd.	Sampling Procedure	: Grab
Packing/Seal	: Sealed	Protocol (purpose)	: Env. Monitoring
Test Method	: IS 3025 & APHA (22 nd Edi.) 2008	Test Parameters	: As per table

SR. NO	TEST PARAMETERS	UNIT	Near Mouth of Creek (M1)		Near Jetty (M2)		Near Mouth of Creek (M1)	
			April-2021		May-2021		June-2021	
			19/04/2021		21/05/2021		21/06/2021	
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM
1	pH	--	8.23	8.17	8.31	8.27	8.27	8.23
2	Temperature	°C	30.4	30.2	30.3	30.1	30.4	30.2
3	Total Suspended Solids	mg/L	125	109	114	98	121	105
4	BOD (3 Days@27°C)	mg/L	3.2	Not Detected	3.5	Not Detected	3.3	Not Detected
5	Dissolved Oxygen	mg/L	5.9	5.7	5.8	5.6	5.9	5.7
6	Salinity	ppt	35.9	36.2	36.5	36.9	36.2	36.5
7	Oil & Grease	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
8	Nitrate as NO ₃	µmol/L	3.37	3.21	4.13	3.68	4.35	4.23
9	Nitrite as NO ₂	µmol/L	1.14	0.94	0.65	0.42	0.76	0.51
10	Ammonical Nitrogen as NH ₃	µmol/L	2.35	2.16	1.97	1.83	2.31	2.19
11	Phosphates as PO ₄	µmol/L	2.74	2.58	2.63	2.40	2.46	2.35
12	Total Nitrogen	µmol/L	6.86	6.31	6.75	5.93	7.42	6.93
13	Petroleum Hydrocarbon	µg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
14	Total Dissolved Solids	mg/L	37094	37982	38126	38428	37914	38112
15	COD	mg/L	27.8	19.4	24	17	21	19
A	Flora and Fauna							
16.1	Primary Productivity	mgC/L/ day	37.98		36.90		45.18	
B	Phytoplankton							
17.1	Chlorophyll	mg/m ³	2.62	2.50	2.72	2.45	2.93	2.45
17.2	Phaeophytin	mg/m ³	2.06	1.30	1.87	1.39	1.67	1.39
17.3	Cell Count	No.x 10 ³ /L	150	90	142	94	152	102
17.4	Name of Group Number and name of group species of each group	--	Coscinodiscus sp. Skeletonema sp. Cyclotella sp. Biddulphia sp.	Nitzschia sp. Thalassiosira sp. Rhizosolenia sp. Synedra sp.	Thalassiosira sp. Pleurosigma sp. Melosira sp. Biddulphia sp.	Nitzschia sp. Peridinium Sp. Fragillaria sp.	Thalassiosira sp. Ankistrodesmus sp. Rhizosolenia sp. Cheatoceros sp.	Nitzschia sp. Coscinodiscus Sp. Gyro sigma sp. Navicula sp.
C	Zooplanktons							
18.1	Abundance (Population)	noX10 ³ / 100 m ³	22		25		20	
18.2	Name of Group Number and name of group species of each group	--	Polychaetes Gastropods Decapods Isopods		Foraminiferans Gastropods Polychaetes Mysids		Cheatoceros Decapods Ostracods	
18.3	Total Biomass	mL/ 100 m ³	1.60		1.75		1.35	
D	Microbiological Parameters							
19.1	Total Bacterial Count	CFU/mL	2350		2495		2750	
19.2	Total Coliform	/mL	Present		Present		Present	
19.3	E.coli	/mL	Absent		Absent		Absent	
19.4	Enterococcus species	/mL	Present		Present		Present	
19.5	Salmonella species	/mL	Absent		Absent		Absent	
19.6	Shigella species	/mL	Absent		Absent		Absent	
19.7	Vibrio species	/mL	Absent		Absent		Absent	

Note: BDL*: Below Detection Limit, Minimum Detection Limit, BOD: 1.0 mg/L, Oil & Grease: 2.0 mg/L, Petroleum Hydrocarbon: 1.0 µg/L

H. T. Shah
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Dr. ArunBajpai
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**POLLUCON****LABORATORIES PVT. LTD.**Environmental Auditors, Consultants & Analysts.
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TABLE NO. 8 RESULTS OF SEA WATER [APRIL 2021 TO SEPTEMBER 2021]

SR. NO.	TEST PARAMETERS	UNIT	Near Jetty (M2)		Near Mouth of Creek (M1)		Near Jetty (M2)	
			July-2021		August-2021		September-2021	
			17/07/201		13/08/2021		17/09/2021	
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM
1	pH	--	8.20	8.13	8.15	8.07	8.09	8.02
2	Temperature	°C	29.8	29.6	29.9	26.7	30	29.8
3	Total Suspended Solids	mg/L	104	91	92	85	97	89
4	BOD (3 Days @27°C)	mg/L	3.1	Not Detected	2.8	Not Detected	2.6	Not Detected
5	Dissolved Oxygen	mg/L	6	5.9	6	5.8	5.9	5.8
6	Salinity	ppt	36.7	36.9	34.28	34.9	33.84	34.3
7	Oil & Grease	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
8	Nitrate as NO ₃	µmol/L	3.81	3.57	3.38	3.12	2.9	2.81
9	Nitrite as NO ₂	µmol/L	0.79	0.94	1.14	0.98	0.87	0.62
10	Ammonical Nitrogen as NH ₃	µmol/L	2.53	2.38	2.29	2.13	2.39	2.27
11	Phosphates as PO ₄	µmol/L	1.86	2.13	2.53	2.29	2.21	1.98
12	Total Nitrogen	µmol/L	7.13	6.89	6.81	6.23	6.16	5.7
13	Petroleum Hydrocarbon	µg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
14	Total Dissolved Solids	mg/L	38109	38460	35962	36574	35549	35984
15	COD	mg/L	18.4	Not Detected	16.8	Not Detected	10.5	8.6
A	Flora and Fauna							
16.1	Primary Productivity	mgC/L/ day	40.50		41.94		44.64	
B	Phytoplankton							
17.1	Chlorophyll	mg/m ³	2.78	2.61	2.62	2.29	2.59	2.32
17.2	Phaeophytin	mg/m ³	1.67	1.05	1.83	1.37	0.44	0.17
17.3	Cell Count	No. x 103/L	178	142	164	136	190	152
17.4	Name of Group Number and name of group species of each group	--	Thalassionema sp. Pleurosigma sp. Peridinium sp. Rhizosolenia sp.	Melosira sp. Navicula sp. Nitzschia sp. Cyclotella sp.	Coscinodiscus sp. Pleurosigma sp. Skeletonema sp. Rhizosolenia sp. Synedra sp.	Biddulphia sp. Stauroneis sp. Navicula sp. Nitzschia sp.	Thalassionema sp. Pleurosigma sp. Coscinodiscus sp. Skeletonema sp. Cymbella sp.	Nitzschia sp. Biddulphia sp. Rhizosolenia sp. Synedra sp.
C	Zooplanktons							
18.1	Abundance (Population)	noX10 ³ /100m ³	28		34		29	
18.2	Name of Group Number and name of group species of each group	--	Polychaetes Mysids Gastropods Foraminiferans		Polychaetes Mysids Chaetognaths Gastropods		Gastropods Isopods Polychaetes Foraminiferans	
18.3	Total Biomass	mL/10 0 m ³	2.60		3.20		2.85	
D	Microbiological Parameters							
19.1	Total Bacterial Count	CFU/mL	2640		2790		2610	
19.2	Total Coliform	/mL	Present		Present		Present	
19.3	E.coli	/mL	Absent		Absent		Absent	
19.4	Enterococcus species	/mL	Present		Present		Present	
19.5	Salmonella species	/mL	Absent		Absent		Absent	
19.6	Shigella species	/mL	Absent		Absent		Absent	
19.7	Vibrio species	/mL	Absent		Absent		Absent	

Note: BDL*: Below Detection Limit, Minimum Detection Limit, BOD: 1.0 mg/L, Oil & Grease: 2.0 mg/L, Petroleum Hydrocarbon: 1.0 µg/L

H. T. Shah
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SEA WATER REPORT OBSERVATION

SeaWater Sample Analysis		Month : April-21 to September-21			
Test Parameter	Unit	Surface		Bottom	
		Max	Min	Max	Min
pH	--	8.31	8.09	8.27	8.02
Total Dissolved Solids	mg/L	38126	35549	38460	35984
Total Suspended Solids	mg/L	125	92	109	85
BOD (3 Days @ 27 °C)	mg/L	3.5	2.6	Not Detected	Not Detected
Dissolved Oxygen	mg/L	6	5.8	5.9	5.6
Salinity	ppt	36.70	33.84	36.90	34.30
COD	mg/L	27.8	10.5	19.4	8.6

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RESULTS OF SEA SEDIMENT MONITORING

TABLE NO. 9 RESULTS OF SEA SEDIMENT [APRIL 2021 TO SEPTEMBER 2021]

Description of Sample	: Sea Sediment	Quantity/No. of Samples	: 10 Kg/06
Sampling By	: Pollucon Laboratories Pvt. Ltd.	Sampling Procedure	: Grab
Packing/Seal	: Sealed	Protocol (purpose)	: Env. Monitoring
Test Method	: IS/ASTM/CPCB Guidelines	Test Parameters	: As per table

SR. NO.	TEST PARAMETERS	UNIT	Near Mouth of Creek (M1)	Near Jetty (M2)	Near Mouth of Creek (M1)	Near Jetty (M2)	Near Mouth of Creek (M1)	Near Jetty (M2)
			April-21	May-21	June-21	July-21	August-21	September-21
			19/04/2021	21/05/2021	21/06/2021	17/07/2021	13/08/2021	17/09/2021
1	Organic Matter	%	0.43	0.37	0.51	0.49	0.45	0.41
2	Phosphorus as P	µg/g	709	625	719	637	616	573
3	Texture	--	Sandy	Sandy	Sandy	Sandy	Sandy	Sandy
4	Petroleum Hydrocarbon	µg/g	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
5	Heavy Metals							
5.1	Aluminum as Al	%	4.76	4.13	4.62	4.82	4.73	4.62
5.2	Total Chromium as Cr+3	µg/g	158	118	137	106	115	130
5.3	Manganese as Mn	µg/g	713	653	729	813	759	692
5.4	Iron as Fe	%	4.68	4.19	4.76	4.58	4.62	4.42
5.5	Nickel as Ni	µg/g	56	35	49.6	43.2	37.8	46.7
5.6	Copper as Cu	µg/g	39	49	36.2	31.8	42.95	37.8
5.7	Zinc as Zn	µg/g	123	102	115	109	136	112
5.8	Lead as Pb	µg/g	1.96	1.78	2.75	3.27	2.94	2.53
5.9	Mercury as Hg	µg/g	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
6	Benthic Organisms							
6.1	Macrobenthos (No and name of groups present, No and name of species of each group present)	--	Gastropods Polychaetes Molluscs	Amphipods Gastropods Polychaetes	Crustaceans Gastropods Bivalves	Gastropods Amphipora sp. Polychaetes	Gastropods Polychaetes	Gastropods Polychaetes
6.2	MeioBenthos (No and name of groups present, No and name of species of each group present)	--	Foraminiferans	Nematods	--	Foraminiferans	Foraminiferans	Foraminiferans Nematods
6.3	Population	no/m ²	321	292	324	353	235	351

Note: BDL*: Below Detection Limit, Minimum Detection Limit, Mercury as Hg: 0.00025 mg/L, Petroleum Hydrocarbon: 5 µg/g

H. T. Shah
Lab Manager

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Lab Manager (Q)

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SEA SEDIMENT REPORT OBSERVATION

Sea Sediment Sample Analysis		Month : April-21 to September-21	
Test Parameter	Unit	Sediment	
		Max	Min
Organic Matter	%	0.51	0.37
Phosphorus as P	µg/g	719	573
Aluminum as Al	%	4.82	4.13
Total Chromium as Cr ⁺³	µg/g	158	106
Manganese as Mn	µg/g	813	653
Iron as Fe	%	4.76	4.19
Nickel as Ni	µg/g	56	35
Copper as Cu	µg/g	49	31.8
Zinc as Zn	µg/g	136	102
Lead as Pb	µg/g	3.27	1.78
Mercury as Hg	µg/g	Not Detected	Not Detected

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SEA WATER & SEA SEDIMENT LOCATIONS

Sr. No	Name of Location	GPS Coordinate
1.	NEAR MOUTH OF CREEK (M1)	N 22°54'10.58" E 70° 8'34.86"
2.	NEAR JETTY (M2)	N 22°53.60" E 70° 6.47"

FIGURE NO. 2 GOOGLE EARTH IMAGE OF SEA WATER AND SEDIMENT LOCATION**H. T. Shah**
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Lab Manager (Q)

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RESULTS OF DRINKING WATER ANALYSIS**STANDARD METHODS & PERMISSIBLE LIMIT FOR DRINKING WATER**

SR. NO.	PARAMETERS	UNIT	DESIRABLE LIMIT AS PER IS:10500:2012	TEST METHOD
Chemical Parameters				
1	Odour	--	Agreeable	IS3025(P-5)83Re.02
2	Colour	Hazen	Max 5	IS3025(P-4)83Re.02
3	Taste	--	Agreeable	IS3025(P-8)84Re.02
4	pH Value	--	6.5 to 8.5	IS3025(P-11)83Re.02
5	Turbidity	NTU	Max 1	APHA 2130-B
6	Total Dissolved Solids	mg/L	Max 500	IS3025(P16)84Re.02
7	Total Hardness as CaCO ₃	mg/L	Max 200	IS3025(P-21) 84EDTARE.02
8	Alkalinity	mg/L	Max 200	IS3025(P23)86Re.03
9	Residual Free Chlorine	mg/L	Min 0.2	APHA(22 nd Edi)4500 Cl
10	Chloride as Cl	mg/L	Max 250	IS3025(P-32) 88Re.99Argentometric method
11	Calcium as Ca	mg/L	Max 75	IS3025(P40)91Re.03EDTA
12	Magnesium as Mg	mg/L	Max 30	IS3025(P46)94Re.99EDTA
13	Mineral Oil	mg/L	Max 0.5	APHA(22 nd Edi)5520D
14	Phenolic compounds as C ₆ H ₅ OH	mg/L	Max 0.001	IS3025(P43)92Re.03
15	Hexavalent Chromium as Cr ⁺⁶	mg/L	Max 0.05	APHA(22 nd Edi)3500CrB
16	Cadmium as Cd	mg/L	Max 0.003	APHA(22 nd Edi)3500Cd
17	Copper as Cu	mg/L	Max 0.05	IS3025(P42)92Re.03
18	Zinc as Zn	mg/L	Max 5	APHA(22 nd Edi)3500 Zn
19	Iron as Fe	mg/L	Max 0.3	APHA(22 nd Edi)3500Fe B
20	Lead as Pb	mg/L	Max 0.01	APHA(22 nd Edi)3500PbD
21	Mercury as Hg	mg/L	Max 0.001	IS3025(P48)94
22	Selenium as Se	mg/L	Max 0.01	APHA(22 nd Edi)3500 Se
23	Aluminum as Al	mg/L	Max 0.03	APHA(22 nd Edi)3500 Al
24	Manganese as Mn	mg/L	Max 0.1	APHA(22 nd Edi)3500 Mn B
25	Arsenic as As	mg/L	Max 0.01	IS3025(P-37)88
26	Sulphate as SO ₄	mg/L	Max 200	APHA(22 nd Edi)4500 SO ₄ E
27	Cyanide as CN	mg/L	Max 0.05	APHA(22 nd Edi)4500CN E
28	Boron as B	mg/L	Max 0.5	APHA(22 nd Edi)4500 B
29	Fluoride as F	mg/L	Max 1.0	APHA(22 nd Edi) 4500 F D SPANDS
30	Nitrate Nitrogen as NO ₃	mg/L	Max 45	IS3025(P34)88
31	Anionic Detergents as MBAS	mg/L	Max 0.2	14542/Methylene Blue extraction method
32	Pesticides	mg/L	Absent	GC MS
33	Coliform	/100 ml	Absent	APHA (22 nd Edi. Method) 9221-D
34	E-Coli	/100 ml	Absent	IS: 1622:1981 Edi. 2.4 (2003-05)

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TABLE NO.10 RESULTS OF DRINKING WATER [APRIL 2021 TO SEPTEMBER 2021]**TABLE NO.10.1 RESULTS OF DRINKING WATER [ESSENTIAL PARAMETER IN APRIL 2021 TO SEPTEMBER 2021]**

SR. NO.	TEST PARAMETERS	UNIT	May-21	August-21
			POB Building	POB Building
			21/05/2021	13/08/2021
1	Odour	--	Agreeable	Agreeable
2	Colour	Hazen	3	3
3	Taste	--	Agreeable	Agreeable
4	pH	--	7.43	7.13
5	Turbidity	NTU	0.09	0.1
6	Total Dissolved Solids	mg/L	359	293
7	Total Hardness as CaCO ₃	mg/L	128	114
8	Residual Free Chlorine	mg/L	Not Detected	Not Detected
9	Chloride as Cl	mg/L	93	84
10	Fluoride as F	mg/L	0.14	0.18
11	Iron as Fe	mg/L	0.29	0.15
12	Coliform	/100 ml	Absent	Absent
13	E-Coli	/100 ml	Absent	Absent

BDL*: Below Detection Limit

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TABLE NO.10.2 RESULTS OF DRINKING WATER [ESSENTIAL PARAMETER IN APRIL 2021 TO SEPTEMBER 2021]

SR. NO.	TEST PARAMETERS	UNIT	August-21	September-21
			Narmada Pump House	Narmada Pump House
			13/08/2021	17/09/2021
1	Odour	--	Agreeable	Agreeable
2	Colour	Hazen	4	2
3	Taste	--	Agreeable	Agreeable
4	pH	--	7.68	7.94
5	Turbidity	NTU	0.12	0.13
6	Total Dissolved Solids	mg/L	420	376
7	Total Hardness as CaCO ₃	mg/L	158	132
8	Residual Free Chlorine	mg/L	Not Detected	Not Detected
9	Chloride as Cl	mg/L	130	112
10	Fluoride as F	mg/L	0.41	0.18
11	Iron as Fe	mg/L	0.32	0.17
12	Coliform	/100 ml	Absent	Absent
13	E-Coli	/100 ml	Absent	Absent

BDL*: Below Detection Limit

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TABLE NO.10.3 RESULTS OF DRINKING WATER [ESSENTIAL PARAMETER IN APRIL 2021 TO SEPTEMBER 2021]

SR. NO.	TEST PARAMETERS	UNIT	April-21	September-21
			RO Staff Canteen	RO Staff Canteen
			19/04/2021	17/09/2021
1	Odour	--	Agreeable	Agreeable
2	Colour	Hazen	2	3
3	Taste	--	Agreeable	Agreeable
4	pH	--	7.75	7.38
5	Turbidity	NTU	Not Detected	0.11
6	Total Dissolved Solids	mg/L	381	286
7	Total Hardness as CaCO ₃	mg/L	138	123
8	Residual Free Chlorine	mg/L	Not Detected	Not Detected
9	Chloride as Cl	mg/L	112	92
10	Fluoride as F	mg/L	0.4	0.23
11	Iron as Fe	mg/L	0.21	0.19
12	Coliform	/100 ml	Absent	Absent
13	E-Coli	/100 ml	Absent	Absent

BDL*: Below Detection Limit

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TABLE NO.10.4 RESULTS OF DRINKING WATER [FULL PARAMETER IN APRIL 2021 TO SEPTEMBER 2021]

SR. NO.	PARAMETERS	UNIT	July-21	July-21
			RO Staff Canteen	Narmada Water Pump House
			17/07/2021	17/07/2021
Chemical Parameters				
1	Odour	--	Agreeable	Agreeable
2	Colour	Hazen	3	4
3	Taste	--	Agreeable	Agreeable
4	pH Value	--	7.18	7.89
5	Turbidity	NTU	0.06	0.09
6	Total Dissolved Solids	mg/L	108	458
7	Total Hardness as CaCO ₃	mg/L	12	189
8	Alkalinity	mg/L	17	116
9	Residual Free Chlorine	mg/L	Not Detected	Not Detected
10	Chloride as Cl	mg/L	42.98	126
11	Calcium as Ca	mg/L	1.2	43.2
12	Magnesium as Mg	mg/L	2.16	19.44
13	Mineral Oil	mg/L	Not Detected	Not Detected
14	Phenolic compounds as C ₆ H ₅ OH	mg/L	Not Detected	Not Detected
15	Chromium as Cr ⁺⁶	mg/L	Not Detected	Not Detected
16	Cadmium as Cd	mg/L	Not Detected	Not Detected
17	Copper as Cu	mg/L	Not Detected	Not Detected
18	Zinc as Zn	mg/L	Not Detected	0.11
19	Iron as Fe	mg/L	<0.15	<0.15
20	Lead as Pb	mg/L	Not Detected	Not Detected
21	Mercury as Hg	mg/L	Not Detected	Not Detected
22	Selenium as Se	mg/L	Not Detected	Not Detected
23	Aluminum as Al	mg/L	Not Detected	Not Detected
24	Manganese as Mn	mg/L	Not Detected	Not Detected
25	Arsenic as As	mg/L	Not Detected	Not Detected
26	Sulphate as SO ₄	mg/L	5.1	25.65
27	Cyanide as CN	mg/L	Not Detected	Not Detected
28	Boron as B	mg/L	Not Detected	Not Detected
29	Fluoride as F	mg/L	Not Detected	0.32
30	Nitrate Nitrogen as NO ₃	mg/L	1.73	Not Detected
31	Anionic Detergents as MBAS	mg/L	Not Detected	Not Detected
32	Pesticides	mg/L	Not Detected	Not Detected
Microbiological Parameters				
33	Coliform	/100 ml	Absent	Absent
34	E-Coli	/100 ml	Absent	Absent

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TABLE NO.11 RESULTS OF SEWAGE WATER [APRIL 2021 TO SEPTEMBER 2021]

SR. NO.	PARAMETERS	UNIT	STP OUTLET PERMISSIBLE LIMIT [#]	TEST METHOD
1	pH	--	Not Specified	IS: 3025 (Part – 11) (Electrometric Method)
2	Total Suspended Solids	mg/L	30	IS3025(P17)
3	BOD (3 Days @ 27 °C)	mg/L	20	IS 3025 (Part – 44)
4	Fecal Coliform	MPN/100 ml	Not Specified	APHA(22 nd Edi)9221 C & E

RESULTS OF SEWAGE WATER ANALYSIS

DATE OF SAMPLING			19/04/2021	
SR. NO.	PARAMETERS	UNIT	STP Inlet	STP Outlet
1	pH	--	7.08	7.15
2	Total Suspended Solids	mg/L	149	24
3	BOD (3 Days @ 27 °C)	mg/L	118	12
4	Fecal Coliform	MPN/100 ml	>1600	350

DATE OF SAMPLING			26/05/2021	
SR. NO.	PARAMETERS	UNIT	STP Inlet	STP Outlet
1	pH	--	7.19	7.69
2	Total Suspended Solids	mg/L	112	17
3	BOD (3 Days @ 27 °C)	mg/L	93	18.4
4	Fecal Coliform	MPN/100 ml	>1600	70

DATE OF SAMPLING			29/06/2021	
SR. NO.	PARAMETERS	UNIT	STP Inlet	STP Outlet
1	pH	--	7.34	7.59
2	Total Suspended Solids	mg/L	128	18
3	BOD (3 Days @ 27 °C)	mg/L	103	17
4	Fecal Coliform	MPN/100 ml	>1600	94

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DATE OF SAMPLING			17/07/2021	
SR. NO.	PARAMETERS	UNIT	STP Inlet	STP Outlet
1	pH	--	7.01	7.25
2	Total Suspended Solids	mg/L	106	13
3	BOD (3 Days @ 27 °C)	mg/L	172	17
4	Fecal Coliform	MPN/100 ml	>1600	<1.8

DATE OF SAMPLING			30/07/2021	
SR. NO.	PARAMETERS	UNIT	STP Inlet	STP Outlet
1	pH	--	7.07	7.5
2	Total Suspended Solids	mg/L	134	13
3	BOD (3 Days @ 27 °C)	mg/L	73	14
4	Fecal Coliform	MPN/100 ml	>1600	110

DATE OF SAMPLING			13/08/2021	
SR. NO.	PARAMETERS	UNIT	STP Inlet	STP Outlet
1	pH	--	7.39	7.61
2	Total Suspended Solids	mg/L	164	13
3	BOD (3 Days @ 27 °C)	mg/L	138	9.8
4	Fecal Coliform	MPN/100 ml	>1600	63

DATE OF SAMPLING			17/09/2021	
SR. NO.	PARAMETERS	UNIT	STP Inlet	STP Outlet
1	pH	--	7.41	7.58
2	Total Suspended Solids	mg/L	138	14
3	BOD (3 Days @ 27 °C)	mg/L	108	12
4	Fecal Coliform	MPN/100 ml	>1600	210

SR. NO.	PARAMETERS	UNIT	STP Outlet		Permissible Limit**
			Max.	Min.	
1	pH	--	7.15	7.69	6.5-9.0
2	Total Suspended Solids	mg/L	13	24	30
3	BOD (3 Days @ 27 °C)	mg/L	9.8	18.4	20
4	Fecal Coliform	MPN/100 ml	63	350	<1000

**: Details provided by customer.

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TABLE NO.12 RESULTS OF STACK MONITORING

PERMISSIBLE LIMIT FOR STACK MONITORING

SR. NO.	TEST PARAMETER	UNIT	GPCB LIMIT**	TEST/SAMPLING METHOD
1	Particulate Matter	mg/Nm ³	150	IS:11255 (Part-1)
2	Sulfur Dioxide as SO ₂	ppm	100	IS:11255 (Part-2)
3	Oxides of Nitrogen as NO _x	ppm	50	IS: 11255 (Part-7)

**Details provided by customer.

RESULTS OF STACK MONITORING

Date of Monitoring			17/07/2021		
Sampling Location			SS-1 DG Set -1 (125 KVA)	SS-2 DG Set -2 (125 KVA)	SS-3 DG Set -3 (125 KVA)
SR. NO.	TEST PARAMETER	UNIT	July-21		
1	Particulate Matter	mg/Nm ³	20.86	17.51	18.61
2	Sulfur Dioxide as SO ₂	ppm	8.62	6.34	5.36
3	Oxides of Nitrogen as NO _x	ppm	33.39	28.43	26.37
4	Noise Level Monitoring				
4.1	Near DG Set	dB(A)	70.5	72.1	71.7

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**TABLE NO. 13 RESULTS OF DUMP POND DISCHARGE**

SR. NO.	PARAMETERS	UNIT	TEST METHOD
1	pH	--	IS 3025(P11)83 Re.02
2	Total Dissolved Solids	mg/L	IS 3025(P16)84 Re.02
3	Total Suspended Solids	mg/L	IS 3025(P17)84 Re.02
4	Turbidity	NTU	APHA 2130-B
5	BOD (3 Days @ 27 °C)	mg/L	IS 3025 (P44)1993 Re.03Edition2.1
6	Dissolved Oxygen	mg/L	IS3025(P38)89Re.99
7	COD	mg/L	APHA(22 nd Edi) 5520-D Open Reflux
8	Salinity	ppt	APHA 2550 B
9	Oil & Grease	mg/L	APHA(22 nd Edi)5520D
10	Total Hardness as CaCO ₃	mg/L	IS 3025(P-21) 84EDTA Re.02
11	Fluoride as F	mg/L	APHA(22 nd Edi) 4500 F D SPANDS
12	Chloride as Cl	mg/L	IS3025(P-32) 88Re.99Argentometric method
13	Zinc as Zn	mg/L	AAS- APHA (22 nd Edition) 3111 B
14	Cadmium as Cd	mg/L	AAS- APHA (22 nd Edition) 3111 B
15	Lead as Pb	mg/L	AAS- APHA (22 nd Edition) 3111 B
16	Mercury as Hg	mg/L	AAS-APHA (22 nd Edition) 3112 B

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RESULTS OF DUMP POND DISCHARGE

Location Name			Dump Pond Near TT4	Dump Pond Near TT4
Date			19/04/2021	30/07/2021
SR. NO.	TEST PARAMETER	UNIT	April-21	July-21
1	pH	--	8.49	7.94
2	Total Dissolved Solids	mg/L	572	1468
3	Total Suspended Solids	mg/L	74	83
4	Turbidity	NTU	11.3	14.6
5	BOD (3 Days @ 27 oC)	mg/L	32	27
6	Dissolved Oxygen	mg/L	5.5	5.6
7	COD	mg/L	184	150
8	Salinity	ppt	0.26	0.238
9	Oil & Grease	mg/L	Not Detected	Not Detected
10	Total Hardness as CaCO ₃	mg/L	179	164
11	Fluoride as F	mg/L	0.65	0.4
12	Chloride as Cl	mg/L	146	132
13	Zinc as Zn	mg/L	0.075	0.087
14	Cadmium as Cd	mg/L	Not Detected	Not Detected
15	Lead as Pb	mg/L	0.018	0.029
16	Mercury as Hg	mg/L	Not Detected	Not Detected

BDL*: Below Detection Limit, Minimum Detection Limit, Cadmium as Cd: 0.001 mg/L, Mercury as Hg: 0.00025mg/L, Oil & Grease: 2.0 mg/L.

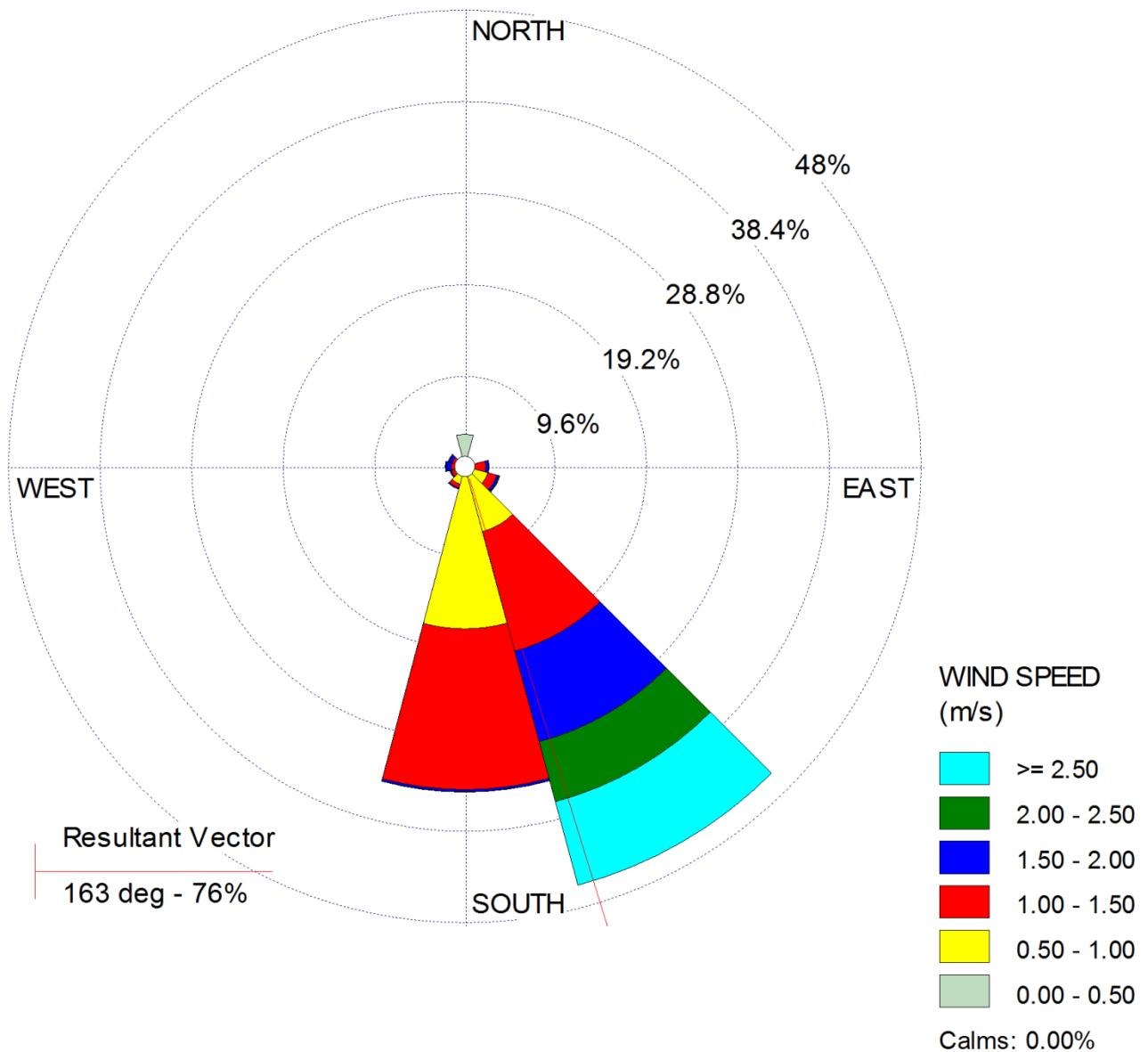
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FIGURE NO.3 WIND ROSE DIAGRAM [APRIL 2021 TO SEPTEMBER 2021]



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Annexure – 5

**Green Zone Details Of AKBTPL – Tuna Port
(Period Up to Sep'21)**

Green Zone Details Of AKBTPL – Tuna Port

CURRENT GREEN ZONE DETAILS OF TUNA PORT (AKBTPL) UP TO Sep'2021.						
Sr. No.	Location	Area (Ha)	Tree (No.)	Shrubs (SQM)	Green Carpet (SQM)	Palm (No.)
1	Staff Canteen, POB & SS1 Building	2.25	4491	1975	8569	307
2	Green Belt area & Pump House	6.34	15779	250	0	75
3	Approach Road Zero Point to Main Gate	0.40	0	0	0	1150
4	SS2 Building & Jetty Road Area.	3.45	8002	1230	0	0
5	Internal Road & Railway Building	3.34	13180	150	60	250
6	Near Weight Bridge -04	0.11	500	0	0	0
Total		15.89	41952	3605	8629	1782



Near Adani canteen



Around POB office



Near SS-01 Building



Approach Road- Zero Point to Main Gate



Near SS-02 Building



Near Railway Building

Annexure – 6

**Details of CSR activities carried out by Adani
Foundation**

CSR work carried out by Adani foundation at AKBTPL (Period: Apr'21 To Sep'21)

CSR Work 2021-22 (Apr' 21 to Sep'21)			
Village,Fisherman Vasaht.	CSR activities (Apr'21 to Sep'21)	Beneficiaries	Expenses in Lakh
Village	Health Projects		
Vandi& Rampar	Rural Clinic	59	0.01
Tuna,Vandi& Rampar	Medical Support	12	0.37
Vira Bandar	Mobile Van	25	0.01
	Education Projects	0	0.00
	SLD (Sustainable Livelihood) Projects		
Vira Bandar	Water Supply	400	1.03
Dhavarvaro Bandar	Water Supply	250	0.75
Vandi	Water Supply	2300	5.09
Rampar	Fodder Support	129	7.68
Tuna	Fodder Support	140	9.90
Tuna Vadi vistar	Fodder Support	70	4.61
Rampr	Pond Deepening	2500	1.65
	Rural Infra Structure Development		
Vandi	The slab of 4 social rooms was filled and Construction work continued.	-	-
	Total	5885	31.10

AKBTPL TUNA CSR – ACTIVITY (Apr'21 to Sep'21)



Pond Deepening and Levelling of Two Ponds @ Rampar Village
Drinking Water Supply at Vira Bandar through TAnker

AKBTPL TUNA CSR – ACTIVITY (Apr'21 to Sep'21)



Plantation Activities at Rampar School
Drinking Water Supply at Dhavarvaro Bandar through Tanker
Drinking Water Supply at Vandi village through Water Pipeline

AKBTPL TUNA CSR – ACTIVITY (Apr'21 to Sep'21)



Facilitating for excavating the area for new water pipeline for plantation
Start-up of Construction Activity for erecting 4 Rooms for social activities at Vandi Village

AKBTPL TUNA CSR – ACTIVITY (Apr'21 to Sep'21)



Providing fodder to feed the cows at Cattle Farm at Tuna and Rampar