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Letter No.: APPPL-EHS/MOEF RO/EC Comp (1811)

Date: 23/11/2019

जलवायु परिवर्तन मंत्रालय

of when dix) | Regional Office (Western Zone)

Instry of Environment, Forests & Climate Change.

बोपाल (म.प्र.)। BHOPAL-462016

JO

The Additional Principal Chief Conservator of Forests (C),

Western Regional Office,

Ministry of Environment, Forest & Climate Change

E-5, Arera colony, Link Road-3,

Ravishankar Nagar, Bhopal-462016 (M.P.)

Email: rowz.bpl-mef@nic.in

Dear Sir,

Sub .:- Six Monthly Compliance Report of Environment and CRZ Clearance for the period from April 2019 to September 2019.

Ref .:- 1) Environmental and CRZ clearances granted to M/s. Adami Petronet (Dahej) Port Pvt. Ltd. for Phase-I and Phase-II vide letters dated 6th July, 2007 and 11th November, 2008 bearing F. No.: 11-37/2007-IA-III, respectively.

- 2) CRZ Clearance / Recommendation issued by Department of Environment & Forest, GoG vide letter dated 16th May, 2007 bearing No.: ENV-102006-71-P for Phase-I and letter dated 29th September, 2008 bearing No.: ENV-10-2007-2126-E for Phase-II.
- 3) Mail dated 23.11.2019 for submission of compliance

Please find enclosed herewith point wise compliance report (Soft copy in a CD) of conditions stipulated in the above referred letters, the same was also forwarded through mail dated 23.11.2019 (Reference 3

Thanking you,

Yours Faithfully,

For M/s Adani Petronet (Daher) Port

(Authorized Signatory)

Copy to:

1. The Director (Monitoring-IA Division), Ministry of Environment, Forest & Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110 003.

2. The Director, Forest and Environment Department, Block-14, 8th Floor, Sachivalaya, Gandhinagar, Gujarat-382 010.

3. The Zonal Officer, Central Pollution Control Board, Zonal OfficeVadodra, Parivesh Bhawan, Opposite VMC Ward office No. 10, Subhanpura, Vadodra-390 023.

 The Chairman, Gujarat Pollution Control Board, Parvayaran Bhawan, Sector-10A, Gandhinagar-382010 (Gujarat).

5. The Regional Officer, Gujarat Pollution Control Board, Bharuch (Gujarat).

Enali: Pellaile Convento Por Ltd

At & PO Lakhigam Taluka Vagra, Via Dahej Bharuch 392 130 Guiarat, India

CIN: U63012GJ2003PTC041919

Tel +91 2641 285002 +91 2641 285019 info@adani.com www.adaniports.com

Kaushal Singh

From:

Kaushal Singh

Sent:

Saturday, November 23, 2019 12:21 PM

To:

"RO - MOEF & CC (WZ), BHOPAL"

Cc:

'bharuchgpcb@yahoo.com'; "ZO - CPCB, VADODARA'; 'westzonecpcb@yahoo.com';

"CHAIRMAN - GPCB'; gpcb-bha@gujarat.gov.in; mefcc.ia3@gmail.com; monitoring-

ec@nic.in; Harsh Yadav; Shalin Shah; Badrinarayan Gandhi

Subject:

Half yearly Compliance report of Environment and CRZ Clearance for Phase I & II of

Adani Petronet (Dahej) Port Private Limited, Dahej_F.No.11-37/2007-IA-III

Attachments:

2019.11.20 Dahej I & II EC & CRZ Compliance_Email.pdf

Letter No.: APPPL-EHS/MOEF RO/EC Comp (I&II) Date: 23/11/2019

To

The Additional Principal Chief Conservator of Forests (C), Western Regional Office, Ministry of Environment, Forest & Climate Change E-5, Arera colony, Link Road-3, Ravishankar Nagar, Bhopal-462016 (M.P.)

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Please find attached herewith point wise compliance report of conditions stipulated in the above referred letters.

Thank you,

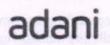
Copy to:

- The Director (Monitoring –IA Division), Ministry of Environment, Forest & Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi – 110003
- 2. The Director, Forest and Environment Department, Block 14, 8th Floor, Sachivalaya, Gandhinagar, Gujarat- 382010
- The Zonal Officer, Central Pollution Control Board, Zonal OfficeVadodra, Parivesh Bhawan,
 Opposite VMC Ward office No. 10, Subhanpura, Vadodra-390023
- 4. The Chairman, Gujarat Pollution Control Board, Parvayaran Bhawan, Sector 10A, Gandhinagar-382010(Guj.)
- 5. The Regional Officer, Gujarat Pollution Control Board, Bharuch

Thanks & regards,

Kaushal Singh Deputy Manager - HSE | Adani Petronet (Dahej) Port Pvt Ltd Mob +91 9099002568 | Ext. 51081 | Off +91 02641 28 5081 | Kaushal.Singh@adani.com | www.adaniports.com

At & PO Lakhigam, Taluka Vagra, Via Dahej, Bharuch 392 130, Gujarat, India.



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tector dated trick May 2007 bearing No. EN-Toyone-71-P for Physic



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Letter No.: APPPL-EHS/MOEF RO/EC Comp (I&II)

Date: 20/11/2019

To

The Additional Principal Chief Conservator of Forests (C), Western Regional Office, Ministry of Environment, Forest & Climate Change E-5, Arera colony, Link Road-3, Ravishankar Nagar, Bhopal-462016 (M.P.) Email: rowz.bpl-mef@nic.in

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For M/s Adani Petronet (Danej) PortoRve

(Authorize'd Signatory)

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- 4. The Chairman, Gujarat Pollution Control Board, Parvayaran Bhawan, Sector-10A, Gandhinagar-382010 (Gujarat).
- 5. The Regional Officer, Gujarat Pollution Control Board, Bharuch (Gujarat).

Adani Petronet (Dahej) Port Pvt Ltd At & PO Lakhigam Taluka Vagra, Via Dahej Bharuch 392 130 Gujarat, India CIN: U63012GJ2003PTC041919

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From : Apr., 2019 Limited : Sep., 2019

=	Half yearly Compliance report for Environment and CRZ Clearance for the development of Solid Cargo Port Terminal Phase – I and Phase – II.		
Sr. No.	Specific Conditions	Compliance	
P2(i)	All the conditions stipulated by Ministry of Environment and Forests, Regional Office, Western Region, Bhopal vide their letter No. 6-GJ060/2006-BH0/1508, dtd., 16.6.2008 shall be strictly adhered to	Complied. All the conditions mention by Ministry of Environment and Forests, Regional Office, Western Region, Bhopal vide their letter No. 6-GJ060/2006-BH0/1508, dtd., 16.6.2008 have been complied with. Copy of the compliance status enclosed as Annexure – 1.	
P2(ii)	All the conditions stipulated by Forest and Environment Department, Govt. of Gujarat vide their letter NoFCA-1006(10-9)SF-76-K, dated., 1.7.2008 dated 16.6.2008 shall be strictly adhered to	Complied. All the conditions mention by Forest and Environment Department, Govt. of Gujarat vide their letter NoFCA-1006(10-9)SF-76-K, dated., 1.7.2008 dated 16.6.2008 have been complied with. Copy of the compliance status enclosed as Annexure – 1.	
P2(iii)	No reclamation will be carried out for the activity	Complied. Project (Phase I & II) has been developed within existing land without any reclamation.	
P2(iv)	All the conditions stipulated by the Gujarat Coastal Zone Management Authority including Ministry of Environment and Forests clearance dated 16.6.2008 under the Forest Conservation Act shall complied.	Complied. All the condition mentioned by the Gujarat Coastal Zone Management Authority including Ministry of Environment and Forests clearance dated 16.6.2008 have been complied with. Copy of the compliance status enclosed as Appendix – 1 .	
P2(v), P1(i)	Sewage Treatment Plant should be included in the project	Complied. Sewage Treatment Plant of capacity 25 M³ / day has been installed and is in operation.	
P2(vi), P1(ii)	Afforestation in 200 ha. with mangroves should be undertaken under the project, as identified by the Gujarat Forest Department	Complied. Mangrove afforestation has been carried out in an area of 450 ha. Details are given below. 1. 100 ha near village Dandi, Dist Surat- 2011 2. 50 ha near village Jakhau, Dist Kutch - 2011 3. 50 ha near Padri bit, Dist Bhavnagar - 2011 4. 200 ha near Malpur, Ta. Jambusar - 2013-14 5. 50 ha Devjagan/Nada Ta. Jambusar - 2017 - 18	



From : Apr., 2019

: Sep., 2019

Half yearly Compliance report for Environment and CRZ Clearance for the development of Solid Cargo Port Terminal Phase – Land Phase – II.

Sr. No.	Specific Conditions	Compliance
		Reports of 400 Ha Mangrove afforestation were submitted along with half yearly compliance report vide letter no. APPPL-EHS/MoEF RO/EC Comp (I & II) dated 28.11.2017 and Report of 50 ha Mangrove afforestation (2017-18) was submitted along with half yearly compliance report vide letter no. APPPL-EHS/MoEF RO/EC Comp (I & II) dated 29/05/2019.
P2(vii)	Afforestation @1:3 shall be carried out in case of any trees to be cut.	 Complied. Afforestation on 38 ha. Land has been completed with the help of forest department during 2012-14. Land has been declared as reserve forest vide notification dated 23/12/2008. Copy of the same was submitted along with half yearly compliance report vide letter no. APPPL-EHS/MoEF RO/EC Comp (I & II) dated 28.11.2017.
P2(viii), P1(iii)	The recommendations of the Risk Assessment Report should be incorporated	Complied. Risk Assessment Report was submitted along with compliance report dated 20/02/2008. The recommendation of risk assessment are incorporated and being followed during construction and operation phases.
P2(ix), P1(v)	The materials for the filling and pavement construction should be made available from approved quarries.	Complied. Construction of the project (Phase I & II) was completed in February 2011.
P2(x), P1(vi)	Sufficient fixed and mobile firefighting system should be provided exclusively for the terminal in consultation with the local statutory bodies.	Complied. Adequate fixed and mobile firefighting systems are provided. Details of the same are enclosed as Annexure – 2 .
P2(xi), P1(x)	All development in the port should be carried out in accordance with the Coastal Regulation Zone Notification, 1991 and approved Coastal Zone Management Plan of Gujarat.	Complied. Construction of Phase I & II has been completed in February 2011 and same is carried out in accordance with CRZ Notification 1991.
P2(xii), P1(xi)	There shall be no withdrawal of ground water in CRZ area for this project. The proponent should ensure that as a	Complied. Ground water is not tapped in CRZ area for the project. Water requirement is being met



Half yearly Compliance report for Environment and CRZ Clearance for the development of
Solid Cargo Port Terminal Phase – I and Phase – II.

Solid Cargo Port Terminal Phase – I and Phase – II.		
Sr. No.	Specific Conditions	Compliance
	result of the proposed constructions, ingress of saline water into ground water does not take place. Peizometers shall be installed for regular monitoring for this purpose at appropriate locations on the project site.	through GIDC water supply. Two Piezometers has been installed at different locations inside port. Regular monitoring of ground water level & quality is being monitored through NABL accredited & MoEF&CC recognized laboratory M/s Pollucon Laboratories, Surat. Copies of reports are enclosed as Annexure 3B .
P2(xiii), P1(xii)	The project shall not be commissioned till the requisite water supply and electricity to the project are provided by the PWD/Electricity Department.	Complied. Project is commissioned after obtaining permission from PWD and Electricity Department. 1. GIDC permission dtd 19.02.2013 2. Electricity Department approval dtd 18.02.2011
P2(xiv), P1(xiii)	Specific arrangements for rain water harvesting shall be made in the project design and the rain water so harvested shall be optimally utilized. Details in this regard shall be furnished to this Ministry's Regional Office at Bhopal within 3 months	Complied. The feasibility study for rain water harvesting was conducted. Based on the report it may be concluded that rain water harvesting is not advisable as the area is next to the coast. Report was submitted along with the half-yearly compliance report dated 22.05.2015.
P2(xv), P1(xv)	No land reclamation should be carried out for this project.	Complied. Project (Phase I & II) has been developed within existing land without any reclamation.
P2(xvi) ,P1(xvi)	Green buffer zone should be provided all around the project area in consultation with local forest department and report submitted to this Ministry's Regional Office at Bhopal.	Being Complied Considering the expansion plan, Green belt is being developed on periphery of the project boundary. So far 18.0 ha of Green belt is developed which mainly includes casuarina, wasigtonia palm, cassia samiea, peltoforum, delonix regia, ficus sps. Details of green belt area are enclosed as Annexure - 5.
P2(xvii) ,P1(xiv)	The facilities to be constructed in the CRZ area as part of this project should be strictly in conformity with the provisions of the CRZ Notification, 1991 as amended subsequently.	Complied. Construction of the project (Phase I & II) was completed in February 2011 and same is in conformity with the provisions of the CRZ Notification 1991.
P2(xviii), P1(xvii)	No product other than those permissible in the Coastal Regulation Zone	Complied. APDPPL is handling dry cargo mainly coal



-	ly Compliance report for Environment and go Port Terminal Phase – I and Phase – II.	CRZ Clearance for the development of
Sr. No.	Specific Conditions	Compliance
	Notification, 1991 should be stored in the Coastal Regulation Zone area.	and other bulk cargos at designated storage areas in compliance to the CRZ Notification 1991 and 2011 and as per approval received.
P1(iv)	Location of general cargo berth should be taken in to considerations with regard to location of LNG terminal	Complied. General cargo berth (Solid Cargo Port Terminal jetty) is approx. 500 m away from the LNG jetty of Petronet LNG Ltd.
P1(vii)	The wave tranquility study and the ship maneuvering studies carried out should be taken in to account while operating the Port.	Complied. Ship mooring study and wave tranquility studies were carried out to understand the wind wave and swell wave conditions. The recommendations are being regularly followed during port operations.
P1(viii)	The project proponent should ensure that during construction and operation of the port there will be no impact on the livelihood of the fisherman. The fisherman should be provided free access to carry out the fishing activity.	Complied. There is no commercial fishing in the area. Free access to the "Pagadiya" fishermen is available. They are continuing with their activities without any impact from project.
P1(ix)	All necessary precaution while undertaking construction and operation of the port should be taken keeping in view the bathymetric changes caused due to cyclones.	Complied. Construction (Phase I & II) activities are completed in February, 2011. APDPPL has a well-defined DMP (covering natural disasters including cyclones) and regular mock drills are being conducted. DMP is also reviewed at regular interval. Mock drill is being conducted as per plan. Last Mock drill was conducted on 28.09.2019. Last revision in the DMP was done on 01.12.2018.
General (Conditions	
P2(i), P1(i)	Construction of proposed structures shall be undertaken meticulously conforming to the existing Central/local rules and regulations including Coastal Regulation Zone Notification 1991 & its amendments. All the construction designs/drawings relating to the proposed construction activities must have approvals of the concerned state Government Departments/Agencies. Adequate provision for infrastructure	 Complied. All the development activities are being taken up in accordance with the CRZ notification, 1991 & its subsequent amendments. The approval for the project has been obtained from concern government department that is GMB as per their NOC date 23/02/2006. Necessary approval has been obtained from GIDC for the setting of the project vide letter ref no. GIDC/DM/CG/ANK/87. Complied.
1 2(11),	risequote provision for infrustructure	- Compileo.



Half yearly Compliance report for Environment and CRZ Clearance for the development of

From : Apr., 2019

To

: Sep., 2019

rgo Port Terminal Phase – I and Phase – II.	
Specific Conditions	Compliance
facilities such as water supply, fuel, sanitation etc. should be ensured for construction workers during the construction phase of the project so as to avoid felling of trees/mangroves and pollution of water and the surrounding.	Construction of the project (Phase I & II) was completed on February 2011. During construction all facilities such as water supply, fuel, sanitation etc. was provided.
The project authorities must make necessary arrangements for disposal of solid waste and for the treatment of effluents by providing a proper wastewater treatment plant outside the CRZ area. The quality of treated effluents, solid wastes and noise level etc. must conform to the standards laid down by the competent authorities including the Central/State Pollution Control Board and the Union Ministry of Environment and Forest under the Environmental (Protection) Act, 1986, whichever are more stringent.	 Complied. The Project (Phase I & II) activities are not generating any trade effluent. Only domestic effluent is being generated which was treated in the STP outside CRZ area and used for horticulture within the premises. The noise monitoring results, are enclosed as Annexure – 3G. Quality of treated domestic effluent is also being monitored by NABL accredited & MoEF&CC recognized laboratory M/s Pollucon Laboratories, Surat. Please refer Annexure – 3F. Results confirm with applicable standards.
The proponent shall obtain the requisite consents for discharge of effluents and emission under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981 form the Gujarat State Pollution Control Board before commissioning of the project and a copy of each of these shall be sent to this Ministry.	Complied. APDPPL has obtained renewal of CC&A under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981 form the Gujarat State Pollution Control Board vide No. AWH 73359 dated: 28.10.2015 which is valid up to 16.7.2020.
The proponent shall provide for a regular monitoring mechanism so as to ensure that the treated effluents conform to the prescribed standards. The record of analysis reports must be properly maintained and made available for inspection to the concerned State/Central officials during their visits.	 Complied. Domestic effluent is being treated in STPs. The treated water confirming to the norms is being used for horticulture purpose. The monitoring results of the treated wastewater from STP for the period from April'19 – September'19 are enclosed as Annexure – 3F. Reports are available at site for the inspection and APDPPL regularly submits report to GPCB. Complied.
	facilities such as water supply, fuel, sanitation etc. should be ensured for construction workers during the construction phase of the project so as to avoid felling of trees/mangroves and pollution of water and the surrounding. The project authorities must make necessary arrangements for disposal of solid waste and for the treatment of effluents by providing a proper wastewater treatment plant outside the CRZ area. The quality of treated effluents, solid wastes and noise level etc. must conform to the standards laid down by the competent authorities including the Central/State Pollution Control Board and the Union Ministry of Environment and Forest under the Environmental (Protection) Act, 1986, whichever are more stringent. The proponent shall obtain the requisite consents for discharge of effluents and emission under the Water (Prevention and Control of Pollution) Act, 1981 form the Gujarat State Pollution Control Board before commissioning of the project and a copy of each of these shall be sent to this Ministry. The proponent shall provide for a regular monitoring mechanism so as to ensure that the treated effluents conform to the prescribed standards. The record of analysis reports must be properly maintained and made available for inspection to the concerned State/Central officials during their visits.



Half yearly Compliance report for Environment and CRZ Clearance for the development of
Solid Cargo Port Terminal Phase – I and Phase – II.

Sr.	Specific Conditions	Compliance
No.		Compliance
P1(vi) P2(vii),	monitoring during the operational phase of the project, the project authorities should provide an environmental laboratory well equipped with standard equipment and facilities and qualified manpower to carry out the testing of various environmental parameters. The sand dunes and mangroves, if any	 APDPPL has engaged M/s Pollucon Laboratories, a NABL accredited and MoEF&CC recognised laboratory for environmental monitoring. The monitoring results for the period from April'19 – September'19 are enclosed as Annexure – 3A to 3H. Complied.
P1(vii)	on the site should not be disturbed in any way.	 There are no sand dunes in project area. Free flow to the mangroves near the jetty approach is maintained.
P2(viii), P1(viii)	A copy of the clearance letter will be marked to the concern Panchayat/local NGO, if any, from whom any suggestion/representation has been received while processing the proposal.	Complied. Copy of the letter submitted to local panchayat was submitted along with half yearly compliance report vide letter no. APPPL-EHS/MoEF RO/EC Comp (I&II) dated 28.11.2017.
P2(ix), P1(ix)	The Gujarat State Pollution Control Board should display a copy of the clearance letter at the Regional Office, District Industries Centre and Collector's Office/Tehsildar's Office for 30 days.	This condition does not belong to the project proponent.
P2(x), P1(x)	The fund 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's Regional Office at Bhopal and the State Pollution Control Board.	Complied. Separate budget is allocated for Environmental Management. Key components of environment budget are environmental Monitoring, STP's (Operations and Maintenance), and Closed Conveyor System Maintenance etc. The allocation of revenue budget for Environment Cell for the FY 2019-20 was approx. Rs. 283.26 lacs. Details of the environmental budget and expenditure for the FY 2019-20 is enclosed as Annexure -6.
P2(xi), P1(xi)	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 proponents during their inspection for monitoring purposes, by furnishing full details and action plans including the action taken reports in respect of mitigative	 Complying with. APDPPL is regularly submitting six monthly compliance reports which comprises Compliance to the conditions stipulated in Environment and CRZ clearance, environment monitoring reports etc. Whenever any authorities from MoEF&CC, GPCB and GMB etc. visit



From : Apr., 2019 To : Sep., 2019

Half yearly Compliance report for Environment and CRZ Clearance for the development of Solid Cargo Port Terminal Phase – I and Phase – II.

	go Port Terminal Phase – I and Phase – II.	
Sr.	Specific Conditions	Compliance
No.	measures and other environmental protection activities.	 APDPPL, full support is extended and APDPPL provides all additional information seek by them during the inspection. Recent visit of Gujarat Pollution Control Board was on 10.04.2019.
P2(xii), P1(xii)	In case of deviation or alteration 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.	Noted and complied with. There is no change in the Phase I & II development.
P2(xiii), P1(xiii)	This Ministry reserves the right to revoke this clearance, if any of the conditions stipulated are not complied with to the satisfaction of the Ministry.	Noted & agreed.
P2(xiv), P1(xiv)	This Ministry or any other competent authority may stipulate any other additional conditions subsequently, if deemed necessary, for environmental protection, which shall be complied with.	Noted & Agreed
P2(xv), P1(xv)	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 & Forest at http://www.envfornic.in . 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 Bhopal.	SAMACHAR" newspaper dated 11.9.2007. • Advertisement of phase 2 approval was published in Gujarati language in "Divya Bhaskar" newspaper and in English language in "The Times of India" dated 19/11/2008.



From : Apr., 2019

: Sep., 2019

Half yearly Compliance report for Environment and CRZ Clearance for the development of Solid Cargo Port Terminal Phase – Land Phase – II.

Sr.	Specific Conditions	Compliance
No. P2(xvi), P1(xvi)	The Project proponents should inform the Regional Office at Bhopal 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.	Complied. Financial closure date of Project was 31st July 2007. Existing Facility – construction started date July 2007. Land development work for phase II stared in Jan. 2009. The permission to construct of Solid Cargo Beth at Dahej port has been obtained from GMB vide letter dated 23 Feb 2006 bearing no GMB/N/PVT/264(10)/1910/11201.
P2(xvii)	Any appeal against this environment clearance shall lie with the National Environment Appellate Authority, if preferred, within a period of 30 days as prescribed under Section 11 of the National Appellate Act, 1997	

Compliance to the conditions stipulated in CRZ clearance/ recommendation for proposed cargo port terminal phase I, II



Half yearly Compliance report for CRZ Clearance/recommendation for development of Solid Cargo Port Terminal Phase – I and Phase – II		
Sr. no.	Conditions	Status/Action taken
P2(1), P1(1)	The provisions of the CRZ notification of 1991 and subsequent amendments issued from time to time shall be strictly adhered to by the APPL. No activity in contradiction to the provisions of the CRZ Notification shall be carried out by the APPL.	Complied. All the activities carried out are complying with the provisions of the CRZ notification and subsequent amendments.
P2(2), P1(2)	All necessary permissions from different Government Departments / agencies shall be obtained by the APPL before commencing the expansion activities.	 Complied. All the necessary permissions have been obtained by M/s. APDPPL. Environment Clearance for phase I & Phase II obtained vide letters dated 6th July, 2007 11th November 2008 and bearing F. No. 11-37/2007-IA-III respectively CC&A is obtained from Gujarat Pollution Control Board vide letter no AWH-73359 dated 28.10.2015 and valid up 16.07.2020.
P2(3), P1(5)	The APPL shall carry out the construction activities either in the CRZ area or into the sea / estuary only after having the detailed study with respect to chances of erosion / accretion due to the proposed activities conducted through the NIO and vetted through the CWPRS and shall implement all necessary steps / actions as may be suggested by these institutes for mitigating the potential negative impacts including the checking of erosion and/or accretion in the region. Further, the company shall have to have the construction drawings approved for this purpose through a competent agency before undertaking any construction and/or enabling activities at the site	 Construction (Phase I & II) of the port was completed in February 2011. The approval for the project has been obtained from concern government department that is GMB as per their NOC date 23/02/2006. Necessary approval has been obtained from GIDC for the setting of the project vide letter ref no. GIDC/DM/CG/ANK/87.
P2(4), P1(7)	The APPL shall have to face the consequences whatsoever due to implementation of the Kalpsar Project proposed by the Government of Gujarat and shall have to take all necessary actions as may be desired by the Government, from time to time. No dredging and/or reclamation activity	



From : Apr., 2019

To : Sep., 2019 Half yearly Compliance report for CRZ Clearance/recommendation for development of Solid Cargo Port Terminal Phase – I and Phase – II Sr. no. | Conditions Status/Action taken P1(10) shall be carried out in the CRZ area • No dredging/reclamation have been

P1(10)	categorized as CRZ I (i) and it shall have to be ensured that the mangrove habitats and other ecologically important and significant areas are not affected due to any of the project activities.	done in CRZ I (i).
P2(6), P1(11)	No effluent or sewage shall be discharged into the sea / creek or in the CRZ area and shall be treated to conform to the norms prescribed by the Gujarat Pollution Control Board and would be reused / recycled within the plant premises to the extract possible.	Domestic effluent is being treated in STPs. The treated water confirming to the norms is being used for horticulture purpose. The monitoring results of the
P2(7), P1(12)	All the recommendations and suggestions given by the NIO in the Comprehensive Environment Impact Assessment report for conservation / protection and betterment of environment shall be implemented strictly by the APPL.	Being Complied. A Separate EIA has been prepared for phase III development, which includes EMP for the current scenario. All the recommendations and suggestions given by M/s Cholamandalam in the EMP are being complied. Copy of the status of EMP recommendations is enclosed as Annexure 4.
P2(8), P1(13)	The construction and operational activities shall be carried out in such a way that there is no negative impact on mangroves and other coastal/marine habitat. The construction activities shall be carried out only under the constant supervision of the NIO.	 Complied. Construction (Phase I & II) of the project was completed on February 2011. Free flow to the mangroves near the jetty approach is maintained.
P2(9), P1(14)	port and the mangroves habitat are neither disturbed nor destroyed due to any activity.	 No creeks are blocked due to port activity. Free flow to the mangroves near the jetty approach is maintained.
P2(10), P1(15)	The APPL shall participate financially for any common facility that may be established or any common study that may be carried out for the Gulf of Khambhat region for environmental protection and/or management purpose.	committed for the environment protection.



	Half yearly Compliance report for CRZ Clearance/recommendation for development of Solid Cargo Port Terminal Phase – I and Phase – II						
Sr. no.	Conditions	Status/Action taken					
P2(11), P1(16)	The construction debris and/or any other type of waste shall not be disposed into the sea, creek or in the CRZ areas. The debris shall be removed from the construction site immediately after the construction is over.	Complied. Construction of the project was completed on February 2011. All the debris has been removed.					
P2(12), P1(17)	The construction camps shall be located outside the CRZ area and the construction labour shall be provided the necessary amenities, including sanitation, water supply and fuel and it shall be ensure that the environmental conditions are not deteriorated by the construction labours.	 Complied. Construction of the project was completed on February 2011. No labour camps were 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. 					
P2(13), P1(18)	The APPL shall prepare and regularly update their 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 this Department after having it vetted through the India Coast Guard.	 Oil Spill Contingency Plan is submitted to Coast Guard, Gandhinagar for verification vide letter dated. 10/10/2012. APDPPL has a well-defined DMP and regular mock drills are being conducted. DMP is also reviewed at regular interval Last Mock drill was conducted on 28.09.2019. Last revision in the DMP was done on 01.12.2018. 					
P2(14), P1(19)	The APPL shall bear the cost of the external agency that may be appointed by this Department for supervision/monitoring of proposed activities and the environmental impacts of the proposed activities.	Noted and agreed to comply.					
P2 (15)	The mangrove plantation in 50 ha. of area on Gujarat cost line shall be carried out by the applicant in a phased manner in five years	Complied. Mangrove afforestation has been carried out in an area of 450 ha. Details are given below. 1. 100 ha near village Dandi, Dist Surat – 2011 2. 50 ha near village Jakhau, Dist Kutch – 2011 3. 50 ha near Padri bit, Dist Bhavnagar – 2011 4. 200 ha near Malpur, Ta. Jambusar – 2013-14					



Half yearly Compliance report for CRZ Clearance/recommendation for development of Solid Cargo Port Terminal Phase – I and Phase – II						
Sr. no.	Conditions	Status/Action taken				
0		5. 50 ha Devjagan/Nada Ta. Jambusar – 2017 – 18				
		Reports of 400 Ha Mangrove afforestation were submitted along with half yearly compliance report vide letter no. APPPL-EHS/MoEF RO/EC Comp (I & II) dated 28.11.2017 and Report of 50 ha. Mangrove afforestation was submitted along with half yearly compliance report vide letter no. APPPL-EHS/MoEF RO/EC Comp (I & II) dated 29/05/2019.				
P2 (16)	The construction activities in the Forest land and the Gauchar land shall be carried out as per the permission accorded by the concerned Authority for the said purpose	Complied. Construction of the project was completed in February 2011 in compliance to the approvals.				
P1(3)	The APPL shall take up massive mangrove plantation in 200 ha of area in and around the project site or at an alternative site to be selected in consultation with this Department.	Complied. Mangrove afforestation has been carried out in an area of 450 ha. Details are given below. 1. 100 ha near village Dandi, Dist Surat – 2011 2. 50 ha near village Jakhau, Dist Kutch – 2011 3. 50 ha near Padri bit, Dist Bhavnagar – 2011 4. 200 ha near Malpur, Ta. Jambusar – 2013-14 5. 50 ha Devjagan/Nada Ta. Jambusar – 2017 – 18 Reports of 400 Ha Mangrove afforestation were submitted along with half yearly compliance report vide letter no. APPPL-EHS/MoEF RO/EC Comp (I & II) dated 28.11.2017 and Report of 50 ha. Mangrove afforestation was submitted along with half yearly compliance report vide letter no. APPPL-EHS/MoEF RO/EC Comp (I & II) dated 29/05/2019.				



_	Half yearly Compliance report for CRZ Clearance/recommendation for development of Solid Cargo Port Terminal Phase – I and Phase – II					
Sr. no.	Conditions	Status/Action taken				
P1(4)	The approach road and trestle passing through the forestland shall be constructed only after obtaining necessary permissions under the relevant forest laws including the forest (Conservation) Act. further, no activity shall be carried out in the forestland or in the area having natural plantation / forest till all mandatory clearances under various Forest Acts including the Forests Conservation Act obtained.	 Complied. All the activities on forest land have been started only after obtaining forest land clearance. Clarence from MOEF was obtained vide letter no 6-GJC060/2006-BH0/1508 dated 16th June 2008. The same was communicated by State Forest Department vide letter no A-1006(10-9)SF-76-K dated 1st July 2008 from DOEF. 				
P1(6)	The project proponent shall have to make a separate application and shall have to obtain prior clearance under the CRZ Notification for any activities other than those proposed and got approved as part of this phase I activities.	Complied. APDPPL had obtained Environmental & CRZ Clearance on Nov 11, 2008 for phase 2 vide letter no.11-37/2007-IA.III.				
P1(8)	The project proponents shall ensure that the local people shall be provided with an alternative access to the sea in case the existing access to Rock-Bund could not be made available to them.	Complied. Alternative access to the sea is available adjoining to the project site.				
P1(9)	The project proponents shall ensure that the construction period shall be reduced by proper planning and executing the construction program in time-bound manner to avoid any time over-run.	Complied. Construction of the project was completed in February 2011.				
P1(20)	The jetty and most of the approach would be supported on piles allowing adequate flow of water without significant obstruction.	Complied. The jetty and most of the approach of 1270 meter is supported on piles allowing adequate flow of water without significant obstruction.				
D2(47)	General Conditions	O a satis d				
P2(17), P1(21)	The groundwater shall not be tapped by the APPPL to meet with the water requirements in any case.	Complied. No ground water is being tapped by APDPPL and water demand is met through GIDC.				
P2(18), P1(22)	The APPL shall take up massive green belt development activities in consultation with the Gujarat Institute of Desert Ecology/Forest Department. A comprehensive plan for this purpose has to be submitted to the Forests and	Complying with. Green belt is being developed in an area of 18.0 ha including periphery of the project boundary. Details of the green development is enclosed is Annexure – 5 .				



	Half yearly Compliance report for CRZ Clearance/recommendation for development of Solid Cargo Port Terminal Phase – I and Phase – II					
Sr. no.	Conditions	Status/Action taken				
	Environment Department.					
P2(19), P1(23)	The APPL shall have to be contributing financially for taking up the socio-economic up-liftment activities in this region in consultation with the Forests and Environment Department and the District Collector/District Development Officer.	Complied. The CSR activities are executed at group level by Adani Foundation. Adani Foundation is taking care of Social-economic establishment activities and details of the same are enclosed as Annexure - 8.				
P2(20), P1(24)	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, GOI. The details with respect to the expenditure from this budget head shall also be furnished.	Complied. Separate budget is allocated for Environmental Management and Socio Economic activities. Key components of environment budget are environmental Monitoring, STP's (O&M), Closed Conveyor System Maintenance and etc. The allocation of revenue budget for Environment Cell for the FY 2019 – 20 was approx. Rs. 283.26 lacs. Details of the environmental budget and expenditure for the compliance period April'19 to September'19 is enclosed as Annexure – 6. Socio Economic activities are taken up in the areas of Education, Community Health and Sustainable livelihood development, Rural Infrastructure development etc. Details are enclosed as Annexure – 8.				
P2(21), P1(25)	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. APDPPL has a well structured Environment Management Cell with qualified manpower for implementation of the Environment Management Plan. Detail of the Environment cell is enclosed as Annexure – 7 .				
P2(22), P1(26)	Environmental Audit report indicating the changes, if any, with respect to the baseline environmental quality in the coastal and marine environment shall be submitted every year by the APPL to this Department as well as to the MoEF, GOI. A six monthly report on compliance of the	Complied. Seawater and sediment is being monitored through NABL accredited & MoEF&CC recognized laboratory M/s Pollucon Laboratories, Surat. Monitoring Report for the period April'19 to September'19 is enclosed in Annexure 3C and 3D . No significant changes observed. Being Complied				



Environment Department.

Adani Petronet (Dahej) Port Private Limited

From: Apr., 2019

: Sep., 2019

Half yearly Compliance report for CRZ Clearance/recommendation for development of Solid Cargo Port Terminal Phase - I and Phase - II Sr. no. **Conditions** Status/Action taken P1(28) condition mentioned in this letter shall APDPPL is regularly submitting six have to be furnished by the APPL on monthly compliance reports which regular basis to this Department. comprises of Compliance to the conditions stipulated in Environment environment and CRZ clearance, monitoring reports. Last compliance report was submitted vide letter no. APPPL-EHS/MOEF RO/EC Comp (I&II)dated 29.05.2019 in soft copy via mail dated 29.05.2019. P2(24), Any other condition that may Noted and agreed to comply with the any P1(29) stipulated by this Department from time other condition that may be stipulated by to time for environmental this Department / Ministry of Environment, Forest and Climate Change, Government of protection/management purpose shall India from time to time for environmental also have to be complied by the APPL. protection. The APPL shall have to P1(27) contribute Complied. financially to support the National Green A request in this regard for asking for the terms of Financial Contribution submitted Corps scheme being implemented in to the GEER Foundation vide letter dated Gujarat by GEER Foundation, Gandhinagar, consultation with Forests and 17th April, 2009.

Annexure - 1 Action taken on PH commitments

Status of the action item of public consultation points

Sr. No.	Name of representative and address	Points Represented during Public Hearing	Answer given by representative of project proponent	Remark	Status of action Item as on 30/09/2019
1.	Shri ManaharbhaiGo hil, President Jilla Panchayat Village: Lakhigam, Taluka: Vagra, District: Bharuch	 Participating the public hearing he said that, he has studied the EIA report which is misleading. Five notices have been issued to the unit by GPCB but the data presented in the presentation are really shocking. There is increase in noise pollution due to company. All the improvements made by the unit are only during last three months. Tyre washing of Vehicle is not carried out. Equipment's purchased for maintaining cleanliness is not used regularly and there is no proper implementation of instructions given by GPCB through the notices. Further he made following observations /suggestions: Company has not taken permission from village panchayat for installation of conveyor belt passing thorough the road. Transportation of coal through trucks should be stopped. Precautions should be taken to 		After completing his representation, he immediately left the venue.	Reply sent on 18 th March 2015 as he immediately left the venue. No further action is required. Copy already submitted to MoEF as a part of EIA Annexure -16.

Sr. No.	Name of representative and address	Points Represented during Public Hearing	Answer given by representative of project proponent	Remark	Status of action Item as on 30/09/2019
		avoid fire in coal storage area. 4. "Court Commission" should be appointed for evaluation of current environmental condition of the company. • Finally, he told that he does not agree with the report of the company and raised strong objection against the expansion project of the company. He also pointed out that in the past three people already died due cargo vehicles of the company.			
2.	Shri Pushkarsinh Rana, Village Dahej	He raised objection for selection of location for conducting Public Hearing and asked GPCB why Public Hearing is organized in Luvara village instead of Project site or Lakhigam itself and requested to appraise the site criteria for Public Hearing He asked that how many pages are used in EIA report and in comparison how many pages are used in Executive summary.	the decision rights for selection of location for the Public Hearing are with GPCB and normally PH location is decided based on the Notification of EC of MoEF.	Regional Officer, GPCB clarified that w.r.t. selection of location for public hearing, the words used in the EIA notification are "at the project site or in close proximity" with this consideration as well as the availability of large ground area suitable for parking and accommodating as many people as possible, the Luvara village is selected as preferred location for public hearing as the same is 2 km away	No further action required. No further action required.

Sr. No.	Name of representative and address	Points Represented during Public Hearing	Answer given by representative of project proponent	Remark	Status of action Item as on 30/09/2019
		 He told that Executive Summary is of only 25 pages and that are very less as compared to pages of EIA report and it shows that company has hidden many information which is not acceptable to us. He also informed that this is a draft report only but the proponent never informing us whether clarifications are included in final EIA report or not? He asked the clarification whether project location is on land or in sea. Whether the land is allotted or not and who is owner of land? 	 Executive Summary is prepared as per the guidelines under EIA Notification. The more pages are due to various annexures. Project proponent informed that our port is functional and we have shown different components of the project in map. Two jetties in sea a trestle, rubble bund and back up area are already developed. Also, there is a railway yard for transportation of cargo. The expansion proposed for carrying out reclamation is falling in intertidal area and therefore that land do not have any survey number. We have asked for permission and reclamation will be carried out after permission from MOEF. 	Dist. Collector has informed to Project Proponent to communicate the changes made in the draft EIA while finalizing the EIA to the concern representative.	After obtaining CRZ recommendat ions from GCZMA vide their letter 14th March 2016, we have informed the concerned person about final EIA report for the proposed project and the source of availability on the MoEF website vide letter dated 17.03.2016. No further action is required.
		What is meaning of MOEF?	The Project Proponent replied that MOEF stands for Ministry of		No further action

Sr. No.	Name of representative and address	Points Represented during Public Hearing	Answer given by representative of project proponent	Remark	Status of action Item as on 30/09/2019
			Forest and Environment, Government of India		required
		As per Sr. No.6 table no.1.1 of Executive habitation in the villages or big town in expansion area. What is the location of Summary there is no expansion project	The project proponent replied that there is no habitation in the inter tidal land, proposed for reclamation		No further action required.
		As per Sr. No.14 of table no.1.2 of Executive Summary, it is shown that Birla Copper is located at a distance of two km in North direction and Hindalco is located at a distance of 5.1 km in the North East direction. So two different locations are shown which is one location only	The project proponent replied that verification will be done for Hindalco and Birla Copper and necessary changes will be made if, any.	Dist. Collector informed the villagers to make to the point representation and also drew their attention that if, they make proper representation then and then only their concern will reach to	No changes
		He pointed out that in your report Sabarmati pond is shown and asked where it is located and from where this information you have gathered? He further aggressively clarified that people are living in these villages since many years and there is no Sabarmati Pond in existence in this area.	The Project Proponent has shown Map prepared and published by Survey of India in 2007 which shows Sabarmati pond. As per the instruction of Dist. Collector same is shown to Shri Pushkarsinh Rana	the appropriate authorities and we are here for the same purpose.	action
		Executive Summary includes widening of the Road and he asked which roads are to be widened.	The project proponent replied that proposal includes widening of the existing rubble bund which is inside the port.		No further action required.

Sr. No.	Name of representative and address	Points Represented during Public Hearing	Answer given by representative of project proponent	Remark	Status of action Item as on 30/09/2019
		The proposed expansion is for the increase of capacity from 11.7 MMTP against the current actual handling which is less than 11.7 MMTP. So how pollution will be controlled for this expansion of capacity?	The project proponent replied that proposed expansion is for increasing the handling capacity from 11.7 MMTPA to 23 MMTPA and by doing this there will be reduction in pollution. We are having two jetties one in North direction and another in South direction. North Jetty is mechanized whereas In South jetty transportation of coal up to storage yard is being carried out through trucks. The proposed expansion includes mechanization of south jetty and transportation of coal through conveyor. Therefore, minimal transportation will be done through tucks. Therefore, there will be overall reduction in pollution due to 75% reduction of truck movement.		No further action required.
		The road starting from port up to Reliance is full of coal dust. Cleaning is going on since last 5 days only. High level of pollution is created in this area. This matter should come in writing. Equipment for cleaning of dust on the road is not used regularly. It is requested to show the details of equipment used in cleaning. The	The Project Proponent informed that equipment for cleaning of road is used since last 1.5 years. In addition the company has purchased second equipment and same is also functional.	Regarding the role of GIDC and GPCB, Dist. Collector clarified that Govt. is working for the people only.	No further action required.

Sr. No.	Name of representative and address	Points Represented during Public Hearing	Answer given by representative of project proponent	Remark	Status of action Item as on 30/09/2019
		same is also informed to GIDC and GPCB but complaints have remained on papers only. • Is there any role of GIDC in this matter? To whom we should approach when GIDC is allotting land to industries. This is the only platform where we can make the representation.			No further action required.
		Will there be any increase of capacity of railway loading silo and related infrastructure?	The Project Proponent replied that Belt conveyor capacity is adequate and silo will be developed at the same place where one silo already exists. There is no requirement of new land for this purpose.		No further action required.
		No employment is given to land looser of railway yard. Company should give	• Shri. Amish Trivedi, Representative of the project proponent replied that GIDC has allotted land on ROU basis and land for S&S yard given on lease basis. The Land acquisition is done as per agreement between land owner and GIDC.		No further action required.
		Assurance for employment to land loosers.	Company representative Mr. P. N. Roy chowdhury replied that there is no employment policy for land looser of ROU land.		No further action required.
		The responsible officers of GIDC	Only GIDC can answer on this		No further

Sr. No.	Name of representative and address	Points Represented during Public Hearing	Answer given by representative of project proponent	Remark	Status of action Item as on 30/09/2019
		should also be required to remain present during Public Hearing.	issue.		action required.
		I am unable to understand data shown in 3.1 w.r.t. ambient air quality therefore, I request to explain	• The project proponent replied that in India, norms of ambient air quality are already decided and parameters like PM10, PM2.5, SO ₂ NO _x etc are measured to decide the quality of ambient air. These parameters are decided by CPCB. If, these parameters are below the standards then they are acceptable. The results found during the study are within the acceptable limit, during study.		No further action required.
		He pointed out that as per Executive Summary 3.7.1 there is no fisheries and requested to inform the reason behind it. Fisherman have no option left and they have become unemployed for which companies are only responsible and therefore companies should provide employment to fishermen also.	 The project proponent replied that as per the data of Gujarat, fisheries contribution of Bharuch is only 1% which is very less. Kutch is contributing 17%. Fisheries are of two types (i) Fisheries in sea and (ii) Fisheries of Jinga and other types in inland water. Adani company is not responsible for reduction in fisheries which is also evident from the following data (Gujarat State) Presence of Adani Company is since 2011. In 2004 when Adani was not presence the fisheries production was 7489 MT, in 2005-06 it was 8743 MT, in 2009-10 it was 14810 		No further action required.

Sr. No.	Name of representative and address	Points Represented during Public Hearing	Answer given by representative of project proponent	Remark	Status of action Item as on 30/09/2019
			MT and in 2011-12 It was 12914 MT.		
		As per Executive summary it is mentioned that tyre washing of vehicles is done but same is not being carried out.	 Project proponent replied that in proposed expansion project, for air pollution control, dust suppression system will be installed during construction activities, regular water sprinkling will be carried out on roads, tyre washing facilities to be provided to avoid carry forward of dust through tyres. The tyre washing facility will become functional from 1st June, 2015. 		Tyre washing facility is in place and other measures will be taken during construction and operation phase.
		Company is doing transportation of coal through rail and truck. Dahej – IPCL road used for transportation of coal is passing through Vadia village which is residential area and hotels are also located on that road. Instead of this, it is requested to use bypass road passing near GACL for the same.	Project proponent replied that we welcome your suggestions. Necessary survey will be done and appropriate steps will be taken.		No change in the route is required.
		I wish good luck to company with hope to do better work for environment.	Project proponent conveyed thanks for his encouraging words.		No further action required.

Sr. No.	Name of representative and address	Points Represented during Public Hearing	Answer given by representative of project proponent	Remark	Status of action Item as on 30/09/2019
3.	ShriJayatibhaiA hir Village - Luvara	I am Sarpanch of Luvara village. All companies are conducting public hearing and concerns of villages are considered. Our representations during public hearing of ONGC on the issues of storm water management of village are also to be considered. ONGC has helped villages in providing disposal system of rain water from village. Adani company has also helped for renovation of houses of Adivasis. Fishing nets are provided to fishermen. Adani company has sanctioned to build 55 houses out of which 11 houses are already constructed. There is reduction in air pollution after installation of belt conveyor belt by Adani company. It is also true that regular cleaning of roads are carried out by company.	The project proponent has expressed thanks for appreciation.		No further action required.
4.	DahyabhaiGhan abhai Patel Village – Jageshwar	I do agree representation made by Manhabhai and Pushkarsinh. Conveyor belt should not be allowed through Jageshwar village. I hereby submit by representation in writing.	The project proponent replied that they have already replied earlier to similar question.	Written representation made by Shri Dahya bhai is accepted.	No further action required.
5.	Mayurdhvajsinh Village - Dahej	Officers of Adani Company are fooling villagers.			

Sr. No.	Name of representative and address	Points Represented during Public Hearing	Answer given by representative of project proponent	Remark	Status of action Item as on 30/09/2019
6.	ShriNareshbhai Village - Lakhigam	This is expansion proposal for phase III. I request all to stay in Lakhigam and decide about pollution control. There is high level of pollution exists. What is the reason for 46 deaths in last 4-6 months?			
		As shown in the report, monitoring is done at which locations in the village.	Project proponent replied that with respect to ambient air parameters same are as shown in the table no. 3.1 of Executive summary. Monitoring equipment were placed at the (1) residence of Shri Dilipbhai in Luvara village, (2) residence of Shri Chhotubhai in Jageshwar village, (3) Residence of Shri Ganpatgiri in Ambetha village, (4) P J Chheda High School in Dahej and (5) Primary School in Lakhigam.		
		Pollution reaches to our houses and dust can be seen on the utensils for drinking water. Adani has manipulated with official record.	This is false allegation and not acceptable to us.		No further action required.
		There are issues for land loosers and they do not get employment. We have to protest. All these expenses are also on the head on farmers. It is requested that company should provide	In existing project, out of 20 land loosers 10 have been already given employment and for remaining 10 we have requested the families to give their nomination which we have not		At present no action is pending

Sr. No.	Name of representative and address	Points Represented during Public Hearing	Answer given by representative of project proponent	Remark	Status of action Item as on 30/09/2019
		employment to us on their own.	received from their side.		
		Company should think about high pollution levels.	 The project proponent replied that they have already replied earlier to similar question. 		No further action required.
7	Shri Kalidas Rayjibhai Patel Sarpanch, Village - Jageshwar	In this region people are speaking wrong things. I would like to inform Dist. collector that poor people are exploited. Since 35 years people of Navinagari were not able to sleep peacefully and there was no repairing work was done for their houses but Adani foundation helped in renovation of 120 houses and also supported for food arrangement to masons while constructing houses.	The project proponent has expressed thanks for appreciation.		No further action required.
		Nobody came for help from Taluka and District level. The plaster was falling in primary school classes, which was repaired by Adani Company. Camera system is also installed in High School	The project proponent has expressed thanks for appreciation.		No further action required.
		Training programs for beauty parlor were organized by Adani. So in general we are getting good support from the company. Pollution is of many types and local people are aware about that. It is requested to Dist. Collector to pay attention for pressured being	The project proponent has expressed thanks for appreciation.		No further action required.

Sr. No.	Name of representative and address	Points Represented during Public Hearing	Answer given by representative of project proponent	Remark	Status of action Item as on 30/09/2019
		created on local people by sarpanch for the work which is not done by them. Adani has provided fishing nets to fishermen. Adivasi's are cutting trees for their survival needs so they should be given some work.			
8	Shri Bhagwanbhai Gohil, Village Paniyadara	 At which locations EIA reports should be made available EIA report is published on GPCB website is in English. Why it is not published in Gujarati. It should be also given in villages. What will happen If, concentration of PM10 in ambient air will increase from its limit of 100 mg/cum? Who will be responsible if, health of 	 The project proponent replied that as per guidelines EIA report is prepared in English and executive summary is prepared in English as well as in Gujarati. The project proponent replied that they have already replied earlier to similar question. 	Regional officer of GPCB replied that EIA report is made available at following offices 1. District collector office, Bharuch 2. District Development office, Bharuch 3. District Industries Centre, Bharuch 4. Taluka	No further action required. No further action required.
		 will be responsible it, fleath of people will deteriorate. How much pollution will increase if, handling capacity increase from 11.7 MMTPA to 23 MMTPA. It is shown in the presentation that employment will be given to 1000-1300 people. We request that 85% of employment should be given to locals. 	they have already replied earlier to similar question.	Development office, Tal. VagraDist.Bharuch 5. Chief Conservator of Forest, Bhopal 6. Regional officer, GPCB, Bharuch	No further action required.

Sr. No.	Name of representative and address	Points Represented during Public Hearing	Answer given by representative of project proponent	Remark	Status of action Item as on 30/09/2019
		As per page No.53 of EIA report it is mentioned that there is no tourism place in this area. Whereas, Lakhabava temple is already exist than why it is not shown in report?	earlier two phase of development as of date 2/3 people are employed for transportation of goods are from Gujarat. Suitable action will be initiated on receipt of order for 85% employment of locals. The project proponent replied that EIA report included tourism places as per records of Gujarat Govt. Lakhabava temple is not a declared tourism place as per published list of places hence not included. However, we respect the religious importance of the place.		No further action required.
		It is requested to announce that problem of coal dust in Lakahbava temple should be controlled	The project proponent replied that we are having sympathy with your feelings. We have already taken maximum measures for Lakahbava temple as well as carried plantations of trees and cleaning activities in that area. We accept your suggestion.		All the suggested measures are already taken and frequent cleaning will be done as and when needed.
		• As per Sr.10 page No.53 of EIA report, it is mentioned that there are 50 fishermen are in Jageshwar village but fishermen are exist in all villages. Govt. records are false and it is their negligence which is misused. Companies are getting information five days in advance	The project proponent replied that we have collected these data from fisheries department.		No further action required.

Sr. No.	Name of representative and address	Points Represented during Public Hearing	Answer given by representative of project proponent	Remark	Status of action Item as on 30/09/2019
		regarding visit of GPCB.			
9	Shri Ramanbhai Patel, Village: Luvara	Whose development is this? Only companies are growing. It is told to youth that they are locals. Even educated people are not getting employment. 50 students of Luvara village has completed course of ITI under GOLS in 2010-11 organized by GIDC but this certificate is not accepted to companies in Dahej region. It is requested to close this GOLS ITI program because it is not recognized.	The project proponent replied that they have already replied earlier to similar question.	Dist. Collector noted the matter and informed that he will take up the matter at right level.	No action required from company.
10	Shri Dipakbhai Patel Village: Jageshwar	I am working in a company where candidates with ITI course completed thru GIDC are not eligible for Apprenticeship. Youth of village is not having employment.		Dist. Collector noted the matter and informed that he will take up the matter at right level.	No action required from company.
11	Shri Niteshbhai Patel Village: Luvara	There are issues related to employment to land losers in this area and representation was made to previous collector madam but till date we have not received proper response.		Dist. Collector has informed that he has come across this issue but as this is not related to this public hearing and It will be taken separately. Even instructions have also come from CMO in this regard. Regarding bogus ITI necessary	No action required from company.

Sr. No.	Name of representative and address	Points Represented during Public Hearing	Answer given by representative of project proponent	Remark	Status of action Item as on 30/09/2019
				actions will be taken from Dist. Collectrate Office.	
12	Shri Sanjaybhai Gohil Village: Lakhigam	Officers of various companies provides medical van if, they have expansion project (i.e. when such public hearing to be faced) but if, anybody died near their gate they do not provide any ambulance. Companies are working like Britishers. There are incidences of two deaths on account of brain haemorrhage. Who will be responsible for ill health of children of villages			No action required from company.
13	Shri Yogeshbhai Patel Village: Lakhigam	Can an arrangement for measurement of noise pollution in presence of village people be made? Conveyor belt is located near school which may impact due to high level of noise.	 Standards are defined for Noise pollution and measurements are also within the limits, GPCB may also do necessary inquiry. 	Collector has informed that GPCB will arrange for measurement of noise in presence of village people	No action required from company.
14	Shri Shankarbhai Rathod Village: Lakhigam NaviNagri	approach rock bund waters by Adani Company and Birla there is	 The project proponent has expressed thanks for appreciation. There will not be any impact on fish due to this proposed expansion 		No further action required No further action required
		difference observed in currents of Sea which is impacting fishing activities. What will be the impact on fish due to proposed project.			

Sr. No.	Name of representative and address	Points Represented during Public Hearing	Answer given by representative of project proponent	Remark	Status of action Item as on 30/09/2019
15	Shri Kishorbhai Rana Village: Dahej	 Fishermen of this area are uneducated. It does not make any difference to them that who is running central government. They are in need of the survival of livelihood. I have uploaded the video on you tube for pollution created by Adani Company which you can see. Within the premises of Birla Copper around 100000 Neem tries are planted where foot prints of coal dust is being observed while going to temple. GIDC maps are getting revised as per the needs of the companies and village people are getting answer that again maps cannot be revised. It is requested to GPCB to provide contact numbers of the concern officer who can remain present at Dahej and may inspect the site on request through phone call while accident occur. 	Project proponent replied that your representation is right but Ports are necessary for the development of country. We have not created any hindrances or restricted access for fishing. They can continue the fishing activities.		There is no commercial fishing in the area. Free access to the "Pagadiya" fishermen is available. There is no impact on fishermen livelihood due to project activity. No action required from company.
16	Shri Pradeepbhai Thaker Member of Noise Pollution Environment Committee	I do agree the points raised by Shri Manhar Gohil and Shri Pushkar Rana. Company is not able to control the pollution in the present handling capacity than how permission can be given for increase in capacity, Company should be instructed for the improvement in six month and			

Sr. No.	Name of representative and address	Points Represented during Public Hearing	Answer given by representative of project proponent	Remark	Status of action Item as on 30/09/2019
		 thereafter public hearing should be organized Company is carrying out the transportation of coal by over loading of the rail rack. There are no established rules and regulations for this. Dusting problem in Bharuch district is due to transportation of railway rack. If GPCB and MoEF ask than company says that this is the problem of railway. Medical check-up should be conducted in this area to know how many children are malnourished as well as how much impact is occurring to their health. Previously during the time of flood even after the request from Collector to provide support for "Chuno" no company has given any help so how their CSR activities can be considered. 	issue is pertaining to Railway authority and the importer client.		No further action required
		 How much plantation is done? Source of Water and Power is not shown. Nobody had taken care for sprinkling of water during the incident of major fire occurred before two years. As per our suggestions, problems of ambient air quality have been 			

Sr. No.	Name of representative and address	Points Represented during Public Hearing	Answer given by representative of project proponent	Remark	Status of action Item as on 30/09/2019
		reduced in one of the company in Ankleshwar.			
		We are with the project but being Gujarati businessman you should take care of Gujarat			
		The path for Narmada Parikrama is one km away from here and many people are coming from different regions. No officers from Dahej Industries Association is present in today's public hearing			
		File of project for producing pure water from sea water is lying on table of officer of GIDC since last two years for which even grant is approved by Government			
		Since, the time of IPCL request for the development of Hospital is made but till date it is on the paper			
		No additional quantity of drinking water is given to village people by GIDC but at the same time industries are provided more water		Regional Officer of GPCB informed that Mr. Pradip Thaker is	
		There is opposing of administration done by GIDC. The file has been put up to carry out plantation at local level but till date there is no	 The project proponent requested the representative to mention the village to which he belongs. 	from Ankleshwar area but without clarifying his location in beginning he started	required from

Sr. No.	Name of representative and address	Points Represented during Public Hearing	Answer given by representative of project proponent	Remark	Status of action Item as on 30/09/2019
		clearance in this regard		representation.	
17	Shri Dimpalben Varmora Moverix Culture and Codes foundation Village: Luvara, Dahej, Lakhigam	We are running sports projects with support of Adani foundation. Using this sports platform we have done many good activities and some of the children have been taken to national level for sports competition. People have also expected same level of support from Adani Group.	The project proponent expressed thanks for her appreciation		Adani foundation is continuing CSR activities in the region. Details are being regularly submitted to MoEF with compliance report and also are part of the presentation given to EAC during the meeting.
18	Shri Rakesh Gohil Village: Lahigam	Who has prepared the EIA report and who has certified it	The project proponent replied that EIA report is prepared by M S Cholamandalam, Chennai which is QCI and NABET accredited agency. They have valid certificates. Base line survey, marine quality, government records and permissions as well as environment management plan are studied, reviewed and accordingly report is prepared		No further action required

Sr. No.	Name of representative and address	Points Represented during Public Hearing	Answer given by representative of project proponent	Remark	Status of action Item as on 30/09/2019
		No physical survey is carried out and during visit permission from Sarpanch should be taken			
		How the mistake like mentioning the name of companies Hindalco and Birla Copper? I am not aware about their visit for physical survey	The project proponent replied that they have already replied earlier to similar question.		
		With the issue of passing of Conveyor belt and w.r.t. the issue of land loser the company representative Mr. Trivedi always replies that we are making communication with GIDC but do not provide clarity.	they have already replied earlier to	Collector replied that for the issue of 200 land losers we will meet separately to resolve the issue.	
19	Shri Rekhaben Village: Jageshwar	We are thankful to Adani Company for providing us the training on beauty parlour.			No further action required

SHORELINE CHANGE ANALYSIS OF DAHEJ COAST USING HIGH RESOLUTION SATELLITE IMAGES

REPORT

FOR

ADANI PETRONET (DAHEJ) PORT PRIVATE LIMITED

PREPARED BY



Coastal and Environmental Engineering Division
NATIONAL INSTITUTE OF OCEAN TECHNOLOGY
CHENNAI
September, 2019

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> > **Report Summary**

	Client	Client's representative			
Adani P Limited.	Petronet (Dahej) Port Pvt	Mr. Kaushal Singh, Deputy Manager-HSE, Adani Petronet (Dahej) Port Pvt Limited.			
	Project	P	Project No.	NIOT/CEE	/1317
	e change analysis using high n satellite images of Dahej	SO No. 57002262831 dated 07/03/2019			07/03/2019
2	Final Report	SSP	BKJ	MVR	16-September-2019
1	Draft Report	SSP	BKJ	MVR	18-June-2019
Revision	Description	Ву	Checked	Approved	Date
Key word	ls	Classification	1		
		Open Interr Propr			
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NIOT, CI	hennai.		1		

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Executive Summary

This report includes the study on shoreline change assessment along Dahej coast about 10km stretch for the period from 2011 to 2019 using available high resolution satellite images. It includes identification of high erosion zone along the study area.

The zones of High erosion and accretion have been derived from the available high resolution satellite images (2.5m, 5m, 10m) from 2011 to 2019 and it indicates net deposition along the northern part of Dahej and almost stable along the southern part with few intersects indicating erosion. The seasonal, yearly and overall shoreline analysis has been presented in this report. The shoreline validation has been done by collecting the shoreline along the coast at accessible regions and the comparison has been discussed in this report.



1 INTRODUCTION

NIOT has received a service order (PO No. 5700252426 through mail dated 24th October 2018) for Shoreline change study for Adani Petronet (Dahej) Port Pvt ltd. In this regard, this report provides the shoreline change analysis over the 5km stretch on either side of Dahej coast.

The study area (Figure 1.1) is the stretch of 5 km on the either side of Adani Petronet Port (Dahej) in Bharuch district, Gujarat. It is located in the Gulf of Khambhat where two rivers Vizhwamitri and Narmada drain into the Gulf on either side of Dahej.

Remotely sensed data provides valuable preliminary estimates of change and is a unique tool for research and monitoring coastal areas. Predicting coastline change using remote sensing together with GIS is one of the most potential methods since this spatio-temporal technology can continuously provide viewpoints of coastal areas.

The study has been carried out using satellite data and field data sets (Ground Control Point data and field shoreline data) for shoreline changes analysis for Dahej site which provides an idea to the planners and authorities to monitor the coastline.

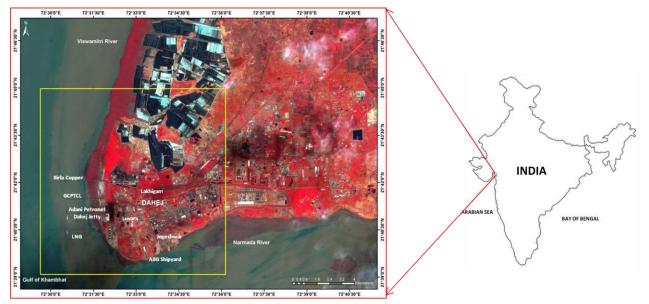


Figure 1.1 Location map showing 5 Km stretch on either side of Dahej Port

2 OBJECTIVES

- i) To assess the shoreline change over the 5 km coastline on either side Dahej site from 2011 to 2018.
- ii) To identify the spots of erosion and accretion locations along the study site.



Note: The objective as mentioned in proposal is to carry out shoreline analysis for the period from 2011-to 2018. However, the satellite images procured up to 2019 and shoreline analysis has been carried out for the period from 2011-2019.

3 METHODOLOGY & DATA USED

The methodology flowchart is shown in Figure 3.1. The shoreline change analysis has been carried out using satellite images to estimate the rate of change in terms of distance eroded or accreted and the rate of change estimated using cross shore profile in terms of area and volume. From the satellite images, shoreline has been extracted after rectification and co-registration. The shoreline change rate from 2011 to 2019 has been analysed and the shoreline has been compared with the field collected shoreline data. Digital shoreline change analysis system (DSAS) is a tool that works within the Geographic Information System (ArcGIS) software. DSAS computes rate-of-change statistics for a time series of shoreline vector data. It is also useful for computing rates of change for other boundary change conditions that incorporate a clearly-identified feature position at discrete times.

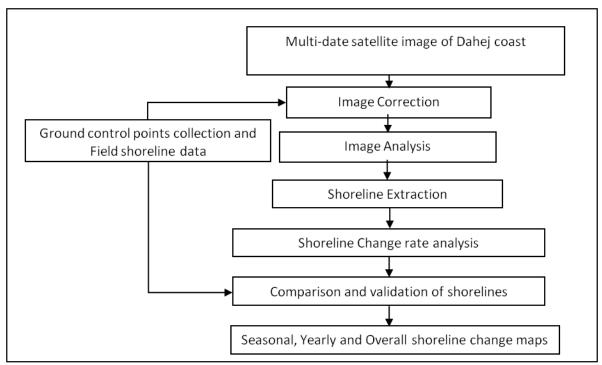


Figure 3.1 Flowchart of the methodology adopted



3.1 Shoreline change analysis from Satellite images

3.1.1 Short Term Shoreline change analysis

The end point rate (EPR) is calculated by dividing the distance of shoreline movement by the time elapsed between the oldest and the most recent shoreline (Figure 3.2). The major advantages of the EPR are the ease of computation and minimal requirement of only two shoreline dates. The major disadvantage is that in cases where more data are available, the additional information is ignored.

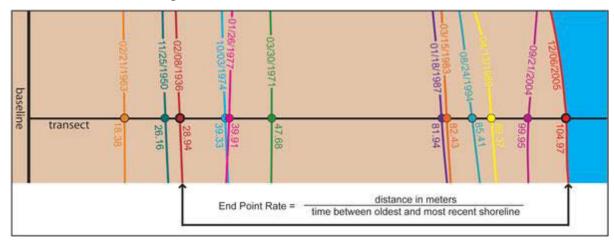


Figure 3.2 Calculation of Short Term Shoreline change analysis (Sample image source: Thieler et al., 2017)

3.1.2 Long Term Shoreline change analysis

A linear regression rate-of-change (LRR) statistic is determined by fitting a least-squares regression line to all shoreline points for a particular transect Figure 3.3. The regression line is placed so that the sum of the squared residuals (determined by squaring the offset distance of each data point from the regression line and adding the squared residuals together) is minimized. The linear regression rate is the slope of the line. However, the linear regression method is susceptible to outlier effects and also tends to underestimate the rate of change relative to other statistics.



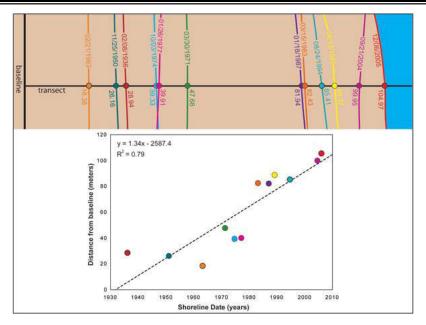


Figure 3.3 Calculation of Long Term (LRR) Shoreline change analysis (Sample image source: Thieler et al., 2017)

3.2 Satellite images used

The input images (Table 3.1) have been acquired from European Space Agency for Sentinel 2A MSI images and other available satellite images to study seasonal change in shoreline from 2016 to 2018. The high resolution satellite images that are available for the study area from 2011 to 2019 has been procured from NRSC have been listed in Table 3.2.

Table 3.1 Available satellite image data used for shoreline change analysis

Satellite	Dat	te	Sensor	Resolution (m)
	30-11-2015	30-10-2017		
	29-01-2016	24-11-2017		
	29-03-2016	29-12-2017		
	28-04-2016	23-01-2018		
	18-05-2016	22-02-2018		
	27-06-2016	09-03-2018		
	15-09-2016	23-04-2018		
	25-10-2016	08-05-2018		
SENTINEL	24-11-2016	02-06-2018	2B	10
	24-12-2016	20-09-2018		
	03-01-2017	20-10-2018		
	02-02-2017	29-11-2018		
	24-03-2017	29-12-2018		
	13-04-2017	08-01-2019		
	23-05-2017	28-01-2019		
	12-06-2017	12-02-2019		
	05-09-2017	19-03-2019		



Table 3.2 Satellite image data procured from NRSC for shoreline change study

Satellite	Sensor	Resolution (m)	Path	Row	Date	No. of scenes
R2A	LISS4	5	93	57	25-Feb-19	1
R2A	LISS4	5	93	57	08-Jan-19	1
R2A	LISS4	5	93	57	26-Mar-18	1
R2A	LISS4	5	93	57	13-May-18	1
R2A	LISS4	5	93	57	04-Oct-18	1
R2A	LISS4	5	93	57	21-Nov-18	1
R2A	LISS4	5	93	57	07-Mar-17	1
R2A	LISS4	5	93	57	15-Sep-17	1
R2A	LISS4	5	93	57	02-Nov-17	1
R2	LISS4	5	93	57	29-Feb-16	1
R2	LISS4	5	93	57	04-Jun-16	1
R2	LISS4	5	93	57	13-Dec-16	1
R2	LISS4	5	93	57	30-Mar-15	1
R2	LISS4	5	93	57	25-Nov-15	1
R2	LISS4	5	93	57	11-Mar-14	1
R2	LISS4	5	93	57	06-Nov-14	1
R2	LISS4	5	93	57	20-Feb-13	1
R2	LISS4	5	93	57	02-Feb-12	1
CARTOSAT1	PAN	2.5	509	297	16-Oct-18	1
CARTOSAT1	PAN	2.5	509	297	05-May-15	1
CARTOSAT1	PAN	2.5	509	297	18-Feb-14	1
CARTOSAT1	PAN	2.5	509	297	04-Feb-11	1

3.3 Field data collection

The field data collection includes Ground control point collections for the image rectification and shoreline data for validation has been carried out during March 18th 2019 to March 20th 2019 (Figure 3.4 and Table 3.3). The shoreline data along the accessible area of Dahej coast has been collected using the GeoXT and handheld GPS for validating the shoreline extracted from the sentinel MSI and resourcesat 2A LISS4 data acquired during 19th March 2019 and 25 Feb 2019 respectively. The shoreline has been collected along the line between the wet and dry soil as shown in Figure 3.5.



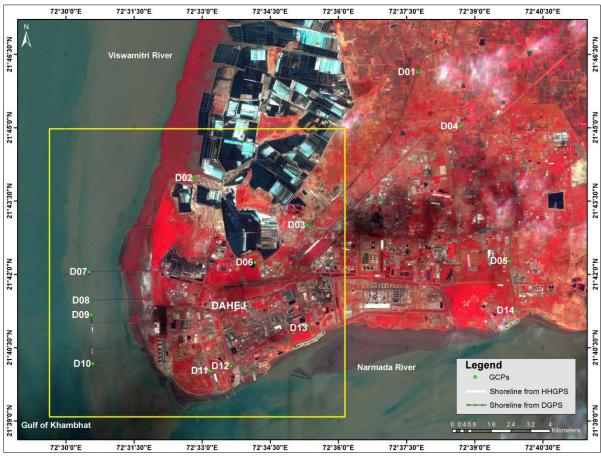


Figure 3.4. Location map showing the GCP points collected.

Table 3.3 GCP Locations and their corresponding latitude and longitude

No.	Lat	Lon	Description
1	21º 46' 08.141"N	72° 37'44.068"E	Road Junction
2	21º 43' 58.195"N	72º 32'49.554"E	Building Corner
3	21º 43' 00.450"N	72° 35'18.670"E	Road Junction
4	21º 45' 01.733"N	72º 38'40.156"E	Road Junction
5	21º 42' 16.2405"N	72° 39'45.732"E	Road Junction
6	21º 42' 14.557"N	72° 34'09.643"E	Corner of a tank
7	21º 42' 02.989"N	72° 30'30.447"E	Birla Copper Jetty
8	21º 41' 27.899"N	72° 30'33.746"E	GCPTCL Jetty
9	21º 41' 10.505"N	72° 30'33.539"E	Adani Jetty
10	21º 40' 10.126"N	72° 30'35.550"E	LNG Pettronet Jetty
11	21º 40' 01.491"N	72° 33'10.040"E	Road Junction
12	21º 40' 07.299"N	72º 33'37.715"E	ABG Shipyard Road Junctiion
13	21º 40' 54.154"N	72° 35'21.164"E	Road Trijunction
14	21º 41' 15.636"N	72° 39'54.491"E	Road Junction





Figure 3.5. Field photos of the shoreline collected from the accessible region.

4 RESULTS AND ANALYSIS

In the present study, the shoreline rate of change statistics from time series of multiple shoreline positions of 10 km coastal stretch of Dahej coast (5 km either side of Adani Dahej Port) has been taken in to account for shoreline calculation using satellite images. The result from the shoreline change analysis carried out since 2011 is presented in this report. The coastal stretch has been classified based on the orientation as northern sector (north of Adani Petronet Dahej Jetty), southern sector (south of Adani Petronet Dahej Jetty upto ABG Shipyard) and south eastern sector (east of ABG Shipyard)

Based on the rate of change over the period, shoreline change has been categorized into 5 classes. They are high accretion (>5m/year), moderate accretion (5m to 1m/year), stable coast (1m to -1m/year), moderate erosion (-1m to -5m/year), high erosion (<-5m/year).

4.1 Results for Shoreline Change Analysis from Satellite images

4.1.1 Results for Shoreline Change since 2011 using high resolution satellite images

The shoreline change analysis carried out using high resolution satellite images from 2011 to 2019 has been presented in the Figure 4.1. The shoreline change result indicates net



deposition along the northern sector, erosion along southern sector and almost stable along the southeastern sector. Figure 4.2 and 4.3 shows the yearly shoreline change map since 2011 to 2019. The percentage of shoreline length undergoing erosion, accretion and stable for each year has been listed in table 4.1. The sector wise trend for each year has been listed in table 4.2 and in Figure 4.4.

Table 4.1 Shoreline Change in Percentage of the length of the Dahej coast

S No.	Year	Erosion (%)	Accretion (%)	Stable (%)
1.	2011-2012	19.4	76.8	3.8
2.	2012-2013	58.8	33.7	7.5
3.	2013-2014	55.8	31.3	12.9
4.	2014-2015	72.5	23.8	3.7
5.	2015-2016	50.2	43.8	6.0
6.	2016-2017	34.8	61.2	4.0
7.	2017-2018	47.4	47.7	4.9
8.	2018-2019	71.3	23.0	5.7

Table 4.2 Sector wise shoreline change along Dahej coast

Year/Sector	North	South	South East
2011-2012	Accretion	Accretion	Accretion
2012-2013	Accretion	Erosion	Erosion
2013-2014	Erosion	Accretion	Accretion
2014-2015	Accretion	Erosion	Erosion
2015-2016	Accretion	Accretion	Erosion
2016-2017	Erosion	Accretion	Accretion
2017-2018	Erosion	Accretion	Accretion
2018-2019	Accretion	Erosion	Erosion



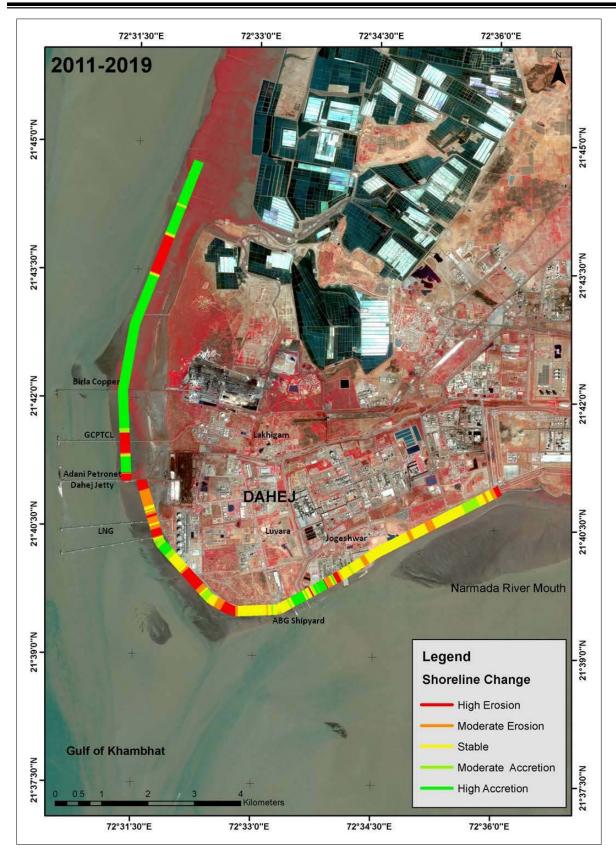


Figure 4.1 Shoreline Change Map – 2011-2019



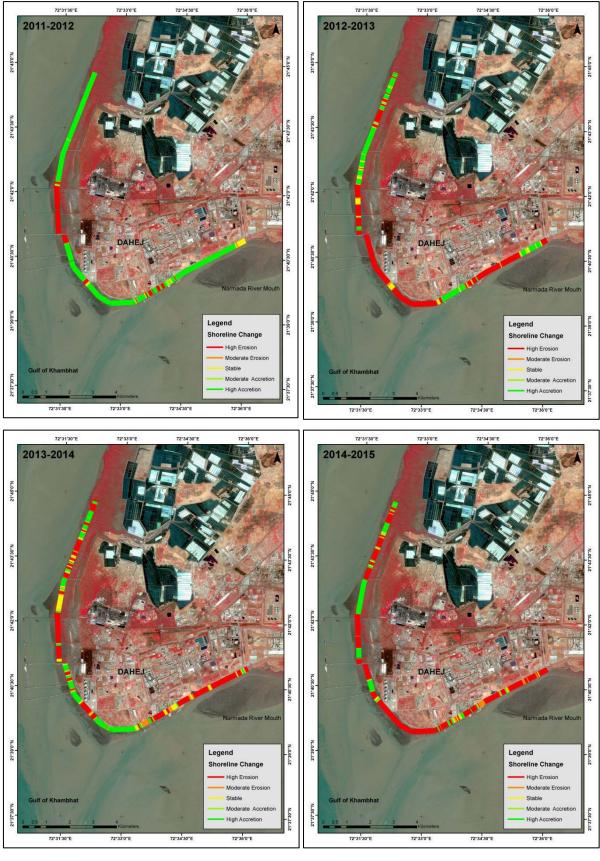


Figure 4.2 Shoreline Change Maps – 2011-2015



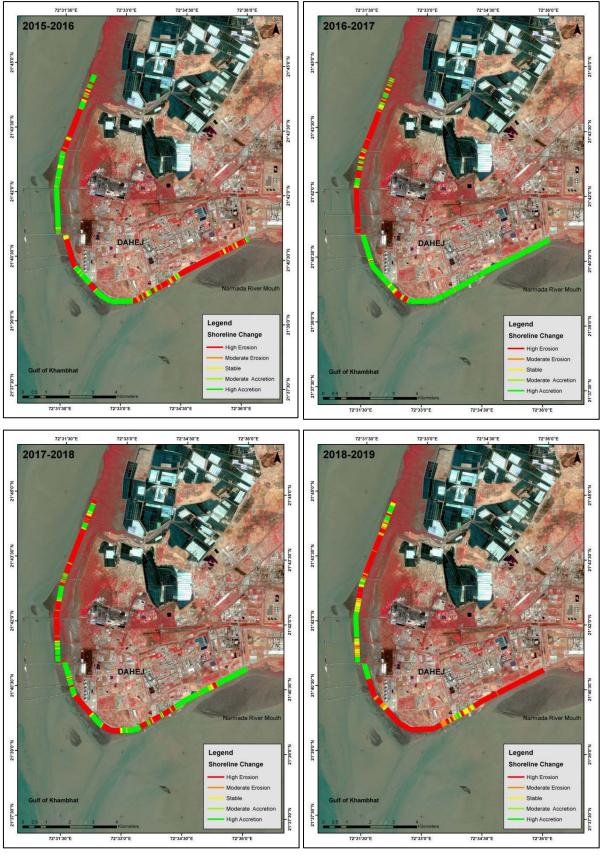


Figure 4.3 Shoreline Change Maps – 2015-2019



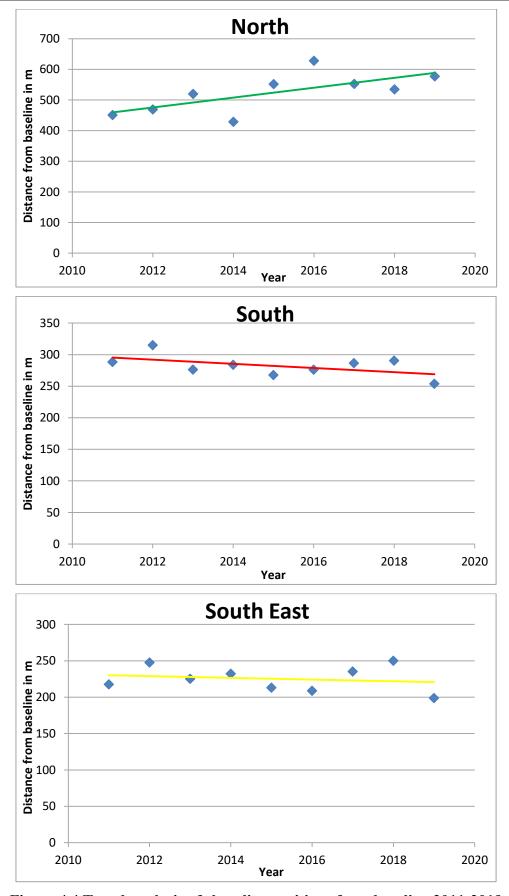


Figure 4.4 Trend analysis of shoreline positions from baseline 2011-2019

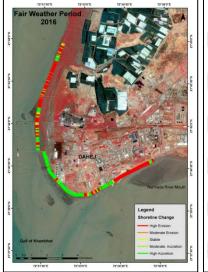


4.1.2 Results for Seasonal Shoreline Change 2016-2018

The seasonal shoreline change analysis for the years 2016-2018 using Sentinel images is shown in Figure 4.5-4.7. The shoreline change analysis map during fair weather period (FWP) (from February to May) shows accretion on south sector (Figure 4.5). The shoreline change analysis map (Figure 4.6) during south west monsoon (SWM) (from June to September) shows erosion along the northern sector of the Dahej coast and accretion along the south eastern part of the Dahej coast. The shoreline change analysis map during north east monsoon (NEM) shows that the erosion along the northern part of the Dahej coast, accretion along the southern sector and stable along the south eastern part of the Dahej coast (Figure 4.7). The sector-wise seasonal shoreline change has been comprehended in table 4.3.

		8	· ·
Sector	North	South	South East
FWP 2016	Erosion	Accretion	Erosion
FWP 2017	Erosion	Accretion	Accretion
FWP 2018	Accretion	Accretion	Erosion
SWM 2016	Erosion	Erosion	Accretion
SWM 2017	Erosion	Erosion	Accretion
SWM 2018	Erosion	Accretion	Accretion
NEM 2016	Erosion	Accretion	Stable
NEM 2017	Erosion	Accretion	Accretion
NEM 2018	Erosion	Erosion	Stable

Table 4.3 Sector wise seasonal shoreline change along Dahej coast





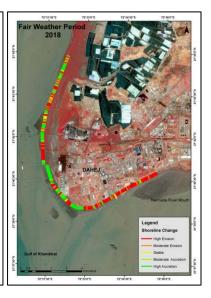


Figure 4.5 Shoreline Change Maps – Fair Weather Period



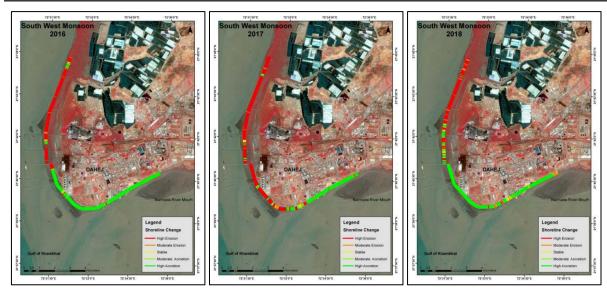


Figure 4.6 Shoreline Change Maps – South West Monsoon

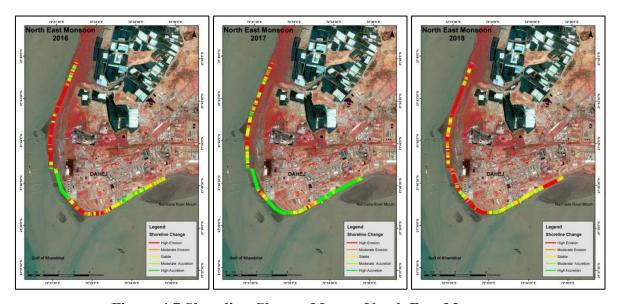


Figure 4.7 Shoreline Change Maps – North East Monsoon

4.1.3 Validation and comparison of the shoreline

For the validation of the results, the shoreline derived from the satellite images (LISS4 and MSI), the field collected shoreline of March 2019 has been compared. The average error between Sentinel MSI shoreline and field collected shoreline is -11.15m and for Resourcesat LISS4 data, the error is -4.67m. Figure 4.8 shows the field shoreline data and shoreline extracted from the satellite images (LISS IV-5m and Sentinel MSI-10m) data with respect to baseline parallel to the coast. The error in extracting the shoreline from satellite images reduces with respect to the spatial resolution of the satellite images. The difference in the shoreline distance is due to the fact that the field data and the satellite images acquired at



different time and date. However, when the two satellite images of the same resolution being employed, the error in shoreline extraction will be neglected.

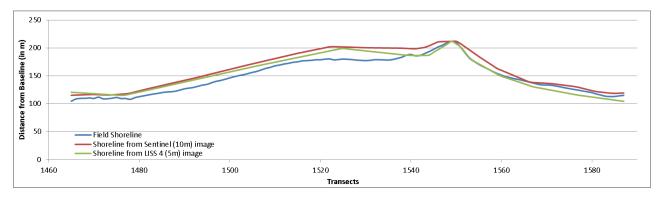


Figure 4.8 Shoreline Change Map - December 2018

The results of the shoreline analysis for Dahej have been compared with the SAC-ISRO report on shoreline change atlas for Gujarat, Diu and Daman coast (Volume-1) specific to Dahej coast (Sheet No. 46C10NW) in which they have used HTL lines of 1989-91 and 2004-06 to estimate shoreline changes. It can be noted from the yearly shoreline analysis since 2011 that similar erosion pattern still exists. Hiren et al, 2018 have studied the erosion of tidal mudflats in northern Gulf of Khambhat. However, the erosion at Dahej is comparatively lesser than the northern Gulf of Khambhat. The northern part of Dahej coast has the vegetation cover which prevents erosion.

5 CONCLUSION

This report discusses the shoreline changes (in terms of distance eroded/accreted) using satellite images. The results of shoreline change analysis using high resolution satellite images since 2011 deposition along the northern sector, erosion along southern sector and almost stable along the southeastern sector. The seasonal and yearly shoreline changes indicates the dynamic nature of the coastline. The results have also been compared with the available reports on shoreline change analysis for Gujarat coast prepared by SAC-ISRO, 2014.

References:

 Thieler, E.R., Himmelstoss, E.A., Zichichi, J.L., and Ergul, Ayhan, (2017). Digital Shoreline Analysis System (DSAS) version 4.0—An ArcGIS extension for calculating shoreline change (ver. 4.4): U.S. Geological Survey Open-File Report 2008-1278, https://pubs.er.usgs.gov/publication/ofr20081278



- 2. SAC-ISRO (2014) Report on shore line change atlas of the Indian coast (Volume 1) Gujarat, Diu and Daman.
- 3. Hiren B, Ratheesh R, Sharma A. K. and Rajawat A. S. (2018) Incessant erosion of high tidal mudflats in the northern Gulf of Khambhat. Current Science, vol. 114, no. 12, pp. 2554-2558.



Environment Monitoring Report for the period from April-19 to September-19

3A. AMBIENT AIR QUALITY MONITORING: -

Table No.: 1.1 - Ambient Air Quality Monitoring Results At Near Marine Building

EON PE	LUCON POLLUC	POLLUCION	POLLUCO	N POLLUCO	ON POLLICE	ocation	-1: Nea	r Marine	Buildin	GN POLLE	LUCON POLL	TEON LOFF	LEUCON PO
Sr. No.	Date of Sampling	PM ₁₀	PM _{2.5}	Pb	BaP	As	N Nillo	СО	C ₆ H ₆	NH ₃	SO ₂	NO _x	O ₃
DN PC	LUCON POLLUCON	μg/m³	μg/m³	μg/m³	ng/m³	ng/m³	ng/m³	mg/m³	μg/m³	μg/m³	μg/m³	μg/m³	μg/m³
PC PC	02/04/2019	73.40	35.86	BDL*	BDL*	BDL*	BDL*	0.50	BDL*	22.47	23.54	34.74	30.22
2	05/04/2019	95.68	47.30	0.70	BDL*	2.76	10.85	0.81	BDL*	36.47	20.19	45.68	26.59
3	09/04/2019	83.46	44.27	0.84	BDL*	2.46	10.51	0.73	BDL*	32.39	22.49	28.35	19.11
4	12/04/2019	79.32	38.27	BDL*	BDL*	BDL*	BDL*	0.52	BDL*	26.38	16.41	39.40	17.76
5	16/04/2019	96.89	55.24	0.64	BDL*	2.84	10.40	1.00	BDL*	46.38	24.64	36.54	21.83
6	19/04/2019	74.68	34.40	BDL*	BDL*	BDL*	BDL*	0.57	BDL*	52.48	17.65	40.33	20.84
7	23/04/2019	87.66	49.25	BDL*	BDL*	BDL*	BDL*	0.72	BDL*	38.44	19.67	32.88	27.52
8	26/04/2019	91.22	57.24	0.78	BDL*	2.56	10.40	0.54	BDL*	28.46	21.33	29.66	23.65
9	30/04/2019	82.42	42.66	BDL*	BDL*	BDL*	BDL*	0.58	BDL*	30.27	25.39	27.54	18.14
10	03/05/2019	84.33	45.32	BDL*	BDL*	BDL*	BDL*	0.40	BDL*	15.65	19.49	40.35	18.53
11	07/05/2019	79.58	35.31	0.66	BDL*	2.42	10.36	0.72	BDL*	29.33	15.41	30.63	20.35
12	10/05/2019	95.28	50.20	0.72	BDL*	2.68	10.85	0.52	BDL*	35.29	17.60	37.57	24.35
13	14/05/2019	90.31	41.32	BDL*	BDL*	BDL*	BDL*	0.44	BDL*	24.24	20.36	33.67	16.34
14	17/05/2019	60.47	34.60	BDL*	BDL*	BDL*	BDL*	0.71	BDL*	43.42	23.48	42.37	22.76
15	21/05/2019	85.32	44.28	0.76	BDL*	2.54	10.29	0.66	BDL*	39.20	13.86	39.34	15.55
16	24/05/2019	72.66	37.61	BDL*	BDL*	BDL*	BDL*	0.50	BDL*	19.43	25.65	28.47	23.55
17	28/05/2019	86.52	48.30	BDL*	BDL*	2.18	BDL*	0.79	BDL*	26.50	18.51	25.85	26.86
18	31/05/2019	92.67	52.56	0.82	BDL*	2.36	10.75	0.82	BDL*	31.73	21.52	21.65	13.47
19	04/06/2019	90.42	52.42	0.66	BDL*	2.15	10.32	0.74	BDL*	20.44	21.55	39.20	22.71
20	07/06/2019	82.42	42.62	0.57	BDL*	2.54	10.23	0.31	BDL*	32.41	10.38	35.34	25.84
21	11/06/2019	78.34	34.35	BDL*	BDL*	BDL*	BDL*	0.61	BDL*	40.28	18.33	41.24	17.34
22	14/06/2019	96.31	49.30	0.78	BDL*	2.62	10.61	0.73	BDL*	19.76	23.40	38.30	14.81
23	18/06/2019	69.30	32.55	BDL*	BDL*	BDL*	BDL*	0.87	BDL*	25.34	17.32	26.36	19.39
24	21/06/2019	79.32	35.39	BDL*	BDL*	BDL*	BDL*	0.39	BDL*	34.32	22.39	33.48	27.57



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25	25/06/2019	N. PER LUIE	N. DETERMINE	W. DESCRIPTION	ON TOTAL	COLUMN TOWNS TO	AND DESCRIPTION OF THE PARTY OF		Laboratory Brown L.	Action to the second			
	23/00/2013	86.20	44.25	BDL*	BDL*	BDL*	BDL*	0.49	BDL*	39.84	24.35	24.26	24.89
26	28/06/2019	76.34	29.67	BDL*	BDL*	BDL*	BDL*	0.29	BDL*	27.56	20.46	32.75	16.61
27	02/07/2019	92.61	54.32	0.76	BDL*	2.42	10.65	0.86	BDL*	31.22	18.73	38.41	21.42
28	05/07/2019	67.74	34.70	BDL*	BDL*	BDL*	BDL*	0.50	BDL*	39.71	20.68	42.88	24.33
29	09/07/2019	89.94	48.46	0.64	BDL*	2.34	10.45	0.92	BDL*	28.49	10.39	23.47	22.85
30	12/07/2019	71.63	29.76	BDL*	BDL*	BDL*	BDL*	0.80	BDL*	35.77	22.64	36.44	27.36
31	16/07/2019	86.31	45.63	0.54	BDL*	2.62	10.51	0.98	BDL*	50.32	13.86	39.50	16.33
32	19/07/2019	77.71	43.41	BDL*	BDL*	BDL*	BDL*	0.82	BDL*	24.55	19.38	35.57	26.67
33	23/07/2019	94.51	49.30	0.82	BDL*	2.84	10.87	0.68	BDL*	30.34	26.48	45.42	28.47
34	26/07/2019	66.82	27.64	BDL*	BDL*	BDL*	BDL*	0.32	BDL*	43.35	21.60	37.56	18.47
35	30/07/2019	70.36	30.61	BDL*	BDL*	BDL*	BDL*	0.77	BDL*	41.76	15.47	28.33	20.36
36	02/08/2019	72.64	43.60	BDL*	BDL*	BDL*	BDL*	0.64	BDL*	37.88	22.70	36.42	23.31
37	06/08/2019	89.84	50.36	BDL*	BDL*	BDL*	BDL*	0.78	BDL*	28.62	18.28	32.40	17.79
38	09/08/2019	95.32	54.35	0.86	BDL*	2.34	10.61	0.70	BDL*	45.34	16.82	39.58	26.79
39	13/08/2019	76.32	38.52	BDL*	BDL*	BDL*	BDL*	0.98	BDL*	23.84	21.85	42.67	20.36
40	16/08/2019	82.37	44.38	BDL*	BDL*	BDL*	BDL*	0.66	BDL*	40.39	26.57	30.47	27.63
41	20/08/2019	93.44	55.63	0.67	BDL*	2.59	10.85	0.77	BDL*	48.46	24.50	44.51	18.48
42	23/08/2019	79.35	36.48	BDL*	BDL*	BDL*	BDL*	0.54	BDL*	15.34	15.61	37.30	16.47
43	27/08/2019	87.65	51.84	BDL*	BDL*	BDL*	BDL*	0.60	BDL*	33.63	19.35	34.21	21.87
44	30/08/2019	90.28	45.68	BDL*	BDL*	BDL*	BDL*	0.69	BDL*	42.35	23.46	40.25	25.66
45	03/09/2019	84.38	50.30	BDL*	BDL*	BDL*	BDL*	0.90	BDL*	19.96	19.50	29.29	26.36
46	06/09/2019	74.59	39.35	BDL*	BDL*	BDL*	BDL*	0.96	BDL*	36.31	16.34	34.51	19.37
47	10/09/2019	85.74	31.40	0.54	BDL*	2.42	10.59	0.45	BDL*	31.27	22.44	30.28	24.53
48	13/09/2019	78.63	35.35	BDL*	BDL*	BDL*	BDL*	0.64	BDL*	42.36	8.60	33.68	25.41
49	17/09/2019	90.31	52.47	0.84	BDL*	2.54	10.51	0.80	BDL*	37.59	14.61	40.37	21.44
50	20/09/2019	71.50	38.59	BDL*	BDL*	BDL*	BDL*	0.63	BDL*	34.51	17.53	36.85	27.89
51	24/09/2019	86.39	46.59	BDL*	BDL*	BDL*	BDL*	0.94	BDL*	44.57	21.22	42.30	13.22
		and the second second	49.38	0.73	BDL*	2.24	10.67	0.86	BDL*	38.51	13.56	38.39	17.78

Above given Result are within the norms Specified Limit as per CPCB Notification NoB-29016/20/90/PCI-I Dt: 18/11/2009National Ambient Air Quality Standards, New Delhi, for 24 hourly or 8 hourly or 1 hourly monitored values **Note:**BDL*: Below Detection Limit, Minimum Detection Limit, Ozone as O₃: 10 μg/m³, Lead as Pb: 0.5 μg/m³, Carbon Monoxide as CO: 0.01 mg/m^3 , Ammonia NH₃: $10 \text{ }\mu\text{g/m}^3$, Benzene as $C_6\text{H}_6$: $2 \text{ }\mu\text{g/m}^3$, Benzo (a) Pyrene (BaP) - Particulate Phase only: 0.5ng/m^3 , Arsenic as As: 2ng/m³, Nickel as Ni: 10ng/m³



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Table No.: 1.2 - Ambient Air Quality Monitoring Results At Near PMC Building

JEON PO	TITICON LOTTICON LOTTICON LOTTICO	DA BOTTRE	POLLUCON POLLUCON	ON POLLUCO	ON POLLUCE	Locatio	n-2: Ne	ar PMC	Building	UCON POLL	LUCON POLIL	TECH POLITICISM PO	LLUCON POL
Sr. No.	Date of Sampling	PM ₁₀	PM _{2.5}	Pb	BaP	As	N Ni Lo	СО	C ₆ H ₆	NH ₃	SO ₂	NO _X	O ₃
ON PO	LUCON FOLLUCON	μg/m³	μg/m³	μg/m³	ng/m³	ng/m³	ng/m³	mg/m³	μg/m³	μg/m³	μg/m³	μg/m³	μg/m³
on re	02/04/2019	62.69	22.42	BDL*	BDL*	BDL*	BDL*	0.37	BDL*	36.53	10.27	24.18	23.30
2	05/04/2019	82.70	43.56	0.68	BDL*	BDL*	10.59	0.62	BDL*	42.38	8.35	30.31	14.85
3	09/04/2019	58.39	29.69	BDL*	BDL*	BDL*	BDL*	0.68	BDL*	27.60	16.53	18.72	28.89
4	12/04/2019	69.33	35.32	BDL*	BDL*	BDL*	BDL*	0.46	BDL*	20.42	12.59	25.71	24.21
5	16/04/2019	76.37	32.40	BDL*	BDL*	BDL*	BDL*	0.31	BDL*	35.68	18.60	31.37	18.80
6	19/04/2019	64.36	27.50	BDL*	BDL*	BDL*	BDL*	0.17	BDL*	30.49	7.86	29.59	16.37
7	23/04/2019	79.69	40.28	BDL*	BDL*	BDL*	BDL*	0.29	BDL*	13.68	14.35	23.82	26.39
8	26/04/2019	87.40	51.45	BDL*	BDL*	2.24	10.23	0.42	BDL*	17.48	6.89	19.32	15.56
9	30/04/2019	70.26	30.47	BDL*	BDL*	BDL*	BDL*	0.24	BDL*	39.31	9.63	16.38	21.62
10	03/05/2019	57.60	21.33	BDL*	BDL*	BDL*	BDL*	0.21	BDL*	23.55	14.56	27.66	24.49
11	07/05/2019	73.52	38.65	BDL*	BDL*	BDL*	BDL*	0.37	BDL*	12.65	18.47	35.64	16.33
12	10/05/2019	84.65	46.72	0.55	BDL*	2.34	10.28	0.23	BDL*	10.30	12.17	23.67	25.42
13	14/05/2019	77.51	33.64	BDL*	BDL*	BDL*	BDL*	0.31	BDL*	16.51	6.38	15.62	21.68
14	17/05/2019	48.67	24.56	BDL*	BDL*	BDL*	BDL*	0.41	BDL*	18.54	20.47	38.43	15.36
15	21/05/2019	59.44	28.72	BDL*	BDL*	BDL*	BDL*	0.63	BDL*	14.30	16.30	33.43	17.34
16	24/05/2019	67.58	26.49	BDL*	BDL*	BDL*	BDL*	0.17	BDL*	39.33	19.26	22.70	19.86
17	28/05/2019	76.55	32.70	BDL*	BDL*	BDL*	BDL*	0.77	BDL*	22.39	21.36	32.58	12.25
18	31/05/2019	82.42	35.79	0.64	BDL*	BDL*	BDL*	0.65	BDL*	37.50	13.25	25.50	23.34
19	04/06/2019	70.48	41.57	BDL*	BDL*	BDL*	BDL*	0.64	BDL*	33.54	12.34	17.64	18.35
20	07/06/2019	64.49	35.44	BDL*	BDL*	BDL*	BDL*	0.74	BDL*	38.55	16.28	22.52	21.35
21	11/06/2019	50.60	19.77	BDL*	BDL*	BDL*	BDL*	0.54	BDL*	24.47	11.55	14.35	13.57
22	14/06/2019	85.34	44.50	0.58	BDL*	BDL*	BDL*	0.14	BDL*	13.65	21.21	32.48	19.64
23	18/06/2019	43.54	16.40	BDL*	BDL*	BDL*	BDL*	0.69	BDL*	16.36	10.23	29.37	16.85
24	21/06/2019	52.34	24.36	BDL*	BDL*	BDL*	BDL*	0.33	BDL*	26.80	8.88	23.52	23.66
25	25/06/2019	62.41	32.48	BDL*	BDL*	BDL*	BDL*	0.63	BDL*	22.53	15.63	26.83	22.48
26	28/06/2019	51.34	18.33	BDL*	BDL*	BDL*	BDL*	0.55	BDL*	34.54	18.62	24.49	24.72



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27	02/07/2019	74.70	45.45	BDL*	BDL*	BDL*	BDL*	0.56	BDL*	35.56	11.67	25.46	12.67
28	05/07/2019	62.41	28.23	BDL*	BDL*	BDL*	BDL*	0.26	BDL*	45.62	7.73	20.33	20.87
29	09/07/2019	78.74	38.61	BDL*	BDL*	BDL*	BDL*	0.42	BDL*	22.36	19.57	40.43	10.41
30	12/07/2019	65.94	22.56	BDL*	BDL*	BDL*	BDL*	0.48	BDL*	42.93	8.42	18.37	18.69
31	16/07/2019	70.36	33.57	BDL*	BDL*	BDL*	BDL*	0.58	BDL*	25.64	21.58	34.34	11.75
32	19/07/2019	68.34	29.36	BDL*	BDL*	BDL*	BDL*	0.55	BDL*	38.46	15.83	29.28	14.41
33	23/07/2019	81.30	43.62	0.55	BDL*	2.36	10.18	0.34	BDL*	29.22	22.57	41.36	25.25
34	26/07/2019	60.46	25.62	BDL*	BDL*	BDL*	BDL*	0.16	BDL*	26.54	17.45	28.31	13.66
35	30/07/2019	56.71	21.35	BDL*	BDL*	BDL*	BDL*	0.21	BDL*	32.50	9.61	21.41	22.34
36	02/08/2019	60.28	37.51	BDL*	BDL*	BDL*	BDL*	0.21	BDL*	26.83	14.36	26.85	21.39
37	06/08/2019	72.31	33.55	BDL*	BDL*	BDL*	BDL*	0.50	BDL*	35.46	11.25	21.22	19.28
38	09/08/2019	81.84	39.41	BDL*	BDL*	BDL*	BDL*	0.25	BDL*	21.56	6.53	24.51	15.39
39	13/08/2019	70.60	25.37	BDL*	BDL*	BDL*	BDL*	0.56	BDL*	17.86	13.55	35.36	17.69
40	16/08/2019	65.34	21.54	BDL*	BDL*	BDL*	BDL*	0.17	BDL*	20.34	16.82	27.80	22.53
41	20/08/2019	74.38	38.42	BDL*	BDL*	BDL*	BDL*	0.49	BDL*	27.85	9.70	19.22	16.6
42	23/08/2019	64.37	29.14	BDL*	BDL*	BDL*	BDL*	0.46	BDL*	36.52	20.42	25.69	24.3
43	27/08/2019	71.57	36.71	BDL*	BDL*	BDL*	BDL*	0.30	BDL*	39.34	7.34	23.47	18.71
44	30/08/2019	82.69	42.32	BDL*	BDL*	BDL*	BDL*	0.57	BDL*	31.52	18.34	37.65	23.54
45	03/09/2019	76.31	42.65	BDL*	BDL*	BDL*	BDL*	0.48	BDL*	36.55	16.46	19.32	19.56
46	06/09/2019	69.30	30.58	BDL*	BDL*	BDL*	BDL*	0.30	BDL*	26.44	13.44	23.43	24.31
47	10/09/2019	61.50	18.51	BDL*	BDL*	BDL*	BDL*	0.11	BDL*	39.29	18.44	20.37	17.84
48	13/09/2019	73.52	32.49	BDL*	BDL*	BDL*	BDL*	0.26	BDL*	32.52	12.36	25.80	23.49
49	17/09/2019	86.34	45.39	BDL*	BDL*	BDL*	BDL*	0.62	BDL*	21.20	17.33	32.34	25.37
50	20/09/2019	58.31	24.68	BDL*	BDL*	BDL*	BDL*	0.29	BDL*	16.33	14.29	39.20	13.56
51	24/09/2019	72.69	38.26	BDL*	BDL*	BDL*	BDL*	0.53	BDL*	27.52	11.32	14.53	20.76
52	27/09/2019	80.27	35.46	BDL*	BDL*	BDL*	BDL*	0.56	BDL*	30.25	9.51	21.61	14.38

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 **Note:** BDL*: Below Detection Limit, Minimum Detection Limit, Ozone as O₃: 10 μg/m³, Lead as Pb: 0.5 μg/m³, Carbon Monoxide as CO: 0.01 mg/m³, Ammonia NH₃: 10 μg/m³, Benzene as C₆H₆: 2 μg/m³, Benzo (a) Pyrene (BaP) - Particulate Phase only: 0.5 ng/m³, Arsenic



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Table No.: 1.3 - Ambient Air Quality Monitoring Results At Sub-Station-7B Building

Sr.	ON POLITICON	OTTRO	POLITICE	N POLLUC	Loca	ation-3	Sub-S	tation-	7B Buil	ding	LOTTHEON	N POLLUE	ON POLL
No	Date of Sampling	PM ₁₀	PM _{2.5}	Pb	BaP	As	UCNI PO	СО	C ₆ H ₆	NH ₃	SO ₂	NO _x	O ₃
	30N POLLUCONI N POLLUCON PE	μg/m³	μg/m³	μg/m³	ng/m³	ng/m³	ng/m³	mg/m³	μg/m³	μg/m³	μg/m³	μg/m³	μg/m³
	02/04/2019	50.69	18.68	BDL*	BDL*	BDL*	BDL*	0.44	BDL*	39.44	14.52	28.88	19.48
2	05/04/2019	68.20	33.21	BDL*	BDL*	BDL*	BDL*	0.47	BDL*	32.54	18.45	20.63	16.44
3	09/04/2019	70.60	41.66	BDL*	BDL*	BDL*	BDL*	0.34	BDL*	17.65	12.47	25.46	18.61
4	12/04/2019	53.60	19.58	BDL*	BDL*	BDL*	BDL*	0.39	BDL*	24.83	10.53	32.26	20.24
5	16/04/2019	82.40	45.45	BDL*	BDL*	BDL*	10.13	0.64	BDL*	31.36	15.28	24.60	14.67
6	19/04/2019	58.48	24.66	BDL*	BDL*	BDL*	BDL*	0.22	BDL*	22.64	19.41	21.76	27.38
7	23/04/2019	74.33	43.79	BDL*	BDL*	BDL*	BDL*	0.26	BDL*	30.55	16.31	36.67	17.58
8	26/04/2019	51.23	26.55	BDL*	BDL*	BDL*	BDL*	0.56	BDL*	25.47	11.60	22.67	28.29
9	30/04/2019	65.51	27.21	BDL*	BDL*	BDL*	BDL*	0.21	BDL*	19.50	7.27	30.55	23.11
10	03/05/2019	66.55	25.66	BDL*	BDL*	BDL*	BDL*	0.15	BDL*	28.66	11.67	23.50	20.36
11	07/05/2019	60.57	31.22	BDL*	BDL*	BDL*	BDL*	0.26	BDL*	17.58	7.55	15.32	17.49
12	10/05/2019	52.27	20.63	BDL*	BDL*	BDL*	BDL*	0.45	BDL*	24.53	9.37	20.64	12.54
13	14/05/2019	46.31	23.55	BDL*	BDL*	BDL*	BDL*	0.25	BDL*	20.44	12.63	18.41	26.43
14	17/05/2019	57.36	30.21	BDL*	BDL*	BDL*	BDL*	0.13	BDL*	30.61	14.74	27.43	13.38
15	21/05/2019	69.33	35.61	BDL*	BDL*	BDL*	BDL*	0.39	BDL*	23.88	10.50	30.43	24.55
16	24/05/2019	53.53	29.55	BDL*	BDL*	BDL*	BDL*	0.61	BDL*	16.89	17.27	19.56	11.25
17	28/05/2019	67.58	21.28	BDL*	BDL*	BDL*	BDL*	0.32	BDL*	18.32	13.69	17.36	21.55
18	31/05/2019	79.25	24.63	BDL*	BDL*	BDL*	BDL*	0.54	BDL*	22.57	8.27	32.81	15.17
19	04/06/2019	57.57	33.59	BDL*	BDL*	BDL*	BDL*	0.56	BDL*	38.60	7.55	33.54	12.63
20	07/06/2019	69.21	23.69	BDL*	BDL*	BDL*	BDL*	0.19	BDL*	12.61	12.60	30.53	14.57
21	11/06/2019	73.46	30.68	BDL*	BDL*	BDL*	BDL*	0.53	BDL*	22.39	13.32	35.81	11.56
22	14/06/2019	80.46	40.23	0.52	BDL*	BDL*	BDL*	0.62	BDL*	27.77	8.24	24.46	18.59
23	18/06/2019	58.59	26.84	BDL*	BDL*	BDL*	BDL*	0.30	BDL*	10.27	6.28	17.51	10.52
24	21/06/2019	65.34	38.45	BDL*	BDL*	BDL*	BDL*	0.50	BDL*	20.34	11.50	19.27	16.35
25	25/06/2019	50.19	28.59	BDL*	BDL*	BDL*	BDL*	0.32	BDL*	29.37	10.60	29.22	21.76
26	28/06/2019	60.21	35.47	BDL*	BDL*	BDL*	BDL*	0.18	BDL*	16.49	15.26	21.30	15.8
27	02/07/2019	68.47	40.35	BDL*	BDL*	BDL*	BDL*	0.47	BDL*	29.53	9.58	15.44	16.35



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28	05/07/2019	47.77	25.33	BDL*	BDL*	BDL*	BDL*	0.30	BDL*	36.47	11.60	22.71	13.65
29	09/07/2019	64.38	34.32	BDL*	BDL*	BDL*	BDL*	0.11	BDL*	26.22	6.58	29.72	21.54
30	12/07/2019	43.72	16.33	BDL*	BDL*	BDL*	BDL*	0.40	BDL*	12.34	19.47	21.32	23.7
31	16/07/2019	76.70	38.86	BDL*	BDL*	BDL*	BDL*	0.53	BDL*	35.26	12.39	19.63	25.68
32	19/07/2019	61.60	33.43	BDL*	BDL*	BDL*	BDL*	0.13	BDL*	41.59	13.92	23.78	20.57
33	23/07/2019	70.86	36.47	BDL*	BDL*	BDL*	BDL*	0.22	BDL*	33.15	16.92	32.42	19.28
34	26/07/2019	46.45	18.36	BDL*	BDL*	BDL*	BDL*	0.24	BDL*	30.44	14.31	26.40	10.97
35	30/07/2019	60.36	27.55	BDL*	BDL*	BDL*	BDL*	0.39	BDL*	25.01	7.50	18.81	18.34
36	02/08/2019	65.34	32.58	BDL*	BDL*	BDL*	BDL*	0.34	BDL*	23.42	10.37	18.55	17.26
37	06/08/2019	57.68	29.67	BDL*	BDL*	BDL*	BDL*	0.47	BDL*	17.12	14.67	26.60	22.62
38	09/08/2019	68.42	36.53	BDL*	BDL*	BDL*	BDL*	0.40	BDL*	25.84	8.69	14.88	24.64
39	13/08/2019	59.42	31.57	BDL*	BDL*	BDL*	BDL*	0.37	BDL*	20.62	11.84	22.61	19.32
40	16/08/2019	72.34	30.62	BDL*	BDL*	BDL*	BDL*	0.15	BDL*	29.64	9.40	16.42	13.64
41	20/08/2019	55.64	28.65	BDL*	BDL*	BDL*	BDL*	0.42	BDL*	15.66	15.36	31.56	21.2
42	23/08/2019	69.34	33.43	BDL*	BDL*	BDL*	BDL*	0.41	BDL*	12.54	6.87	34.56	14.51
43	27/08/2019	76.34	45.35	BDL*	BDL*	BDL*	BDL*	0.52	BDL*	19.36	13.50	28.21	25.73
44	30/08/2019	56.30	26.88	BDL*	BDL*	BDL*	BDL*	0.13	BDL*	24.34	16.33	21.34	20.57
45	03/09/2019	54.30	33.29	BDL*	BDL*	BDL*	BDL*	0.18	BDL*	31.53	13.50	27.70	14.22
46	06/09/2019	48.65	24.33	BDL*	BDL*	BDL*	BDL*	0.27	BDL*	20.61	7.25	21.52	28.4
47	10/09/2019	52.61	21.32	BDL*	BDL*	BDL*	BDL*	0.23	BDL*	24.63	11.61	17.62	26.39
48	13/09/2019	42.61	18.29	BDL*	BDL*	BDL*	BDL*	0.15	BDL*	21.61	6.55	20.43	18.68
49	17/09/2019	73.48	34.36	BDL*	BDL*	BDL*	BDL*	0.25	BDL*	32.42	16.60	18.62	15.48
50	20/09/2019	47.51	20.21	BDL*	BDL*	BDL*	BDL*	0.52	BDL*	19.40	10.65	29.46	24.71
51	24/09/2019	65.44	26.59	BDL*	BDL*	BDL*	BDL*	0.19	BDL*	23.52	19.59	33.48	13.63
52	27/09/2019	72.69	31.15	BDL*	BDL*	BDL*	BDL*	0.17	BDL*	18.65	12.50	24.38	22.51

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 **Note:** BDL*: Below Detection Limit, Minimum Detection Limit, Ozone as O_3 : $10 \ \mu g/m^3$, Lead as Pb: $0.5 \ \mu g/m^3$, Carbon Monoxide as CO: $0.01 \ mg/m^3$, Ammonia NH₃: $10 \ \mu g/m^3$, Benzene as C_6H_6 : $2 \ \mu g/m^3$, Benzo (a) Pyrene (BaP) - Particulate Phase only: $0.5 \ ng/m^3$, Arsenic



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Table No.: 1.4 - Ambient Air Quality Monitoring Results At GCPTL Gate

CON PE	POLLUCON POLLUCO	N POLLUCON	POLLUCO	N POLLUCO	N POLLUCO	Loc	ation-4:	GCPTL	Gate	ON POLLUC	ON POLLU	CON POLIL	CON POLL
Sr. No.	Date of Sampling	PM ₁₀	PM _{2.5}	Pb	BaP	As	N POLICE	СО	C ₆ H ₆	NH ₃	SO ₂	NO _x	O ₃
CON PO	POLLUCON POLLUCO	μg/m³	μg/m³	μg/m³	ng/m³	ng/m³	ng/m³	mg/m³	μg/m³	μg/m³	μg/m³	μg/m³	μg/m³
1	02/04/2019	66.82	31.54	BDL*	BDL*	BDL*	BDL*	0.48	BDL*	29.66	12.60	16.65	21.42
2	05/04/2019	58.71	24.24	BDL*	BDL*	BDL*	BDL*	0.36	BDL*	26.49	10.82	26.66	18.73
3	09/04/2019	64.36	36.51	BDL*	BDL*	BDL*	BDL*	0.40	BDL*	37.54	14.67	22.52	20.69
4	12/04/2019	59.58	22.84	BDL*	BDL*	BDL*	BDL*	0.18	BDL*	18.63	7.65	19.67	12.67
5	16/04/2019	48.68	27.67	BDL*	BDL*	BDL*	BDL*	0.23	BDL*	27.32	9.21	29.37	26.3
6	19/04/2019	52.65	20.25	BDL*	BDL*	BDL*	BDL*	0.33	BDL*	33.55	13.55	24.34	23.48
7	23/04/2019	62.29	32.58	BDL*	BDL*	BDL*	BDL*	0.19	BDL*	21.85	6.40	15.57	14.59
8	26/04/2019	70.60	23.49	BDL*	BDL*	BDL*	BDL*	0.38	BDL*	20.39	8.78	25.46	16.2
9	30/04/2019	56.31	19.29	BDL*	BDL*	BDL*	BDL*	0.13	BDL*	36.38	15.83	33.59	19.34
10	03/05/2019	50.29	32.77	BDL*	BDL*	BDL*	BDL*	0.62	BDL*	20.22	9.61	18.59	22.34
11	07/05/2019	49.55	22.68	BDL*	BDL*	BDL*	BDL*	0.53	BDL*	34.26	13.24	28.45	26.3
12	10/05/2019	63.88	29.64	BDL*	BDL*	BDL*	BDL*	0.34	BDL*	29.29	6.55	17.78	13.66
13	14/05/2019	70.34	31.58	BDL*	BDL*	BDL*	BDL*	0.24	BDL*	12.36	14.62	24.58	15.65
14	17/05/2019	52.50	20.88	BDL*	BDL*	BDL*	BDL*	0.42	BDL*	23.67	12.49	21.58	20.72
15	21/05/2019	64.53	26.36	BDL*	BDL*	BDL*	BDL*	0.55	BDL*	31.21	8.59	25.75	12.37
16	24/05/2019	48.41	19.58	BDL*	BDL*	BDL*	BDL*	0.29	BDL*	11.55	11.32	31.25	16.62
17	28/05/2019	60.41	36.43	BDL*	BDL*	BDL*	BDL*	0.19	BDL*	10.29	7.33	22.81	10.4
18	31/05/2019	57.68	17.53	BDL*	BDL*	BDL*	BDL*	0.38	BDL*	27.59	16.29	19.41	18.95
19	04/06/2019	62.82	37.52	BDL*	BDL*	BDL*	BDL*	0.27	BDL*	24.30	10.54	30.81	24.34
20	07/06/2019	50.30	30.56	BDL*	BDL*	BDL*	BDL*	0.22	BDL*	28.48	18.26	25.64	22.31
21	11/06/2019	61.19	26.85	BDL*	BDL*	BDL*	BDL*	0.16	BDL*	12.56	7.37	19.55	19.6
22	14/06/2019	71.47	35.66	BDL*	BDL*	BDL*	BDL*	0.38	BDL*	23.34	13.51	31.51	13.65
23	18/06/2019	49.24	19.54	BDL*	BDL*	BDL*	BDL*	0.15	BDL*	19.56	8.62	23.40	14.34
24	21/06/2019	69.34	31.35	BDL*	BDL*	BDL*	BDL*	0.47	BDL*	15.76	14.60	20.35	20.48
25	25/06/2019	56.33	25.60	BDL*	BDL*	BDL*	BDL*	0.57	BDL*	16.76	17.60	32.49	18.35
26	28/06/2019	48.31	21.34	BDL*	BDL*	BDL*	BDL*	0.21	BDL*	29.51	11.24	28.36	11.6
27	02/07/2019	59.70	34.70	BDL*	BDL*	BDL*	BDL*	0.36	BDL*	22.75	7.42	31.91	10.64



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28	05/07/2019	41.42	16.85	BDL*	BDL*	BDL*	BDL*	0.44	BDL*	32.63	14.43	26.84	14.87
29	09/07/2019	56.46	23.65	BDL*	BDL*	BDL*	BDL*	0.25	BDL*	17.56	8.63	20.37	17.72
30	12/07/2019	60.32	25.72	BDL*	BDL*	BDL*	BDL*	0.60	BDL*	40.12	11.33	23.44	21.45
31	16/07/2019	54.28	30.47	BDL*	BDL*	BDL*	BDL*	0.37	BDL*	28.44	9.53	15.70	18.83
32	19/07/2019	49.74	24.58	BDL*	BDL*	BDL*	BDL*	0.18	BDL*	30.54	16.23	18.64	25.23
33	23/07/2019	52.42	21.58	BDL*	BDL*	BDL*	BDL*	0.62	BDL*	23.35	12.82	29.56	13.18
34	26/07/2019	40.58	15.86	BDL*	BDL*	BDL*	BDL*	0.46	BDL*	33.53	10.64	19.33	15.59
35	30/07/2019	48.34	18.48	BDL*	BDL*	BDL*	BDL*	0.29	BDL*	36.53	18.40	16.52	12.4
36	02/08/2019	47.53	26.65	BDL*	BDL*	BDL*	BDL*	0.45	BDL*	20.43	12.41	21.61	13.57
37	06/08/2019	64.34	36.37	BDL*	BDL*	BDL*	BDL*	0.16	BDL*	13.84	7.50	15.62	20.21
38	09/08/2019	88.36	42.41	0.54	BDL*	2.08	10.15	0.48	BDL*	29.46	13.63	27.55	18.3
39	13/08/2019	53.69	22.39	BDL*	BDL*	BDL*	BDL*	0.71	BDL*	12.35	8.30	16.32	11.6
40	16/08/2019	60.34	35.64	BDL*	BDL*	BDL*	BDL*	0.27	BDL*	24.56	6.40	29.48	16.32
41	20/08/2019	80.34	43.12	BDL*	BDL*	BDL*	BDL*	0.23	BDL*	37.46	18.43	25.37	24.41
42	23/08/2019	59.30	24.37	BDL*	BDL*	BDL*	BDL*	0.36	BDL*	18.34	11.57	17.32	19.63
43	27/08/2019	65.69	30.47	BDL*	BDL*	BDL*	BDL*	0.18	BDL*	26.46	9.83	20.33	12.41
44	30/08/2019	71.25	33.62	BDL*	BDL*	BDL*	BDL*	0.31	BDL*	21.46	14.35	26.36	14.67
45	03/09/2019	61.53	36.62	BDL*	BDL*	BDL*	BDL*	0.22	BDL*	24.35	9.14	24.24	16.4
46	06/09/2019	42.33	27.57	BDL*	BDL*	BDL*	BDL*	0.33	BDL*	29.56	18.55	37.89	13.45
47	10/09/2019	79.31	29.50	BDL*	BDL*	BDL*	BDL*	0.31	BDL*	20.80	20.40	22.52	20.61
48	13/09/2019	52.48	23.43	BDL*	BDL*	BDL*	BDL*	0.21	BDL*	13.52	14.35	28.67	15.4
49	17/09/2019	62.67	26.43	BDL*	BDL*	BDL*	BDL*	0.46	BDL*	23.49	11.38	23.63	17.38
50	20/09/2019	53.48	30.29	BDL*	BDL*	BDL*	BDL*	0.42	BDL*	31.64	8.57	16.36	22.63
51	24/09/2019	60.21	33.43	BDL*	BDL*	BDL*	BDL*	0.14	BDL*	34.35	6.39	21.41	18.37
52	27/09/2019	56.34	24.83	BDL*	BDL*	BDL*	BDL*	0.32	BDL*	14.51	15.27	30.56	21.81

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 **Note:** BDL*: Below Detection Limit, Minimum Detection Limit, Ozone as O_3 : 10 $\mu g/m^3$, Lead as Pb: 0.5 $\mu g/m^3$, Carbon Monoxide as CO: 0.01 mg/m^3 , Ammonia NH₃: 10 $\mu g/m^3$, Benzene as C_6H_6 : 2 $\mu g/m^3$, Benzo (a) Pyrene (BaP) - Particulate Phase only: 0.5 ng/m^3 , Arsenic



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Table No.: 1.5 - Ambient Air Quality Monitoring Results At Near Silo Porta Cabin

CON P	DELUCON POLLUCO	N POLLUCO	POLITICO	POLLUCO	N POLLUCE	ocation	-5: Nea	r Silo Po	rta Cabi	n POLLUC	ON POLLUK	TON POLILI	CON POLL
Sr. No.	Date of Sampling	PM ₁₀	PM _{2.5}	Pb	BaP	As	Ni	СО	C ₆ H ₆	NH ₃	SO ₂	NO _x	O ₃
CON P	POLLUCON POLLUC	μg/m³	μg/m³	μg/m³	ng/m³	ng/m³	ng/m³	mg/m³	μg/m³	μg/m³	μg/m³	μg/m³	μg/m³
LLLON	02/04/2019	57.55	25.89	BDL*	BDL*	BDL*	BDL*	0.76	BDL*	33.23	8.56	22.79	15.34
2	05/04/2019	62.51	38.68	BDL*	BDL*	BDL*	BDL*	0.41	BDL*	29.95	15.40	38.72	24.39
3	09/04/2019	52.40	33.57	BDL*	BDL*	BDL*	BDL*	0.25	BDL*	23.45	6.53	15.71	27.28
4	12/04/2019	63.43	28.54	BDL*	BDL*	BDL*	BDL*	0.16	BDL*	31.50	14.79	26.39	14.84
5	16/04/2019	72.45	41.23	BDL*	BDL*	BDL*	BDL*	0.27	BDL*	12.60	7.53	33.67	17.27
6	19/04/2019	69.37	30.55	BDL*	BDL*	BDL*	BDL*	0.66	BDL*	43.58	9.54	36.35	19.54
7	23/04/2019	58.40	35.51	BDL*	BDL*	BDL*	BDL*	0.14	BDL*	36.86	11.27	21.57	22.45
8	26/04/2019	75.33	39.55	BDL*	BDL*	BDL*	BDL*	0.45	BDL*	22.59	13.24	16.76	13.37
9	30/04/2019	50.21	23.63	BDL*	BDL*	BDL*	BDL*	0.15	BDL*	16.54	17.57	20.82	25.36
10	03/05/2019	72.54	29.38	BDL*	BDL*	BDL*	BDL*	0.11	BDL*	31.52	18.31	29.39	11.57
11	07/05/2019	61.30	28.35	BDL*	BDL*	BDL*	BDL*	0.16	BDL*	19.54	9.51	22.43	18.42
12	10/05/2019	58.39	19.49	BDL*	BDL*	BDL*	BDL*	0.18	BDL*	14.20	11.53	26.37	21.48
13	14/05/2019	65.70	26.86	BDL*	BDL*	BDL*	BDL*	0.36	BDL*	26.87	16.41	30.34	19.37
14	17/05/2019	44.24	16.56	BDL*	BDL*	BDL*	BDL*	0.33	BDL*	20.87	8.68	16.38	16.19
15	21/05/2019	52.45	21.55	BDL*	BDL*	BDL*	BDL*	0.30	BDL*	17.39	6.15	21.35	20.59
16	24/05/2019	60.23	15.64	BDL*	BDL*	BDL*	BDL*	0.47	BDL*	29.56	13.53	25.77	13.24
17	28/05/2019	71.57	24.29	BDL*	BDL*	BDL*	BDL*	0.22	BDL*	13.56	17.42	19.65	15.45
18	31/05/2019	66.18	20.18	BDL*	BDL*	BDL*	BDL*	0.27	BDL*	18.63	10.59	15.56	22.42
19	04/06/2019	52.59	30.22	BDL*	BDL*	BDL*	BDL*	0.46	BDL*	29.60	14.34	24.30	21.21
20	07/06/2019	75.76	26.33	BDL*	BDL*	BDL*	BDL*	0.36	BDL*	23.45	7.80	16.36	12.57
21	11/06/2019	56.30	16.33	BDL*	BDL*	BDL*	BDL*	0.45	BDL*	16.38	9.37	21.61	15.35
22	14/06/2019	76.38	31.59	BDL*	BDL*	BDL*	BDL*	0.52	BDL*	30.27	15.33	18.76	22.66
23	18/06/2019	53.86	23.43	BDL*	BDL*	BDL*	BDL*	0.13	BDL*	13.86	12.32	20.59	11.35
24	21/06/2019	60.40	27.53	BDL*	BDL*	BDL*	BDL*	0.17	BDL*	18.56	17.58	15.65	26.87
25	25/06/2019	71.56	36.45	BDL*	BDL*	BDL*	BDL*	0.23	BDL*	32.30	6.54	22.36	14.33
26	28/06/2019	66.22	25.46	BDL*	BDL*	BDL*	BDL*	0.60	BDL*	19.39	8.33	35.18	10.21
27	02/07/2019	79.30	31.60	BDL*	BDL*	BDL*	BDL*	0.74	BDL*	25.70	13.72	22.55	18.37



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28	05/07/2019	55.44	19.33	BDL*	BDL*	BDL*	BDL*	0.23	BDL*	29.63	6.54	17.39	22.43
29	09/07/2019	60.78	29.48	BDL*	BDL*	BDL*	BDL*	0.38	BDL*	31.14	15.71	32.91	12.44
30	12/07/2019	53.84	34.37	BDL*	BDL*	BDL*	BDL*	0.41	BDL*	24.49	17.57	19.42	16.68
31	16/07/2019	62.49	18.70	BDL*	BDL*	BDL*	BDL*	0.49	BDL*	22.37	7.59	27.55	26.43
32	19/07/2019	73.62	26.46	BDL*	BDL*	BDL*	BDL*	0.45	BDL*	35.37	11.43	31.25	17.5
33	23/07/2019	64.28	28.37	BDL*	BDL*	BDL*	BDL*	0.14	BDL*	39.61	14.99	24.92	21.66
34	26/07/2019	51.36	20.46	BDL*	BDL*	BDL*	BDL*	0.33	BDL*	18.75	12.49	23.57	14.84
35	30/07/2019	42.36	15.38	BDL*	BDL*	BDL*	BDL*	0.31	BDL*	47.47	9.96	12.88	28.37
36	02/08/2019	54.32	29.34	BDL*	BDL*	BDL*	BDL*	0.14	BDL*	17.84	7.60	29.39	19.58
37	06/08/2019	78.60	44.37	BDL*	BDL*	BDL*	BDL*	0.11	BDL*	20.42	9.51	19.30	14.37
38	09/08/2019	62.69	33.78	BDL*	BDL*	BDL*	BDL*	0.55	BDL*	15.42	10.27	30.26	11.58
39	13/08/2019	48.64	18.63	BDL*	BDL*	BDL*	BDL*	0.19	BDL*	26.84	16.56	26.41	15.4
40	16/08/2019	52.60	27.55	BDL*	BDL*	BDL*	BDL*	0.38	BDL*	12.64	11.76	21.59	18.53
41	20/08/2019	68.33	34.54	BDL*	BDL*	BDL*	BDL*	0.32	BDL*	24.62	13.84	28.49	23.42
42	23/08/2019	49.31	20.27	BDL*	BDL*	BDL*	BDL*	0.39	BDL*	33.84	8.44	20.22	12.56
43	27/08/2019	58.45	26.31	BDL*	BDL*	BDL*	BDL*	0.22	BDL*	29.34	17.81	31.21	16.85
44	30/08/2019	61.54	30.22	BDL*	BDL*	BDL*	BDL*	0.26	BDL*	13.64	12.34	18.49	10.24
45	03/09/2019	66.30	39.45	BDL*	BDL*	BDL*	BDL*	0.41	BDL*	20.56	18.27	32.71	22.38
46	06/09/2019	58.68	21.26	BDL*	BDL*	BDL*	BDL*	0.47	BDL*	24.58	11.76	29.36	17.62
47	10/09/2019	73.63	25.35	BDL*	BDL*	BDL*	BDL*	0.13	BDL*	12.68	14.58	25.45	14.58
48	13/09/2019	45.66	19.43	BDL*	BDL*	BDL*	BDL*	0.24	BDL*	29.48	10.24	16.50	19.87
49	17/09/2019	67.54	30.45	BDL*	BDL*	BDL*	BDL*	0.16	BDL*	17.56	6.80	26.54	23.71
50	20/09/2019	42.60	18.68	BDL*	BDL*	BDL*	BDL*	0.57	BDL*	25.35	16.80	19.50	15.48
51	24/09/2019	55.64	22.50	BDL*	BDL*	BDL*	BDL*	0.49	BDL*	18.54	12.64	23.33	24.81
52	27/09/2019	64.56	29.13	BDL*	BDL*	BDL*	BDL*	0.61	BDL*	27.34	7.56	17.32	12.44

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 **Note:** BDL*: Below Detection Limit, Minimum Detection Limit, Ozone as O_3 : 10 $\mu g/m^3$, Lead as Pb: 0.5 $\mu g/m^3$, Carbon Monoxide as CO: 0.01 mg/m^3 , Ammonia NH₃: 10 $\mu g/m^3$, Benzene as C_6H_6 : 2 $\mu g/m^3$, Benzo (a) Pyrene (BaP) - Particulate Phase only: 0.5 ng/m^3 , Arsenic



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Table No.: 1.6 - Ambient Air Quality Monitoring Results At JS - 2 Junction

CON TE	DELUCON POLLUCO	N POLLUCON	POLLUCO	V POLILICO	N POLLUCO	Locat	ion-6: J	S – 2 Ju	nction	ON POLLUR	ON POLLU	CON POLILI	CON POLI
Sr. No.	Date of Sampling	PM ₁₀	PM _{2.5}	Pb	BaP	As	Ni	СО	C ₆ H ₆	NH ₃	SO ₂	NO _x	O ₃
CON PO	POLLUCON POLLUC	μg/m³	μg/m³	μg/m³	ng/m³	ng/m³	ng/m³	mg/m³	μg/m³	μg/m³	μg/m³	μg/m³	μg/m³
Liton	02/04/2019	86.92	40.40	BDL*	BDL*	BDL*	BDL*	0.30	BDL*	47.65	25.66	30.62	28.59
2	05/04/2019	90.41	51.24	0.77	BDL*	2.42	10.70	0.94	BDL*	51.58	13.70	40.28	30.50
3	09/04/2019	88.59	48.54	0.65	BDL*	2.34	10.45	0.60	BDL*	42.69	18.21	34.52	22.60
4	12/04/2019	74.57	31.62	BDL*	BDL*	BDL*	BDL*	0.84	BDL*	35.37	20.71	42.64	19.22
5	16/04/2019	89.36	52.33	0.56	BDL*	2.56	10.70	1.05	BDL*	22.86	22.32	39.29	29.53
6	19/04/2019	79.86	45.21	BDL*	BDL*	BDL*	BDL*	0.32	BDL*	49.24	15.65	31.64	25.60
7	23/04/2019	92.66	54.20	BDL*	BDL*	BDL*	BDL*	0.53	BDL*	34.20	24.50	29.27	18.38
8	26/04/2019	80.47	43.35	0.52	BDL*	2.64	10.14	0.63	BDL*	38.83	16.82	32.60	27.65
9	30/04/2019	75.78	34.26	BDL*	BDL*	BDL*	BDL*	0.82	BDL*	25.63	19.31	37.57	16.82
10	03/05/2019	92.61	48.58	BDL*	BDL*	BDL*	BDL*	0.74	BDL*	19.31	22.54	31.59	14.87
11	07/05/2019	86.42	43.55	0.56	BDL*	2.84	10.64	0.84	BDL*	23.33	16.58	38.71	22.51
12	10/05/2019	76.59	40.34	BDL*	BDL*	BDL*	10.17	0.48	BDL*	31.61	14.33	25.32	16.72
13	14/05/2019	95.32	36.78	BDL*	BDL*	BDL*	BDL*	0.58	BDL*	37.26	8.19	37.38	18.62
14	17/05/2019	68.30	27.62	BDL*	BDL*	BDL*	BDL*	0.64	BDL*	28.32	17.38	34.30	24.72
15	21/05/2019	91.49	39.30	0.62	BDL*	2.62	10.80	0.69	BDL*	44.24	18.69	36.52	26.76
16	24/05/2019	78.61	34.27	BDL*	BDL*	BDL*	BDL*	0.87	BDL*	36.58	15.30	42.44	27.44
17	28/05/2019	93.57	52.47	BDL*	BDL*	2.36	BDL*	0.94	BDL*	29.63	11.66	27.62	17.82
18	31/05/2019	88.59	44.60	0.70	BDL*	2.55	10.57	0.56	BDL*	47.25	24.23	35.84	20.84
19	04/06/2019	82.51	49.25	0.56	BDL*	2.26	10.67	0.24	BDL*	41.20	17.66	35.66	16.56
20	07/06/2019	93.68	39.16	0.65	BDL*	2.62	10.53	0.65	BDL*	21.58	14.19	27.56	19.21
21	11/06/2019	85.59	44.66	BDL*	BDL*	BDL*	BDL*	0.80	BDL*	32.60	21.54	38.38	21.56
22	14/06/2019	90.34	53.64	0.84	BDL*	2.46	10.48	0.71	BDL*	36.89	18.60	29.68	20.27
23	18/06/2019	62.48	29.78	BDL*	BDL*	BDL*	BDL*	0.58	BDL*	29.76	15.13	32.39	23.48
24	21/06/2019	73.62	43.65	BDL*	BDL*	BDL*	BDL*	0.42	BDL*	37.68	19.20	30.27	18.57
25	25/06/2019	80.18	40.40	BDL*	BDL*	BDL*	BDL*	0.26	BDL*	42.34	20.67	36.86	26.35
26	28/06/2019	71.34	32.76	BDL*	BDL*	BDL*	BDL*	0.44	BDL*	24.68	22.66	40.25	13.36
27	02/07/2019	84.68	50.43	0.60	BDL*	2.36	10.36	0.81	BDL*	42.50	15.40	34.61	24.40



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28	05/07/2019	72.77	38.42	BDL*	BDL*	BDL*	BDL*	0.54	BDL*	54.56	23.58	30.31	18.58
29	09/07/2019	82.51	42.66	0.52	BDL*	2.54	10.28	0.65	BDL*	35.57	17.54	37.44	27.70
30	12/07/2019	76.44	37.31	BDL*	BDL*	BDL*	BDL*	0.85	BDL*	28.34	14.60	33.46	25.40
31	16/07/2019	91.55	48.64	0.65	BDL*	2.76	10.69	0.78	BDL*	33.41	11.82	43.50	21.85
32	19/07/2019	86.38	36.61	BDL*	BDL*	BDL*	BDL*	0.52	BDL*	50.34	9.59	39.29	24.05
33	23/07/2019	75.30	46.29	0.74	BDL*	2.65	10.57	0.17	BDL*	35.45	19.66	35.46	15.35
34	26/07/2019	55.46	23.62	BDL*	BDL*	BDL*	BDL*	0.27	BDL*	39.19	26.29	32.84	22.37
35	30/07/2019	65.69	25.62	BDL*	BDL*	BDL*	BDL*	0.66	BDL*	52.75	20.51	38.46	26.75
36	02/08/2019	79.21	46.84	BDL*	BDL*	BDL*	BDL*	0.53	BDL*	31.50	18.40	33.85	26.36
37	06/08/2019	84.34	47.55	BDL*	BDL*	BDL*	BDL*	0.44	BDL*	24.61	16.35	29.57	24.56
38	09/08/2019	73.50	45.39	0.62	BDL*	2.16	10.17	0.58	BDL*	34.27	14.88	36.29	17.51
39	13/08/2019	64.58	34.75	BDL*	BDL*	BDL*	BDL*	0.65	BDL*	29.42	19.33	39.28	22.44
40	16/08/2019	77.56	40.21	BDL*	BDL*	BDL*	BDL*	0.62	BDL*	37.24	22.68	35.64	25.36
41	20/08/2019	88.32	50.28	0.64	BDL*	2.37	10.57	0.79	BDL*	43.48	20.32	38.40	27.60
42	23/08/2019	74.34	39.20	BDL*	BDL*	BDL*	BDL*	0.63	BDL*	22.46	17.54	41.21	21.54
43	27/08/2019	81.52	48.56	BDL*	BDL*	BDL*	BDL*	0.76	BDL*	16.84	15.69	37.56	19.47
44	30/08/2019	76.84	36.24	BDL*	BDL*	BDL*	BDL*	0.33	BDL*	27.84	21.65	32.53	16.58
45	03/09/2019	72.67	47.54	BDL*	BDL*	BDL*	BDL*	0.74	BDL*	39.59	11.83	35.52	18.43
46	06/09/2019	53.75	36.43	BDL*	BDL*	BDL*	BDL*	0.82	BDL*	44.21	19.20	40.26	21.66
47	10/09/2019	68.46	34.81	0.76	BDL*	2.64	10.33	0.36	BDL*	33.47	24.20	34.22	19.79
48	13/09/2019	59.76	26.39	BDL*	BDL*	BDL*	BDL*	0.44	BDL*	25.77	16.25	23.51	29.51
49	17/09/2019	81.36	38.43	0.65	BDL*	2.75	10.13	0.38	BDL*	27.62	9.28	36.49	27.53
50	20/09/2019	66.59	33.13	BDL*	BDL*	BDL*	BDL*	0.39	BDL*	46.24	18.34	32.58	17.58
51	24/09/2019	79.37	42.35	BDL*	BDL*	BDL*	BDL*	0.58	BDL*	38.30	14.48	37.51	26.26
52	27/09/2019	86.41	39.54	0.68	BDL*	2.12	10.13	0.81	BDL*	24.87	17.61	33.82	23.89

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 **Note:** BDL*: Below Detection Limit, Minimum Detection Limit, Ozone as O_3 : 10 $\mu g/m^3$, Lead as Pb: 0.5 $\mu g/m^3$, Carbon Monoxide as CO: 0.01 mg/m^3 , Ammonia NH₃: 10 $\mu g/m^3$, Benzene as C_6H_6 : 2 $\mu g/m^3$, Benzo (a) Pyrene (BaP) - Particulate Phase only: 0.5 ng/m^3 , Arsenic



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3B. GROUND WATER LEVEL & QUALITY ANALYSIS (PIEZOMETERS) MONITORING: -

Table- 1: Ground Water Level & Quality Analysis (Pizometer) Results for the period: April-19 to September-19

3B.1 Near Sub Station-7B

ON POLL	LUCON POLLUCON POLLUCON POLLUCON CON POLLUCON POLLUCON POLLUCON POLLUCON POLLUCON	N POLLUCON POLL	LUCON POLLUCE		OBSER	VATION		
SR. NO.	TEST PARAMETER	UNIT	April-19	May-19	June-19	July-19	Aug-19	Sep-19
ON POLL	LUCON POLLUCON POLLUCON POLLUCON	N FOL FON TO	26/04/19	28/05/19	28/06/19	27/07/19	29/08/19	27/09/19
N PLL	Temperature	°C	32	31.6	31.8	30	29.9	30.2
2	pH POLLICON POLLICON POLLUCON	POLLUC -+ POLL	7.31	7.85	7.96	7.57	7.37	8.12
3	Total Dissolved Solids	mg/L	2024	1968	2040	1984	1684	1536
4	Salinity	ppt	0.65	1.08	1.15	1.12	1.06	0.87
5	Chloride as Cl	mg/L	610	599	640	620	590	539
6	Depth of Water Level from Ground Level	meter	2.1	2	2.5	2.3	2.2	1.5
7	Status of Tide	PC LUCON POLL	High Tide	High Tide	High Tide	High Tide	High Tide	High Tide

3B.2 Near QHSE Office

N POLL	CON POLLUCON POLLUCON POLICON	POLLUCON POLL	LUCON POLLUCO		OBSER	VATION		
SR. NO.	TEST PARAMETER	UNIT	April-19	May-19	June-19	July-19	Aug-19	Sep-19
ONLIN	CON POLLUCON POLLUCON OLLUCON	POLLUCON POLL	26/04/19	28/05/19	28/06/19	27/07/19	29/08/19	27/09/19
N POLL	Temperature	PC UC °C	31.9	31.4	31.1	30	30 JCON	30.6
2	pHon Pollucon P Aucon Pollucon	N POLITICON POLI	7.36	7.96	7.92	7.42	7.49	7.34
3	Total Dissolved Solids	mg/L	1785	1712	1870	1684	1306	1583
4	Salinity	ppt	0.35	0.59	0.63	0.65	0.63	0.59
5	Chloride as Cl	mg/L	249	330	349	362	350	389
6	Depth of Water Level from Ground Level	meter	2.1	2 (2)	2.5	2.4	2.5	1.6
77	Status of Tide	N POLLUCON POL	High Tide	High Tide	High Tide	High Tide	High Tide	High Tide



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3C. SEA WATER (SURFACE & BOTTOM) QUALITY ANALYSIS MONITORING:-Table No.: 3C.1 - Sea Water (Surface & Bottom) Quality Analysis Results of sea water south side for the period: April 2019 to September 2019:-

			RI	ESULTS (OF SEA W	ATER Q	UALITY /	<u>ANALYSI</u>	S SEA W	ATER SO	OUTH SIE	DE	
TEST	LINITT	APR]	L-19	MAY	/-19	JUN	E-19	JUL	Y-19	AUC	G-19	SEP	-19
PARAMETERS	UNII	26/04	/2019	28/05	/2019	28/06	/2019	27/07	/2019	29/08	/2019	27/09	/2019
		Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
pН		8.15	8.1	8.15	8.07	8.24	8.12	8.17	8.1	8.09	7.95	8.17	8.1
Temperature	°C	30.7	30.2	31.3	31	31	29.7	30.4	29.8	29.1	29.3	29.4	28.9
Suspended Solids	mg/ L	310	329	370	404	412	438	392	413	324	338	384	407
BOD (3 Days @ 27 °C)	mg/ L	6.4	BDL*	3.6	BDL*	3.2	BDL*	3	BDL*	BDL*	BDL*	BDL*	BDL*
Dissolved Oxygen	mg/ L	6.1	5.9	5.8	5.4	6	5.5	5.9	5.6	6.1	5.9	6	5.8
Salinity	ppt	31.5	31.8	32.6	32.9	31.6	31.5	31.5	31.3	29.8	30.3	29.6	30.1
Oil & Grease	mg/ L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
Nitrate as NO₃	μmo l/L	4.53	3.52	2.64	3.42	2.08	2.33	1.96	2.14	1.74	1.56	1.57	1.83
Nitrite as NO ₂	μmo l/L	1.38	1.15	1.08	1.01	0.8	0.74	0.51	0.63	0.32	0.41	0.27	0.18
AmmonicalNitro genas NH ₃	μmo I/L	2.21	1.87	1.72	1.84	1.44	1.79	1.32	1.57	1.12	1.26	1.04	1.2
Phosphates as PO ₄	μmo I/L	3.31	2.94	3.83	4.1	4.26	4.29	3.7	3.92	2.74	2.89	2.53	2.76
Total Nitrogen	μmo I/L	8.11	6.54	5.43	6.27	4.32	4.86	3.79	4.34	3.18	3.23	2.88	3.21
Petroleum Hydrocarbon	μg/L	17.2	BDL*	12.6	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
Total Dissolved Solids	mg/ L	37189	38546	36120	36398	33398	33258	33506	33294	32916	33197	32709	32519
COD	mg/ L	21.4	BDL*	12.2	BDL*	12.6	BDL*	11.4	BDL*	9.4	BDL*	11.6	BDL*
							1	1	1			1	
Productivity	mgC/L/ day	4.72	3.15	5.85	4.61	7.65	6.52	7.2	6.3	7.87	7.42	7	5.26
		2.47	2.25	2.74	2.62	2.26	2.72	2.04	2.02	2.00	2.4	2.67	2.51
. ,													2.51
глаеорпушт		1.70		1.5		1.30	2.17	1.7	1.09	2.42	2.00	1.97	
Cell Count	10 ³ /L	142	70	124	62	130	56	142	76	158	66	136	48
Name of Group Number and name of group species of each group	-	a sp. Coscin odiscus sp. Rhizos olenia sp. Thallasi onema	Navicul a Sp. Thallasi onema sp. 	nitzschi a sp. Coscin odiscus sp. Asterio nella sp. Thallasi onema	Navicul a sp. Asterio nella sp. Nitzschi a sp.	Nitzschi a sp. Spirogy ra sp. Coscin odiscus sp. Navicul a sp.	Nitzschi a sp. Surirell a sp. Navicul a sp.	Thallasi osira sp. Biddulp hia sp. Nitzschi a sp. Coscino discus sp.	Navicul a sp. Rhizoso lenia sp. Navicul a sp.	Coscino discus sp. Nitzschi a sp. Scened esmus sp. Ceratiu m sp.	Navicul a sp. Fragilla ria sp. Rhizos olenia sp.	Nitzschi a sp. Scened esmus sp. Closteri um sp. Navicul a sp.	Navicu a sp. Syned a sp. Spirog ra sp.
	pH Temperature Total Suspended Solids BOD (3 Days @ 27 °C) Dissolved Oxygen Salinity Oil & Grease Nitrate as NO ₂ AmmonicalNitro genas NH ₃ Phosphates as PO ₄ Total Nitrogen Petroleum Hydrocarbon Total Dissolved Solids COD Flora and Faun Primary Productivity Phytoplankton Chlorophyll Phaeophytin Cell Count Name of Group Number and raun Primary Productivity Phytoplankton	pH Temperature °C Total Suspended Solids mg/ Solids mg/ L BOD (3 Days @ mg/ 27 °C) L Dissolved mg/ Oxygen L Salinity ppt Oil & Grease mg/ L Nitrate as NO ₂ µmo I/L Nitrite as NO ₂ µmo I/L AmmonicalNitro genas NH ₃ µmo I/L Phosphates as pO ₄ I/L Total Nitrogen µmo I/L Petroleum Hydrocarbon µg/L Total Dissolved Solids L COD mg/ L Flora and Fauna Primary mgC/L/ Productivity mg/m³ Phaeophytin mg/m³ Cell Count Unit x 10³/L Name of Group Number and name of group species of each	PARAMETERS UNIT 26/04 Surface	Name of Group Name of Group Phases as productivity Phases on the form of group Phases of Group Phases as productivity Phases of Group Number and name of group Phases as productivity Phases of Group Number and name of group productivity Phases on the first page in the first productivity Phases of Group Number and name of group species of each group productivity Phases in the first page in the first productivity prod	PARAMETERS P	May	Nitrate as NO2	PARAMETERS PAR	Name of Group	PARAMÉTERS PA	Note Part Part	Name	PARAMETERS Surface Southom Surface Southom Surface S

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				RESULTS OF SEA	WATER QUALITY A	NALYSIS SEA WAT	ER SOUTH SIDE	
Sr.			APRIL-19	MAY-19	JUNE-19	JULY-19	AUG-19	SEP-19
NO.	TEST PARAMETERS	UNIT	26/04/2019	28/05/2019	28/06/2019	27/07/2019	29/08/2019	27/09/2019
			South Side	South Side	South Side	South Side	South Side	South Side
С	Zooplanktons							
18.1	Abundance (Population)	noX10 ³ / 100m ³	44	46	54	40	46	31
	Name of Group Number and name of group species of each group		Decapods Mysides Polychaetes	Naupilus larve Cyclops Polychaetes	Ostracods Polychaetes Cyclops	Cyclops Polychaetes Bivalves	Polychaetes Bivalves Nematodes	Nauplius larvae Ostracods Cyclops
18.3	Total Biomass	ml/100 m ³	1.45	1.35	1.6	1.4	1.55	1.2
D	Microbiological Param	eters						
19.1	Total Bacterial Count	CFU/ml	1800	1700	1720	1840	1780	1750
19.2	Total Coliform	/ml	Absent	Absent	Absent	Absent	Absent	Absent
19.3	E.coli	/ml	Absent	Absent	Absent	Absent	Absent	Absent
19.4	Enterococcus species	/ml	Absent	Absent	Absent	Absent	Absent	Absent
19.5	Salmonella species	/ml	Absent	Absent	Absent	Absent	Absent	Absent
19.6	Shigella species	/ml	Absent	Absent	Absent	Absent	Absent	Absent
19.7	Vibrio species	/ml	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.



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Table No.: 3C.2 - Sea Water (Surface & Bottom) Quality Analysis Results of Sea Water North Side for the period: April 2019 to September 2019:-

					RESU	LIS OF SEA	WATER	UALITY AN	ALYSISNOR	KIH SIDE			
TEST	LINIT	APRI	L-19					JULY	/-19			SEP-19	
PARAMETERS	ONLI	26/04	/2019	28/05	/2019	28/06	/2019	27/07	/2019	29/08	/2019	27/09	/2019
		Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Botton
pН		8.13	8.06	8.18	8.1	8.26	8.1	8.19	8.12	8.1	7.98	8.16	8.09
Temperature	°C	30.7	30.3	31.3	31.1	31	29.8	30.4	29.9	29.1	29.3	29.5	29
Total Suspended Solids	mg/L	324	340	369	398	408	430	380	403	320	335	376	394
BOD (3 Days @ 27 °C)	mg/L	5.8	BDL*	4.1	BDL*	3.6	BDL*	3.2	BDL*	BDL*	BDL*	BDL*	BDL*
Dissolved Oxygen	mg/L	6.2	6	6.4	5.6	6	5.4	5.9	5.5	6	5.9	6	5.8
Salinity	ppt	31.6	31.9	32.6	32.8	31.9	31.5	31.6	31.3	29.8	30.4	29.3	30
Oil & Grease	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
Nitrate as NO ₃	μmol/ L	4.78	3.27	2.9	3.65	2.04	2.39	1.94	2.1	1.78	1.59	1.64	1.8
Nitrite as NO ₂	µmol/ L	1.29	1.05	1.1	1.14	0.83	0.7	0.55	0.68	0.3	0.38	0.31	0.2
enas NH₃	μmol/ L	2.26	1.9	1.66	1.78	1.4	1.73	1.36	1.54	1.16	1.3	1.06	1.18
Phosphates as PO ₄	μmol/ L	3.21	2.62	3.91	4.23	4.3	4.5	3.72	3.9	3.12	3.34	2.46	2.7
Total Nitrogen	µmol/ L	8.33	6.21	5.66	6.56	4.27	4.82	3.85	4.32	3.24	3.27	3.01	3.18
Hydrocarbon	μg/L	15.2	BDL*	13.3	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
Solids	mg/L	37194	37634	36248	36270	33530	33240	33498	33210	32972	33314	32617	3297
	mg/L	21	BDL*	18	BDL*	13.3	BDL*	11.6	BDL*	9.62	BDL*	9.2	BDL*
Productivity	mgC/L/ day	4.95	2.92	5.17	3.82	7.42	6.07	7.87	6.75	7.76	7	7.3	5.7
Phytoplankton				1		1		1	1		1	1	
Chlorophyll	mg/m ³	3.36	2.5	3.25	2.67	3.52	3.04	2.72	2.4	2.61	2.56	2.34	2.29
Phaeophytin	mg/m ³	1.61	2.42	1.79	2.41	1.41	1.59	1.69	2.23	2.32	2.37	2.29	2.49
Cell Count	Unit x 10 ³ /L	138	62	130	56	124	62	138	68	152	74	126	46
Name of Group Number and name of group species of each group	1	Nitzschi a sp. Navicul a sp. Cymbel la sp. Pleuros igma sp.	Navicul a sp. Fragilla ria sp. 	Navicu la sp. Coscin odiscu s sp. Thalla siosira sp. Nitzsc hia sp.	Nitzsc hia sp. Navic ula sp. Cyclot ella sp.	Nitzsch ia sp. Coscin odiscus sp. Asterio nella sp. Cyclote lla sp.	Navicu la sp. Nitzsc hia sp. Syned ra sp.	Navicula sp. Thallasi osira sp. Nitzschi a sp. Coscino discus sp.	Navicul a sp. Nitzschi a sp. Rhizoso lenia sp.	Rhizoso lenia sp. Navicul a sp. Skeleto nema sp. Thallasi osira	Thallasi osira sp. Navicula sp. Coscino discus sp.	Nitzschi a sp. Scened esmus sp. Navicul a sp. Cyclotel la sp.	Fragil aria sp. Navic la sp. Nitzso hia sp
	pH Temperature Total Suspended Solids BOD (3 Days @ 27 °C) Dissolved Oxygen Salinity Oil & Grease Nitrate as NO ₃ Nitrite as NO ₂ AmmonicalNitrog enas NH ₃ Phosphates as PO ₄ Total Nitrogen Petroleum Hydrocarbon Total Dissolved Solids COD Flora and Fauna Primary Productivity Phytoplankton Chlorophyll Phaeophytin Cell Count Name of Group Number and name of group species of each	PARAMETERS PH Temperature Total Suspended Solids BOD (3 Days @ 27 °C) Dissolved Oxygen Salinity Poil & Grease Nitrate as NO ₃ Nitrite as NO ₂ AmmonicalNitrog pholy enas NH ₃ Phosphates as PO ₄ Total Nitrogen Petroleum Hydrocarbon Total Dissolved Solids COD mg/L Flora and Fauna Primary Productivity Phaeophytin Cell Count Name of Group Number and name of group species of each	PARAMETERS 26/04, Surface pH 8.13 Temperature °C 30.7 Total Suspended Solids mg/L 324 BOD (3 Days @ processory of poissolved Oxygen mg/L 5.8 Dissolved Oxygen mg/L 6.2 Salinity ppt 31.6 Oil & Grease mg/L BDL* Nitrate as NO3 pmol/ L 4.78 Nitrite as NO2 pmol/ L 1.29 AmmonicalNitrog enas NH3 pmol/ L 3.21 Phosphates as PO4 pmol/ L 8.33 Petroleum Hydrocarbon pg/L 15.2 Total Nitrogen pg/L 37194 COD mg/L 37194 COD mg/L 21 Flora and Fauna Primary Productivity mg/C/L/day 4.95 Phytoplankton mg/m³ 1.61 Cell Count Unit x 103/L 138 Name of Group Number and name of group species of each group Navicul a sp. Navicul a sp. Pleur	PARAMETERS DN11 26/04/2019 Surface Bottom	PARAMETERS ON1 26/04/2019 28/05 Surface Bottom Surface Surface Bottom Surface Surfac	TEST PARAMETERS UNIT 26/04/2019 28/05/2019 Surface Bottom Surface Surface	Name of Group Species of each group species of each group species of each group name of Group Name	Name of Group	PARAMETERS NATE 19 28/05/2019 28/06/2019 27/07	PARAMETERS UNITED PARAMETERS UNITED 26/04/2019 28/05/2019 28/05/2019 27/07/2019	PARAMETERS	APRIL-19 APRIL-19 BAV-19 JUNE-19 JUNE-19 27/07/2019 29/08/2019 29/0	PARAMETERS



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				RESULTS	OF SEA WATER QUA	LITY ANALYSISNOI	RTH SIDE	
Sr.	TEGT DADAMETEDS		APRIL-19	MAY-19	JUNE-19	JULY-19	AUG-19	SEP-19
NO.	TEST PARAMETERS	UNIT	26/04/2019	28/05/2019	28/06/2019	27/07/2019	29/08/2019	27/09/2019
			North Side	North Side	North Side	North Side	North Side	North Side
С	Zooplanktons							
18.1	Abundance (Population)	noX10 ³ / 100m ³	48	52	57	41	45	31
18.2	Name of Group Number and name of group species of each group		Nauplius larvae Ostracods Polychaetes	Polychaetes Nauplius larvae	Ostracods Nauplius larvae	Polychaetes Bivalves Ostracods	Polychaetes Ostracods Nematodes	Nauplius larvae Polychaetes Ostracods
18.3	Total Biomass	ml/100 m ³	1.6	1.45	1.55	1.45	1.65	1.25
D	Microbiological Param	neters						
19.1	Total Bacterial Count	CFU/ml	1760	1780	1840	1800	940	980
19.2	Total Coliform	/ml	Absent	Absent	Absent	Absent	Absent	Absent
19.3	E.coli	/ml	Absent	Absent	Absent	Absent	Absent	Absent
19.4	Enterococcus species	/ml	Absent	Absent	Absent	Absent	Absent	Absent
19.5	Salmonella species	/ml	Absent	Absent	Absent	Absent	Absent	Absent
19.6	Shigella species	/ml	Absent	Absent	Absent	Absent	Absent	Absent
19.7	Vibrio species	/ml	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.



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3D. SEA SEDIMENT QUALITY ANALYSIS MONITORING: - ON POLICION PO Table -Sea Sediment Quality Analysis (South Side) Results for the period: April 2019 to September 2019

Sr.	DEFICON COFFICON COFFICON	N POLLUCOI	APRIL-19	MAY-19	JUNE-19	JULY-19	AUG-19	SEP-19
No	PARAMETERS	UNIT	26/04/19	28/05/19	28/06/19	27/07/19	29/08/19	27/09/19
1 1	Organic Matter	%	0.67	0.53	0.42	0.72	0.64	0.75
2	Phosphorus as P	µg/g	584	634	563	460	523	554
3	Texture	ON PERLUC	Sandy	Sandy	Sandy	Sandy	Sandy	Sandy
4	Petroleum Hydrocarbon	μg/g	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
5	Heavy Metals	I LOTITICON BN LOTITIC	on Pálli (an Pé Polluc N Póll	LLUCON POLLUCON	N P	N CON POLITICON IN	POLLUCON POLLUCO	ON POLLUCON N POLLUCON PO
5.1	Aluminum as Al	%	4.7 POLI	4.92	4.5	4.86	4.75	4.67
5.2	Total Chromium as Cr ⁺³	µg/g	150	112 CON	163	204	183	175
5.3	Manganese as Mn	µg/g	1136	1043	1103	1383	1026	978
5.4	Iron as Fe	%	4.92	4.72	4.8	5.12 con	4.98	on ro5.2 on
5.5	Nickel as Ni	µg/g	18.6	34co	29 104	31.3	21.4	ON 100 25 ON
5.6	Copper as Cu	μg/g	31.4	27	32	40.9	33.2	46
5.7	Zinc as Zn	µg/g	178	CON 156 CON	126	ON POLUCON	184	209
5.8	Lead as Phillicon Politicon	µg/g	1.94	1.42	2.18	1.39 N	1.26	POLLUZON PO
5.9	Mercury as Hg	μg/g	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
6	Benthic Organisms	DN LLUC	V POLLUCON POLL ON POLLUCON PO	UCON POLLUCON	POLLUCON POLLUC N POLLUCON POLL	N POLLUCON PO	DOLLUCON POLLUCO	N POLLUCON PO ON POLLUCON
6.1	Macrobenthos (No and name of groups present, No and name of species of each group present)	ON POLITICOS OUTICOS N. BOTTISOS N. BOTTIS	Polychaetes	Polychaetes Gastropods	Molluscans Echinoderms	Echinoderms Crustaceans	Polychaetes Decapods	Polychaetes Horpacticoid s Oligochates
6.2	MeioBenthos (No and name of groups present, No and name of species of each group present)	N POLLUC FOLLUCO N POL N POLLUC N POLLUC	Nematodes	Nematodes Foraminifera ns	Nematodes	Chaetognath es	Foraminifera ns	Nematodes
6.3	Population	no/m²	735	706	792	616	557	704

BDL* - Below Detection Limit

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



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3D. SEA SEDIMENT QUALITY ANALYSIS MONITORING: - ON POLICION PO Table -Sea Sediment Quality Analysis Results (North Side) for the period: April-19 to Sep-2019:

Sr.	DITTACON LOTTICON LOTTACO	DN POLLUCON	APRIL-19	MAY-19	JUNE-19	JULY-19	AUG-19	SEP-19
No	PARAMETERS OF THE PARAMETERS	ON POLITICO	26/04/19	28/05/19	28/06/19	27/07/19	29/08/19	27/09/19
N PO	Organic Matter	%	0.69	0.62	0.44	0.71	0.61	0.73
2	Phosphorus as P	mg/kg	524	603	550	452	498	546
3	Texture	ICON PELLUC	Sandy	Sandy	Sandy	Sandy	Sandy	Sandy
4	Petroleum Hydrocarbon	mg/kg	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
5 p	Heavy Metals	CON POLITICA ON POLITICA	ON POLLUC N POLL	LLUCON POLLUCON	N P	N POLLUCON PO	POLLUCON POLLUCO	ON POLLUCON N POLLUCON PO
5.1	Aluminum as Al	%	4.82	ICON P5.1UCON	4.92	4.8	4.22	4.57
5.2	Total Chromium as Cr ⁺³	mg/kg	130	148	155	214	196	184
5.3	Manganese as Mn	mg/kg	1104	1068	1160	1373	1043	990
5.4	Iron as Fe	%	4.96	4.76	4.81	JCON T5.1 UCON	4.1	5.19
5.5	Nickel as Ni	mg/kg	19.7	Luco 28 Luco	70LL 32 N POLL	29.8	22.8	ON 100 27
5.6	Copper as Cu	mg/kg	26.9	LUCON 25 LLUCO	18	33.6	25.4	40 A0
5.7	Zinc as Zn	mg/kg	163	170	192	ON PO117 ON PO	164	211
5.8	Lead as Pb	mg/kg	1.84	ICON 11.3UCON	of all te fig	ON POILISON PO	1.58	1.94
5.9	Mercury as Hg	mg/kg	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
6	Benthic Organisms	ICON LUC	ON POLLUCON POLL	LLUCON POLLUCON	POLLUCON POLLUC	N POLLUCON PO	LOTTICON LOTTICO	N POLLUCON PO
6.1	Macrobenthos (No and name of groups present, No and name of species of each group present)	ON POLITICO ON PO	Polychaetes Decapods	Polychaetes Molluscans	Molluscans Bivalves	Echinoderms Polychaete worms	Polychaetes Bivalves Decapods	Polychaetes Oligochates
6.2	MeioBenthos (No and name of groups present, No and name of species of each group present)	ON POLLUCON MON POLLUCON MON POLLUCON MON POLLUCON DISCOURTED	Nematodes	Nematodes	Foraminifera ns Nematodes	Nematodes	Hydrozoa	Nematodes
6.3	Population	no/m²	706	676	853	645	587	674

BDL* - Below Detection Limit

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



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3E. DUMP POND WATER QUALITY ANALYSIS MONITORING: -

Table - Dump Pond Water Quality Analysis Results for the period: April-19 to Septembe

	N POLLUCON P		DLLUGON May-19 LLUCON N	August-19
	N POLLUCON POLLUCON POLLUCON POLLUCON PO POLLUCON POLLUCON POLLUCON POLLUCON POL		28/05/2019	29/08/2019
Sr. No.	Test Parameters	ucon pollucon d	Dump Pond Discharge -J3	Dump Pond (Near Rajiv Gandhi Statue)
N POLLUCON	pH on POLLUCON POLLUCON POLLUCON	LUGON POLICON	8.49	UCON POLLUC 8.1 OLLUCON M
PO 2. LUCON	Total Dissolved Solids	mg/L	1594	1368
ON 13 THEO	Total Suspended Solids	mg/L	28	orrigon borriggen borrigon b
on 14. Luco	Turbidity OLLICON POLLICON POLLICON PO	NTU	3.6N FOLLUCON N	LUCON POL 3.14 POLUCON
ON TOLLICON	BOD (3 Days @ 27 °C)	mg/L	LUCON POLILIAN POLLUCON POLLUCON POL	DELUCON POLLUCON POLLUCON POLLUCON POLLUCON PO
6.	Dissolved Oxygen	mg/L	GON POLLUCE ON POLLUCON POL	6.1
N POZUCON	COD N POLLUCON POLUCON POLLUCON POLLUCO	mg/L	LON POLLUC 60 POLLUCON POL	UCON POLLUCI52 POLLUCON P
PO 8. ICON	Salinity	ppt	0.25	0.23
N PO 9 LCON	Oil & Grease	mg/L	BDL*	BDL*
10.	Total Hardness as CaCO ₃	mg/L	612	574 574 NOTICE STATE OF THE STA
ON 11 LUCON	Fluoride as F	mg/L	0.45	0.34
12.	Chloride as Cl ON POLY ANN POLICION PO	mg/L	22 CON PA 139 POLLUCON PA	LUCON POL 127 POLUCON
on 13.	Zinc as Zn	mg/L	DULICON POL 0.21 POLLUCON PO	O.17 POLLUCON
14.1UCO	Cadmium as Cd	mg/L	DILUCON POLBOL* POLICON POL	BDL*
15.CON	Lead as Pb	mg/L	BDL*	BDL*
16.	Mercury as Hg	mg/L	BDL*	BDL*

BDL*: Below Detection Limit

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



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3F. STP TREATED WATER QUALITY ANALYSIS MONITORING: -

TABLE - STP TREATED WATER QUALITY ANALYSIS RESULTS FOR THE PERIOD: APRIL-19 TO SEPTEMBER

	TOLLUCON POLLUCON POLLUCON POL TOLLUCON POLLUCON POLLUCON POL	OILUCON POL	STP Treated Water Quality Analysis Results ICON POLLICON									
SR. NO.	TEST PARAMETERS	UNIT	April-19	May-19	June-19	July-19	Aug-19	Sep-19				
DON PO	OLLUCON POLLUCON POLLUCON POL LUCON POLLUCON POLLUCON POL POLLUCON POLLUCON POLLUCON P	THOON LOT THOON LOT THOON L	26/04/19	28/05/19	28/06/19	27/07/19	29/08/19	27/09/19				
	pHucon rollucon rollucon ro	DILUCON POL	7.16	7.25	7.32	7.41	7.52	7.63				
2.	Total Suspended Solids	mg/L	24	16	20	2N PC 17 CON P	14	17				
3.	BOD (3 Days @ 27 °C)	mg/L	19	16	11	14	18	13				
4.	Residual Free Chlorine	mg/L	0.6	0.8	0.6	0.8	0.6	0.8				
5.	Oil & Grease	mg/L	5.2	3.6	2.6	2.4	2.2	2.7				

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



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3G. AMBIENT NOISE LEVEL MONITORING:

Tables - 1 - Behind QHSE Office Ambient Noise Level Monitoring Results during the Day Time and Night Time in dB(A) Leq for the period of April 2019 to September 2019

ON POLLUCON POLLUCON POL	LICON POLLUCON PO		1 - Behind	QHSE Office		
Sampling Location	LICON POLLUCON PO	DELICON POLLUCON	During Day Tir	ne - dB(A)Leq [#]	ON POLICION POLL	ICON POLLUCON PO
Date of Monitoring	01/04/2019	01/05/2019	01/06/2019	01/07/2019	01/08/2019	02/09/2019
6:00-7:00	50.4	47.9	56.3	58.2	48.9	UCON 52.2 CON
7:00-8:00	56.5	57.0	58.3	48.3	55.7	60.9
8:00-9:00	52.2	49.2	48.4	50.2	45.6	47.1
9:00-10:00	55.8	54.5	50.5	55.1	60.3	51.8 N
10:00-11:00	100 60.5 con re	58.7	65.7	47.4	M 101 67.2 POLIC	44.2
11:00-12:00	47.3	44.8	44.9	58.7	48.3	50.8
12:00-13:00	72.3	73.9	53.8	40.3	52.1	54.3
13:00-14:00	67.5 LUCON	69.4	43.1	on rou54.4 roun	CON 1051.50N 100L	ucon 67.8 con
14:00-15:00	50.5	51.5	61.5	64.1	50.8	61.3
15:00-16:00	44.9	46.6	67.3	44.3	61.8	47.5
16:00-17:00	48.8 COM PO	47.1 UCON	51.5	40.3	46.3	48.8
17:00-18:00	58.2	58.9	55.5	50.1	50.9	50.9
18:00-19:00	46.6	45.0	52.8	62.1	47.3	54.9
19:00-20:00 CON IN	DELUCON55.3 LUCO	52.9	60.1	70L49.0 FOLL	CON 1/255.60N 1/OL	UCON 65.8 CON
20:00-21:00	50.7	52.6	46.4	41.9	48.4	42.8
21:00-22:00	44.3	42.4	47.3	51.8	59.2	45.5

N POLLUCON POLLUCON POL	LICON POL CON PO	DILUCON POLLUCON	1 - Behind	QHSE Office	ON POLLUCON POLLU	CON POLLUCON PO
Sampling Location	LLUCON TLLUCON	POLLUCON POLLUCO	During Night Ti	me - dB(A)Leq	#JON POLLUCON POL	LUCON POLLUCON
Date of Monitoring	01/04/2019 & 02/04/2019	01/05/2019 & 02/05/2019	01/06/2019 & 02/06/2019	01/07/2019 & 02/07/2019	01/08/2019 & 02/08/2019	02/09/2019 & 03/09/2019
22:00-23:00	58.9 LCON	60.6	граци61.7 година	61.2	66.2	65.9 con
23:00-00:00	41.2	39.0	39.8	38.1	44.3	40.3
00:00-01:00	66.4	64.4	65.2	60.4	65.8	62.9
01:00-02:00	48.3	49.6	OLUC 51.1	52.4	55.1	54.2
02:00-03:00	47.3	47.2	48.5	49.9	52.8	52.7
03:00-04:00	50.1	50.2	50.5	51.7	54.2	54.5
04:00-05:00	56.9	54.9	70LL 53.9 POLLUC	55.2	CON 1058.1 ON 101	100N 57.9con
05:00-06:00	47.1	47.9	47.2	48.2	50.9	51.2

[#]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.



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Tables -2 - PMC Office Back Side Ambient Noise Level Monitoring Results during the Day Time and Night Time in dB(A) Leq for the period of April 2019 to September 2019

N POLLUCON POLLUCON POL CAN POLLUCON POLLUCON PO	LLICON POLLUCON PO ILLICON POLLUCON	POLLUCON POLLUCON	2 - PMC Offi	ce Back Side	DN POLLUCON POLLUCION POL	CON POLITICON PO LUCON POLITICON		
Sampling Location	During Day Time - dB(A)Leq#							
Date of Monitoring	02/04/2019	02/05/2019	03/06/2019	02/07/2019	02/08/2019	03/09/2019		
6:00-7:00	60.3	59.2	51.8	55.4	53.2	70.1		
7:00-8:00	51.3	52.0	55.6	60.8	57.1	68.4		
8:00-9:00	48.9	49.0	60.0	46.0	50.1	51.3 CON		
9:00-10:00	52.5 ucon	51.0	70.3	47.9	68.7	55.1 con		
10:00-11:00	47.9	49.4	48.5	53.5	48.1	50.4		
11:00-12:00	41.6	41.9	44.1	68.9	55.5	61.6		
12:00-13:00	UCON 50.6 CON 10	52.3 LCON	60.3	52.7	50.6	44.6		
13:00-14:00	57.1	57.5	66.2	42.0	57.3	48.1		
14:00-15:00	45.9	45.2	58.1	56.5	49.1	54.4		
15:00-16:00	60.6 LCON	61.3	41.9	N POL 67.74 POLL	CON 10055.80N 110L	UCON 57.0 CON		
16:00-17:00	48.6	49.5	48.3	57.9	60.6	60.2		
17:00-18:00	45.7	44.2	52.1	54.5	45.9	45.6		
18:00-19:00	58.4 ON 19	59.0	55.2	50.9	44.6	65.4		
19:00-20:00	65.8	66.8	62.1	47.1	58.9	58.1		
20:00-21:00	57.2	57.6	44.5	51.7	49.8	46.2		
21:00-22:00	49.3	OLLUC(51.3) LLUCO	FOLLU 51.1	44.0	53.8°N FOL	62.1 CON		

ON POLLUCON POLLUCON POL	2 - PMC Office Back Side During Night Time - dB(A)Leq#							
Sampling Location								
Date of Monitoring	02/04/2019 & 03/04/2019	02/05/2019 & 03/05/2019	03/06/2019 & 04/06/2019	02/07/2019 & 03/07/2019	02/08/2019 & 03/08/2019	03/09/2019 & 04/09/2019		
22:00-23:00	40.1	37.8	37.3	50.2	52.7	52.8		
23:00-00:00	51.5 JCON	50.6	50.3	51.4	54.9	39.5		
00:00-01:00	55.6	56.2	56.2	57.3	60.1	60.2		
01:00-02:00	48.0	49.5	48.8	49.9	52.6	50.3		
02:00-03:00	61.5	61.3	60.7	62.1	65.6	64.8		
03:00-04:00	64.6	63.6	63.3	64.5	67.3	67.2		
04:00-05:00	50.8	49.8	49.9	50.9	53.8	53.8		
05:00-06:00	44.1	43.5	44.6	40.8	43.6	56.3		

[#]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.



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Tables - 3 - Sub Station - 6 Back Side Ambient Noise Level Monitoring Results during the Day

Time and Night Time in dB(A)Leq for the period of April 2019 to September 2019

Sampling Location	3 - Sub Station - 6 Back Side							
CON BOTTIEON BOTTICON DO	During Day Time - dB(A)Leq#							
Date of Monitoring	03/04/2019	03/05/2019	04/06/2019	03/07/2019	03/08/2019	04/09/2019		
6:00-7:00	49.6	51.2	65.3	61.5	68.2	56.4		
7:00-8:00	51.9	50.3	51.9	50.4	63.3	50.0		
8:00-9:00	LLUCO 44.7 LUCON	43.9	48.8	46.4	47.80 POL	67.1 CON		
9:00-10:00	51.0	52.2	42.6	42.2	50.7 N POL	61.2		
10:00-11:00	59.4	59.1	50.4	41.3	55.1	58.3		
11:00-12:00	50.2 CON 150	51.8	51.0	60.6	N 101 52.9 10111	50.1°N		
12:00-13:00	58.6	59.8	58.6	49.0	61.4	45.1		
13:00-14:00	47.1	48.5	61.6	54.4	51.8	54.6		
14:00-15:00	60.4	58.8	55.9	48.7	47.5	68.1		
15:00-16:00	52.9 UCON	51.1	53.1	46.0	CON (CO45.20N (COL	48.6		
16:00-17:00	60.8	60.4	62.4	55.1	59.7	51.5		
17:00-18:00	58.3	59.4	47.4	58.4	66.2	47.8		
18:00-19:00	48.3	48.3	56.2	48.1	48.6	65.2		
19:00-20:00	70.3	68.5	69.4	43.3	56.2	59.4		
20:00-21:00	48.2	49.9	50.7	49.2	65.2	64.4		
21:00-22:00	49.2	49.1	44.3	65.7	57.4 N FOL	UCON 43.8 CON		

ON POLLUCON POLLUCON POL	3 - Sub Station - 6 Back Side During Night Time - dB(A)Leq#							
Sampling Location								
Date of Monitoring	03/04/2019 & 04/04/2019	03/05/2019 & 04/05/2019	04/06/2019 & 05/06/2019	03/07/2019 & 04/07/2019	03/08/2019 & 04/08/2019	04/09/2019 & 05/09/2019		
22:00-23:00	58.3	59.6	60.1	61.5	64.4	64.2		
23:00-00:00	51.4	50.1	50.8	52.2	56.9	55.0 SON		
00:00-01:00	61.2	61.0	60.5	61.7	65.2	64.5		
01:00-02:00	49.2	50.3	51.5	52.8	55.6	55.3		
02:00-03:00	60.2	62.0	62.2	63.4	65.9	66.4		
03:00-04:00	66.8	64.7	64.1	62.2	68.1	68.0		
04:00-05:00	42.5	42.4	42.1	39.6	50.6	43.7		
05:00-06:00	48.2	45.7	45.3	46.3	42.9	48.8		

 $^{^{*}}$ 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.



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Tables - 4 - Sub Station - 8 (Marine Building) Ambient Noise Level Monitoring Results during the Day Time and Night Time in dB(A) Leq for the period of April 2019 to September 2019

ICON POLLUCON POLLUCON PO	4 -Sub Station - 8 (Marine Building) During Day Time - dB(A)Leq#							
Sampling Location								
Date of Monitoring	04/04/2019	04/05/2019	05/06/2019	04/07/2019	05/08/2019	05/09/2019		
6:00-7:00	58.1	57.2	47.5	42.0	58.2	67.5		
7:00-8:00	UCON 144.2 CON 10	43.6	51.3	49.2	65.3	55.2		
8:00-9:00	60.2	61.9	65.2	50.2	55.4	48.3		
9:00-10:00	66.8	64.5	50.1	55.3	48.7	51.4		
10:00-11:00	47.6	47.2	45.5	53.1	61.2	58.2		
11:00-12:00	51.2	50.7	47.8	48.1	54.8	47.4 con		
12:00-13:00	48.4	50.2	60.2	60.9	46.1	54.1		
13:00-14:00	60.1	61.4	65.1	54.0	49.3	68.2		
14:00-15:00	41.4 CON 10	43.4	70.1	41.9	53.1	60.6		
15:00-16:00	50.3	47.8	48.7	47.8	47.6	45.4		
16:00-17:00	46.2	45.9	53.2	49.4	48.5	49.8		
17:00-18:00	LLUCON 51.7 LUCON	49.6	55.1	54.2	70.80N POL	UCON 54.2 CON		
18:00-19:00	52.4	52.8	58.2	63.1	66.1	65.3		
19:00-20:00	65.1	62.6	61.1	59.2	68.3	59.2		
20:00-21:00	45.6	45.5 UCON	67.5	43.9	N 701 47.2 POLIL	45.2 N		
21:00-22:00	52.1	53.4	50.2	50.4	53.4	50.2		

CON POLLUCON POLLUCON PC	LUCON FOLL CON FOLLICON FOLL 4 -Sub Station - 8 (Marine Building) FOLLICON FOLLICON FOLLICON F							
Sampling Location	LUCON FOR LICON	POLLUCON POLLUCON	During Night Ti	me - dB(A)Leq	#N POLLUCON POLLUCON POL	LUCON POLLUCON I		
Date of Monitoring	04/04/2019 & 05/04/2019	04/05/2019 & 05/05/2019	05/06/2019 & 06/06/2019	04/07/2019 & 05/07/2019	05/08/2019 & 06/08/2019	05/09/2019 & 06/09/2019		
22:00-23:00	59.9	59.5	60.3	61.7	64.6	64.6		
23:00-00:00	53.1	51.0	51.0	52.2	56.2	54.7		
00:00-01:00	40.2	38.9	38.3	39.7	42.3	42.3		
01:00-02:00	48.8	49.4	50.9	52.4	55.2	54.9		
02:00-03:00	44.5	42.6	43.8	45.8	48.5	48.5		
03:00-04:00	46.1	44.4	43.5	44.6	47.3	47.4		
04:00-05:00	58.2	59.3	59.5	60.7	63.2	63.3		
05:00-06:00	61.3	60.3	60.6	58.2	65.3	65.2		

[#]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.



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Tables - 5 - Near Sub Station-7BAmbient Noise Level Monitoring Results during the Day Time and Night Time in dB(A) Leq for the period of April 2019 to September 2019

ICON POLLUCON POLLUCON PO	LLUCON POLLUCON	POLLUÇON POLLUÇON	5 - Near Sul	b Station-7B	ICON POLLUCON POL	LUCON POLITICON PO		
Sampling Location	Lucon follow follow follow During Day Time - dB(A)Leq#Lon follow follow follows							
Date of Monitoring	05/04/2019	06/05/2019	06/06/2019	05/07/2019	06/08/2019	06/09/2019		
6:00-7:00	55.2	55.7	61.2	60.8	60.1	67.2		
7:00-8:00	65.6	66.3	67.2	55.7	67.3	58.4		
8:00-9:00	50.1	50.0	48.1	51.7	57.2	50.3		
9:00-10:00	56.9	54.9	45.2	48.3	51.3	49.2		
10:00-11:00	49.5	49.8	51.6	44.6	58.7 N	61.5		
11:00-12:00	67.3	68.0	55.3	59.1	CON P. 61.5 N. POL	60.1		
12:00-13:00	56.1	56.3	61.3	56.8	68.1	48.2		
13:00-14:00	48.1	49.7	67.1	62.1	58.8	44.4		
14:00-15:00	UCON 155.1 CON 10	54.1	57.2	57.3	59.4	51.2		
15:00-16:00	54.2	53.2	51.2	51.7	55.3	54.8		
16:00-17:00	44.6	44.4	47.2	54.0	48.2	47.2		
17:00-18:00	71.2_ucov	69.0	44.2	46.6	CON POT1.20N POL	45.8 CON		
18:00-19:00	66.1	67.1	49.2	60.9	62.4	65.1		
19:00-20:00	56.7	55.5	52.3	52.1	50.2	56.2		
20:00-21:00	47.2 CON 1	48.0	62.3	44.6	N 701 69.1	64.3 N		
21:00-22:00	46.5	46.1	68.2	50.1	60.2	52.4		

CON POLLUCON POLLUCON PO	LLUCON POLL LON	POLLUCON POLLUCO	5 - Near Sul	Station-7B	CON POLLUCON POL	LUCON POLLUCON
Sampling Location	LLUCON FOR LICON	POLLUCON POLLUCON	During Night Ti	me - dB(A)Leq	#N POLLUCON POLL	LUCON POLLUCON PO
Date of Monitoring	05/04/2019 & 06/04/2019	06/05/2019 & 07/05/2019	06/06/2019 & 07/06/2019	05/07/2019 & 06/07/2019	06/08/2019 & 07/08/2019	06/09/2019 & 07/09/2019
22:00-23:00	51.3 CON PC	50.7 JCON	50.6	51.6	54.1 POLLU	54.1
23:00-00:00	56.6	58.3	59.6	60.9	63.8	63.8
00:00-01:00	60.1	61.6	61.0	55.5	64.9	65.1
01:00-02:00	59.2	57.4	58.3	59.7	62.2	62.6
02:00-03:00	55.2	56.7	58.0	59.3	61.9	62.1
03:00-04:00	67.1	62.2	62.4	56.9	66.1	66.5
04:00-05:00	50.9	48.5	49.5	51.5	54.4	55.6
05:00-06:00	43.5	41.6	40.6	41.6	44.1	41.9

[#]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.



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Tables -6 - JS - 1 (Nr. Lakhigam) Ambient Noise Level Monitoring Results during the Day Time and Night Time in dB(A) Leq for the period of April 2019 to September 2019

IEON POLLUCON POLLUCON PO	6 - JS - 1 (Nr. Lakhigam) During Day Time - dB(A)Leq#							
Sampling Location								
Date of Monitoring	06/04/2019	07/05/2019	07/06/2019	06/07/2019	07/08/2019	07/09/2019		
6:00-7:00	45.5	43.2	45.3	67.4	55.1	54.2		
7:00-8:00	50.8	50.0	48.4	56.3	58.4	48.3		
8:00-9:00	52.7	52.6	53.1	49.0	49.3	44.9		
9:00-10:00	45.4	44.1	51.5	50.9	61.5	51.7		
10:00-11:00	68.5	69.7	67.3	ON POL61.2	66.9	61.3 CON		
11:00-12:00	60.7 LICON	62.4	44.6	58.1	CON P. 47.9 ON POL	ucon 42.9 con		
12:00-13:00	58.4	60.0	47.5	44.7	55.6	45.5		
13:00-14:00	61.3	59.8	51.3	65.7	68.8	50.3		
14:00-15:00	58.9 con n	60.7 LCON	65.1	56.0	N POLESS.1	55.3 N PO		
15:00-16:00	44.4	46.2	68.6	50.1	75.2	58.5		
16:00-17:00	67.2	65.7	42.1	46.3	49.5	47.2		
17:00-18:00	61.9	62.8	46.1	on rol 60.7N roll	con re59.2 on rol	UCON 56.4 CON		
18:00-19:00	56.0	58.0	63.1	54.7	50.9	62.3		
19:00-20:00	66.1	67.5	56.9	49.0	52.8	60.8		
20:00-21:00	UCON 72.1 CON 1	1.UCO 70.2 UCON	60.7	61.2	47.6	CON PO 49.3 N PO		
21:00-22:00	47.5	46.7	48.5	48.5	53.2	51.6		

CON POLLUCON POLLUCON PO	LLUCON POLITICON POLITICON P 6 - JS - 1 (Nr. Lakhigam) LICON POLITICON POLITICON P							
Sampling Location	LLUCON FOR LICON	POLLUCON POLLUCON	During Night Ti	me - dB(A)Leq	#N POLLUCON POLL	LUCON POLLUCON PO		
Date of Monitoring	06/04/2019 & 07/04/2019	07/05/2019 & 08/05/2019	07/06/2019 & 08/06/2019	06/07/2019 & 07/07/2019	07/08/2019 & 08/08/2019	07/09/2019 & 08/09/2019		
22:00-23:00	51.7 CON PC	50.7	50.3	51.3	54.3	54.8		
23:00-00:00	65.6	61.4	62.0	61.2	63.2	50.6		
00:00-01:00	47.4	47.7	48.6	49.6	52.3	52.2		
01:00-02:00	58.1	57.9	58.1	59.4	62.1	62.1		
02:00-03:00	60.2	60.2	59.5	60.6	64.3	60.8		
03:00-04:00	44.3	46.2	45.6	47.1	49.7	42.6		
04:00-05:00	58.2	56.5	56.3	57.3	60.2	60.1		
05:00-06:00	41.1	41.3	40.6	41.7	44.3	49.3		

[#]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.



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Tables -7 - Behind S.S. - 11 (Silo) Ambient Noise Level Monitoring Results during the Day Time and Night Time in dB(A) Leg for the period of April 2019 to September 2019

ICON POLLUCON POLLUCON PO	ILLICON POLLUCON	POLLUCON POLLUCON	7 - Behind S	S.S 11 (Silo)	UCON POLLUCON POL	LUCON POLLUCON			
Sampling Location	LUCON POLLICON POLLICON POLLICON During Day Time - dB(A)Leq#CON POLLICON POLLICON POLLICON								
Date of Monitoring	08/04/2019	08/05/2019	08/06/2019	08/07/2019	08/08/2019	09/09/2019			
6:00-7:00	55.8	53.8	58.5	44.0	69.5	51.9			
7:00-8:00	UCON 65.7 COM N	64.3	60.3	51.5	48.3	47.6			
8:00-9:00	68.2	67.8	55.1	48.1	51.1	58.8			
9:00-10:00	47.4	45.2	48.6	62.1	66.2	55.6			
10:00-11:00	56.1	70LL 55.10LLUC	47.1	ON POL67.1 N POLU	55.9 N POL	61.6 ON			
11:00-12:00	50.6	48.7	68.7	63.1	60.8	67.9 on			
12:00-13:00	44.0	42.8	70.1	54.2	69.4	48.1			
13:00-14:00	66.7	66.4	45.2	48.5	64.7	51.3			
14:00-15:00	40.3 CON 18	61.5 MON	58.9	FOLL 53.1 POLLUC	60.5	44.5			
15:00-16:00	51.6	49.7	45.1	47.2	57.1	65.1			
16:00-17:00	45.1	43.9	61.7	56.5	61.4	46.9			
17:00-18:00	57.3 Lucon	57.6	69.5	ON POL61.8	45.6 N	UCON 50.4 CON			
18:00-19:00	50.3	48.1	56.2	54.3	51.8	59.6			
19:00-20:00	54.1	52.9	58.3	59.1	50.2	49.5			
20:00-21:00	JCON 71.2 CON 1	11UCO 72.2 LUCON	61.4	65.9	48.2	CON PO 54.6 N PO			
21:00-22:00	47.8	48.4	59.6	45.1	57.4	53.1			

CON POLLUCON POLLUCON PO	LLUCON POLL LON	POLLUCON POLLUCO	7 - Behind S.	S 11 (Silo)	ICON POLLUCON POL	LUCON POLLUCON I
Sampling Location	Independent desk	POLLUCON POLLUCON	During Night Ti	me - dB(A)Leq	#N POLLUCON POLLUCON POL	LUCON POLLUCON I
Date of Monitoring	08/04/2019 & 09/04/2019	08/05/2019 & 09/05/2019	08/06/2019 & 09/06/2019	08/07/2019 & 09/07/2019	08/08/2019 & 09/08/2019	09/09/2019 & 10/09/2019
22:00-23:00	42.8	41.6	41.0	42.5	45.2	45.2
23:00-00:00	47.1	48.3	47.9	49.8	52.7	52.3
00:00-01:00	41.5	38.9	40.3	41.6	44.4	44.1
01:00-02:00	51.6	52.9	52.4	53.6	56.3	56.2
02:00-03:00	59.1	56.9	57.3	58.4	61.0	61.1
03:00-04:00	53.2	53.2	53.7	54.8	57.6	57.6
04:00-05:00	67.3	59.5	59.6	60.9	63.6	63.9
05:00-06:00	60.9	62.8	64.1	65.4	67.9	50.3

[#]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.



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Tables - 8 -Nr. S&S Entry Gate (Dahej Road) & Silo Loading Point Ambient Noise Level Monitoring Results during the Day Time and Night Time in dB(A) Leq for the period of April 2019 to September 2019

JEON POLLUCON POLLUCON PO	8 - Silo Loading Point								
Sampling Location	LUCON POLLICON POLLICON POLLICO During Day Time - dB(A) Leq#con Pollucon Pollicon Pollicon								
Date of Monitoring	09/04/2019	09/05/2019	10/06/2019	09/07/2019	09/08/2019	10/09/2019			
6:00-7:00	58.2	58.8	52.3	55.2	56.8	60.6			
7:00-8:00	54.2	55.5	44.5	46.1	68.3	58.6			
8:00-9:00	44.2	43.0	46.7	72.1	48.4	51.4			
9:00-10:00	43.1	42.9	58.1	59.0	50.8	67.4			
10:00-11:00	44.9	46.9	60.5	54.3	CON PO57.70N POL	47.3 CON			
11:00-12:00	47.0	45.1	68.0	67.6	58.6	50.5			
12:00-13:00	61.2	61.8	48.2	53.1	59.8	48.7			
13:00-14:00	45.6	44.9	44.3	64.8	65.3	55.1			
14:00-15:00	58.8	59.3	60.2	47.1 OLLUC	55.2	57.4 m			
15:00-16:00	60.2	61.3	68.3	45.1	50.1	48.5			
16:00-17:00	66.8	66.8	59.3	50.5	51.9	45.8			
17:00-18:00	57.2	57.5	58.2	N POL 47.5	CON POS1.40N POL	UCON 61.1 CON			
18:00-19:00	47.6	48.5	51.8	61.8	71.2	67.6			
19:00-20:00	65.3	68.9	55.5	52.1	62.4	52.1			
20:00-21:00	48.8	46.4	71.2 USAN	58.2	N 701 49.9 POLLU	46.2			
21:00-22:00	51.7	53.1	61.2	68.3	57.2	56.3			

ICON POLLUCON POLLUCON PC	LLUCON POLL LON	POLLUCON POLLUCO	8 - Silo Loa	ading Point	ICON POLLUCON POL	LUCON POLLUCON I
Sampling Location	LLUCON FOR LICON	POLLUCON POLLUCON	Ouring Night Ti	me - dB(A) Leq	# POLLUCON POL	LUCON POLLUCON I
Date of Monitoring	09/04/2019 & 10/04/2019	09/05/2019 & 10/05/2019	10/06/2019 & 11/06/2019	09/07/2019 & 10/07/2019	09/08/2019 & 10/08/2019	10/09/2019 & 11/09/2019
22:00-23:00	65.1 CON PC	64.2	63.3	64.8	67.5	65.1
23:00-00:00	48.1	46.0	45.5	47.1	50.0	49.6
00:00-01:00	41.2	40.7	40.9	41.9	44.8	44.7
01:00-02:00	50.5	48.7	48.7	49.7	52.4	52.5
02:00-03:00	55.7	54.7	55.2	56.6	59.1	59.4
03:00-04:00	58.3	58.5	58.3	59.7	62.2	62.7
04:00-05:00	49.1	50.9	50.7	52.1	54.7	54.7
05:00-06:00	44.4	42.7	42.6	43.9	46.8	46.9

[#]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.



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Tables -9 - GCPTL Gate Ambient Noise Level Monitoring Results during the Day Time and Night Time in dB(A) Leq for the period of April 2019 to September 2019

SEON POLLUCON POLLUCON PO	LUCON POLLUCON POLLUC								
Sampling Location	LUCON POLLICON POLLICON POLLICON During Day Time - dB(A)Leq#con Pollicon Pollicon Pollicon								
Date of Monitoring	10/04/2019	10/05/2019	11/06/2019	10/07/2019	10/08/2019	11/09/2019			
6:00-7:00	56.6	57.8	61.3	57.1	65.2	55.2			
7:00-8:00	UCON 46.1 COM N	45.5 MCON	65.5	51.5	N POLI70.1	58.3			
8:00-9:00	59.1	59.4	44.8	61.8	58.7	47.4			
9:00-10:00	53.4	54.4	48.0	48.1	60.4	51.8			
10:00-11:00	48.2	48.2	51.9	ON POL65.1 NOLU	CON POSO.SON POL	44.6 ON			
11:00-12:00	60.6	61.2	55.3	57.5	CON P. 51.3 ON POL	11con 53.2			
12:00-13:00	65.2	66.6	69.1	63.1	54.5	40.3			
13:00-14:00	68.3	68.7	59.2	47.1	68.2	60.1			
14:00-15:00	UCON 62.1 CON 18	61.4	41.2	44.8	55.8 FOLL	67.2			
15:00-16:00	50.1	47.2	48.3	65.1	54.8	58.2			
16:00-17:00	47.2	47.8	55.6	54.2	60.7	50.9			
17:00-18:00	58.3 Lucov	59.9	59.1	on rol.46.1 N roll.	CON 1165.8 ON 1101	UCON 61.2 CON			
18:00-19:00	55.6	56.2	47.7	52.2	69.2	54.4			
19:00-20:00	70.2	69.2	51.6	58.6	51.5	45.2			
20:00-21:00	43.6	11UCO 44.2 LUCON	57.2	47.4	ON POLL53.34 POLLL	49.6			
21:00-22:00	60.9	61.1	68.4	44.1	50.3	51.2			

ICON POLLUCON POLLUCON PO	LLUCON POLICON POLLUCON POLLUC							
Sampling Location	LLUCON FOR LICON	POLLUCON POLLUCON	During Night Ti	me - dB(A)Leq	#N POLLUCON POLL	LUCON POLLUCON I		
Date of Monitoring	10/04/2019 & 11/04/2019	10/05/2019 & 11/05/2019	11/06/2019 & 12/06/2019	10/07/2019 & 11/07/2019	10/08/2019 & 11/08/2019	11/09/2019 & 12/09/2019		
22:00-23:00	61.3	62.5	62.7	63.2	65.1	64.7		
23:00-00:00	66.2	63.2	64.2	60.3	68.2	66.5		
00:00-01:00	56.1	53.8	54.6	55.6	58.6	58.5		
01:00-02:00	42.7	42.2	39.5	40.6	43.4	40.3		
02:00-03:00	66.8	58.6	60.1	61.3	63.8	64.2		
03:00-04:00	55.2	53.5	54.9	56.1	58.9	59.1		
04:00-05:00	65.3	64.6	65.7	63.8	69.5	55.6		
05:00-06:00	50.1	50.4	51.9	53.4	56.1	56.4		

[#]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.



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Tables - 10 - Lakhi Village (Primary School) Ambient Noise Level Monitoring Results during the Day Time and Night Time in dB(A) Leg for the period of April 2019 to September 2019

ICON POLLUCON POLLUCON PO	10 - Lakhi Village (Primary School)								
Sampling Location	LLICON POLLICON POLLICON POLLICO During Day Time - dB(A)Leq# CON POLLICON POLLICON POLLICON								
Date of Monitoring	11/04/2019	11/05/2019	12/06/2019	11/07/2019	12/08/2019	12/09/2019			
6:00-7:00	60.1	62.0	57.1	47.3	61.2	48.2			
7:00-8:00	UCON 43.4 COM 1	41.5 MCON	67.5	48.5	58.3	60.3 N			
8:00-9:00	74.6	71.0	47.2	51.2	46.4	55.4			
9:00-10:00	51.4	51.2	51.4	60.3	60.2	42.8			
10:00-11:00	48.1	48.3	55.2	44.8	68.1	47.1 CON			
11:00-12:00	шисо 44.1 шисом	42.4	65.2	58.2	48.7	52.6 on			
12:00-13:00	40.8	41.3	60.1	65.3	47.4	58.1			
13:00-14:00	56.2	56.1	58.8	45.1	55.3	60.2			
14:00-15:00	UCON 47.3 CON P	47.0 Mcon	54.2	FOLU 51.2 POLUC	48.6	65.4 N			
15:00-16:00	58.1	57.3	44.2	56.3	43.4	42.6			
16:00-17:00	51.3	51.4	40.9	48.8	62.8	44.4			
17:00-18:00	47.1 Lucon	48.9	51.2	62.4 POLICE	CON 1143.3 ON 1101	UCON 49.2 CON			
18:00-19:00	60.4	61.6	53.8	55.3	58.2	50.1			
19:00-20:00	67.8	67.1	62.3	42.1	54.3	56.2			
20:00-21:00	UCON 58.5 (CON)	1.UCO 57.1 LUCON	67.2	47.8	ON POLISINA	CON PO 45.4 N PO			
21:00-22:00	59.2	60.8	46.2	60.1	60.1	59.1			

CON POLLUCON POLLUCON PO	LUCON FOUR CONTROL 10 - Lakhi Village (Primary School) POLIUCON POLIUCON POLIUCON P							
Sampling Location	LLUCON FOR LICON	POLLUCON POLLUCON	During Night Ti	me - dB(A)Leq	#N POLLUCON POLL	LUCON POLLUCON I		
Date of Monitoring	11/04/2019 & 12/04/2019	11/05/2019 & 12/05/2019	12/06/2019 & 13/06/2019	11/07/2019 & 12/07/2019	12/08/2019 & 13/08/2019	12/09/2019 & 13/09/2019		
22:00-23:00	60.1	62.0	62.6	64.1	66.8	65.2		
23:00-00:00	51.2	52.7	52.2	53.2	56.2	55.7		
00:00-01:00	47.3	48.4	47.5	48.6	51.3	51.4		
01:00-02:00	40.1	39.4	39.2	40.2	43.1	41.3		
02:00-03:00	44.2	45.3	46.6	47.7	50.5	50.7		
03:00-04:00	65.8	55.9	57.2	58.4	60.9	61.3		
04:00-05:00	67.2	54.3	54.3	55.8	58.5	58.7		
05:00-06:00	55.6	55.8	55.5	56.8	59.4	59.6		

[#]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.



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Tables -11 - ERMS Workshop Ambient Noise Level Monitoring Results during the Day Time and Night Time in dB(A) Leq for the period of April 2019 to September 2019

HEON POLITICON POLITICON FOR	ELECON POLITICON P	POLLUCON POLLUCON	11 - ERMS	Workshop	ON POLLUCON POLIL JEON POLLUCON POL	LUCON POLLUCON FO			
Sampling Location	During Day Time - dB(A)Leq#								
Date of Monitoring	12/04/2019	13/05/2019	13/06/2019	12/07/2019	13/08/2019	13/09/2019			
6:00-7:00	69.1	67.3	44.3	46.2	51.8	56.2			
7:00-8:00	44.3	46.0	58.7	61.5	47.4	50.2			
8:00-9:00	60.5	60.1	60.6	ON 100 53.3 N POLL	55.4	48.3			
9:00-10:00	50.1	47.9	51.5	48.8	48.9	60.2			
10:00-11:00	48.4	45.7	65.0	50.9	60.8	51.1			
11:00-12:00	62.6	62.9	71.3	58.9	65.8	58.6			
12:00-13:00	48.0	46.5	47.3	49.2	46.2	45.3			
13:00-14:00	51.1	49.8	48.5	58.0	50.9	62.2			
14:00-15:00	46.6	44.4	51.9	53.1	59.8	57.4			
15:00-16:00	61.1	59.1	58.3	60.2	56.1	48.9			
16:00-17:00	60.2	60.3	61.8	42.2	65.2	50.4			
17:00-18:00	43.8	42.8	41.7	58.8	45.8	68.3			
18:00-19:00	44.2	42.9	53.6	43.1	52.8	61.6			
19:00-20:00	51.4	50.1	60.3	55.3	70.1	53.2			
20:00-21:00	53.9	52.2	52.3	47.1	44.8	59.1			
21:00-22:00	52.7	тошис54.6 ошисс	N FOLL 50.4	43.5	59.2	46.2 CON 1			

IN POLLUCON POLLUCON POL	11 - ERMS Workshop During Night Time - dB(A)Leq#							
Sampling Location								
Date of Monitoring	12/04/2019 & 13/04/2019	13/05/2019 & 14/05/2019	13/06/2019 & 14/06/2019	12/07/2019 & 13/07/2019	13/08/2019 & 14/08/2019	13/09/2019 & 14/09/2019		
22:00-23:00	49.8	51.7	52.4	53.4	56.3	56.1		
23:00-00:00	53.1	53.3	54.5	55.7	58.2	58.7		
00:00-01:00	57.2	58.8	60.2	58.6	64.3	64.4		
01:00-02:00	47.1	48.0	48.2	49.3	52.3	51.9		
02:00-03:00	43.1	41.4	41.1	40.9	40.3	44.9		
03:00-04:00	66.2	63.7	64.2	59.7	68.1	67.7		
04:00-05:00	44.2	45.2	45.5	46.8	49.5	49.4		
05:00-06:00	51.5	53.4	52.8	53.9	56.5	56.8		

[#]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.



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GPCB apprved



Tables - 12 - Behind Pump House Ambient Noise Level Monitoring Results during the Day Time and Night Time in dB(A) Leq for the period of April 2019 to September 2019

JEON POLLUCON POLLUCON PO	12 - Behind Pump House								
Sampling Location	LUCON POLLICON POLLICON POLLICON During Day Time - dB(A)Leq# CON POLLICON POLLICON POLLICON P								
Date of Monitoring	13/04/2019	14/05/2019	14/06/2019	13/07/2019	14/08/2019	14/09/2019			
6:00-7:00	48.1	50.4	50.3	59.8	49.8	68.5			
7:00-8:00	67.2 COM N	67.5	55.7011100	POLLU51.1 POLLUC	N POL 55.1	53.4			
8:00-9:00	60.4	60.5	47.6	67.5	51.7	57.1			
9:00-10:00	46.4	46.1	48.1	49.1	68.9	44.6			
10:00-11:00	45.1 UCON	45.0	61.4	48.8	CON PC44.4 ON POL	47.1 CON T			
11:00-12:00	52.2	53.2	73.5	60.0	49.7	UCON 51.5 CON			
12:00-13:00	74.3	74.4	61.1	46.1	52.1	52.9			
13:00-14:00	45.6	46.8	48.7	65.8	61.9	50.6			
14:00-15:00	JCON 67.1 CON R	66.8	58.2	54.2 POLLUC	48.8	61.9			
15:00-16:00	48.5	46.2	51.4	41.3	59.4	55.2			
16:00-17:00	49.2	44.7	55.9	46.6	60.4	58.2			
17:00-18:00	55.3 Lucon	54.9	60.4	on rol44.4N roll	CON 11 68.7 ON 1101	UCON 49.2 CON I			
18:00-19:00	57.0	55.5	67.3	50.0	70.2	63.2			
19:00-20:00	60.9	58.5	63.1	48.8	44.6	50.9			
ON POL 20:00-21:00 N POL	48.3 CON 1	11UCO 49.7_LUCON	гоцис53.1	57.1 POLLEG	N POL 49.2 POLIL	20N PO 48.7 N PO			
21:00-22:00	58.8	56.3	59.2	45.0	50.8	54.1			

CON POLLUCON POLLUCON FO	LUCON FOLL CON POLLUCON FOLLUCON F 12 - Behind Pump House LUCON POLLUCON FOLLUCON POLLUCON PO							
Sampling Location	LUCONITO (CON	POLLUCON POLLUCON	During Night Ti	me - dB(A)Leq	#N POLLUCON POLL	LUCON POLLUCON I		
Date of Monitoring	13/04/2019 & 14/04/2019	14/05/2019 & 15/05/2019	14/06/2019 & 15/06/2019	13/07/2019 & 14/07/2019	14/08/2019 & 15/08/2019	14/09/2019 & 15/09/2019		
22:00-23:00	41.6	39.8	40.4	48.6	43.9	44.3		
23:00-00:00	55.6	54.1	53.9	55.2	57.9	57.3		
00:00-01:00	44.5	44.5	44.1	50.2	47.6	48.1		
01:00-02:00	67.1	64.6	64.0	65.4	68.7	55.3		
02:00-03:00	55.1	53.5	52.7	53.7	56.7	56.3		
03:00-04:00	41.3	39.2	40.0	52.3	43.8	44.2		
04:00-05:00	48.7	48.4	48.7	49.8	52.7	52.8		
05:00-06:00	43.7	44.6	44.9	38.2	49.0	49.7		

[#]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.



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Tables - 13 - Rock Bond Approach (Jetty) Ambient Noise Level Monitoring Results during the Day Time and Night Time in dB(A) Leg for the period of April 2019 to September 2019

JEON POLLUCON POLLUCON PO	13 - Rock Bond Approach (Jetty)								
Sampling Location	LUCON POLLICON POLLICON POLLICO During Day Time - dB(A)Leq# CON POLLICON POLLICON POLLICON								
Date of Monitoring	15/04/2019	15/05/2019	15/06/2019	15/07/2019	15/08/2019	16/09/2019			
6:00-7:00	56.3	56.4	61.2	66.8	61.8	57.6			
7:00-8:00	UCON 52.1 CON 0	53.3 Lucon	51.8	51.2	57.3	61.5			
8:00-9:00	55.4	55.4	55.4	53.2	50.2	48.8			
9:00-10:00	51.0	52.9	58.4	50.9	70.8	50.8			
10:00-11:00	59.5	59.8	68.9	58.2	61.2	60.6			
11:00-12:00	60.6	60.4	59.4	48.6	68.3	UCON 55.3 CON			
12:00-13:00	69.2	68.5	42.3	50.2	58.4	47.5			
13:00-14:00	47.4 CONT	46.7	47.4	49.2	61.7	46.1			
14:00-15:00	50.8	50.3 MOON	44.1	61.5	51.3	68.2			
15:00-16:00	48.9	48.0	51.6	57.2	45.5	61.4			
16:00-17:00	56.1	55.1	65.2	46.8	55.8	51.6			
17:00-18:00	LLUCO 65.2 LUCON	64.0	48.2	on rol 50.0 N roll	CON 1160.1 ON 1101	UCON 58.1 CON			
18:00-19:00	50.3	49.1	61.3	41.5	58.2	48.1			
19:00-20:00	59.2	55.6	68.2	60.2	53.4	47.6			
20:00-21:00	UCON 44.6 CON 1	LLUCO 45.1 LUCON	70.6	59.6	ON 1001.65.41 POLIL	53.6 N PO			
21:00-22:00	61.2	59.6	44.4	51.2	66.2	59.3			

CON POLLUCON POLLUCON PO	LUCON FOLL CON POLLUCON FOLLUC 13 - Rock Bond Approach (Jetty) M POLLUCON POLLUCON POLLUCON PO							
Sampling Location	Independent desk	POLLUCON POLLUCON	During Night Ti	me - dB(A)Leq	#N POLLUCON POLLUCON POL	LUCON POLLUCON I		
Date of Monitoring	15/04/2019 & 16/04/2019	15/05/2019 & 16/05/2019	15/06/2019 & 16/06/2019	15/07/2019 & 16/07/2019	15/08/2019 & 16/08/2019	16/09/2019 & 17/09/2019		
22:00-23:00	45.1 CON PO	44.9	OLUCC45.1	46.1	48.8	48.6		
23:00-00:00	47.3	46.8	47.0	48.4	51.2	51.3		
00:00-01:00	52.1	51.2	50.9	52.1	54.6	55.0		
01:00-02:00	54.3	52.4	54.3	N FOLI 55.5	58.4	58.4		
02:00-03:00	68.1	57.5	56.9	58.2	60.8	61.8		
03:00-04:00	46.4	43.9	43.3	44.3	47.3	46.9		
04:00-05:00	48.1	48.2	47.8	37.2	53.4	51.8		
05:00-06:00	40.9	40.8	40.7	43.2	44.5	44.5		

[#]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.



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Tables -14 - New Gate Ambient Noise Level Monitoring Results during the Day Time and Night Time in dB(A) Leq for the period of April 2019 to September 2019

CON POLLUCON POLLUCON P	BILLICON POLLICON POLICON POLLICON POLL								
Sampling Location	PLLICON POLLICON POLLICON POLLICO During Day Time - dB(A)Leq#ICON POLLICON POLLICON POLLICON								
Date of Monitoring	16/04/2019	16/05/2019	17/06/2019	16/07/2019	16/08/2019	17/09/2019			
6:00-7:00	57.3	57.3	55.2	61.1	63.8	48.5			
7:00-8:00	UCON 55.1 CON N	53.5	50.5	46.6	47.8	ON 70 51.3 N 70			
8:00-9:00	60.3	58.7	67.2	51.8	54.8	65.3			
9:00-10:00	67.6	69.3	68.4	45.6	55.3	47.9			
10:00-11:00	56.2 Solver	55.0	72.2	48.2	60.2	44.3 CON			
11:00-12:00)uco 57.1_ucon	54.8	гоц 44.7	59.2	CON P 67.8 N POL	UCON 68.1 CON			
12:00-13:00	50.2	51.9	51.7	58.2	58.1	55.6			
13:00-14:00	70.3	68.3	55.8	61.4	65.1	51.2			
14:00-15:00	13.6 CON 18	73.8 LCON	47.5	47.8	N POL 47.3	42.10N ro			
15:00-16:00	49.8	50.0	51.3	65.1	50.5	47.2			
16:00-17:00	58.6	56.6	48.3	43.5	53.8	53.1			
17:00-18:00	52.4 LUCON	51.5	59.1	ON POLISS.1N POLIL	CON 1052.90N 101	UCON 61.2 CON			
18:00-19:00	59.6	56.9	44.8	60.6	48.1	67.3			
19:00-20:00	67.3	67.0	65.8	44.8	62.8	50.1			
20:00-21:00	LICON 47.1ICON	48.7 John	60.5	53.9	IN POLIG7.2 POLIL	ON PO 44.8 N PO			
21:00-22:00	41.3	41.9	58.1	61.4	48.4	60.8			

ON POLLUCON POLLUCON I	DULUCON POLL CON		14 - Ne	w Gate					
Sampling Location	DILUCON POLICION	During Night Time - dB(A)Leq#							
Date of Monitoring	16/04/2019 & 17/04/2019	16/05/2019 & 17/05/2019	17/06/2019 & 18/06/2019	16/07/2019 & 17/07/2019	16/08/2019 & 17/08/2019	17/09/2019 & 18/09/2019			
22:00-23:00	40.2	41.5	41.9	43.2	46.0	45.7			
23:00-00:00	55.3	53.0	53.4	54.4	59.3	57.1			
00:00-01:00	56.2	56.4	56.7	57.8	60.4	60.3			
01:00-02:00	41.4	38.9	39.7	40.9	43.7	40.6			
02:00-03:00	66.3	58.0	58.1	59.1	62.2	62.9			
03:00-04:00	60.1	61.4	61.5	63.5	66.5	66.5			
04:00-05:00	59.8	58.6	59.3	60.3	62.8	63.1			
05:00-06:00	51.3	53.2	53.6	54.6	57.1 FOLLO	57.6			

[#]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.



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Tables - 15 - Security Barrier Gate Ambient Noise Level Monitoring Results during the Day Time and Night Time in dB(A) Leq for the period of April 2019 to September 2019

UCON POLLUCON POLLUCON PO	15 - Security Barrier Gate During Day Time - dB(A)Leq#								
Sampling Location									
Date of Monitoring	17/04/2019	17/05/2019	18/06/2019	17/07/2019	17/08/2019	18/09/2019			
6:00-7:00	48.2	49.9	56.3	47.2	62.2	66.1			
7:00-8:00	JCON 51.6 COM 0	50.5 MCON	44.2	51.3	55.6	CON 10 55.10N 10L			
8:00-9:00	60.8	62.0	50.1	48.4	42.4	69.3			
9:00-10:00	53.6	54.4	55.3	50.6	66.1	52.6			
10:00-11:00	62.1	62.8	60.1	ON POL53.1 POLU	48.2	47.3 CON II			
11:00-12:00	53.2	50.9	69.2	61.5	56.6	11.4 CON 11			
12:00-13:00	60.1	58.9	47.8	46.6	54.2	50.3			
13:00-14:00	54.2 CON 1	54.1 54.1	44.9	57.5	58.5	60.1			
14:00-15:00	55.6 con 1	57.2 Meon	60.2	46.8	47.2	57.2 N POL			
15:00-16:00	45.2	43.5	68.3	50.8	51.2	48.2			
16:00-17:00	44.8	44.3	69.3	66.2	68.1	62.1			
17:00-18:00	55.2 Lucon	53.0	51.2	on rol 47.3 v roll	CON 1160.5 ON 1101	UCON 51.9 CON I			
18:00-19:00	67.8	66.4	43.4	59.2	53.3	61.3			
19:00-20:00	58.1	59.2	65.3	65.3	50.1	69.1			
20:00-21:00	GON 60.7 CON 1	62.3 LICON	47.2	47.6	DN POLIGIA POLIL	CON PO 47.40N POL			
21:00-22:00	47.3	48.4	56.2	58.6	49.5	54.2			

CON POLLUCON POLLUCON PO	LLICON POLITICON POLLUCON F15 - Security Barrier Gate LICON POLLUCON POLLUCON POLLUCON P							
Sampling Location	LLUCON FOR LICON	POLLUCON POLLUCON	During Night Ti	me - dB(A)Leq	#N POLLUCON POLL	LUCON POLLUCON PO		
Date of Monitoring	17/04/2019 & 18/04/2019	17/05/2019 & 18/05/2019	18/06/2019 & 19/06/2019	17/07/2019 & 18/07/2019	17/08/2019 & 18/08/2019	18/09/2019 & 19/09/2019		
22:00-23:00	48.2	48.9	50.4	51.7	M POLL 54.7 POLLU	54.2		
23:00-00:00	52.4	52.3	53.8	54.9	57.7	57.8		
00:00-01:00	60.3	59.6	59.0	60.3	63.2	62.8		
01:00-02:00	50.6	48.8	49.3	50.7	53.5	53.6		
02:00-03:00	54.1	56.1	55.4	56.6	59.6	59.4		
03:00-04:00	45.6	45.0	45.7	46.9	49.6	49.6		
04:00-05:00	42.1	42.9	43.6	44.6	47.1	47.3		
05:00-06:00	40.6	42.2	41.8	42.8	41.9	45.4		

[#]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.



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Tables - 16 - JS-2 Ambient Noise Level Monitoring Results during the Day Time and Night Time in dB(A) Leq for the period of April 2019 to September 2019

SEON POLLUCON POLLUCON PO	LLUCON POLLUCON POLLUCON POLLUCON POLLUCON P164-75-2 LUCON POLLUCON POLLUCO								
Sampling Location	LUCON POLLICON POLLICON POLLICO During Day Time - dB(A)Leq#con POLLICON POLLICON								
Date of Monitoring	18/04/2019	18/05/2019	19/06/2019	18/07/2019	19/08/2019	19/09/2019			
6:00-7:00	44.2	46.7	68.4	53.2	52.5	51.7			
7:00-8:00	60.1 COM	56.6	50.9	50.9	68.2	58.5			
8:00-9:00	51.3	49.4	51.5	57.6	48.2	68.3			
9:00-10:00	58.2	60.2	70.3	52.8	59.3	54.7			
10:00-11:00	60.0	7011 55.5 OLLUCC	44.8	55.6	CON PC51.5 ON POL	69.1			
11:00-12:00	63.8	61.5	60.2	45.9	50.5 N POL	47.5			
12:00-13:00	61.5	59.3	68.3	50.8	55.8	55.2			
13:00-14:00	47.2 CON I	49.2	58.4	66.1	49.9	58.1			
14:00-15:00	44.5 CON P	46.1	56.7	POLL 55.1 POLLUC	70.8	50.0			
15:00-16:00	60.3	61.6	45.5	61.5	66.3	65.1			
16:00-17:00	55.4	55.3	47.6	48.4	67.7	70.1			
17:00-18:00	48.1	46.9	48.5	on rol 52.9 roll	49.8	48.6 ON			
18:00-19:00	51.4	51.4	58.1	55.6	57.1	66.1			
19:00-20:00	65.2	65.4	53.3	60.6	60.8	48.8			
20:00-21:00	UCON 58.1 (CON)	11UCO 58.6 LUCON	гошис 61.1	41.3	ON 1001 63.44 POLIL	54.4 N PO			
21:00-22:00	60.4	62.4	60.5	45.9	52.3	57.2			

CON POLLUCON POLLUCON FO	LLUCON POLL LON	POLLUCON POLLUCO	POLLUCON M16 -	JS-2 LUCON POLL	ICON POLLUCON POL	LUCON POLLUCON I			
Sampling Location	During Night Time - dB(A)Leq#								
Date of Monitoring	18/04/2019 & 19/04/2019	18/05/2019 & 19/05/2019	19/06/2019 & 20/06/2019	18/07/2019 & 19/07/2019	19/08/2019 & 20/08/2019	19/09/2019 & 20/09/2019			
22:00-23:00	51.2 CON PC	48.7	49.1	50.5	52.9	53.3			
23:00-00:00	47.4	48.1	48.0	49.1	51.7	51.3			
00:00-01:00	56.2	53.8	54.3	55.7	58.2	58.2			
01:00-02:00	42.1	44.8	42.9	40.3	47.2	47.3			
02:00-03:00	57.8	58.2	58.4	59.9	60.8	62.6			
03:00-04:00	48.4	50.3	50.0	51.1	54.8	54.1			
04:00-05:00	51.6	50.6	50.3	51.7	55.6	54.7			
05:00-06:00	47.1	48.0	47.5	48.9	51.5	51.9			

[#]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.



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Tables - 17 - Railway Dead End Ambient Noise Level Monitoring Results during the Day Time and Night Time in dB(A) Leq for the period of April 2019 to September 2019

JEON POLLUCON POLLUCON PO	17 - Railway Dead End								
Sampling Location	LUCON POLLICON POLLICON POLLICO During Day Time - dB(A)Leq#con Pollucon Pollicon Pollicon								
Date of Monitoring	19/04/2019	20/05/2019	20/06/2019	19/07/2019	20/08/2019	20/09/2019			
6:00-7:00	59.3	51.2	44.1	50.0	53.3	55.6			
7:00-8:00	JCON 53.4 COM 0	54.4 MGON	71.10LUC	45.8	55.2	60.9			
8:00-9:00	51.5 con p	52.7	55.8	66.1	58.8	48.5			
9:00-10:00	44.9	46.3	60.1	55.1	62.8	45.5			
10:00-11:00	56.8	7011 57.7 ОШИСС	67.5	48.2	59.2	50.6			
11:00-12:00	51.6	45.2	65.8	44.4	52.2 M	68.2			
12:00-13:00	70.2	71.1	43.6	46.3	49.7	61.2			
13:00-14:00	50.7	52.2 LICON	48.3	60.2	54.5	47.7			
14:00-15:00	4CON 68.3 CON 1	66.5 MOON	50.2	POLLU41.1 POLLUC	POLISTATI POLILI	58.2			
15:00-16:00	59.4	60.0	53.2	47.8	64.8	51.5			
16:00-17:00	67.2	67.7	47.3	52.2	62.3	56.2			
17:00-18:00	46.2	46.6	61.4	ON POL58.8 N POLIL	CON 1169.1 ON 1101	UCON 69.2 CON			
18:00-19:00	67.8	69.7	62.3	60.6	50.7	63.1			
19:00-20:00	48.0	48.8	51.8	58.9	63.1	46.3			
20:00-21:00	LICON 51.1 ICON P	Liuco 53.0 Lucon	46.2	56.3	N 101 49.4	CON PO 53.3 N PO			
21:00-22:00	48.2	49.3	50.1	50.2	55.9	60.4			

CON POLLUCON POLLUCON PO	LLUCON POLL LON	POLLUCON POLLUCO	17 - Railwa	y Dead End	ICON POLLUCON POL	LUCON POLLUCON I
Sampling Location	LUICON FOI LOON	POLLUCON POLLUCON	During Night Ti	me - dB(A)Leq	#N POLLUCON POLL	LUCON POLLUCON I
Date of Monitoring	19/04/2019 & 20/04/2019	20/05/2019 & 21/05/2019	20/06/2019 & 21/06/2019	19/07/2019 & 20/07/2019	20/08/2019 & 21/08/2019	20/09/2019 & 21/09/2019
22:00-23:00	40.6	40.4	39.7	40.8	43.3	43.6
23:00-00:00	55.4	53.2	52.3	53.3	56.8	55.8
00:00-01:00	66.1	65.0	64.2	64.2	67.9	68.3
01:00-02:00	41.3	39.4	38.6	39.7	42.4	42.7
02:00-03:00	60.4	60.0	60.6	61.8	64.5	64.4
03:00-04:00	68.3	57.1	58.3	59.4	62.4	62.2
04:00-05:00	64.2	54.5	53.8	55.3	55.4	58.1
05:00-06:00	52.6	53.3	53.6	54.8	57.3	57.8

[#]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.



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Tables -18 - S and S Yard (South)and Open Storage Yard - 1 Ambient Noise Level Monitoring Results during the Day Time and Night Time in dB(A) Leg for the period of April 2019 to September 2019

N POLLUCON POLLUCON POLL	ICON POLLICON POL								
Sampling Location	During Day Time - dB(A) Leq#								
Date of Monitoring	20/04/2019	21/05/2019	21/06/2019	20/07/2019	21/08/2019	21/09/2019			
6:00-7:00	14CON 58.3 4CON	OLLUC 59.9 LUCO	56.2	M 701 49.2	70.2 M POL	JCON 60.1 CON			
7:00-8:00	45.6	43.2	44.2	68.5	65.7	67.2			
8:00-9:00	50.6	51.3	50.0	57.2	58.5	48.3			
9:00-10:00	43.3 DN PO	43.9	51.1	60.6	52.4	50.2			
10:00-11:00	59.2	57.9	55.4	43.8	48.1	51.9			
11:00-12:00	63.1	63.6	47.7	48.2	50.3	48.7			
12:00-13:00	53.6 CON	ош (51.1) шисе	46.1	60.2	50.6	47.4			
13:00-14:00	LUCON 44.4 LICON	43.5	58.3	50.7	58.1	JCON 57.5			
14:00-15:00	51.7	50.0	55.9	40.6	55.4	45.9			
15:00-16:00	56.3	54.5	68.2	45.2	61.5	52.2			
16:00-17:00	JCON 57.8 CON 70	57.8	42.1	59.1 olluci	N 701 65.2 10111	69.7			
17:00-18:00	60.2	58.4	44.7	61.5	53.1	53.1			
18:00-19:00	68.5	69.0	51.4	55.8	47.8	59.7			
19:00-20:00	11100 47.4 UCON	46.8	59.1	62.6	67.4 N POL	GON 60.2 CON			
20:00-21:00	49.8	47.9	60.7	58.0	52.9	52.8			
21:00-22:00	56.1	55.2	66.1	44.2	48.9	59.2 N PC			

CON POLLUCON POLLUCON PC NATOLLUCON POLLUCON PC	BEON POLLEC PO	ELUÇON POLLUCON I	18 – Open Sto	orage Yard – 1	CON POLLUCON POL ON POLLUCON POLLU	CON POLLUCON			
Sampling Location	During Night Time - dB(A) Leq#								
Date of Monitoring	20/04/2019 & 21/04/2019	21/05/2019 & 22/05/2019	21/06/2019 & 22/06/2019	20/07/2019 & 21/07/2019	21/08/2019 & 22/08/2019	21/09/2019 & 22/09/2019			
22:00-23:00	54.2	53.9	53.7	54.9	57.8	57.5			
23:00-00:00	67.1	58.4	57.9	59.1	60.7	61.7			
00:00-01:00	51.8	52.4 CON	OLLUC 53.1 LUCON	54.2	48.2	57.7			
01:00-02:00	48.9	47.4	46.6	47.8	50.4	50.4			
02:00-03:00	42.5	40.9	40.7	39.6	45.2	45.5			
03:00-04:00	66.2	64.6	64.8	66.9	69.8	69.6			
04:00-05:00	51.5 ICON	52.7	51.9	53.1	55.9	55.6 ON			
05:00-06:00	44.4	44.5	44.8	45.8	48.7	48.7			

[#]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.



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Tables -19 -S & S Yard (North) Boundary Wall Loco Shed Ambient Noise Level Monitoring Results during the Day Time and Night Time in dB(A) Leq for the period of April 2019 to September 2019

CON POLLUCON POLLUCON PO	19 – Loco Shed During Day Time - dB(A) Leq#							
Sampling Location								
Date of Monitoring	22/04/2019	22/05/2019	22/06/2019	22/07/2019	22/08/2019	23/09/2019		
6:00-7:00	50.1	50.8	51.2	67.5	60.1	51.3		
7:00-8:00	61.2	59.2	50.4	50.2	51.2	44.3		
8:00-9:00	48.3	48.2	47.4	58.4	66.2	47.3		
9:00-10:00	43.6	45.5	55.2	68.3	47.4	52.3		
10:00-11:00	60.6	60.4	40.2	52.8	57.2 NO	68.1		
11:00-12:00	ucon54.5_ucon	52.9	44.3	40.3	51.8 N POL	65.4 on		
12:00-13:00	53.1	53.5	52.8	51.2	50.4	48.2		
13:00-14:00	44.1	44.1	65.3	44.4	62.5	55.8		
14:00-15:00	UCON F51.2 CON PO	50.1 LCON	69.3	66.1	N POLL 50.8 POLLU	ON TO 51.4 N TO		
15:00-16:00	47.3	46.5	59.0	65.9	55.3	42.9		
16:00-17:00	59.6	66.7	51.7	48.4	69.2	49.2		
17:00-18:00	LLUCO 52.3 LUCON	51.9	48.1	M rol. 43.6	56.8	UCON 153.6 CON		
18:00-19:00	55.6	57.4	42.4	41.7	65.1	57.1		
19:00-20:00	56.7	54.6	65.1	50.0	44.5	46.8		
20:00-21:00	GON 60.5 CON 1	LUCON 58.3 LICON	50.6	51.2 одде	N POLL 62.7 POLLU	ON PO 45.3 N PO		
21:00-22:00	44.3	46.0	47.1	48.6	58.2	55.9		

CON POLLUCON POLLUCON PO	LUCON FOLL CON POLLUCON POLLUCO POLLUCO Shed on POLLUCON								
Sampling Location	During Night Time - dB(A) Leq#								
Date of Monitoring	22/04/2019 & 23/04/2019	22/05/2019 & 23/05/2019	22/06/2019 & 23/06/2019	22/07/2019 & 23/07/2019	22/08/2019 & 23/08/2019	23/09/2019 & 24/09/2019			
22:00-23:00	47.2 CON 10	48.8	OLUCC50.1	51.6	M 104 54.6	54.8			
23:00-00:00	58.1	59.3	60.1	61.6	64.3	64.6			
00:00-01:00	42.4	41.1	38.7	52.2	42.7	55.3			
01:00-02:00	60.1	60.9	62.3	63.6	66.2	66.6			
02:00-03:00	47.6	49.6	49.3	38.6	53.0	40.9			
03:00-04:00	57.5	58.5	58.7	60.1	63.1	62.8			
04:00-05:00	59.2	57.3	58.6	60.2	62.9	63.3			
05:00-06:00	51.7	50.4	49.5	50.7	53.6	53.7			

[#]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.



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Tables - 20 - Lakhi Village (Below Conveyer Belt) Ambient Noise Level Monitoring Results during the Day Time and Night Time in dB(A) Leg for the period of April 2019 to September 2019

UCON POLLUCON POLLUCON PO	20 - Lakhi Village (Below Conveyer Belt)								
Sampling Location	LUCON POLLICON POLLICON POLLICON During Day Time - dB(A)Leq# ON POLLICON POLLICON POLLICON P								
Date of Monitoring	23/04/2019	23/05/2019	24/06/2019	23/07/2019	23/08/2019	24/09/2019			
6:00-7:00	56.2	54.0	47.2	57.2	56.2	54.1			
7:00-8:00	UCON 55.1 (CON 1)	56.2 SON	51.3	60.2	58.3	45.1 N PO			
8:00-9:00	57.3	58.1	58.2	45.9	70.7	55.1			
9:00-10:00	60.8	60.5	60.8	48.5	48.4	47.2			
10:00-11:00	47.0	46.2	59.2	ON 10143.5 101U	60.2	45.7 CON 1			
11:00-12:00	58.6	58.2	47.8	65.9	68.8	58.4 on			
12:00-13:00	60.7	61.2	51.6	41.1	59.1	51.2			
13:00-14:00	57.5 CON P	56.4	50.3	47.2	47.2	50.1			
14:00-15:00	54.2 con a	54.8	42.8	44.8	49.1	46.2			
15:00-16:00	64.4	63.8	53.1	45.9	61.2	49.1			
16:00-17:00	44.6	43.4	60.3	59.1	67.1	53.2 53.2 53.2 53.2 53.2 53.2 53.2 53.2			
17:00-18:00	49.9	48.5	66.2	46.2	50.2 on 101	UCON 50.3 CON			
18:00-19:00	47.8	45.4	55.3	67.2	56.4	52.1			
19:00-20:00	43.2	42.8	41.3	57.2	45.8	54.8			
20:00-21:00	LICON 44.8 CON 1	45.7 LUCON	48.2	48.6	N 101 49.2	CON PO45.20N PO			
21:00-22:00	57.6	55.6	58.7	50.0	52.8	62.9			

CON POLLUCON POLLUCON FO	20 - Lakhi Village (Below Conveyer Belt) During Night Time - dB(A)Leq#							
Sampling Location								
Date of Monitoring	23/04/2019 & 24/04/2019	23/05/2019 & 24/05/2019	24/06/2019 & 25/06/2019	23/07/2019 & 24/07/2019	23/08/2019 & 24/08/2019	24/09/2019 & 25/09/2019		
22:00-23:00	56.1	56.4	OLUICC55.7 LUCON	57.2	60.5	59.9		
23:00-00:00	46.2	45.5	47.0	48.4	51.8	54.2		
00:00-01:00	41.1	42.1	40.3	61.2	44.2	44.5		
01:00-02:00	50.8	49.7	50.5	51.8	64.7	54.3		
02:00-03:00	48.2	46.4	47.1	39.9	50.9	50.9		
03:00-04:00	53.2	51.2	52.4	53.8	56.6	56.7		
04:00-05:00	54.7 54.7	56.2	57.6	59.4	62.1	62.1		
05:00-06:00	50.5	51.7 JCON	52.6	53.7	56.4	56.2		

 $^{^{*}}$ 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.



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3H. DG SETS STACK EMISSION AND NOISE LEVEL MONITORING: - POLICE

Table No.: 3H.1 - DG Sets Stack Emission Monitoring Results for the period: April-19 to September-19

Sr.	Parameters	Parameters Unit		DG Set # 1MRSS (SS5)		DG Set # 2 (SS7B)		DG Set # 3Marine (SS8)		DG Set # 4Silo (SS11)	
No.	Parameters	Oilit	MAY-19	AUG-19	MAY-19	AUG-19	MAY-19	AUG-19	MAY-19	AUG-19	
1	Particulate Matter	mg/Nm³	20.83	16.84	23.46	19.58	26.37	23.41	18.61	26.33	
2	Sulphur Dioxide	ppm	7.92	5.8	6.22	7.6	8.66	6.46	5.57	8.57	
3	Oxide of Nitrogen	ppm	28.63	36.77	34.57	31.47	31.83	38.53	36.47	40.22	
4	Non Methyl Hydro Carbon (NMHC)	mg/m³	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	
5	Carbon Monoxide (CO)	mg/m³	3.96	3.82	6.74	5.82	4.91	5.0	2.54	2.41	

Table No.: 3H.2 - DG Sets Noise Level Monitoring Results for the period: April-19 to September-19

S: No	DG Set Average Noise Level In Leq. dB(A)					
Sr. No.	Sampling Location	At 1 m from the enclose outside				
	Sampling Date	MAY-19	AUG-19			
1.	DG Set # 1MRSS (SS5)	70.6	71.2			
2.	DG Set # 2 SS7B	68.3	67.5			
3.	DG Set # 3 Marine (SS8)	71.5	72.6			
4.	DG Set # 4 Silo (SS11)	72.8	71.5			



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<u>Annexure-4</u>: Compliance Status of EMP as mentioned in the EIA study For Phase-III Expansion of Adani Petronet (Dahej) Port Pvt. Ltd., September 2019:

S. No.	EMP Conditions	Compliance Status
A.	ENVIRONMENTAL MANAGEMENT PLAN (CONSTRUCTION PHASE)
1.1	Air Quality Management Plan	30.1011.0011011111.02,
	Dust suppression systems will be installed for fugitive dust emission control while undertaking civil works.	
	undertaken on the paved and unpaved artillery roads. Vehicle tyre washing facilities will be provided at the entrance to prevent spillover of dust sticking on tyre outside	Complying with. Regular wetting of roads is undertaken on the paved and unpaved arterial roads. Complied Vehicle tyre washing system has been
	the facility. Construction materials kept in open area will be provided with barrier in order to prevent wind carryover of dust. Construction materials transportation in and outside the port will be appropriately covered to prevent fugitive dust	Construction material is being kept in a secure area. Complying with. Material transportation is being done
	emissions. Civil and Mechanical fabrication works will be carried out within the port facility at an appropriate location to avoid impact on the local air quality at project construction site.	Civil and Mechanical fabrication is being done within the port premises.
	All construction equipment's at site will be subjected to regular maintenance to minimize the vehicle exhaust.	, , -
	All trucks deployed at site will be a provided with fitness and pollution under control certificate.	
	DG set with appropriate stack height as per CPCB guidelines for effective dispersion of pollutants shall be provided.	
1.2	Noise Quality Management Plan	
	DG set with acoustic enclosure will be installed for power supply to construction activities.	All DG sets (standby source) are provided with acoustic enclosures.
	All high decibel noise generating equipment's should be repaired to meet the compliance noise level. No activity involving with high intensity	Complying with. Noise generating equipment's are provided with acoustic enclosures. Complying with.
	and magnitude of operation should be deployed. Silencers will be provided in Vehicle exhaust.	All construction and operation
		done by M/s Pollucon Laboratories,

S.	EMP Conditions	Compliance Status
No.		NABL accredited and MoEF&CC recognized laboratory. • Monitoring reports are presented in the Annexure 3G.
	Onsite fabrication activities will be undertaken at a designated location, which should be located away from the office buildings and any other working areas.	been provided.
	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 will be installed.	exceeding the noise level at the port
	Portable diesel engine generators and diesel engine driven compressors, if any, will be covered with acoustic enclosures.	Complying with.
1.3	Sewage Management Plan	
	Sewage generated from the construction site will be treated in existing STP of 27 m ³ capacity. Treated water will be used for green belt	Domestic effluent is being treated in STPs. The treated water confirming to
	development / landscaping after achieving GPCB prescribed standards.	
1.4	Solid and Hazardous Waste Management F	Plan
	Solid waste generated will be segregated	Complying with.
	at source for biodegradable and non- biodegradable with an option of reuse or recycle before disposal	for biodegradable and non- biodegradable.
		 Biodegradable waste is being decomposed in Bioneer and other waste is being disposed in compliance to the Solid Waste Management Rules - 2016.
	All hazardous waste generated will be categorized as per Hazardous Waste Management Rules, 2008.	' ' =
	authorized recyclers	Complying with. Recyclable waste such as used oil etc. is being sold to authorize recyclers only.
1.5	Construction Phase Storm Water Runoff	
	Existing storm water drainage network will be further strengthened and developed near the project site to prevent surface runoff to the sea.	Storm water drainage system has been
B.	ENVIRONMENTAL MANAGEMENT PLAN (_
2.1	Air Quality Management Plan - Coal Handl	ing and Stock Yard Area:

S. No.	EMP Conditions	Compliance Status
	Appropriate stack height will be provided to DG sets to disperse the gases into the atmosphere as per the guidelines suggested by Central Pollution Control Board.	All DG sets (standby source) are provided with stack height in compliance to the
	Existing Port has installed robust dry fog dust suppression system (DFDS) at the Jetty, conveyor belt, transfer tower, and discharge point at coal stack yard area. Various types of water spray nozzles have been installed and the water spray is carried out through atomized water spray over the sources using compressors thereby controlling the fugitive dust effectively. Total number of nozzles installed in the port is 350 nos. It is recommended to maintain the same systems for the proposed project activities	All dust control systems are maintained
	At coal stack yard, 100 sprinklers have been installed to control fugitive coal dust emissions. At a time 4 sprinklers will be operated and consumes water around 3600 LPM. Similarly, for the proposed expansion of port from 11.7 to 23 MMTPA such a robust DFDS and Sprinklers will be installed and maintained with maximum efficiency.	 Complying with. At coal stack yard, 100 sprinklers are maintained and operating well. Pavement of the additional storage area is completed. Installation of water sprinklers and other DSS measures will be complete before storage of coal.
	To prevent wind carryover of dust from coal stack yard, wind barrier have been erected around the coal stock pile area at a height of 14m from the ground level. The wind barrier is of galvanized sheet with perforated holes to withstand high velocity wind has been fitted in the structural beams and erected in solid foundation thereby effectively control the wind carryover of dust from the stock piles.	Wind breaker of the same specification shall be provided in the additional storage area once completed.
	undertaken using mobile van thereby preventing settled dust gets airborne due to movement of vehicles and high wind velocity and the same is recommended. High capacity vacuum cleaning machine installed at mobile truck is deployed for removal of dust settled on roads and the same practices will be implemented in the proposed project.	, ,
		Complying with. Sprinkling of water is being done on the roads to control the dust.

S.	EMP Conditions	Compliance Status
No.	water consumption. The same will be	
	implemented in the proposed activities.	
2.2	Noise Control Management Plan	
	High speed rotating equipments such as gantry cranes motors, hydraulic systems will be installed within-built acoustic systems to maintain the noise decibel as per the manufacturer specifications	Mechanization of the south jetty is yet to be done.
	DG sets installed in open area will be	Complying with
	provided with acoustic enclosure	DG sets installed in open area will be provided with acoustic enclosure
	Compressors and Diesel generators and pump house will be installed in separate building provided with noise absorbing materials on the walls	Complying with. Compressor and DG sets are installed in separate building and provided with acoustic enclosures.
	Movement of vehicles within the port will be restricted with speed control measures	, , ,
	Using silent exhaustion pipes for major diesel engine vehicles and heavy trucks operated inside the port	
	Planting trees which acts as barrier to arrest dispersion of noise levels along the internal roads and port boundary	Complying with. Green belt is being developed in an area of 18.0 ha including periphery of the project boundary.
	Using electricity powered equipment inside the port instead of diesel powered ones will be explored to the extent possible	Liebherr & Gottwald Crane, Stacking &
	·	Complying with. APDPPL is certified with the ISO 14001:2015. A proper change management process in place for any kind of deviation. However, there is no occurrence of noise level exceeding norms.
2.3	Storm Water Management Plan	
	Following areas will be provided with storm water drainage systems to prevent any surface run-off in to the sea. • Reclamation of 23 Ha back up area • Coal stock pile development of 7.7 Ha area • Railway siding area	Complying with. Coal stock pile and Railway siding area are provided with storm water drainage. Reclamation of 23 Ha area is being done.
	 The drainage water will be channeled through a series of sediment traps to remove the majority of the coal sediment 	Complied with. Runoff from the coal storage is being routed through dump pond where all the particles settled down.

S.	EMP Conditions	Compliance Status
No.	before discharging into the natural	
	drains.	
2.4	Solid & Hazardous Waste Management	
	Plan	
	Port operator will prepare the robust	, , -
	waste management plan for the entire operations, process carried out during	· · · · · · · · · · · · · · · · · · ·
	operations, process carried out during operation. As part of the plan, a	· · · · · · · · · · · · · · · · · · ·
	scavenging boat will be anchored for	
	collection of waste due to windblown in to	
	the sea.	
	In addition to the plan, the wastes that are	, , -
	expected to be generated will be disposed	
	accordingly. The hazardous waste generated from the port operation will be	compliance to the respective waste
	disposed as per the HWM Rules 2008.	management roles as amended in 2010.
	Solid Waste generated during port	
	operations will be disposed as per Solid	
	Waste (Management & Handling) Rules	
	2000. Wherever possible the recycle and	
	reuse will be explored for possibilities of	
	recovery of any useful material. Option for recycle/reuse if not economical, then the	
	waste will be disposed as per the SWM	
	Rules, 2000.	
2.5	Green Belt Development Plan:	
	It is proposed to develop nearly 6 ha. of	, , ,
	green cover all along the boundary of the	
	·	in an area of 18.0 ha including periphery
	implemented at Eastern project site along the boundary. Saplings of Casuarina and	, , ,
	Pedilanthus are planted along the coal	
	stacking yards and periphery of port area.	
	It is proposed to develop further three tier	
	greenbelt to increase efficiency of dust	
2.6	control.	
2.6	Community Development Plan The proposed CSR programs are based on	Complied
	the needs felt and socioeconomic	·
	indicators of the study. The proposed CSR	,
	programs can be initially implemented in	
	the five villages of the study area that is	
	Lakhigam, Luvara, Jageshwar, Ambetha	
	and Dahej. Based on the outcome of the	
	CSR programs, it can be expanded to the other villages apart from the study area.	
	The proposed CSR Programs can be	
	grouped into the following subheadings.	
	Health Promotions Programs	
	······································	

S. No.		EM	P Conditions		
	✓		Camps and Health	h	
	Awareness programs or				
	Institutional Births and Immunization programs				
✓ Mobile Clinic					
Education Promotion Programs					
	✓	•	sustenance funds for		
			g School Infrastructure king water Facilities		
			facilities and providing		
		supplies et			
		-	cholarship programs		
		•	hing centre opment Programs		
			centre regarding various	IS	
		governmen	it schemes and latest		
		technology			
	~	Skill D Programs	evelopment Training	g	
	Won	nen Empowe	erment		
	✓	Sanitation	Promotion Programs		
	✓		on and Maintenance of	of	
	/	Sanitation Awareness	•		
			evelopment Programs		
	✓	Developing	internal roads of villages	s	
	✓ Developing drainage systems				
✓ Solar Street Lights✓ Construction / Maintenance of					
		Community		•	
		Social Fore			
2.7	Villag	ge Spe lopment Pre	ecific Infrastructur ograms:	re	
	S. No.	Village	Programs		
	1.	Luvara	Developing proper	٢	
			drainage system in the	9	
	2.	Dahai	village. Providing Safe Drinking	_	
	2.	Dahej	water Facilities in the	-	
			schools		
	3.	Dahej	Developing medical		
			facilities in the PHC		
			such as facilities for storage of perishable		
			medicines,	-	
	4.	Jageshwar	Developing Drainage	9	
		1 -1.1 :	System	_	
	5.	Lakhigam	Developing Drainage System	5	
	6.	Lakhigam	Developing Solar Street	t	
		Luvara	Light and Internal		
		Jageshwar	Village Roads		

S. No.		EMF	Conditio	ons	Compliance Status
140.	7.	Ambetha	Developi	ng Drainage	
			System	3	
	8.	Study Area		linic providing	
		Villages		facilities in the	
			_	of the study naving periodic	
			visits	and health	
			camps.		
	9.	Study Area		-	
		Villages	_	facilities at	
			area.	in the study	
	10.	Jageshwar	Providing	g training	
			program	-	
				gy of fishing,	
			free equipme	fishing nts and	
			providing		
				programme for	
			alternate	income	
	<u>L</u> .		source.		
2.8	APPI	onmental M PL has al		nt Cell stablished and	Complied
		rtained	an	Environmenta	· · · · · · · · · · · · · · · · · · ·
					Environment Management Cell with
	Depa	ertment (EHS	S), suppor	ted by field leve	qualified manpower for implementation
		utives ar			of the Environment Management Plan.
		ementation Jitions as			Detail of the Environment cell is enclosed as Annexure – 7.
			•	GPCB Consen	
	Cond	ditions. f	Periodical	monitoring	
			-	rtaken by MoEf	
		gnized ar ronmental	nd NAE	BL accredited laboratories	
			complian	ce reports are	
			•	MoEF regiona	
		e, Vadodara			
				gthened in viev	
		•	•	n by augmenting lower and field	
				compliance of	
		ronmental	clearanc	•	
				program will be	
	unde NAB		MoEF redited	ecognized and environmenta	
				environmenta mpliance repor	
		•		ission to GPCB	
	MoE	F Regional C		dodara and Nev	
2.0	Delh Cost		<u>. f</u>	Fouison	
2.9		Estimate agement Pla		Environmenta	
		_		of the proposed	Complied.
	proje	ect is Rs.46	54.32 Cro	res. Under the	

S. No.	EMP Conditions	Compliance Status
140.	project, about Rs.173.35 Crores is allocated towards pollution control equipment, implementation of environmental pollution control measures and environmental management programs.	Environmental Management and Socio Economic activities. • Key components of environment

			Ar	nnexure - 5	Green Zone Details - APDPPL,Dahej					
Sr.no.	Green Zone No	Location	Area in (Hect.)	Tree (No.)	Tree Spp.	Shrubs (Sq. Mt.)	Green Carpet (Sq.Mt.)	Palm	Remarks	FY
			0.45	500	Delonix regia/ Peltoforum /casurina (3 x3 m)			25		
		PMC office area Landscape / old pump house /Road side	0.23	250	Cassia semia/peltoforum/conocarpus (3 x3 m)	1000	1500			
	1 (0 ()		0.20	450	Coconut spp./ fruit trees (1.5 x 3 m)]			Implemented	2010-11
'	68 (a)	Back side lakhibaba temple &Boundary site plantation (phase -1)	0.39	1300	Casurina Equsitifolia (1.5x 2 m)	0	0			
		Back side lakhibaba temple &Boundary site plantation (phase -1 a)	0.27	600	Casurina Equsitifolia (1.5x 3 m)	0	0	0	Implemented	2011-12
		Total	1.54	3100		1000	1500	25		
		Gcptcl boundary wall site plantation (phase-1)	1.35	6000	Casurina Equsitifolia (1.5x 1.5 m)				Implemented	
2	68 (b)	APPPL office area (SS-7)	0.32	400	Delonix regia /peltoforum/conocarpus/neem (2x4 m)	800	8000	200	Implemented	2011-12
		Gcptcl boundary wall site plantation (phase-1 a)	0.11	500	eucalyptus/ conocarpus (1.5x 1.5 m)	0	0	0	Implemented	
		Total	1.78	6900		800	8000	200		
3	68(C)	LNG Site Boundry wall site plantation	0.90	4000	Casuarina Equsitifolia /conocarpus(1.5x 1.5 m)	0		500	Implemented	2012 2017
4	68 (d)	Stack yard	0.68	3000	Casurina Equsitifolia/Eucalyptus /conocarpus(1.5x 1.5 m)	0	0	0	Implemented	2012-2013
		Total	1.58	7000		0	0	500		
		Road site Avenue tree plantation	0.68	1500	Casurina Equsitifolia/Conocarpus (1.5x 3 m)	3000	200	200		2013-2014
5			1.44	1600	Conocarpus (3x3 m)				Implemented	
			0.90	1500	Conocarpus (2x3m)					2013-2014
		Total	3.02	4600.00		3000	200	200		
			0.24	525.00	Casurina Equsitifolia (1.5x 3 m)				Implemented	
			0.35	220.00	Conocarpus (4x4 m)				Implemented	
6	60 (f)	Main gate Area Periobery /FHS/Pead side	0.23	500.00	Golden Bamboo (1.5x 3 m)				Implemented	2014-15
	68 (f)	Main gate Area Periphery /EHS/Road side	0.60	500	Azardirecta indica /peltoforum/ Casurina (3x 4 m)				Implemented	2015-16
			0.256	320	Conocarpus /Casurina/forest trees (2x4 m)	3450	2500		Implemented	
			0.324	810	Conocarpus /Casurina (2x 2 m)	1			Implemented	1
		Total	2.0	2875.0		3450	2500	0		
			0.15	255	Conocarpus /Casurina (2x 3 m)	0	0			
7		Coal yard area /Railway yard	1.13	5000	Casurina Equsitifolia/conocarpus (1.5x1.5 m)	0	0	2000	Implemented	2016-17
/]	1.13	5000	Casurina Equsitifolia/conocarpus (1.5x 1.5m)		0		Implemented	2017-18
			2.40	10255.00		0	0			
		Permenant Godown area	0.36	1380	Shrubs and forest tree plantation	1500	2100	100	Implemented	
		Coal Yard Area	1.14	2861	Conocarpus /Casurina (2x 2 m)	1200	0	0	Implemented	2018-19
		Periphery road side	0.68	3000	eucalyptus /conocarpus(1.5x 1.5 m)	0	0		Implemented	
		Total	2.18	7241.00		2700.00	2100.00	2000.00		
	Tre	ees Total Green Zone Area (Ha)	14.484450	41971.00		10950.00	14300.00	2925.00		
	Shrub/ca	rpet /palm Total Green Zone Area (Ha)	3.695			1.095	1.43	1.17		
		Total Green Zone Area (Ha)	18.17945							

Annexure - 6: Environment Budget and Expenditure for the FY: 2019-20

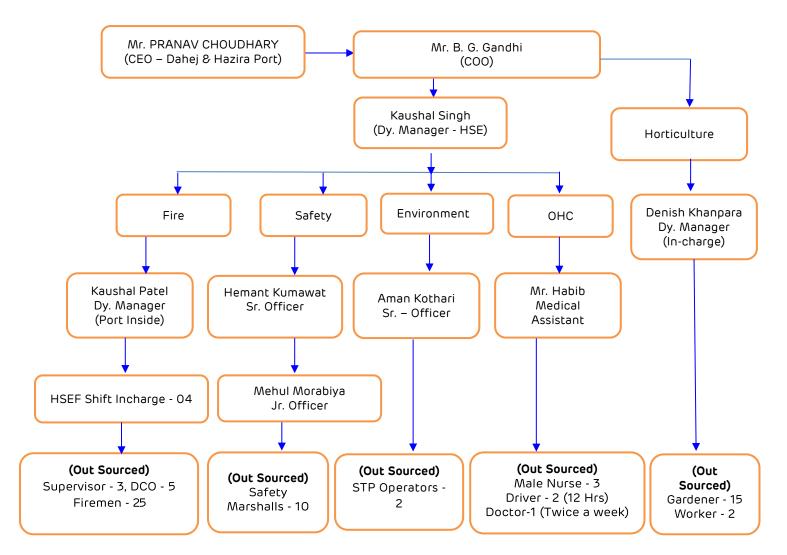
S. NO.	ACTIVITY/ CATEGORY	BUDGET (IN LAC)	EXPENDITURE (IN LAC)
1.	EHS Manpower	7.12	3.56
2.	Legal & Statutory Expenses	2.00	0.00
3.	Environmental Monitoring Services	23.10	18.30
4.	Water Consumption	61.20	24.84
5.	Hazardous Waste Management & Disposal	3.00	1.17
6.	Greenbelt Development and Plantation	50.59	25.29
7.	O&M of Pollution control measures	7.05	3.52
8.	Environment Day Celebration	0.50	0.50
9.	Treatment and Disposal of Bio-Medical Waste	1.92	1.92
10.	Operation and Maintenance of Road Cleaning equipment and manpower	26.30	13.15
11.	Operation and Maintenance of Fire staff	83.98	41.99
12.	Marine Ecology / Shoreline Monitoring	15.0	8.27
13.	Ergonomics and Health-hygiene Survey	1.50	0.0
	TOTAL AMOUNT (IN LACS)	283.26	142.51

	CAPITAL EXPENDITURE					
S. NO.	ACTIVITY/ CATEGORY	BUDGET (IN LAC)	EXPENDITURE (IN LAC)			
1.	Horticulture Development	22.50	10.09			
2.	EHS Display Board	5.0	2.5			
3.	Sewage Treatment Plant	35.0	15.0			
	TOTAL AMOUNT (IN LACS)	62.5	27.59			

Annexure - 7: Organogram of APPPL - Environment Management Cell

ADANI PETRONET (DAHEJ) PORT PVT. LTD.

Dept.: QHSE Management Cell



	Details of Environment Cell						
S. No.	Name	Designation	Qualification	Work Experience			
1.	Kaushal Singh	Dy. Manager -HSE	Dip-Mech, PGDFS, NEBOSH	12 Years			
2.	Denish Khanpara	Dy. Manager	B.Sc. Horticulture, Post Diploma In Environment Technology (PDIEMT)	12 Years			
3.	Kaushal Patel	Dy. Manager	B.Sc. Fire, Post Diploma In Environment Technology (PDIEMT)	14 Years			
4.	Hemant Kumawat	Sr. Officer	Dip – Mech, Dip. In Fire & Safety, NEBOSH	10 Years			
5.	Aman Kothari	Sr. Officer	M.Sc. Environment Science & Technology, PDIS	8 Years			
6.	Mehul Morabiya	Jr. Officer	B.Sc. Fire & Safety, Advance Diploma in Industrial Safety, NEBOSH	9 Years			

Half Yearly Report (2019 -20)

ADANI FOUNDATION, DAHEJ (GUJARAT)















SUSTAINABLE GROWTH
WITH GOODNESS

The Adani Foundation is the Corporate Social Responsibility arm of Adani Group with a vision to "Accomplish passionate commitment to the social obligations towards communities, fostering sustainable and integrated development, thus improving quality of life". It's an integrated infrastructure conglomerate that is committed to inclusive growth and sustainable development in not only the communities it operates in, but also in contributing towards nation building.

The Adani Foundation - Dahej has been running several activities and catering to the needs of the local people residing in 7 core and 5 peripheral villages. Our target population is 33467 beneficiaries comprising of 7839 families of these 12 project villages. The main castes are *Koli Patel, Rajput, Ahir and other castes are SC/ST & minorities*.

The activities performed under the CSR initiatives of the Adani Foundation fall under:

- Education
- Community Health
- ◆ Sustainable Livelihood Development
- ◆ Community Infrastructure Development

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Special Projects

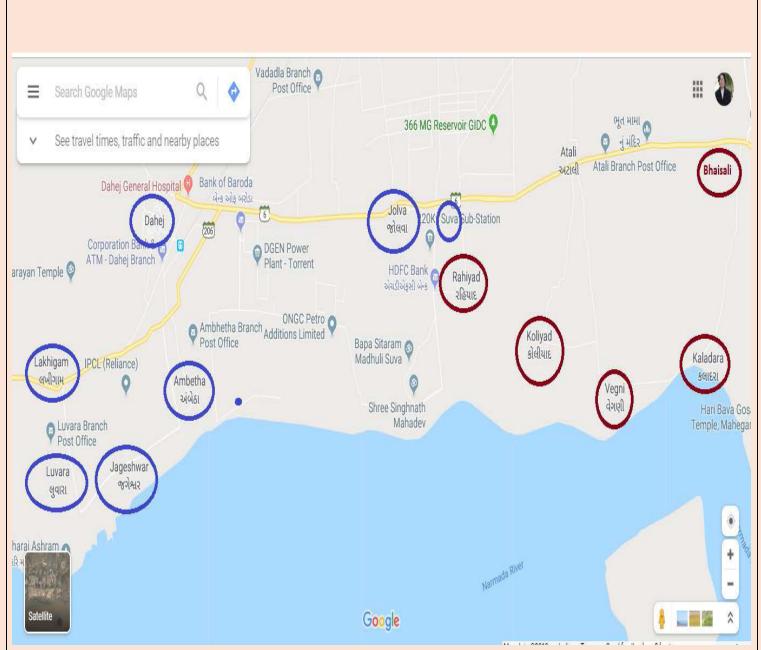
- Project Swachhagrah
- Project SuPoshan

AND

EMPLOYEE VOLUNTEERING

In FY 2019-20, Adani Foundation contributed largely towards the surrounding communities of Adani Dahej site in respect to its varied domains. Each domain has its set of objectives. All the objectives are fulfilled keeping in mind the vision of AF towards framing a better society all around its catchment area. This half-year Report throws light on Adani Foundation's activities performed and initiatives taken in last six months at Dahej site are:

Geographical Coverage



Villages' Demographic Profile Core Villages

Peripheral Villages

С	Village	Household	Population	Male	Female
1	Rahiad	355	1694	862	832
2	Kaladara	393	1663	934	729

3	Bhaisali	228	1123	582	541
4	Vengani	202	908	462	446
S.N	Village	Household	Population	Male	Female
1	Lakhigam	1217	5760	3966	1794
2	Luvara	385	1663	873	790
3	Suva	413	1920	973	947
4	Jageshwar	383	1571	818	753
5	Dahej	3426	13495	8345	5150
6	Jolwa	338	1442	807	635
7	Ambheta	347	1552	807	745
	Total	6509	27403	16589	10814





DAHEJ

School Enrolment Drive

Under School Enrolment Drive Education kits distributed among school children. These kits contain school bag, compass, pencil, sharpener, eraser, colour box, water bottle, lunch box, note book (double line), note book (square) and Desi Hisab (Gujarati, Hindi and English).

KITS DISTRIBUTION DETAILS

S.N	Date	School	Quantity
1	13.06.19	Primary School, Jolwa	20
2		Primary School, Suva	35
3	14.06.19	Kumar Shala, Dahej	30

4	Kanya School, Dahej	50
	Primary School, Luwara	35
	Primary School, Lakhigam	60
	Primary School, Ambheta	30
	Primary School, Jageshwar	25
	Primary School, Vadiya-Dahej	15
	Primary School, Sakva	30
	TOTAL	330

Learning Enrichment Program

Brief about 2017-19:

- During these two years' main focus was to filling the gap of minimum level of learning in Gujarati language and Arithmetic.
- Majority work carried out for the targeted academic weak students of Grade 5th to 8th.
- We have conducted activity based remedial classes according to their learning level.
- We had completed the bride course of Maths for the students of Std. 6th, 7th and 8^{th.}
- The bridge course is contained with the key chapters of Maths that are very useful to cop up the syllabus.
- Made them main stream student by increased their level of learning.

Planning of activities for the 2019-20:

- Life Skill classes for the Grade: 6th, 7th and 8th.
- Minimum level of remedial classes for the Grade: 3rd, 4th and 5th.
- Enrichment of the knowledge of main subjects like Maths, Science by conducting Camps and BALMELA for the Std. 6th, 7th and 8th.
- Camps for Character building and patriotism for the students of Grade: 7th & 8th

Major Changes:

- Shifted the minimum level of remedial classes in Grade: 3rd, 4th and 5th so gaps can be filled in the students of early grades.
- Evaluation system of minimum level remedial classes adopted according to Mission Vidya of Education, Govt.of Gujarat
- Started implementation of Life Skill classes for Std. 6th, 7th and 8th.
- With the permission of Adani Foundation, we have started the working in the Ashram Shala of village Atali and discontinued in Primary School of village Ambheta.

Activities carried out during April - September, 2019:

- Conducted the Pre-Test (Baseline) for the minimum level remedial class for the Grade: 3^{rd} , 4^{th} and 5^{th} .
- Defined the learning level of students of remedial classes and started classes.
- Conducted the teachers training during 20th& 21st August, 2019. Provided training of new evaluation system of remedial classes and Life Skill syllabus.
- Conducted school visits and provided the orientation to respective Principals for the activities to be carried out during the year 2019-20.
- Started implementation of Life skill classes in Grade: 6th, 7th and 8th.
- Carried out the remedial classes of minimum level of learning in Grade: 3^{rd} , 4^{th} and 5^{th} .
- To improve the attendance of students in LEP classes, we provide gift as appreciation prize.

Brief about Life Skill Education

Need and Objective

- Students get education just exam-oriented, not life-oriented. So it doesn't make sense, so it doesn't even come into practice.
- The student is incapable to obtain employment, business and growth, unable to discharge the responsibility. So there is a big gap between education and living of life.
- A lot of skills and moral value are lacking in today's youth such as confidence, patriotism, responsibility, ability to set goals, higher viewpoints, problem solving, and positive thinking etc.
- The scholar students fail to solve the real problem of life and choose the wrong ways. So there is a need an hour is life skills education.
- The enhancement of Skills that lead the life meaningful is requiring in the age of 11 to 19. This is the time to shape growing young mind.
- Life skills have been defined by the World Health Organization (WHO) as "abilities for adaptive and positive behavior that enable individuals to deal effectively with the demands and challenges of everyday life".

Syllabus and way of implementation:

The activity based lessons have been developed on the below mentioned topics:

- (1) Self-Awareness (2) Communication (3) Problem solving Capability
- (4) Critical Thinking (5) Emotional intelligence (6) Sensitivity
- (7) Interpersonal relation (8) Decision Making (9) Creative Thinking
- (10) Stress Management Capability
- The syllabus is distributed in 30 chapters annually for each grade and divided 15 chapters in each academic term of each Grade.
- After completing the remedial activity, our teacher find out the free period from the time table of Gr. 6-7-8 and conduct special Life Skill class. Students enjoy lot.

There is no specific tool to measure the level of understanding developed in the students but we conduct small examination as well as evaluate informally.

Success Stories of Life Skill Education:

Teacher, now I don't eat outside food...

As a part of Life Skill education course, I taught 3 lessons of 'Eating Habits of Good Food' in Std. 6th.

I observed, a student Vrushali was learning with full of concentration in the class.

A few days later, she met me in the recess and shows her snack box. I say, what is it? Replied, "Teacher, Look I have a homemade breakfast. I told my mom, the teacher used to say that if we eat outside food would sick. So now my mom makes breakfast every day at home."

I know that most of the children use to eat packed food available outside the school during the recess like wafers etc.

I was very happy to see the smiley face of Vrusali. I felt that what a positive impact happens on an innocent mind by the power of our words.

The Life Skill education creates an understanding of small but meaningful things in our life. In the long term, it forms habit and makes our life very successful.

Always motivated face of Vrushali and her trust inspires me towards my work with more enthusiasm.

Renuka Gohil, LEP Teacher Kanyashala, Dahej

Harpaksh,

An aroma of understanding

There was a deep thought in my mind that while teaching and learning process of each and every values of life skill education gives me something missing somewhere in my life. Various aspects of value education such as self-awareness, creativity, communications, indentifying and bringing out the talent, development of thoughtfulness, etc. taught a lot in life.

Learning was more fun during one-on-one activities than just teaching. I become as curious as children. The petals began to grow from each bud of understanding while thinking with kids about each activity and scent of the floral of understanding began to spread.

A question raised in mind if I learned it in my childhood? But I am blessed because this is not too late.

Harpaksh Lathia, a student of Std.7th who grew up like flower in the garden while conducting the activity. It is felt that his laughter spreads the aroma of understanding. In the activity of each chapter his enthusiastic involvement is noticeable, He absorbs a lot from small things and one can see it in his behaviour. I have observed expanding horizon of his understanding.

His strong self-confidence, sweet speech with the sense of how much and how to speak and where to keep silence. In front of audience, he can effectively deliver the thoughts with free flaw speech.

All of this makes him a winner of the debate competition of Group Schools of Dahej area.

In the primary education, if a child's conceptual power develops the complexity of life become clear. Lead the life with true understanding; he can evaluate himself at each and every step of life.

On behalf of Adani Foundation and Vidyabharti Foundation, when I participate in such activity at School, I feel peace and calm in the stressful life.

Nirmala Gohil, LEP Teacher,
Primary Mishra School, Lakhigam

The Glimpses of activities.







Community Health

Mobile Healthcare Unit (MHU), a health care service of HelpAge India to provide primary medication to the needy community people who live far from urbanized sector or in rural where healthcare is uneasy to access for. HelpAge India's MHU reaches such people at their door steps and provides them qualitative primary health care as well as guides them for advance treatments.

With the support of Adani Foundation, such unit is operational in Dahej, Bharuch district since Dec-2014, covering 6 villages initially. Now the MHU is reaching to 13 villages in and around Dahej. The project has achieved his basic mile stones of reaching maximum numbers of people to provide the services, from 500/month average treatments to 2000+ treatments per months.

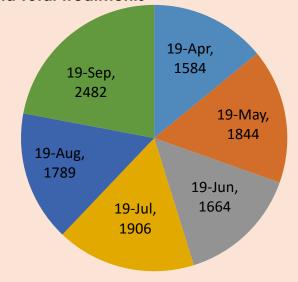
During the last half year i.e. from April-19 to September-19 the MHU has achieved 11269 treatments in 13 villages, out of which the bifurcation of male and female is 4352 & 6917 respectively. There has been a good increase in the treatments from 1584 in April-19 to 2482 in September-19. Highest treatments in these six months have been availed by Lakhigam and that is 1254. It is also observed that the ratio of female patients is more than male. 38.61% male treatments and 61.38% female treatments are registered during this period. It has also done 13 awareness sessions in the community to make them aware about health and seasonal health issues. The team has visited bedridden patients who cannot come to MHU to provide our service as well as further guidance by the MBBS doctor. 3 general health camps have been also done in this period. Total 63 patients have been referred for further treatments to nearby government or charitable health service providers. Total 1854 new patients have been registered during the said half year.

Statistical Details

i. Nos. of Treatments

Month wise Male - Female and Total Treatments

Month	Male	Female	Total
April-19	609	975	1584
May-19	716	1128	1844
June-19	634	1030	1664
July-19	712	1194	1906
Aug-19	679	1110	1789
Sep-19	1002	1480	2482
Total	4352	6917	11269



Village Wise Male & Female Treatments

				=	
MHU Sites	Male	Female	Total		■ Female ■ Male
Kaladara	424	716	1140		235
Rahiyad	344	797	1141	Navi Nagri	123
Dahej	394	748	1142	Jageshwar	295 526
Jolva	268	353	621	Ambetha	650
Suva	243	475	718	7111000110	460
Vengni	394	613	1007	Luwara	273 486
Koliyad	294	602	896	Adani	5 297
Lakhigam	543	711	1254	Lakhigam	711
Adani	297	5	302	Lakiligalii	543
Luwara	273	486	759	Koliyad	294 602
Ambetha	460	650	1110	Vengni	394 613
Jageshwar	295	526	821		475
Navi Nagri	123	235	358	Suva	243
Total	4352	6917	11269	Jolva	268 353
				Dahej	748
				-	394
				Rahiyad	344
				Kaladara	424 716

Nos. of New Patients ii.

This half year was a good for the MHU as it could register 1854 new beneficiaries in total. Out of which male were 877 and female patients were 977.

April to June New M & F Registration

Villagos		April			May	/	June		
Villages	М	F	TOTAL	М	F	TOTAL	Μ	F	TOTAL
KALADARA	9	11	20	8	12	20	10	11	21
RAHIYAD	15	16	31	14	13	27	5	12	17
SUVA	6	12	18	6	13	19	9	12	21
JOLVA	3	1	4	8	11	19	8	3	11
DAHEJ	14	22	36	25	22	47	28	35	63
LAKHIGAM	5	16	21	16	14	30	25	22	47
LUWARA	3	14	17	7	8	15	7	12	19
ADANI	0	0	0	0	0	0	0	0	0
NAVINAGRI	0	0	0	0	0	0	2	6	8
AMBHETA	9	8	17	14	12	26	24	11	35
JAGESHWAR	8	5	13	6	18	24	6	7	13
VENGANI	1	3	4	5	15	20	2	7	9
KOLIYAD	3	2	5	7	11	18	8	6	14
Total	76	110	186	116	149	265	134	144	278

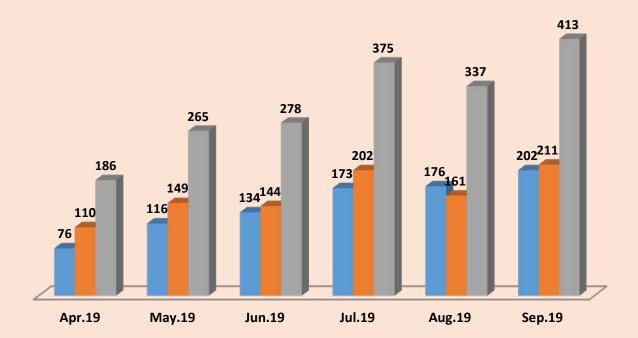
July to September New M & F Registration

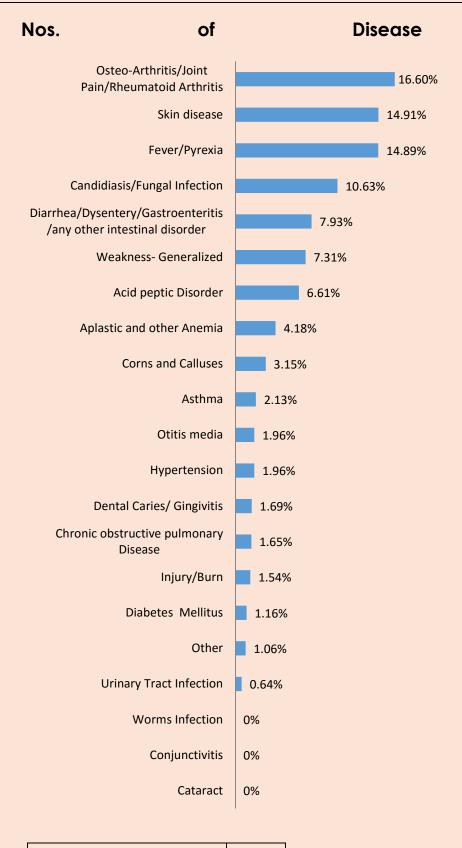
Villagos		July			Augu	ıst	September		
Villages	M F TOTAL		М	F	TOTAL	Μ	F	TOTAL	
KALADARA	20	19	39	11	14	25	15	10	25
RAHIYAD	8	19	27	4	10	14	15	18	33
SUVA	22	21	43	6	7	13	16	27	43
JOLVA	15	14	29	19	9	28	8	9	17
DAHEJ	32	44	76	16	14	30	39	38	77
LAKHIGAM	26	27	53	11	11	22	30	48	78
LUWARA	4	10	14	14	17	31	6	11	17
ADANI	0	0	0	0	0	0	19	2	21
NAVINAGRI	6	5	11	17	22	39	2	1	3
AMBHETA	22	18	40	41	22	63	36	30	66
JAGESHWAR	9	5	14	7	1	8	7	10	17
VENGANI	5	5	10	16	18	34	3	4	7
KOLIYAD	4	15	19	14	16	30	6	3	9
Total	173	202	375	176	161	337	202	211	413

It has been observed that the new registration has increased from 186 in April-19 to 413 in Sept-19.

Month Wise New M & F Registration







Diagnose

Diagnosis	Total
Acid peptic Disorder	811

Aplastic and other Anemia	513
Asthma	262
Candidiasis/ Fungal Infection	1305
Cataract	0
Chronic obstructive pulmonary Disease	203
Conjunctivitis	0
Corns and Calluses	387
Dental Caries/ Gingivitis	207
Diabetes Mellitus	142
Diarrhea/ Dysentery/ Gastroenteritis/ any other intestinal disorder	973
Fever/Pyrexia	1827
Hypertension	240
Injury/Burn	189
Osteo-Arthritis/ Joint Pain /Rheumatoid Arthritis	2037
Otitis media	241
Skin disease	1830
Urinary Tract Infection	78
Weakness- Generalized	897
Worms Infection	0
Other	130

Awareness Activities

In last six months (April to Sept-19) the team has conducted 13 health awareness sessions in difference village, as a precautionary step. The sessions covered topics like Sanitation, Hypertension, Water Born Disease, Arthritis, and Diabetes. 854 village people have participated in these sessions.

No	Tania	Vanua	Data	Total			
No	Topic	Venue	Date	М	F	Total	
1	Sanitation	Koliyad	3/4/19	0	25	25	
2	Water Borne Diseases/ Seasonal diseases	Dahej	22/6/19	11	7	18	
3	Water Borne Diseases/ Seasonal diseases	Lakhabava Temple	25/7/19	0	30	30	
4	Sanitation	vengni	28/8/19	41	44	85	
5	Sanitation	Ambheta-School	6/9/19	44	43	87	
6	Diabetes	Ambheta-Motu Faliyu	6/9/19	13	27	40	
7	Sanitation	Jageshwar-school	6/9/19	66	84	150	
8	Hyper-Tension	Jageshwar-Prajapati Faliyu	6/9/19	22	11	33	
9	Water Borne Diseases/ Seasonal diseases	Lakhigam-Rathod Faliyu	14/9/19	24	36	60	
10	Arthritis	Jageshwar-Mandir Faliyu	20/9/19	14	28	42	
11	Arthritis	Dahej-Rana Faliyu	24/9/19	2	19	21	
12	Sanitation	Atali-Ashram Shala	25/9/19	116	76	192	
13	Other	Jageshwar Primary School	27/9/19	26	45	71	

Home Visits

We say, that we provide services at door step and it has been proven by the team for special cases where a weak, very aged or bedridden patients cannot come to MHU, the team goes to his/her home to check his/her health condition and provide best of our service, guidance. In this half year we have done such 23 Home Visits where patients were not in a condition to avail this facility.

No	NAME	Age	M/F	Village	Date	Treated
1	Manisha Ranjeet Rathod	20	F	Luwara	11-4-19	Effect of Malaria
2	Bhikha Govind Valand	47	М	NaviNagri	26-4-19	Multiple boils on both foot
3	Girdhar Lakhu Parmar	83	М	Vengni	17-4-19	Fracture of neck of femer
4	Sanu Chandubhai Gohil	75	М	Lakhigam	30-5-19	Paralysis attack
5	Chandu Bhagwan Darji	70	М	Kaladra	27-5-19	Hypertention
6	Lakhu Chhitu Gohil	72	М	Lakhigam	6-6-19	High Fever Cough and cold
7	Chandubhai Meethabhai Parmar	75	М	Lakhigam	20-6-19	Soft tissue injury not able to walk

8	Dhiraj Meethabhai Parmar	80	М	Lakhigam	20-6-19	TB Patient and having body ache and fever
9	Shankarbhai Khorabhai Rathod	75	Μ	Jolva	23-7-19	Having blur vision & diarrhea
10	Amarsinh Kuldeepsinh Parmar	65	М	luwara	25-7-19	Severe backache on right side with right leg
11	Dinesh Govind Rathod	35	Μ	Lakhigam	22-8-19	# on Dorsum on Right foot
12	Jara Karsan Rathod	68	F	Lakhigam	22-8-19	loss of Appetite, joint Pain
13	Amba Prabhat Rathod	85	F	Lakhigam	22-8-19	Cellulites
14	Narendra Raman Yadav	59	М	Ambetha	23-8-19	Pain & Weakness Right Doron of foot
15	Punji Kabhai Rathod	75	F	Kaladra	26-8-19	Corn Cold & Fever
16	Ratan Harman Rathod	65	F	Koliyad	28-8-19	Giddiness
17	Akal Harnar Singh	53	Μ	Kaladra	2-9-19	Weakness
18	Swarup Ghanshyam Rana	84	Μ	Dahej	3-9-19	Burning Pain On Both SOLE
19	Vithhal Nagji Rathod	51	Μ	Lakhigam	19-9-19	Excessive Rheumatoid Arthritis
20	Kishan Natvar Rathod	31	Μ	Lakhigam	19-9-19	crack In Leg, Fever, Injury On Hand
21	Girdharbhai Laxmanbhai Parmar	75	М	Vengni	25-9-19	#Bone & Pain, Fever
22	Champa Pravinbhai Rathod	55	F	Vengni	25-9-19	Fever For Last Month & Weakness
23	Maniben Soma Parmar	75	F	Ambetha	27-9-19	Cold, cough fever Not Able to walk

Referrals

We at MHU can provide qualitative primary health care to the patients. The patients who need further treatments for particular/chronic disease, we refer them to nearby government health services or a charitable health care where discounted services are provided to visitors. In this period total 63 such cases have been referred for further treatments.

No	NAME	DATE	Village	Age	M/F	Referral Reason
1	Dhiraj Meethabhai Parmar	20/6/19	Lakhigam	80	М	TB patient having problem of breathing
2	Hari Laxmi Gohil	29/7/19	Rahiyad	75	М	Query of having paraplegia on left side.
3	Uked Mela Rathod	26/7/19	Ambetha	68	М	Cellulitis on left leg
4	badhu chotu Rathod	2/8/19	Kaladra	55	М	eyes infection
5	Arif kasun raj	10/8/19	Rahiyad	26	М	Fungal Infection
6	Sunita arif Raj	10/8/19	Rahiyad	25	F	Fungal Infection
7	Nasin Ajit Raj	11/8/19	Jolva	41	F	Joint Pain
8	Madina Bachu Sindha	20/8/19	Kaladra	51	F	Joint Pain
9	akal harnar singh	2/9/19	Kaladra	53	М	Jaundices
10	Ratan Nagji Gohil	2/9/19	Rahiyad	55	F	Hypertension
11	Dabhai Ramsang Gohil	2/9/19	Rahiyad	50	М	High Sugar

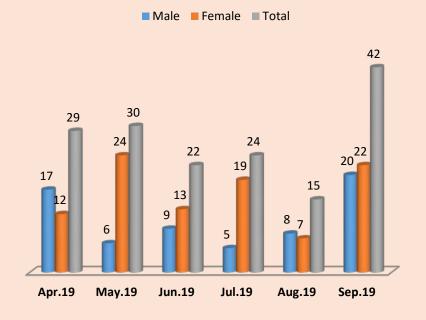
12	Raman Mandal Rahiya	3/9/19	Dahej	46	М	Head Injury
13	Bippin Sankar Gajjar	3/9/19	Dahej	65	М	Arthritis
14	Swarup Ghanshyamsingh Rana	3/9/19	Dahej	84	М	Diabetes
15	shita Bhagat Parmar	3/9/19	Suva	56	F	Hypertension
16	Balvant Bhagvan Gohil	4/9/19	Lakhigam	40	М	Hypertension
17	Ishwar Mohan Gohil	4/9/19	Lakhigam	60	М	Hypertension
18	Vansh Haresh Ahir	4/9/19	Lakhigam	5	М	Phimosis
19	Pahadsingh Laxman Makwan	6/9/19	Ambetha	63	М	Diabetes(H)
20	Raiji Sana Makwana	6/9/19	Ambetha	65	М	Diabetes(H)
21	Radha Narsang Gohil	6/9/19	Ambetha	55	F	Diabetes(H)
22	Lila Sama Makwana	6/9/19	Ambetha	65	F	Diabetes(H)
23	Dhara Ramsang Parmar	6/9/19	Ambetha	75	F	Diabetes(H)
24	Geeta Vasand Makwana	6/9/19	Ambetha	45	F	Diabetes(H)
25	Magan Parsottam Prajapati	6/9/19	Jageshwar	55	М	Diabetes(H)
26	Pratap Badhar Sindha	11/9/19	Koliyad	65	F	Arthritis
27	Arun Jenti Rathod	12/9/19	Lakhigam	15	М	Excessive Vomit
28	Chiman Magan Rathod	12/9/19	Lakhigam	45	М	Eye Infection
29	Rajik Ashmahahmed Mek	12/9/19	Adani	24	М	Fungal Infection
30	Pradip Biren Lodhi	12/9/19	Adani	24	М	Skin Infection
31	Ghanshyam Praghal Gohil	12/9/19	Adani	45	М	Skin Infection
32	Harikrishana Bhikhabhai Ram	12/9/19	Adani	49	М	Skin Infection
33	Maniram Dhanana Padhiyar	13/9/19	Adani	50	М	Cataract
34	Santa Raisang Gohil	13/Sep/19	Ambetha	60	F	Diabetes(H)
35	Naina Ambaben Makwana	18/Sep/19	Vengni	40	F	Excessive Pain
36	Daksha Ranjit Gohil	18/Sep/19	Vengni	36	F	Diabetes(H)
37	Kapilaben Chatursingh Parmar	18/Sep/19	Vengni	65	F	Diabetes
38	Urvashi Hitesh Makwana	18/Sep/19	Vengni	19	F	Skin Infection
39	Laxman Ratanji Parmar	18/Sep/19	Vengni	65	М	Ear Infection
40	Natvar Babar Rathod	19/Sep/19	Lakhigam	37	М	Injury & Chest Pain
41	Narmada Govind Rathod	19/Sep/19	Lakhigam	60	F	Infection
42	Mani Babar Rathod	19/Sep/19	Lakhigam	65	F	Chest Pain
43	Divya Manubar Rathod	19/Sep/19	Lakhigam	55	F	Excessive Cough
44	Ajay Marsan Babriya	19/Sep/19	Lakhigam	30	М	Leg Injury
45	Sita Bhikha Gohil	19/Sep/19	Lakhigam	61	F	Fungal Infection
46	Vithhal Manji Rathod	19/Sep/19	Lakhigam	57	М	Back Pain
47	Somi Manji Ahir	19/Sep/19	Lakhigam	65	F	Eye Infection
48	Soma Laxman Ahir	19/Sep/19	Lakhigam	40	М	Head Injury
49	Rakesh Budha Rathod	20/Sep/19	Ambetha	35	М	Leg Injury
50	lila Bhagatsingh Gohil	20/Sep/19	Ambetha	68	F	Chest Pain
51	Sanjay Ramsingh Chawada	20/Sep/19	Ambetha	57	F	High Sugar
	Janjay Kamijingh Ci			. — —		
52	Manibhai Somabhai Parmar	20/Sep/19	Ambetha	68	F	High Sugar
52 53		20/Sep/19 20/Sep/19	Ambetha Ambetha	68 45	F M	High Sugar Diabetes

55	Vastar Gambhir Rathod	20/Sep/19	Ambetha	56	F	Diabetes
56	Thakorbhai Parsottambhai Rathod	20/Sep/19	Jageshwar	59	М	Diabetes
57	Ganpat Umed Gohil	24/Sep/19	Dahej	55	Μ	Diabetes
58	Ramila RanjitShingh	25/Sep/19	Vengni	50	F	Diabetes
59	Girdhar Lakha Parmar	25/Sep/19	Vengni	75	F	Back Pain
60	Diya Natvar Gohil	26/Sep/19	Lakhigam	7	F	Infected Scabies
61	Ramila Ramesh Gohil	26/Sep/19	Lakhigam	60	F	Fungal Infection
62	Sonu Saiji Gohil	26/Sep/19	Lakhigam	52	М	Fungal Infection
63	Chandu Ramsang Parmar	26/Sep/19	Lakhigam	50	М	Diabetes

Diabetes Checkup (RBS)

In last six month total 162 blood sugar tests have been done by the MHU.

Month Wise Diabetes Check up



Diabetes								
Month	Male	Female	Total					
Apr.19	17	12	29					
May.19	6	24	30					
Jun.19	9	13	22					
Jul.19	5	19	24					
Aug.19	8	7	15					
Sep.19	20	22	42					
Total: -	65	97	162					

General Health Camp Details:

To spread the coverage and reach maximum numbers of people we have organized 3 general health camps in this half year, in Kaladra, Navi Nagri and Atali Ashram Shala. With these camps we could reach to 240

Date	Villarara	Total			
	Village	Male	Female	Total	
15-July-19	Kaladara	57	50	107	
6-Aug-19	Navinagri	33	33	66	

25-sep-19	Atali Ashram Shala	37	30	67
	TOTAL	127	113	240

Case Studies

Beneficiary Name: - Dhiraj Mithabhai Parmar

Age:- 80

Sex:- Male

Address:- Lakhigam

Family History:-

He is 80 years old male residing at Lakhigam village Parmar Faliya with his wife. His son looks after all his requirement. His son has own shop. He is totally depended on MHU for primary Health Treatment. He was taking medicine from MHU, but since last one and half month he didn't came to visit.



Medical History:-

Patient is old case of pulmonary cochs and core pulmonar. Patient having TB.

MHU Intervention:-

Complaint of cough with exportal, weakness, unble to take food, accept liquid diet. Patient having fever, bodyache. On examination pulse 100 per minute(tachycardia). Temrature ++ that means it was high. Bylateral rals with rhocia. Doctor given cough syrup, paracetamol, Salbutamol.

Name: - Chhitubhai khushalbhai Parmar

Age : - 80 Years old

Gender:- Male **Village:-** Jageshwar

Disease:- BRONCHIAL ASTHAMA WITH HYPER-TENSION

Family History: - Chhitubhai is 80 years old living in Jageshwar village located in Vagra Taluka. He had one son who expired in road Accident before 25 years. His daughter got married and staying very far from this village and settled with her own family. Currently Chhitubhai and his wife (75 years) live together. Both are support of each other now.



Previously he was having temporary service in semi government to inspect the crop of cottonseed for 12 years and then he started his own farm in the year 1985. He did not find any profit of the same and given up the farming job. Now at present he is getting some nominal amount from some investment and pulling on his life. He does not have any other sources of income.

Medical History and Diagnosis: - Before 4 years he was suffering from chronic bronchial asthma. He took treatment from local Dr. Subhashbhai Dahej. He was having some urinary complaints and not recovered by local doctor and was referred to Bharuch hospital. There he was operated, and later he was recovered from the disease. Then he got hypertension later on and it was not controlled. Then he went to Palm Land Hospital, Bharuch and recovered from urine Problem but COPD was not recovered. Later on he started treatment of our MHU since 1.5 years. He is under regular check-up & treatment of Dahej MHU and feeling better relief.

Current Status: - At Present he feels better and performs his daily routine work. A good & regular counselling and Medical advice can cure even the permanent disease he told us our Help Age India MHU Van & Adani Have Proper benefit of check-up. Medicines & Proper Attention time & counselling therefore he got proper benefit of this Service of MHU van

He is very happy for the treatment given by the van and conveys warm Regards to Adani & Help Age India for the Proper Recovering

Mr. Chhitubhai is thankful to ADANI Foundation and Help Age India for such a good service.



Blood sugar test at Ambheta village



Patients' treatment at MHU



Patient Waiting for Checkup at Ambheta village.



Awareness Program in School

SUSTAINABLE LIVELIHOOD DEVELOPMENT

PASHUDHAN PROGRAM

Adani Foundation in partnership with BAIF institute for Sustainable Development (BISLD) is implementing Cattle Breeding Centre (CBC) i.e. Animal Husbandry Project (Pashudhan Program) and vegetable cultivation in 12 villages surrounding Adani Port, Dahej.

Activities undertaken

- Artificial Insemination: Animal holding families are now ready to accept artificial breeding method for production and reproduction of good animals through Artificial Insemination. It leads to better animals with high milk capacity and in healthy condition. 201 animals covered so far in the first six months of financial year 2019-20.
- Deworming: Deworming leads to improved health condition of milking animals for increasing productivity. It also reduces calf mortality occurred due to heavy end parasitic infestation.
- Vermi compost: Vermi compost is a quality compost to be used as an organic amendment that contribute to improve soil fertility, promotion of natural farming with leaving dependency on chemical fertilizers ultimately reducing costing and better health benefits to end users. Selected prospective beneficiaries provided material support for demonstration and projection to propagate these units to be envisaged at large scale as this manure is widely accepted by household as well industrial purpose for greenbelt in surrounding industries.
- Calf rearing & awareness program: Under this program calves and buffaloes
 of 3-4 months' age group are registered for one year and cattle feed,
 vaccinations, deworming tablets are provided round the year as per their
 daily requirement. Animal holding families are educated on nutritious food
 intake and scientific approach of animal care. During 6 months of FY 201920, 49 calves are registered and 4 awareness programs held so far.
- Exposure Visit: 45 farmers of peripheral villages visited ADIWASI TALIM KENDRA, LACHCHAKADI. Objective of this visit was to create awareness among them about scientific dairy management practices and organic farming.





Calving Examination



Deworming camp



Distribution of vermi compost bed



Exposure Visit Awareness Meeting

	Village wise Livestock Status											
S.N	Village	Total Family	Families having Livestock	% Families having livestock	Cow	Buffalo	Total Animal					
1	Dahej	1307	31	2.37	41	258	299					
2	Lakhigam	273	37	13.55	25	53	78					
3	Luwara	257	41	15.95	40	81	121					
4	Jageshwar	188	27	14.36	34	38	72					
5	Ambheta	472	34	7.20	2	148	150					
6	Suwa	332	94	28.31	43	162	205					
7	Rahiyad	248	29	12.18	5	113	118					
8	Jolva	637	9	1.41	126	52	178					
9	Koliyad	238	29	12.18	5	113	118					
10	Vengani	183	49	26.78	122	108	230					
11	Kaladra	351	77	21.94	222	438	660					
12	Atali	452	20	4.42	4	102	106					
	Total	4938	489	9.84	674	1696	2370					

Artificial Insemination and PD Calving Report Planning vs Achievement

S.N	S.N Name of Activities	Total Plan 2019-20	6 Month Plan 2019-20	Achievement	Remarks % of work
		Unit	Unit	Unit	70 OI WOIK
1	Artificial Insemination	600	280	201	72
2	Animal Examination	470	210	252	120
3	Animal Pregnancy Examination	260	130	144	111

4	Calving	286	130	80	62
	Male	143	65	35	54
	Female	143	65	27	42

S.N	Village	April — September 2019				
		Al	PD	Calving		
1	Dahej	26	23	7		
2	Lakhigam	12	11	9		
3	Luvara	20	17	6		
4	Jageshver	1	1	2		
5	Ambheta	0	4	0		
6	Suva	2	5	2		
7	Rahiyad	2	3	0		
8	Jolava	1	2	0		
9	Koliyad	19	16	2		
10	Vagani	51	40	40		
11	Kaladara	61	20	11		
12	Atali	6	2	1		
	Total	201	144	80		

Project Activities Planning vs Achievement

SR. NO	Project Activities	Total Plan 2019-20		2019-20		Plan		Plan		Remarks
		Unit	No.of	Unit	No.of	Unit	No.of			
1	Livestock Training /Farmers' Participation	5	175	5	175	4	219	4 village Male-102 Females -117		
2	Exposure Visit / Farmer	2	100	2	100	2	96	7 Village Male -84 Femeles-12		

3	Calf Rearing calf	49	49	49	49	49	49	
4	Dewormed Animal Coverage	3044	3044	3000	3000	2154	2154	Ongoing activities
5	Infertility Treated Animal camp	8	200	2	50	2	55	
6	Fodder Demo /Demo Plot	3	3	3	3	3	16	
7	Cattel Shed	3	3	0	0	0	0	
8	Chaff Cutter Demo to SHG Member	1	10	1	10	1	10	Shakti Mahila Mandal, Luvara 10 Members
9	Kitchen Garden/ Beni	250	250	0	0	0	0	Nursery development is in progress
10	Vermicomposting Beni/Beds	5	5	5	5	0	0	Beneficiaries identified
12	Travis (Animal Treatment Work)	5	5	5	5	0	0	
13	Sorted Semen	80	80	35	35	36	29	

Livestock Training Program

			_			
S.N	Training					
	Village	Male	Female	Total		
1	Kaladara	45	5	50		
2	Suva	28	42	70		
3	Luvara	13	34	47		
4	Jageshver	16	36	52		
		102	117	219		

S.N	Exposure Visit							
	Fist Tour	Male	Female	Total				
1	Koliyad	15	0	15				
2	Vegani	8	0	8				
3	Kaladara	19	0	19				
4	Atali	2	0	2				
	Total	44	0	44				

WOMEN EMPOWERMENT

SHIV SHAKTI SAKHI MANDAL, JAGESHWAR



- > 310 School bags for the students of Govt. Schools
- > 135 jute bags for Aditya Birla Company

Community Infrastructure

Development

OVERHEAD

TANK,

LAKHIGAM

CAPACITY: 2000 Litre

Direct Beneficiaries: 1000





CLASSROOM, GOVT.SCHOOL, SUVA CAPACITY: 205 students

COMMUNITY LAKHIGAM

HALL,

BENEFICIARIES: 5000





POND FRONT DEVELOPMENT

AT DAHEJ

AREA TO BE COVERED: 1500 sq

meter

Direct beneficiaries: 1000

Indirect beneficiaries: 13495

WORLD ENVIRONMENT DAY



More than 250 plantations at High School, Lakhigam & Ramji Mandir, Lakhigam

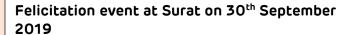
WORLD YOGA DAY



PROJECT SWACHHAGRAHA







Mr. Banchanidhi Pani, Surat Municipal Commissioner, Mrs. Gaytri Jarivala, Deputy Assistant Commissioner and DDO, Surat graced the occasion.

Amitu Cahaal Bhannah and Bahai Manna Chala



REACH

157 schools of Bharuch District

Dal members: 3140

Activities

- Develop habit of cleanliness
- Swachhata Wall
- Preraks' Training
- Waste segregation done by Nabipur High School.
- Post Card making competition waste from the best by VCT High School.
- Science Fair held at Dandiya Bazaar Mishra Shala.

Project SuPoshan

A unique community based intervention to

- Reduce the occurrence of malnutrition in children (0-5years)
- Reduce occurrence of malnutrition & anemia in adolescent girls & women in reproductive age group
- Create a pool of resource at community level, especially SuPoshan Sangini
- Support Government's efforts in reducing IMR & MMR

COVERAGE

Total no. of Anganwadis covered: 13

Total Population Covered: 23160

Total no. of villages Covered: 7

Total no. of SuPoshan Sanginis: 8

S.N	Community Engagement and other Activities	Numbers
1	Focus Group Discussion	141
2	Family Counselling	482
3	Village level Events	14
4	No of SAM children referred to CMTC	0
5	No of SAM children provided with Energy Dense Food (Only New children)	0
6	No of total Hb & BMI screening - Women in reproductive age	394
7	No of total Hb & BMI screening - Adolescent girls	88
8	No of women in reproductive age provided with IFA Tablets	1

9	No of adolescent girls provided with IFA Tablets	0	
		1	

S.N	Project Achievement	Numbers
1	Stunting Category first Shifting (Severe- Moderate)	2
2	Wasting Category first Shifting (Severe- Moderate)	0
3	Underweight Category first Shifting (Severe- Moderate)	2
4	Stunting Category first Shifting (Moderate- Healthy)	0
5	Wasting Category first Shifting (Moderate- Healthy)	14
6	Underweight Category first Shifting (Moderate- Healthy)	27
7	Stunting Category Second Shifting (Severe- Moderate)	0
8	Wasting Catagory Second Shifting (Severe- Moderate)	0
9	Underweight Catagory Second Shifting (Severe- Moderate)	1
10	Stunting Catagory Second Shifting (Moderate- Healthy)	0
11	Wasting Category Second Shifting (Moderate- Healthy)	6
12	Underweight Category Second Shifting (Moderate-Healthy)	9

Relief Work



- Provided shelter to people on their first call to safe places: Adani Guest House, Suva & Lakhabava temple
- Distribution of food packets for 10 days and medical services to affected people
- Dewatering through 3 pumps from water logging area

EMPLOYEE VOLUNTEERING PROGRAM

Employees of Adani Petronet Dahej Port Private Limited contribute in CSR activities. They conduct sessions on various subjects in schools as well as in community. Sh. Sandip Shah is the Champion of Employee Volunteering Program.

Date	Session	Employee Volunteer		Subject	Village	Location	Presence
		Name	Department				
7 May 19	Half day	Mukesh Rana	Engineering	Basics of Mathematics - Important for daily life	Jageshwar	Self Help Group - ladies	15
10 May 19	Half day	Denish Khanpara	Horticulture	Nursary development	Suva	Gau Seva Trust - youth	15
28 Jun 19	Half day	Varsha Pandit	AF	Health & Nutrition tips for women & kids	Lakhi gam	Women & Kids	40
		Naiem Patel	QHSE				

24 Jul 19	Half day	Varsha Pandit	AF	Health & Nutrition tips	Suva	Women & school	60
19		Salauddin	QHSE	for women & school girls		girls	
19 Aug 19	Half day	Varsha Pandit	CSR	Health & Nutrition tips	Jageshwar	SHG - ladies	10
		Usha Mishra					
20 Aug 19	Half day	Varsha Pandit	CSR	Health & Nutrition tips	Jageshwar	School	160
		Usha Mishra					
25 Sep 19	Half day	Hemant Kumawat	QHSE	First Aid Tips	Luvara	School	60
27 Sep 19	Half day	Varsha Pandit	AF	First Aid Tips	Jageshwar	School	60
		Ashish Patel	Helpage				
23 Oct 19	Half day	Gaurang	Security	Basic First Aid awareness & Tips	Suva	School	50

MEDIA COVERAGE

અદાણી કંપનીએ દહેજ ગામના તળાવને સુશોભિત બનાવવા ૪૦ લાખનો ફાળો

અદાણી કંપનીએ ગામના તળાવને આધુનિક ઓપ આપવા

વાગરા,તા.૧૭ અતિઆધુનિક બનાવવાનું બીડું ઝડપ્યુ છે. તળાવની ફરતે પાકી દિવાલ બનાવવા અદાણી ફાઉન્ડેશન દ્વારા ૪૦,૦૦,૦૦૦નો

પાણીનો | ઉપરાંત સંગ્રહ થાય તે માટે **૩પિયા** ચાલીસ લાખનો દહેજ ગ્રામ પંચાયતને સહયોગ પૂરો પાડ્યો હતો. વાગરાના દહેજ ઇન્ડસ્ટ્રીયલ ઝોનમાં આવેલ અદાણી કંપની સી.એસ.આર. અંતર્ગત અનેકવિધ પૃવૃત્તિઓ



રહી છે. અદાણી ફાઉન્ડેશન સ્થાનિકોની ફાળો સમસ્યાઓના નિકાલ માટે, શિક્ષણ અને આરોવ્ય ક્ષેત્રે સુખાકારીમાં વધારો કાર્યરત છે. દહેજ ગામના કરવા સૌથી મોટા તળાવને ગામ પાંચયતના સરપંચ જયદીપસિંહ રણાએ કંપનીઓ અને સરકારી ગ્રાન્ટનો વપરાશ કરી લોકોને પાણીની સમસ્યાનું સમાધાન થશે.

હતો.સરપંચ, અગ્રણી નરેન્દ્રસિંહ રણા, દહેજ અદાણી પોર્ટના બી.જી.ગાંધીની ઉપસ્થિતિમાં ભૂમિપૂજન કરવામાં આવ્યુ હતુ. તળાવ બનતા લોકોનું હરવા ફરવાનું સ્થળ બનવા સાથે પાણીના તળ ઊંચા આવશે અને

અદાણી કંપનીએ દહેજ ગામના તળાવને સુશોભિત બનાવવા ૪૦ લાખનો સદયોગ આપ્યો

દહેજ સ્થિત અદાણી કંપનીએ ગામના તળાવને આધૃનિક ઓપ આપવા ઉપરાંત પાણી નો સંગ્રહ થાય તે માટે રૂપિયા ચાલીસ લાખનો દહેજ ગ્રામ પંચાયતને સહયોગ પુરો પાડ્યો હતો. વાગરાના દહેજ ઇન્ડસ્ટ્રીયલ ઝોનમાં આવેલ અદાણી કંપની સી.એસ.આર. અંતર્ગત અનેકવિધ પુવૃત્તિઓ કરી રહી છે. અદાણી ફાઉન્ડેશન સ્થાનિકોની સમસ્યાઓના નિકાલ માટે,શિક્ષણ અને આરોગ્ય ક્ષેત્રે સુખાકારીમાં વધારો કરવા કાર્યરત છે. દહેજ ગામના સૌથી મોટા તળાવને ગામ પાંચયત ના સરપંચ જયદીપસિંહ રણાએ કંપનીઓ અને સરકારી ગ્રાનટનો વપરાશ કરી અતિઆધુનિક બનાવવાનું બીડું ઝડપ્યુ છે.તળાવની ફરતે પાકી દિવાલ બનાવવા



દહેજ તળાવના વિકાસ અર્થે અદાણી કંપનીએ રૂપિયા ૪૦ લાખનો સહયોગ (તસ્વીર : સૈયદ અમજગ, વાગરા)

ફાળો આપ્યો હતો.સરપંચ,અગ્રણી બનતા લોકોનું હરવા ફરવાનું સ્થળ બનવા નરેન્દ્રસિંહ રણા,દહેજ અદાણી પોર્ટના સાથે પાણીના તળ ઊંચા આવશે અને અદાણી ફાઉન્ડેશન દ્વારા બી.જી.ગાંધી ની ઉપસ્થિતિમાં કામનું લોકોને પાણીની સમસ્યાનું સમાધાન થશે.

૪૦,૦૦૦,૦૦/- < ચાલીસ લાખનો ભૂમિપૂજન કરવામાં આવ્યુ હતુ.તળાવ

અદાણી કાઉન્ડેશન દ્વારા લખીગામ ખાતે કોમ્યુનીટી હોલનું લોકાર્પણ

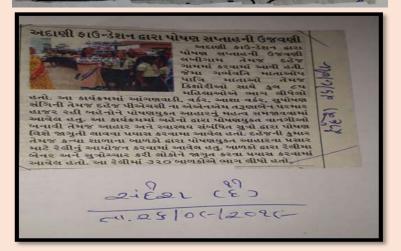
काउन्डेशन, લખીગામ ખાતે કોમ્યુનીટી અદાશી ફાઉન્ડેશન દહેજ દ્વારા બી.જી.ગાંધી તથા અદાશી ડાહોલનું લો કાર્પણ કરવામાં લોકોને ઉપયોગ માટે લોકાર્પણ કાઉન્ડેશનની ટીમ ઉપસ્થિત હોલનું લોકોપજી કરવામાં લોકોન ઉપયોગમાટલાકોપજી કાઉ-ક્લારના ટાન ઉપાસ્થા આવ્યું હતું. આ વિશાળ કરવામાં આવ્યું હતું. રહી હતી. કોમ્યુનીટી હોલ બનવાથી આ ઉપરાંત અદાશી અદાણી કાઉન્ડેશન — ગામના લોકોને તેમના કાઉન્ડેશન દ્વારા લખીગામ દહેજ દ્વારા દહેજ ઔથોગિક સામાજીક પ્રસંગો સારી રીતે પ્રાથમિક શાળામાં થો. ૧ માં વિસ્તારના લખીગામ, દહેજ, સંપન્ન કરવામાં સરળતા રહેશે. આ ઉપરાંત ગ્રામજનોની સ્કુલબેગ તેમજ નોટબુક-જાહેર સભા કે કોઇ જાહેર સ્ટેશનરીનું વિતરણ કાર્યક્રમો માટે પણ આ મહાનુભાવોના હસ્તે કરી કો મ્યુ-દીટી હોલ અત્યંત મોત્સાહિત કરાયા હતા. ઉપયોગી નીવડશે તેવી આશા આ પ્રસંગે ગામના પ્રથમ સેવવામાં આવી છે. આ નાગરીક સતિશભાઇ ગોહીલ, ઉપરાંત લખીગામના જ ભાગ ઉપસરપંસશ્રી તેમજ તલાટી-એવા આદીવાસી વસ્તીવાળી

મવેશ મેળવનાર બાળકોને લુવારા, સુવા, જાગેશ્વર, સ્કુલબેગ તેમજ નોટબુક- અંભેઠા વિગેરે ગામડાઓમાં

કમ-મંત્રી અને નવીનગરીના લોકોને પીવાના પંચાયતના અન્ય સભ્યો તેમજ

(પ્રતિનિધિ)ભરૂચ,તા.૧૦ તેમજ વાપરવાના પાણી ને ગ્રામજનો ઉપસ્થિત રહ્યા હતા. આજ રોજ અદાણી સંગ્રહ કરી શકાય તે માટે અદાણી કાઉન્ડેશન વતી દહેજ દ્વારા ઓવરહેડ વોટર ટાંકી પણ અદાણી દહેજ પોર્ટના વડા

> વિતરણ શિક્ષણ, આરોગ્ય, સાતત્વપુર્ણ આજીવિકા વિકાસ તેમજ માળખાકીય સુવિધાઓના નિર્માણના કાર્યો ઉધ્યોગની એક સામાજીક उत्तरदायित्व निलाववानी



VADODARA

અદાણી ફાઉન્ડેશન દ્વારા શૈક્ષણિક કીટનું પણ વિતરણ

લખીગામે કોમ્યુનિટી હોલ, પાણીની ટાંકીનું લોકાર્પણ

દહેજ અદાલી ફાઉન્ડેશન દ્વારા લખીગામ ખાતે કોમ્યુનિટી હોલનં લોકાર્પણ કરવામાં આવ્યુ હતુ. આ વિશાળ કોમ્યુનીટી હોલ બનવાથી ગામના લોકોને તેમના સામાજીક પસંગો સારી રીત સંપન્ન કરવામાં સરળતા રહેશે. આ ઉપરાંત ગામજનોની જાહેર સભા કે કોઈ જાહેર કાર્યક્રમો માટે પણ આ કોમ્યુનીટી હોલ અત્યંત ઉપયોગી નીવડશે તેવી આશા સેવવામાં આવી છે. લખીગામના જ ભાગ એવા આદીવાસી વસ્તીવાળી નવીનગરીના લોકોને પીવાના તેમજ વાપરવાના પાણીને સંગ્રહ કરી શકાય તે માટે ઓવરહેડ પાણીની ટાંકી પણ અદાણી ફાઉન્ડેશ દહેજ દ્વારા લોકોને ઉપયોગ માટે લોકાર્પણ કરવામાં આવ્યુ હતુ.

લખીગામ પાથમિક શાળામાં ધો. ૧ માં પ્રવેશ મેળવનાર બાળકોને સ્કુલબેગ તેમજ નોટબુક-સ્ટેશનરીનું वितरस महानुभावोना हस्ते ५री ~ 19169 (1314. U.

પોત્સાહિત કરાયા હતા. આ પસંગે ગામના પ્રથમ નાગરીક સતિશભાઈ ગોહીલ, ઉપસરપંચ, તલાટી કમમંત્રી અન્ય સભ્યો તેમજ ગામજનો ઉપસ્થિત રહ્યા હતા. ફાઉન્ડેશન દ્વારા દહેજ ઔદ્યોગિક વિસ્તારના લખીગામ, દહેજ, લુવારા, સુવા, જાગેશ્વર, અંભેટા વિગેરે ગામડાઓમાં શિક્ષણ, આરોગ્યની સુવિધાઓના કાર્ય કરાય છે.