






Screenshot - MoEF&CC Half-yearly EC & CRZ Clearance, CTE & CTO compliance report with necessary attachments uploaded on 30.11.2022 through the website ecompliance-ap@gov.in for the period from April 2022 to September – 2022.

← → ↻ pcb.ap.gov.in/UI/Submission_Compliance_of_EC_CFE_CFO_Direction.aspx    

**ANDHRA PRADESH POLLUTION CONTROL BOARD**
ఆంధ్ర ప్రదేశ్ కాలుష్య నియంత్రణ మండలి

HOME ABOUT US ▾ DIVISIONS ▾ FOR INDUSTRY ▾ FOR PUBLIC ▾ MANUALS ▾ CONTACT US LOGINS ▾


Compliance of EC/CFE/ CFO/ Directions

For submission of compliance reports by the Industries

1.Compliance Report : *	2.EC Order Number *
<input type="text" value="EC"/>	<input type="text" value="10/51/2021-IA.III"/>
3.EC Order Issued On *	4.EC Order Issued By *
<input type="text" value="12/24/2021"/>	<input type="text" value="MoEF&CC, Delhi"/>
5. Name of the Industry : *	6. Address : *
<input type="text" value="Adani Gangavaram Port Private Limited"/>	<input type="text" value="Pedagantyada (M & P)"/>
7. District : *	8. Email : *
<input type="text" value="Visakhapatnam"/>	<input type="text" value="jyothi@gangavaram.com"/>
9. Phone : *	10. Status of Compliance : *
<input type="text" value="9441046788"/>	<input type="text" value="Complied"/>
11. Upload the Compliance Report : *	
<input type="button" value="Choose File"/> MoEFCC Co...0 11 2022.pdf	

Note: *

Captcha: *



pcb.ap.gov.in says
Details Submitted Successfully.

Windows taskbar: 22:03 30-11-2022



GANGAVARAM PORT LIMITED

GPL/ENV/APPGB/2022-23/006

Date: 05/05/2022.

To

The Environmental Engineer,
A.P. Pollution Control Board
Regional Office
APPGB Buildings, 3rd Floor
Main Road, Madhavadhara VUDA Layout
Visakhapatnam- 530 009.

Dear Sir,

Sub:- Monthly CFO Compliance, Environmental Monitoring Reports
and Water Consumption details (Form-1) – Submitted – Reg.

Reff:- 1. CFO & HWA Order No. APPGB/VSP/VSP/113/CFO/HO/2015,
dated 13.01.2016, valid up to 31.12.2020.
2. CFO & HWA Order No. APPGB/VSP/VSP/113/CFO/HO/2020,
dated 10.09.2020, valid up to 31.12.2025.

@@@

With reference to the above, we are here with submitting the monthly CFO compliance reports and CAAQM, terrestrial and marine monitoring results along with Water Consumption details in Form - 1 for the month of April -2022.

Yours Sincerely,

Authorized Signatory

Encl: As above.

Compliance report of the conditions stipulated in Schedule A,B & C of CFO & HWA Order No. APPCB/VSP/VSP/113/CFO/HO/2015, dated 13.01.2016

Compliance of Schedule - A

Sl. No.	Condition	Compliance
1.	Any up-set condition in any plant/plants of the industry, which result in, increased effluent/ emission discharge and/ or violation of standards stipulated in this order shall be informed to this Board, under intimation to the Collector and District Magistrate and take immediate action to bring down the discharge / emission below the limits.	All conditions are being followed.
2.	The industry should carryout analysis of waste water discharges or emissions through chimneys for the parameters mentioned in this order on quarterly basis and submit to the Board.	GPL is carrying out 3 rd party monitoring and analysis. As per analysis reports, the samples are meeting the Board standards.
3.	All the rules & regulations notified by Ministry of Law and Justice, Government of India regarding Public Liability Insurance Act, 1991 should be followed as applicable.	Noted and conditions are being followed as applicable.
4.	The industry should put up two sign boards (6×4 ft. each)at publicly visible places at the main gate indicating the products , effluent discharge standards, air emission standards, hazardous waste quantities and validity of CFO and exhibit the CFO order at a prominent place in the factory premises.	Noted and condition is being followed.
5.	Notwithstanding anything contained in this consent order, the Board here by reserves the right and powers to review / revoke any and / or all the conditions imposed herein above and to make such variations as deemed fit for the purpose of the Acts by the Board.	Noted the condition.
6.	The industry shall file the water cess returns in Form-I as required under section (5) of water (Prevention and Control of Pollution) cess Act, 1977 on or before the 5 th of every calendar month, showing the quantity of water consumed in the previous monthly along with water meter readings. The industry shall remit water cess as per the assessment order as and when issued by Board.	Water consumption details of the previous month are being submitted before 5 th of subsequent month in FORM - I. The latest reports for the Month of March, 2022 were submitted on 5 th April, 2022 After introduction of GST, APPCB has instructed all the industries are not required to remit water cess charges from 1 st July, 2017 onwards.

7.	The applicant shall submit Environment statement in Form V before 30 th September every year as per Rule No.14 of E(P) Rules,1986 & amendments thereof.	Complied and Form V was Submitted on 24.09.2021 for the period 2020-2021
8.	The applicant should make applications through Online for renewal of Consent (under Water Air Acts) and Authorization under HWM Rules at least 120 days before the date of expiry of this order, along with prescribed fee under Water and Air Acts and detailed compliance of CFO conditions for obtaining Consent & HW Authorization of the board. The industry should immediately submit the revised application for consent to this Board in the event of any change in the raw material used, processes employed, quantity of trade effluents & quantity of emissions. Any change in the management shall be informed to the Board. the person authorized should not let out the premises / lend / sell / transfer their industrial premises without obtaining prior permission of the state Pollution Control Board.	GPL has obtained CFO & HWA of the Board vide order dated 13/01/2016 valid up to 31.12.2020 and extended up to 31.12.2025 vide order dated 10.09.2020.
9.	Any person aggrieved by an order made by the state board under section 25,section 26,section 27 of water Act, 1974 or section 21 of Air Act,1981 may within thirty days from the date on which the order is communicated to him, prefer an appeal as per Andhra Pradesh Water Rules,1976 and Air Rules 1982, to Appellate authority constituted under section 28 of the Water (prevention and control of pollution) Act,1974 and section 31 of the Air (prevention and control of pollution) Act,1981.	Noted and condition will be followed.

Compliance of Schedule – B

Sl. No.	Condition	Compliance																																							
	Water Pollution																																								
1.	<p>The water consumption quantities are mentioned below:</p> <table border="1"> <thead> <tr> <th>S. No</th><th>Purpose</th><th>Quantity KLD</th></tr> </thead> <tbody> <tr> <td>1</td><td>Gardening/irrigation</td><td>25</td></tr> <tr> <td>2</td><td>Dust suppression</td><td>1296.0</td></tr> <tr> <td>3</td><td>Domestic</td><td>40</td></tr> <tr> <td>4</td><td>Ship supply</td><td>32.5</td></tr> <tr> <td>5</td><td>miscellaneous</td><td>40.6</td></tr> <tr> <td></td><td>Total</td><td>1434.1</td></tr> </tbody> </table> <p>Source of water is Visakhapatnam industrial water supply Co. the following is the permitted water consumption.</p> <table border="1"> <thead> <tr> <th>S. No</th><th>Purpose</th><th>Quantity KLD</th></tr> </thead> <tbody> <tr> <td>1</td><td>Dust suppression</td><td>1296.0</td></tr> <tr> <td>2</td><td>Domestic purpose</td><td>40.00</td></tr> <tr> <td>3</td><td>Process, where by water gets polluted and pollutants are easily bio degradable.</td><td>73.1</td></tr> <tr> <td>4</td><td>Processing , where by water gets polluted and pollutants are not easily bio degradable</td><td>--</td></tr> <tr> <td></td><td>Total</td><td>1409.1</td></tr> </tbody> </table> <p>Separate water meters shall be maintained for the assessing the quantity of water used for each of the purpose mentioned above for Cess assessment purpose.</p>	S. No	Purpose	Quantity KLD	1	Gardening/irrigation	25	2	Dust suppression	1296.0	3	Domestic	40	4	Ship supply	32.5	5	miscellaneous	40.6		Total	1434.1	S. No	Purpose	Quantity KLD	1	Dust suppression	1296.0	2	Domestic purpose	40.00	3	Process, where by water gets polluted and pollutants are easily bio degradable.	73.1	4	Processing , where by water gets polluted and pollutants are not easily bio degradable	--		Total	1409.1	<p>GPL is submitting water consumption details and water cess in Form-I regularly.</p> <p>The industry is consuming water within consented quantity only.</p> <p>Provided 2 No. nos of flow meters for quantification of water used for domestic and other purposes.</p>
S. No	Purpose	Quantity KLD																																							
1	Gardening/irrigation	25																																							
2	Dust suppression	1296.0																																							
3	Domestic	40																																							
4	Ship supply	32.5																																							
5	miscellaneous	40.6																																							
	Total	1434.1																																							
S. No	Purpose	Quantity KLD																																							
1	Dust suppression	1296.0																																							
2	Domestic purpose	40.00																																							
3	Process, where by water gets polluted and pollutants are easily bio degradable.	73.1																																							
4	Processing , where by water gets polluted and pollutants are not easily bio degradable	--																																							
	Total	1409.1																																							
2.	The Gangavaram Port Limited (GPL) shall provide separate energy meters for Sewage Treatment Plant (STP) and for Air pollution Control equipments to record energy consumption.	GPL has provided separate energy meters for Sewage Treatment Plant (STP) and separate energy meter for the Air pollution Control equipments (MDSS) to record energy consumption.																																							
	Air Pollution																																								
1.	<p>The Gangavaram Port Limited (GPL) shall comply with ambient air quality standards of PM₁₀ (Particulate matter size less than 10 µm) - 100µg /m³; PM_{2.5} (Particulate matter size less than 2.5 µm) - 60µg / m³ : SO₂ - 80µg /m³ : NO_x - 80µg /m³, outside the port premises at the periphery of the industry. Standards for other parameters as mentioned in the National Ambient Air Quality Standards CPCB Notification No.B-29016/20/90/PCI-I, dated 18.11.2009</p> <p>Noise Levels: Day time (6 AM to 10 PM) - 75 dB (A) Night time (10 PM to 6 AM) - 70 dB (A).</p>	The mitigation measures being implemented by GPL ensures that the ambient air quality parameters conform to the PCB prescribed standards.																																							

2.	The Gangavaram port limited (GPL) shall maintain 3 CAAQMs with online connectivity to APPCB and maintain records.	<p>GPL installed 3 No. of CAAQM stations to measure the parameters PM 10, PM 2.5, SO₂, NO, NO₂, CO at the following locations and data connected to APPCB website.</p> <ul style="list-style-type: none"> i. Administrative office towards H.B. Colony (Station 1): ii. Project site office building towards Venkannapalem (Station2) iii. Watch tower – 4 towards Gangavaram village (Station3).As per the data, the SPM values are within Board standards.
3.	The Gangavaram Port Limited (GPL) shall Maintain wind breaking wall all along the Gangavaram village side up to a height 10 mts as wind speed is high in this area	GPL erected wind breaking wall of height 6m on the compound wall of height 3m near Gangavaram village and HB Colony to prevent any dust nuisance towards habitation & maintaining about 50 m width of green belt along port compound wall near Gangavaram (V).
4.	The Gangavaram Port Limited (GPL) shall not establish any other stock yards other than designated stock yards.	GPL has not established any stock yards other than designated stock yards.
5.	The Gangavaram Port Limited (GPL) shall maintain Telescopic chute at ship loading points	GPL is maintaining Telescopic chute at ship loading points.
6.	The Gangavaram port limited (GPL) shall not stock the Materials more than 10mts height where MDSS system available and shall restrict to 6 mts for other stocking heights where tankers water spraying system is maintained in the stockyards.	<p>GPL obtained amendment to this condition vide Amendment to CFO dated 16/09/2016 and the condition was amended as:</p> <p><i>"GPL shall not stock the materials more than 12 meters height where MDSS system is available and shall maintain stack height of 10 meters at manual stack yards"</i></p>
7.	The Gangavaram port limited (GPL) shall take up the cleaning of road connected to National Highway in co-ordination with GVMC and R&B Departments.	This condition was deleted vide direction no. 06 vide Order No.754/APPCB/UH-II/TF/VSP/ 2016, dated 12.08.2016. GVMC is taking up the cleaning of road.
8.	The Gangavaram Port Limited (GPL) shall maintain dusty cargo operations if the wind velocity crosses 20 KMPH and all MDSS sprinklers shall start immediately to maintain AAQ standards	Noted and condition is being followed.
9.	The Gangavaram Port Limited (GPL) shall maintain fully mechanized handling equipments for loading and un loading operations for dusty cargo to the maximum extent possible.	Noted and condition is being followed.

	General																					
1.	<p>The Gangavaram Port Limited (GPL) shall maintain the following records and the same shall be made available to the inspecting officers of the Board:</p> <p>a. Cargo handling material wise details.</p> <p>b. Log books for pollution control systems.</p> <p>c. Hazardous/non hazardous solid waste generated and disposed.</p> <p>d. Inspection book.</p> <p>e. Manifest copies of hazardous waste.</p>	<p>The records are being maintained and are available for inspecting officers of the Board.</p>																				
2.	<p>The Gangavaram Port Limited (GPL) shall dispose solid waste (Non Hazardous) as follows:</p> <table><tr><th>S. No</th><th>Name of the solid waste</th><th>Quantity</th><th>Disposal</th></tr><tr><td>1.</td><td>Domestic solid waste</td><td>10 T/m</td><td>Shall be collected segregated and disposed as per MSW Rules in consultation with GVMC Authorities</td></tr><tr><td>2.</td><td>Discarded material, plastic material</td><td>10 T/m</td><td>Shall be disposed to authorized recyclers only</td></tr><tr><td>3.</td><td>Sludge from STP</td><td>1.0 T/m</td><td>Shall be composted and used in green belt programme</td></tr><tr><td>4.</td><td>Lead acid batteries</td><td>---</td><td>Shall be disposed to authorized recyclers</td></tr></table>	S. No	Name of the solid waste	Quantity	Disposal	1.	Domestic solid waste	10 T/m	Shall be collected segregated and disposed as per MSW Rules in consultation with GVMC Authorities	2.	Discarded material, plastic material	10 T/m	Shall be disposed to authorized recyclers only	3.	Sludge from STP	1.0 T/m	Shall be composted and used in green belt programme	4.	Lead acid batteries	---	Shall be disposed to authorized recyclers	<p>a. GPL is disposing the municipal solid waste to GVMC.</p> <p>b. GPL is disposing the discarded material & plastic material to authorized recyclers.</p> <p>c. STP sludge is being turned in to bio-compost and used as manure to green belt.</p> <p>d. Lead acid batteries are being disposed to the supplier on buy back basis.</p>
S. No	Name of the solid waste	Quantity	Disposal																			
1.	Domestic solid waste	10 T/m	Shall be collected segregated and disposed as per MSW Rules in consultation with GVMC Authorities																			
2.	Discarded material, plastic material	10 T/m	Shall be disposed to authorized recyclers only																			
3.	Sludge from STP	1.0 T/m	Shall be composted and used in green belt programme																			
4.	Lead acid batteries	---	Shall be disposed to authorized recyclers																			
3.	<p>The Gangavaram Port Limited (GPL) shall maintain green belt in 50 meters width as stipulated in the EC order dated 07-02-2012.</p>	<p>➤ GPL has developed plantation of 4.84 Lakhs saplings in about 350 acres within the Port premises besides existence of Prosopis in an extent of about 150 Acres covering periphery of all yards, roads, buildings and all along conveyor belt.</p> <p>➤ Maintaining 50 m width of green belt towards North and North-West direction with special emphasis towards habitation i.e., HB Colony, Peda Gantyada, Venkannapalem, Kongapalem & Gangavaram village.</p>																				

		<ul style="list-style-type: none"> ➤ Maintaining thick greenbelt at Port Approach road, Railway track side and at Truck parking area along the wind breaking wall towards HB Colony. ➤ Developed High Density Plantation (Miyawaki) within the Port premises in an extent of 1.0 Acre with 12,120 no. of plantation, as directed by APPCB ➤ GPL established exclusive nursery with 80,000 saplings and employed 183 people to maintain and improve the green belt on continuous basis. ➤ About Rs.1.85 Cr per annum is being spent for the development of green belt in the true spirit.
4.	The Gangavaram Port Limited (GPL) shall not store/ handle any hazardous cargo containers within premises.	GPL is not handling container cargo operations.
5.	All types of the fertilizers shall be stored in the closed warehouses only. The port shall ensure that there shall not be any open storage of urea or any other fertilizer materials and all urea & fertilizer material handling warehouses shall be maintained with effluent collection pits for collection and treatment and then used for green belt in the premises after meeting the standards.	GPL is storing the Fertilizers in closed ware houses and provided leachate collection pits around the area of warehouses and connected to STP.
6.	The Gangavaram Port Limited (GPL) shall store fuel oils used for construction equipment vessels / vehicles in a well designed manner and protect them against fire hazards by construction of compound wall to prevent access to unauthorized elements. The surface run off from storage area shall pass through oil water separator before being discharging. The Gangavaram Port Limited (GPL) shall store fuel oils used for construction equipment vessels / vehicles in a well designed manner and protect them against fire hazards by construction of compound wall to prevent access to unauthorized elements. The surface run off from storage area shall pass through oil water separator before being discharging.	GPL is storing the used oil in drums under a shed.
7.	The Gangavaram Port Limited (GPL) shall maintain the Malaria control programme and Health facilities in the operation phase. Vector control programmes. Control of all	GPL is having dispensary within the premises and no malaria cases were reported as of now. All anti malarial measures are taken

	breeding ground shall be carried out by the use of larvicide's in addition to control of adult mosquitoes. The health team should include a trained entomologist.	
8.	The Gangavaram Port Limited (GPL) shall maintain a task force to check the vehicle emissions on permanent basis The Gangavaram Port Limited (GPL) shall maintain a task force to check the vehicle emissions on permanent basis	GPL has provided provision for checking vehicle emissions with a task force team including environment and safety department officials.
9.	The Gangavaram Port Limited (GPL) shall constitute an Environment Management cell with qualified and trained staff.	GPL is having a dedicated Environment Management Team headed by Vice President.
10.	The Gangavaram Port Limited (GPL) shall maintain onsite and offsite emergency action plan after carrying out risk analysis and hazop studies	Complied with the condition.
11.	The Gangavaram Port Limited (GPL) with VUDA shall ensure that no slum development and unauthorized construction occur in the surrounding area.	VMRDA (VUDA) is taking necessary precautions to see that no slum development and unauthorized construction occur in the surrounding area of GPL.
12.	The Gangavaram Port Limited (GPL) shall handle alumina in completely closed enclosures. It shall also furnish an action plan to install mechanized system.	GPL is handling the alumina in hoppers and directly through tankers.
13.	<p>The Gangavaram Port Limited (GPL) shall implement following for controlling fugitive emission :</p> <p>a. Adequate dust controlling measures should be undertaken for loading and unloading operations for dusty cargo.</p> <p>b. Closed conveyor belt with water sprinkling arrangement for suppression of dust while conveyor dusty cargo likes coal, iron ore & alumina.</p> <p>c. Vehicle movement minimized / eliminated by implementing mechanical operations.</p> <p>d. All the vehicles involved in transportation of cargo shall be covered with tarpaulin.</p> <p>e. Traffic management measures adopted to avoid traffic congestion and provide empty dusting vehicle washing / dry cleaning system to clean all out going cargo vehicles.</p>	<p>a. Mechanical Dust Suppression System (MDSS): 176 No. of water cannons were installed at stack yards for dust.</p> <p>b. Provided Dust suppression systems at discharge/feeding points of belt conveyors at each transfer tower.</p> <p>c. Laid BT road within the port premises.</p> <p>d. 5 No. of heavy duty sweeping (3 No. existing & 2 New) machines were deployed for cleaning of berths, back up areas and roads.</p> <p>e. Covering the outgoing cargo vehicles with tarpaulin.</p> <p>f. Provided dedicated truck/tyre washing facility to wash all the outgoing vehicles</p> <p>g. Provided dedicated truck parking facility.</p>

	<p>f. Sufficient parking facilities based on traffic density / vehicular movements anticipated from the port.</p> <p>g. Adequate water sprinkling provided on roads and at dusty cargo storage areas for suppression of dust</p>	<p>h. Ensuring continuous water sprinkling on the berths, back up areas, at all transfer points, hauling roads with 20 Mobile DSS tankers for dust suppression.</p>
14.	<p>The Gangavaram Port Limited (GPL) shall implement the following measures in the cargo handling and stacking area:</p> <p>a. The ship un-loader maintained with in-situ water sprinkling system and unloading hoppers provided with covers on three sides to control fugitive emissions. Iron ore shall be unloaded through wagon tipplers.</p> <p>b. Mechanical stackers cum re-claimers for stacking, transfer and reclamation; Conveyors for transfer of materials to stop manual handling / mobile machines.</p> <p>c. MDSS in stacking areas.</p>	<p>i. Established mechanical conveyor system for handling coal & Iron ore to prevent the spillage of cargo and provided closed hoods for the conveyor system to curb fugitive emissions of coal/iron ore particles into the air.</p> <p>ii. Stacker cum re-claimers are being used for loading and unloading the coal. The railway wagons are being loaded mechanically. The Port is having Stacker cum re-claimer-1no., reclaimers-3nos., stackers-3nos., wagon loader-1no., silo of 800 cu.m capacity, ship unloader-2nos, ship loader-1no., wagon tipplier-1no., mobile harbour cranes-5no.</p> <p>iii. Mechanical Dust Suppression System (MDSS): 176 No. of water cannons were installed at stack yards for dust suppression by spraying water at high pressure to form blanket of mist on surface of cargo stock to settle the dust.</p>
15.	The Gangavaram Port Limited (GPL) shall ensure AAQ standards of the Board on all environmental conditions without fail.	GPL has provided 3 nos AAQ stations with data logger and connected to APPCB website.
16.	The Gangavaram Port Limited (GPL) shall maintain standby centrifugal pump so as to ensure uninterrupted operation of MDSS.	Complied. There are 4 no. Centrifugal pumps kept standby.
17.	The Gangavaram Port Limited (GPL) shall maintain compliance of all other conditions of CFE orders issued by the Board	Complied with the condition.
18.	The Gangavaram Port Limited (GPL) shall comply with Task Force directions and other directions issued by the Board from time to time.	Complied with the condition.

Compliance of Schedule – C

Sl. No	Condition	Compliance
1.	All the rules and regulations notified by Ministry of Environment & Forests, Government of India under the E (P) Act, 1986 in respect of management, handling, transportation and storage of the Hazardous waste should be followed.	GPL is following all the rules and regulations notified by Ministry of Environment & Forests, Government of India under the E(P) Act, 1986 in respect of management, handling, transportation and storage of the Hazardous waste.
2.	The Gangavaram Port Limited (GPL) shall not store hazardous waste for more than 90 days as per the Hazardous Wastes (Management, Handling and Tran boundary Movement) Rules, 2008 and amendments thereof.	Complied with the condition.
3.	The Gangavaram Port Limited (GPL) shall dispose Used Lead Acid Batteries to the manufacturers / dealers on buyback basis	GPL is buying the Lead acid on buy back basis.
4.	The Gangavaram Port Limited (GPL) shall maintain 6 copy manifest system for transportation of waste generated and a copy shall be submitted to concern Regional Office of APPCB. The driver who transports Hazardous Waste should be well acquainted about the procedure to be followed in case of an emergency during transit. The transporter should carry a Transport Emergency (TREM) Card.	GPL is following manifest system for disposal of waste oil to APPCB authorized agencies and submitting the copies to the Board.
5.	The Gangavaram Port Limited (GPL) shall maintain proper records for Hazardous Wastes stated in Authorization in FORM-3 i.e., quantity of Incinerable waste, land disposal waste, recyclable waste etc., and file annual returns in Form- 4 as per Rule 22(2) of the Hazardous Wastes (Management, Handling & Tran boundary Movement) Rules, 2008 and amendments thereof	<p>GPL is maintaining records for Hazardous Wastes stated in Authorization in Form-3 of CFO Order and filing annual returns in Form- 4 to APPCB.</p> <p>For the year 2020-2021 Form – 3 submitted on 25.06.2021 & Form – 4 Submitted on 09.06.2021.</p>
6.	The Gangavaram Port Limited (GPL) shall submit the condition wise compliance report of the conditions stipulated in Schedule A, B & C of this Order on half yearly basis to Board Office, Hyderabad and concerned Regional Office	<p>Complied with the condition.</p> <p>GL is submitting the compliance reports on monthly basis.</p>

Compliance of the conditions stipulated in CFO Auto Renewal Order No. APPCB/VSP/VSP/113/CFO/HO/2020- 10/09/2020, valid up to 31.12.2025.

Sl. No.	Condition	Compliance
1.	All other conditions mentioned in Schedules A, B & C of the combined CFO&HWA order issued by the Board vide order dated 13.01.2016 will remain same.	Noted and conditions are being followed as applicable.
2.	The facility shall comply with the standards issued by MoEF&CC / CPCB from time to time.	Noted and condition is being followed.
3.	The industry shall submit Half yearly compliance reports to all the stipulated conditions in Environmental Clearance (EC), Consent for Establishment (CFE) and Consent for Operation (CFO) through website i.e., https://pcb.ap.gov.in by 1st of January and 1st July of every year. The first half yearly compliance reports shall be furnished by the industry and second half yearly compliance reports shall be the audited through NABL accredited third party failing which the Consent Order issued will be cancelled.	Self-certified 1 st half yearly compliance report for the period from April 2021 to September 2021 submitted on 29.11.2021 through web site.
4.	The facility shall ensure that dedicated fund is allotted towards Environment Relief Fund (ERF) in the Public Liability Insurance policy and submit a copy of the policy at the Regional Office: Visakhapatnam every year.	GPL is having Public liability Insurance of IFFCO-TOKIO vide Policy No:41063755, dated 28.09.2021, Valid till 14/09/2022 with Premium of Rs-5615/- & ERF of Rs.5615/-
5.	In case of false certification, noncompliance of conditions / directions and discrepancy in furnishing the information by the industry, the Board can withdraw the auto renewed consent and take action under provisions of relevant Acts & Rules.	Noted and condition is being followed.
6.	The facility shall inventorize the storage quantities of hazardous chemicals as per the hazard nature of reactivity / toxicity / flammability / explosive stored/handling in the premises as defined in the Management of Storage, Import of Hazardous Chemicals (MSIHC) Rules, 1989 and the details shall be furnished to the Factories Department and to the Regional Office, APPCB on monthly basis duly certifying the same.	GPL is not handling any Hazardous cargo/Containers/Chemicals.
7.	The facility shall identify major accident hazard chemicals & list out the hazardous chemicals endangered to human health & environment and the details shall be furnished to the Factories Department and to the Regional Office, APPCB time to time duly certifying the same by the industry. Further the facility shall extend training to the working personnel's while handling hazardous chemicals for prevention of	GPL is not handling any Hazardous cargo/Containers/Chemicals.

	accidents and necessary antidotes to ensure the safety, as per the MSIHC Rules, 1989.	
8.	The facility shall submit the copy of the safety audit report and On-Site / Off Site Emergency Plans as applicable after being certified by the Factories Department/concerned authority, to the APPCB, Regional Office from time to time, if the storage quantity of hazardous chemicals is equal to or, in excess of the threshold quantities specified in schedule 2 & 3 of MSIHC Rules, 1989.	<p>An onsite and offsite emergency action plan has been prepared and submitted to APPCB, RO, VSP.</p> <p>Mock drills are being conducted twice in a year.</p>
9.	The facility shall carryout calibration of safety equipments and leak detection systems at regular intervals and shall certify the same with the Factories Department/concerned authority. That certified copy shall be submitted to the APPCB, Regional Office. The facility shall install fluorescent Wind Vane at the highest point in the facility premises.	<p>GPL install fluorescent Wind Vane at the following two places within the Port premises.</p> <ol style="list-style-type: none"> 1. On the top of Over Head Tank near Harbour Gate besides GPL Canteen. 2. On the top of Commercial Office Building (COB)
10	The facility shall inventorize the hazardous wastes and its quantities stored within the facility premises as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 (HOWM Rules, 2016) and shall furnish the details to Regional Office, APPCB on monthly basis duly certifying the same by the industry.	<p>GPL is not handling any Hazardous cargo/Containers/Chemicals.</p> <p>GPL is permitted to handle Used Lubricating oil of 12000 LPA. The generation, storage & disposal details are submitting to APPCB through Form – IV. Latest submission is on 09.06.2021 for the year 2020-2021.</p>
11	The facility shall allow import of hazardous cargoes only after the importer complies with the MSIHC Rules, 1989.	GPL Not handling any Hazardous cargo/Containers/Chemicals.



GANGAVARAM PORT LIMITED

GPL/ENV/APPGB/2022-23/005

Date: 05.05.2022.

To

Sr. Environmental Engineer, CESS
Andhra Pradesh Pollution Control Board,
D.no:33-26-14D/2,
Near Sunrise Hospital, Pushpa Hotel Center,
Chalamalavari Street, Kasturibaipet,
Vijayawada-520010.
Andhra Pradesh.

Dear Sir,

Sub: Water Consumption Cess Statement – Reg.

Please find enclosed herewith the water consumption statement in FORM - 1 for the month of April - 2022, prepared under the Water (Prevention and Control of Pollution) Cess Act, 1977.

We request you to kindly consider the same.

Thanking you

Yours Sincerely,

Authorized Signatory

Encl: As above.

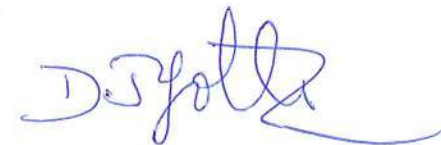
Copy submitted to the Environmental Engineer, A.P. Pollution Control Board, Regional Office, Visakhapatnam for kind information.

FORM – 1

Returns Regarding Water Consumed During Month of April - 2022

Name & Address	Purpose of which water consumed		Quantity of water consumed	If the meter was out of order the monthly avg. consumption of the water for the past 3 months of working period	Qty. of water qualifying for rebate according to the assesses	Remarks
(1)	(2)		(3)	(4)	(5)*	(6)
Gangavaram Port Limited, Gangavaram Post, Peda Gatyada Mandal, Visakhapatnam.	1) Industrial cooling/spraying in mine pits or boiler feed.	Total from Municipal mains i. From Municipal water supply mains ii. From well / tube well.	34,312 Cum/KL	-	-	-
	2) Domestic Water	i. From Municipal water supply mains ii. From well / tube well	Cum/KL 4463.80	-	-	-

(*) for claiming rebate under Col.7, the assessed shall indicate in the column the analytical and other reports annexed to this return in support of this claim.





BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

Environmental Monitoring Reports

(16 April and 30 April 2022)

Gangavaram Port LTD.
Pedagantyada(Mandal)
Gangavaram (Post)
Visakhapatnam - 530 044





BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF GROUND WATER SAMPLE

BCL Ref. No.	GPL/02/189	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	April 16, 2022	
Reporting Date	April 21, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Ground Water	
Location	Gangavaram Village	
Sample Collected by	M/s. Biochem Labs	
Reference Standard	IS: 10500, 1991	

S. No.	Parameter	Unit	Result	Limit IS: 10500
1.	Temperature	°C	26.4	-
2.	pH	H ⁺ concn.	7.12	6.5-8.5
3.	Total Hardness	mg/l	292	300
4.	Calcium (as Ca)	mg/l	58	75
5.	Magnesium (as Mg)	mg/l	24	30
6.	Chlorides	mg/l	96	250
7.	Manganese	mg/l	0.014	0.1
8.	Copper	mg/l	0.012	0.05
9.	Total Alkalinity	mg/l	68	200
10.	Total Dissolved Solids	mg/l	486	500
11.	Sulphate	mg/l	54	200
12.	Dissolved Oxygen	mg/l	3.0	-
13.	Nitrite (as NO ₂)	mg/l	0.018	0.02
14.	Iron	mg/l	0.12	0.3
15.	Fluoride	mg/l	0.8	1.0
16.	Oil & Grease	mg/l	BDL	0.01
17.	Chromium (as Cr ⁺⁶)	mg/l	0.014	0.05
18.	Cyanide	mg/l	NIL	0.05
19.	Zinc	mg/l	0.6	5.0
20.	Phenolic Compound	mg/l	NIL	0.001
21.	Free Residual Chlorine	mg/l	0.12	0.2
22.	Total Coli forms Count	MPN Index/100ml	8	1-11
23.	E.coli	Cfu/ml	Absent	Absent


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF GROUND WATER SAMPLE

BCL Ref. No.	GPL/02/190	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	April 16, 2022	
Reporting Date	April 21, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Ground Water	
Location	North boulder wall open well	
Sample Collected by	M/s. Biochem Labs	
Reference Standard	IS: 10500, 1991	

S. No.	Parameter	Unit	Result	Limit IS: 10500
1.	Temperature	°C	27.6	-
2.	pH	H ⁺ concn.	7.10	6.5-8.5
3.	Total Hardness	mg/l	226	300
4.	Calcium (as Ca)	mg/l	58	75
5.	Magnesium (as Mg)	mg/l	26	30
6.	Chlorides	mg/l	62	250
7.	Manganese	mg/l	0.02	0.1
8.	Copper	mg/l	0.014	0.05
9.	Total Alkalinity	mg/l	112	200
10.	Total Dissolved Solids	mg/l	460	500
11.	Sulphate	mg/l	48	200
12.	Dissolved Oxygen	mg/l	2.2	-
13.	Nitrite (as NO ₂)	mg/l	0.014	0.02
14.	Iron	mg/l	0.12	0.3
15.	Fluoride	mg/l	0.6	1.0
16.	Oil & Grease	mg/l	BDL	0.01
17.	Chromium (as Cr ⁺⁶)	mg/l	0.01	0.05
18.	Cyanide	mg/l	NIL	0.05
19.	Zinc	mg/l	0.2	5.0
20.	Phenolic Compound	mg/l	NIL	0.001
21.	Free Residual Chlorine	mg/l	0.06	0.2
22.	Total Coli forms Count	MPN Index/100ml	6	1-11
23.	E.coli	Cfu/ml	Absent	Absent


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT NOISE LEVEL MONITORING

BCL Ref. No.	GPL/ 04/215	Issued to:
Monitoring Date	April 16, 2022	M/s. Gangavaram Port Ltd.
Organization	M/s. Gangavaram Port Ltd.	Gangavaram (Village)
Collected by	M/s. Biochem Labs	PedaGantiyada (Mandalam)
		Visakhapatnam.

S. No.	Parameter	Unit	Location	Result		CPCB Limit	
				Day time	Night time	Industrial	
						Day time	Night time
1.	Noise Level	Decibels	Cargo area	64	60	75	70
2.	Noise Level	Decibels	PedaGantiyada/ Security Gate	62	58	-	-
				Day time	Night time	Residential	
						Day time	Night time
3.	Noise Level	Decibels	Gangavaram	46	30	55	45
4.	Noise Level	Decibels	HB Colony	48	42	-	-


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT NOISE LEVEL MONITORING

BCL Ref. No.	GPL/ 04/216	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	April 26, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Collected by	M/s. Biochem Labs	

S. No.	Parameter	Unit	Location	Result		CPCB Limit	
				Day time	Night time	Industrial	
						Day time	Night time
1.	Noise Level	Decibels	Cargo area	70	62	75	70
2.	Noise Level	Decibels	PedaGantyada/ Security Gate	68	60	-	-
				Day time	Night time	Residential	
						Day time	Night time
3.	Noise Level	Decibels	Gangavaram	46	28	55	45
4.	Noise Level	Decibels	HB Colony	50	40	7	-


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/215	Issued to:
Monitoring Date	April 16, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	April 21, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (Low Tide / High Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			Harbour Basine		Port Entrance Channel	
			Low tide	High tide	Low tide	High tide
1.	Temperature	°C	30.2	29.4	28.2	30.4
2.	pH	H+ conc	8.22	8.18	8.16	8.20
3.	Salinity	PSU	30.6	32.0	32.2	32.0
4.	Turbidity	NTU	34	22	14	12
5.	Total Suspended Solids	mg/l	38	20	16	10
6.	Transparency	Mts.	0.8	1.0	1.2	1.4
7.	Electrical Conductivity	mMHo	32.6	30.2	36.0	34.4


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 814222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/215	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	April 16, 2022	
Reporting Date	April 21, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			South brake Wall Outside		North brake Wall Outside	
			Low tide	High tide	Low tide	High tide
1.	Temperature	°C	28.2	29.4	30.2	26.8
2.	pH	H+ conc	8.24	8.22	8.20	8.18
3.	Salinity	PSU	32.6	33.0	32.8	35.2
4.	Turbidity	NTU	14	18	12	10
5.	Total Suspended Solids	mg/l	18	20	14	12
6.	Transparency	Mts.	1.2	1.0	1.2	1.4
7.	Electrical Conductivity	mMHo	34.2	36.0	33.6	35.0


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/215	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	April 16, 2022	
Reporting Date	April 21, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			Harbour Baseline		Port Entrance Channel	
			Low tide	High tide	Low tide	High tide
1.	Dissolved Oxygen	mg/l	3.8	4.6	4.8	5.2
2.	Biological Oxygen Demand	mg/l	1.2	2.0	1.6	2.8
3.	Oil & Grease	mg/l	1.0	0.8	0.6	0.8
4.	Sulphate	mg/l	968	954	1018	1024
5.	Phosphate	mg/l	0.36	0.32	0.24	0.30
6.	Nitrate	mg/l	3.0	2.8	2.0	2.2
7.	Nitrite	mg/l	0.024	0.028	0.026	0.024
8.	Chloride	mg/l	20436	19842	19684	21328
9.	Chromium	ppm	0.024	0.022	0.028	0.020
10.	Mercury	ppm	Nil	Nil	Nil	Nil
11.	Zinc	ppm	0.24	0.18	0.14	0.10
12.	Iron	ppm	0.03	0.022	0.024	0.026
13.	Manganese	ppm	0.024	0.028	0.026	0.018
14.	Cadmium	ppm	Nil	Nil	Nil	Nil


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/215	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	April 16, 2022	
Reporting Date	April 21, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			South brake Wall Outside		North brake Wall Outside	
			Low tide	High tide	Low tide	High tide
1.	Dissolved Oxygen	mg/l	4.8	4.2	5.0	5.6
2.	Biological Oxygen Demand	mg/l	1.6	2.0	2.6	3.0
3.	Oil & Grease	mg/l	0.4	0.8	0.4	1.0
4.	Sulphate	mg/l	1042	1016	1064	1028
5.	Phosphate	mg/l	0.34	0.28	0.42	0.22
6.	Nitrate	mg/l	3.0	2.8	1.8	2.0
7.	Nitrite	mg/l	0.024	0.026	0.032	0.028
8.	Chloride	mg/l	20680	21268	21632	19486
9.	Chromium	ppm	0.028	0.024	0.026	0.032
10.	Mercury	ppm	Nil	Nil	Nil	Nil
11.	Zinc	ppm	0.16	0.14	0.12	0.1
12.	Iron	ppm	0.032	0.022	0.028	0.02
13.	Manganese	ppm	0.02	0.024	0.016	0.018
14.	Cadmium	ppm	Nil	Nil	Nil	Nil


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/215	Issued to:
Monitoring Date	April 16, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	April 21, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: Harbourbasine / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	10000
2.	Zooplankton Count	No./m ³	860
3.	Chlorophyll a	mg/m ³	1.4
4.	Chlorophyll b	mg/m ³	2.6
5.	Primary Productivity	gC/m ²	3.2
6.	Biomass	mg/m ²	2.8

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	16
	<i>Amphora lineolata</i>	06
	<i>Cymbella marina</i>	22
	<i>Bacteriastrum delicatulum</i>	10
	<i>Thalassionema nitzschioides</i>	02
	<i>Chaetoceros dydymus</i>	04
	<i>Skeletonemacostatum</i>	0
	<i>Thalassiothrixlongissima</i>	16
	<i>Cymbella marina</i>	10
B.	Zooplankton Species	
	<i>Foraminifera</i>	12
	<i>Chaetognatha</i>	06
	<i>Amphipoda</i>	10
	<i>Cladocera</i>	0
	<i>Eggs of fish & larvae</i>	04


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/215	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	April 16, 2022	
Reporting Date	April 21, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: Port Entrance Channel / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	9400
2.	Zooplankton Count	No./m ³	500
3.	Chlorophyll a	mg/m ³	2.8
4.	Chlorophyll b	mg/m ³	2.4
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	2.6

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	22
	<i>Amphora lineolata</i>	10
	<i>Cymbella marina</i>	06
	<i>Bacteriastrum delicatulum</i>	24
	<i>Thalassionema nitzschioides</i>	08
	<i>Chaetoceros dydymus</i>	02
	<i>Skeletonemacostatum</i>	0
	<i>Thalassiothrixlongissima</i>	12
	<i>Cymbella marina</i>	14
B.	Zooplankton Species	
	<i>Foraminifera</i>	18
	<i>Chaetognatha</i>	22
	<i>Amphipoda</i>	10
	<i>Cladocera</i>	04
	<i>Eggs of fish & larvae</i>	0

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/215	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	April 16, 2022	
Reporting Date	April 21, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (High Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: Harbourbasine / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	11000
2.	Zooplankton Count	No./m ³	850
3.	Chlorophyll a	mg/m ³	3.6
4.	Chlorophyll b	mg/m ³	2.8
5.	Primary Productivity	gC/m ²	3.2
6.	Biomass	mg/m ²	2.0

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	10
	<i>Amphora lineolata</i>	14
	<i>Cymbella marina</i>	08
	<i>Bacteriastrum delicatulum</i>	0
	<i>Thalassionema nitzschioides</i>	10
	<i>Chaetoceros dydymus</i>	28
	<i>Skeletonemacostatum</i>	08
	<i>Thalassiothrixlongissima</i>	12
	<i>Cymbella marina</i>	10
B.	Zooplankton Species	
	<i>Foraminifera</i>	18
	<i>Chaetognatha</i>	14
	<i>Amphipoda</i>	06
	<i>Cladocera</i>	10
	<i>Eggs of fish & larvae</i>	04

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/215	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	April 16, 2022	
Reporting Date	April 21, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (High Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: Port Entrance Channel / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	8600
2.	Zooplankton Count	No./m ³	400
3.	Chlorophyll a	mg/m ³	2.4
4.	Chlorophyll b	mg/m ³	2.2
5.	Primary Productivity	gC/m ²	1.6
6.	Biomass	mg/m ²	2.0

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	10
	<i>Amphora lineolata</i>	22
	<i>Cymbella marina</i>	14
	<i>Bacteriastrum delicatulum</i>	0
	<i>Thalassionema nitzschioides</i>	08
	<i>Chaetoceros dydymus</i>	10
	<i>Skeletonemacostatum</i>	22
	<i>Thalassiothrixlongissima</i>	12
	<i>Cymbella marina</i>	08
B.	Zooplankton Species	
	<i>Foraminifera</i>	12
	<i>Chaetognatha</i>	06
	<i>Amphipoda</i>	0
	<i>Cladocera</i>	06
	<i>Eggs of fish & larvae</i>	12


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 814222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/215	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	April 16, 2022	
Reporting Date	April 21, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: South brake Wall outside / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	10000
2.	Zooplankton Count	No./m ³	800
3.	Chlorophyll a	mg/m ³	3.4
4.	Chlorophyll b	mg/m ³	2.6
5.	Primary Productivity	gC/m ²	3.2
6.	Biomass	mg/m ²	2.6

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	28
	<i>Amphora lineolata</i>	36
	<i>Cymbella marina</i>	50
	<i>Bacteriastrum delicatulum</i>	32
	<i>Thalassionema nitzschioides</i>	18
	<i>Chaetoceros dydymus</i>	0
	<i>Skeletonemacostatum</i>	26
	<i>Thalassiothrixlongissima</i>	32
	<i>Cymbella marina</i>	10
B.	Zooplankton Species	
	<i>Foraminifera</i>	28
	<i>Chaetognatha</i>	10
	<i>Amphipoda</i>	34
	<i>Cladocera</i>	0
	<i>Eggs of fish & larvae</i>	26


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/215	Issued to:
Monitoring Date	April 16, 2022	M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Reporting Date	April 21, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: North brake Wall Outside / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	1400
2.	Zooplankton Count	No./m ³	1000
3.	Chlorophyll a	mg/m ³	3.4
4.	Chlorophyll b	mg/m ³	2.8
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	2.6

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	34
	<i>Amphora lineolata</i>	60
	<i>Cymbella marina</i>	36
	<i>Bacteriastrum delicatulum</i>	04
	<i>Thalassionema nitzschioides</i>	48
	<i>Chaetoceros dydymus</i>	24
	<i>Skeletonemacostatum</i>	28
	<i>Thalassiothrixlongissima</i>	10
	<i>Cymbella marina</i>	0
B.	Zooplankton Species	
	<i>Foraminifera</i>	44
	<i>Chaetognatha</i>	36
	<i>Amphipoda</i>	04
	<i>Cladocera</i>	10
	<i>Eggs of fish & larvae</i>	08


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/215	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	April 16, 2022	
Reporting Date	April 21, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (High Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: South brake Wall Outside / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	9500
2.	Zooplankton Count	No./m ³	650
3.	Chlorophyll a	mg/m ³	2.4
4.	Chlorophyll b	mg/m ³	2.2
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	2.6

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	42
	<i>Amphora lineolata</i>	50
	<i>Cymbella marina</i>	28
	<i>Bacteriastrum delicatulum</i>	30
	<i>Thalassionema nitzschioides</i>	04
	<i>Chaetoceros dydymus</i>	26
	<i>Skeletonemacostatum</i>	0
	<i>Thalassiothrixlongissima</i>	10
	<i>Cymbella marina</i>	26
B.	Zooplankton Species	
	<i>Foraminifera</i>	46
	<i>Chaetognatha</i>	08
	<i>Amphipoda</i>	28
	<i>Cladocera</i>	04
	<i>Eggs of fish & larvae</i>	18


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 814222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/215	Issued to:
Monitoring Date	April 16, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	April 21, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (High Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: North brake Wall Outside / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	10500
2.	Zooplankton Count	No./m ³	800
3.	Chlorophyll a	mg/m ³	3.4
4.	Chlorophyll b	mg/m ³	2.6
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	2.8

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	56
	<i>Amphora lineolata</i>	12
	<i>Cymbella marina</i>	26
	<i>Bacteriastrum delicatulum</i>	04
	<i>Thalassionema nitzschioides</i>	46
	<i>Chaetoceros dydymus</i>	34
	<i>Skeletonemacostatum</i>	06
	<i>Thalassiothrixlongissima</i>	28
	<i>Cymbella marina</i>	04
B.	Zooplankton Species	
	<i>Foraminifera</i>	32
	<i>Chaetognatha</i>	40
	<i>Amphipoda</i>	28
	<i>Cladocera</i>	0
	<i>Eggs of fish & larvae</i>	02

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/216	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	April 30, 2022	
Reporting Date	May 05, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			Harbour Basine		Port Entrance Channel	
			Low tide	High tide	Low tide	High tide
1.	Temperature	°C	26.6	28.2	30.2	28.6
2.	pH	H+ conc	8.14	8.18	8.20	8.24
3.	Salinity	PSU	32.0	33.4	32.2	34.0
4.	Turbidity	NTU	34	20	12	14
5.	Total Suspended Solids	mg/l	42	34	18	16
6.	Transparency	Mts.	0.6	0.9	1.4	1.2
7.	Electrical Conductivity	mMHo	32.4	33.6	34.4	31.8


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/216	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	April 30, 2022	
Reporting Date	May 05, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			South brake Wall Outside		North brake Wall Outside	
			Low tide	High tide	Low tide	High tide
1.	Temperature	°C	24.6	26.0	27.2	28.6
2.	pH	H+ conc	8.22	8.20	8.24	8.28
3.	Salinity	PSU	32.0	33.2	34.6	34.0
4.	Turbidity	NTU	12	10	10	12
5.	Total Suspended Solids	mg/l	18	12	16	20
6.	Transparency	Mts.	1.2	1.6	1.8	1.6
7.	Electrical Conductivity	mMHo	34.6	32.2	34.8	35.4


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/216	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	April 30, 2022	
Reporting Date	May 05, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			Harbour Basine		Port Entrance Channel	
			Low tide	High tide	Low tide	High tide
1.	Dissolved Oxygen	mg/l	4.4	5.0	5.6	4.8
2.	Biological Oxygen Demand	mg/l	1.6	2.2	2.4	2.0
3.	Oil & Grease	mg/l	1.0	0.8	0.4	0.6
4.	Sulphate	mg/l	968	1012	986	1046
5.	Phosphate	mg/l	0.34	0.32	0.26	0.22
6.	Nitrate	mg/l	3.2	2.0	1.8	2.2
7.	Nitrite	mg/l	0.028	0.026	0.012	0.018
8.	Chloride	mg/l	18692	20482	19348	20260
9.	Chromium	ppm	0.026	0.022	0.018	0.024
10.	Mercury	ppm	Nil	Nil	Nil	Nil
11.	Zinc	ppm	0.20	0.18	0.16	0.14
12.	Iron	ppm	0.024	0.026	0.02	0.022
13.	Manganese	ppm	0.026	0.022	0.014	0.018
14.	Cadmium	ppm	Nil	Nil	Nil	Nil


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/216	Issued to:
Monitoring Date	April 30, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	May 05, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (Low Tide / High Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			South brake Wall Outside		North brake Wall Outside	
			Low tide	High tide	Low tide	High tide
1.	Dissolved Oxygen	mg/l	6.0	5.8	4.8	5.6
2.	Biological Oxygen Demand	mg/l	2.8	2.0	1.4	1.8
3.	Oil & Grease	mg/l	0.6	0.6	0.4	0.8
4.	Sulphate	mg/l	1024	1018	1036	1048
5.	Phosphate	mg/l	0.4	0.38	0.24	0.32
6.	Nitrate	mg/l	3.0	2.8	1.8	1.6
7.	Nitrite	mg/l	0.024	0.018	0.016	0.02
8.	Chloride	mg/l	21436	20682	19846	20496
9.	Chromium	ppm	0.026	0.02	0.018	0.022
10.	Mercury	ppm	Nil	Nil	Nil	Nil
11.	Zinc	ppm	0.14	0.18	0.16	0.10
12.	Iron	ppm	0.018	0.016	0.022	0.02
13.	Manganese	ppm	0.024	0.022	0.018	0.014
14.	Cadmium	ppm	Nil	Nil	Nil	Nil


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/216	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	April 30, 2022	
Reporting Date	May 05, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: Harboursbasine / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	12000
2.	Zooplankton Count	No./m ³	1400
3.	Chlorophyll a	mg/m ³	2.0
4.	Chlorophyll b	mg/m ³	2.4
5.	Primary Productivity	gC/m ²	2.2
6.	Biomass	mg/m ²	1.8

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	18
	<i>Amphora lineolata</i>	20
	<i>Cymbella marina</i>	04
	<i>Bacteriastrum delicatulum</i>	06
	<i>Thalassionema nitzschioides</i>	32
	<i>Chaetoceros dydymus</i>	10
	<i>Skeletonemacostatum</i>	04
	<i>Thalassiothrixlongissima</i>	20
	<i>Cymbella marina</i>	14
B.	Zooplankton Species	
	<i>Foraminifera</i>	18
	<i>Chaetognatha</i>	20
	<i>Amphipoda</i>	16
	<i>Gladocera</i>	10
	Eggs of fish & larvae	04

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/216	Issued to:
Monitoring Date	April 30, 2022	M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Reporting Date	May 05, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: Port Entrance Channel / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	10000
2.	Zooplankton Count	No./m ³	900
3.	Chlorophyll a	mg/m ³	2.4
4.	Chlorophyll b	mg/m ³	2.8
5.	Primary Productivity	gC/m ²	3.2
6.	Biomass	mg/m ²	1.6

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	20
	<i>Amphora lineolata</i>	10
	<i>Cymbella marina</i>	28
	<i>Bacteriastrum delicatulum</i>	14
	<i>Thalassionema nitzschioides</i>	0
	<i>Chaetoceros dydymus</i>	32
	<i>Skeletonemacostatum</i>	04
	<i>Thalassiothrixlongissima</i>	10
	<i>Cymbella marina</i>	02
B.	Zooplankton Species	
	<i>Foraminifera</i>	28
	<i>Chaetognatha</i>	16
	<i>Amphipoda</i>	04
	<i>Cladocera</i>	0
	Eggs of fish & larvae	18

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#9-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 814222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/216	Issued to:
Monitoring Date	April 30, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	May 05, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (High Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: Harbourbasine / High Tide

B. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	11000
2.	Zooplankton Count	No./m ³	1000
3.	Chlorophyll a	mg/m ³	2.4
4.	Chlorophyll b	mg/m ³	2.6
5.	Primary Productivity	gC/m ²	2.0
6.	Biomass	mg/m ²	1.2

B.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	22
	<i>Amphora lineolata</i>	12
	<i>Cymbella marina</i>	08
	<i>Bacteriastrum delicatulum</i>	04
	<i>Thalassionema nitzschioides</i>	24
	<i>Chaetoceros dydymus</i>	02
	<i>Skeletonemacostatum</i>	04
	<i>Thalassiothrixlongissima</i>	10
	<i>Cymbella marina</i>	08
B.	Zooplankton Species	
	<i>Foraminifera</i>	14
	<i>Chaetognatha</i>	21
	<i>Amphipoda</i>	02
	<i>Cladocera</i>	10
	<i>Eggs of fish & larvae</i>	12

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#9-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/216	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	April 30, 2022	
Reporting Date	May 05, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (High Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: Port Entrance Channel / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	1000
2.	Zooplankton Count	No./m ³	800
3.	Chlorophyll a	mg/m ³	1.8
4.	Chlorophyll b	mg/m ³	2.6
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	1.4

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	80
	<i>Amphora lineolata</i>	06
	<i>Cymbella marina</i>	46
	<i>Bacteriastrum delicatulum</i>	14
	<i>Thalassionema nitzschioides</i>	08
	<i>Chaetoceros dydymus</i>	20
	<i>Skeletonemacostatum</i>	0
	<i>Thalassiothrixlongissima</i>	22
	<i>Cymbella marina</i>	10
B.	Zooplankton Species	
	<i>Foraminifera</i>	22
	<i>Chaetognatha</i>	04
	<i>Amphipoda</i>	18
	<i>Gladocera</i>	12
	Eggs of fish & larvae	06

Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 814222277, 79969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/216	Issued to:
Monitoring Date	April 30, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	May 05, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: South brake Wall outside / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	13000
2.	Zooplankton Count	No./m ³	950
3.	Chlorophyll a	mg/m ³	3.4
4.	Chlorophyll b	mg/m ³	2.0
5.	Primary Productivity	gC/m ²	3.2
6.	Biomass	mg/m ²	2.4

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	92
	<i>Amphora lineolata</i>	28
	<i>Cymbella marina</i>	56
	<i>Bacteriastrum delicatulum</i>	10
	<i>Thalassionema nitzschioides</i>	08
	<i>Chaetoceros dydymus</i>	26
	<i>Skeletonemacostatum</i>	36
	<i>Thalassiothrixlongissima</i>	18
	<i>Cymbella marina</i>	14
B.	Zooplankton Species	
	<i>Foraminifera</i>	38
	<i>Chaetognatha</i>	21
	<i>Amphipoda</i>	10
	<i>Cladocera</i>	26
	Eggs of fish & larvae	04

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 814222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/216	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	April 30, 2022	
Reporting Date	May 05, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide)	
Sample Collected by	M/s. Biochem Labs	


Station Name: North brake Wall Outside / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	9800
2.	Zooplankton Count	No./m ³	600
3.	Chlorophyll a	mg/m ³	3.2
4.	Chlorophyll b	mg/m ³	2.8
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	2.4

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	84
	<i>Amphora lineolata</i>	56
	<i>Cymbella marina</i>	20
	<i>Bacteriastrum delicatulum</i>	08
	<i>Thalassionema nitzschioides</i>	10
	<i>Chaetoceros dydymus</i>	08
	<i>Skeletonemacostatum</i>	22
	<i>Thalassiothrixlongissima</i>	0
	<i>Cymbella marina</i>	10
B.	Zooplankton Species	
	<i>Foraminifera</i>	44
	<i>Chaetognatha</i>	20
	<i>Amphipoda</i>	08
	<i>Cladocera</i>	0
	<i>Eggs of fish & larvae</i>	02


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/216	Issued to:
Monitoring Date	April 30, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	May 05, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (High Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: South brake Wall Outside / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	11000
2.	Zooplankton Count	No./m ³	800
3.	Chlorophyll a	mg/m ³	2.8
4.	Chlorophyll b	mg/m ³	2.0
5.	Primary Productivity	gC/m ²	3.2
6.	Biomass	mg/m ²	2.4

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	84
	<i>Amphora lineolata</i>	18
	<i>Cymbella marina</i>	56
	<i>Bacteriastrum delicatulum</i>	10
	<i>Thalassionema nitzschioides</i>	24
	<i>Chaetoceros dydymus</i>	0
	<i>Skeletonemacostatum</i>	08
	<i>Thalassiothrixlongissima</i>	38
	<i>Cymbella marina</i>	10
B.	Zooplankton Species	
	<i>Foraminifera</i>	28
	<i>Chaetognatha</i>	06
	<i>Amphipoda</i>	34
	<i>Cladocera</i>	10
	Eggs of fish & larvae	02

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/216	Issued to:
Monitoring Date	April 30, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	May 05, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (High Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: North brake Wall Outside / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	1000
2.	Zooplankton Count	No./m ³	600
3.	Chlorophyll a	mg/m ³	3.4
4.	Chlorophyll b	mg/m ³	2.8
5.	Primary Productivity	gC/m ²	3.2
6.	Biomass	mg/m ²	2.0

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	68
	<i>Amphora lineolata</i>	35
	<i>Cymbella marina</i>	06
	<i>Bacteriastrum delicatulum</i>	42
	<i>Thalassionema nitzschioides</i>	12
	<i>Chaetoceros dydymus</i>	36
	<i>Skeletonemacostatum</i>	28
	<i>Thalassiothrixlongissima</i>	04
	<i>Cymbella marina</i>	10
B.	Zooplankton Species	
	<i>Foraminifera</i>	56
	<i>Chaetognatha</i>	12
	<i>Amphipoda</i>	36
	<i>Cladocera</i>	24
	<i>Eggs of fish & larvae</i>	0

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#9-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF SEDIMENT SAMPLE

BCL Ref. No.	GPL/ 06/215	Issued to:
Monitoring Date	April 16, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	April 21, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Sediment (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

S.No	Parameters	Unit	Result	
			Harbour Basine	Port Entrance Channel
1.	pH	H+ conc	7.04	7.08
2.	Organic matter	%	1.6	1.0
3.	Nitrate	mg/kg	2.0	1.4
4.	Phosphate	mg/kg	1.2	1.0
5.	Oil & Grease	mg/kg	0.12	0.14
6.	Iron	ppm	0.1	0.12
7.	Manganese	ppm	0.14	0.16
8.	Nickel	ppm	0.12	0.1
9.	Chromium	ppm	0.12	0.12
10.	Mercury	ppm	Nil	Nil
11.	Zinc	ppm	1.0	1.0
12.	Lead	ppm	0.01	0.01
13.	Arsenic	ppm	0.01	0.01
14.	Selenium	ppm	0.01	0.01
15.	Copper	ppm	0.16	0.18

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#88-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73000 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF SEDIMENT SAMPLE

BCL Ref. No.	GPL/ 06/215	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	April 16, 2022	
Reporting Date	April 21, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Sediment (Low Tide)	
Sample Collected by	M/s. Biochem Labs	

S.No	Parameters	Unit	Result	
			South brake Wall Outside	North brake Wall Outside
1.	pH	H+ conc	7.10	7.12
2.	Organic matter	%	1.2	1.2
3.	Nitrate	mg/kg	2.0	1.0
4.	Phosphate	mg/kg	0.8	1.2
5.	Oil & Grease	mg/kg	0.02	0.01
6.	Iron	ppm	0.16	0.14
7.	Manganese	ppm	0.14	0.18
8.	Nickel	ppm	0.12	0.12
9.	Chromium	ppm	0.12	0.16
10.	Mercury	ppm	Nil	Nil
11.	Zinc	ppm	1.0	1.0
12.	Lead	ppm	0.01	0.01
13.	Arsenic	ppm	0.01	0.01
14.	Selenium	ppm	0.01	0.01
15.	Copper	ppm	0.18	0.14


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#B-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 79969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT BENTHIC FAUNAL DIVERSITY

BCL Ref. No.	GPL/ 06/215	Issued to:
Monitoring Date	April 16, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	April 21, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Sediment (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

S. No	Species/Group	Result	
		Total Species Count	
		HarbourBasine	Port Entrance Channel
1.	<i>Opheliidae sp</i>	28	30
2.	<i>Glyceridae sp</i>	04	10
3.	<i>Nereidae sp</i>	16	12
4.	<i>Aphroditidae sp</i>	24	06
5.	<i>Cirratulidae sp</i>	06	18
6.	<i>Capitella sp</i>	0	06
7.	<i>Amphipoda sp.</i>	22	18
8.	<i>Gastropoda</i>	12	0
9.	<i>Chaetognatha</i>	06	12

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#B-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT BENTHIC FAUNAL DIVERSITY

BCL Ref. No.	GPL/ 06/215	Issued to:
Monitoring Date	April 16, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	April 21, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Sediment (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

S. No	Species/Group	Result	
		Total Species Count	
		South brake Wall Outside	North brake Wall Outside
1.	Foraminifera	32	26
2.	Amphipoda	14	08
3.	Mytilusedulis	0	02
4.	Gastropod veliger	18	12
5.	Olithona	14	16
6.	Capitella	02	0
7.	Copepod nauplii	14	10
9.	Brachyuran zoea	02	0
8.	Neanthusarenaceodentala	08	06

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#B-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF SEDIMENT SAMPLE

BCL Ref. No.	GPL/ 06/216	Issued to:
Monitoring Date	April 30, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	May 05, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Sediment (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

S.No	Parameters	Unit	Result	
			Harbour Basine	Port Entrance Channel
1.	pH	H+ conc	7.12	7.14
2.	Organic matter	%	2.0	1.0
3.	Nitrate	mg/kg	1.6	1.2
4.	Phosphate	mg/kg	1.0	1.0
5.	Oil & Grease	mg/kg	0.12	0.08
6.	Iron	ppm	0.14	0.12
7.	Manganese	ppm	0.12	0.16
8.	Nickel	ppm	0.14	0.12
9.	Chromium	ppm	0.16	0.1
10.	Mercury	ppm	Nil	Nil
11.	Zinc	ppm	1.0	1.0
12.	Lead	ppm	0.01	0.01
13.	Arsenic	ppm	0.01	0.01
14.	Selenium	ppm	0.01	0.01
15.	Copper	ppm	0.22	0.16

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

88888, Near Ramatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
74000 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF SEDIMENT SAMPLE

BCL Ref. No.	GPL/ 06/216	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	April 30, 2022	
Reporting Date	May 05, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Sediment (Low Tide)	
Sample Collected by	M/s. Biochem Labs	

S.No	Parameters	Unit	Result	
			South brake Wall Outside	North brake Wall Outside
1.	pH	H+ conc	7.06	7.04
2.	Organic matter	%	1.0	0.8
3.	Nitrate	mg/kg	2.0	1.4
4.	Phosphate	mg/kg	1.2	1.0
5.	Oil & Grease	mg/kg	0.08	0.06
6.	Iron	ppm	0.16	0.14
7.	Manganese	ppm	0.14	0.12
8.	Nickel	ppm	0.12	0.1
9.	Chromium	ppm	0.16	0.12
10.	Mercury	ppm	Nil	Nil
11.	Zinc	ppm	1.0	0.6
12.	Lead	ppm	0.01	0.01
13.	Arsenic	ppm	0.01	0.01
14.	Selenium	ppm	0.01	0.01
15.	Copper	ppm	0.18	0.14

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-8-8, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
740009 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT BENTHIC FAUNAL DIVERSITY

BCL Ref. No.	GPL/ 06/216	Issued to:
Monitoring Date	April 30, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	May 05, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Sediment (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

S. No	Species/Group	Result	
		Total Species Count	
		Harbour Basine	Port Entrance Channel
1.	<i>Eunicidae sp.</i>	64	50
2.	<i>Paraonidae sp.</i>	20	0
3.	<i>Syllidae sp</i>	18	06
4.	<i>Sabellidae sp</i>	14	10
5.	<i>Oithona sp.</i>	26	24
6.	<i>Capitella sp.</i>	08	16
7.	<i>Syllidae sp</i>	0	28
8.	<i>Amphipoda sp.</i>	12	0
9.	<i>Nematoda sp.</i>	06	08

Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#9-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in


TEST REPORT BENTHIC FAUNAL DIVERSITY

BCL Ref. No.	GPL/ 06/216	Issued to:
Monitoring Date	April 30, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	May 05, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Sediment (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

S. No	Species/Group	Result	
		Total Species Count	
		South brake Wall Outside	North brake Wall Outside
1	<i>Capitella sp.</i>	54	68
2	<i>Syllidae sp</i>	42	22
3	<i>Amphipoda sp.</i>	04	18
4	<i>Nematoda sp.</i>	36	04
5	<i>Capitella sp.</i>	0	36
6	<i>Syllidae sp</i>	28	18
7	<i>Paraonidae sp.</i>	36	0
8	<i>Syllidae sp</i>	06	10
9	<i>Sabellidae sp</i>	12	04

Analyst




Authorized Signatory

GANGAVARAM PORT LIMITED
(An ISO 9001:2015 & ISO 14001:2015
Certified Company)



Environment Monitoring Report
April, 2022

Corporate Office:

2,3,4th Floors, Hansa plaza,
Plot No.798, road No.36,
Jubilee Hills, Hyderabad - 500033
Phone : 040 – 33599999

Site Office:

Gangavaram (V & Post)
Pedagantyada (Mandal)
Visakhapatnam – 530 044
Phone: 0891 -2701177

Reference No.:	GPL/April/2022	Submitted to:
Monitoring Date:	01.04.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	72.81	44.81	52.66	21.35	14.07	0.37	67.48	42.38	8.53	29.89	8.91	0.13	75.24	46.02	48.04	23.51	13.95	0.43
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. V. N. S. Murthy*
Unit 4851910

For Gangavaram Port Limited
D. Jyothi
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/April/2022	Submitted to:
Monitoring Date:	02.04.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	73.20	45.06	55.59	20.73	14.14	0.71	67.84	42.62	8.61	29.34	9.30	0.18	75.64	46.27	50.16	22.69	14.10	0.77
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. V. S. Murthy*
Env CIPS 1910

For Gangavaram Port Limited

D. D. Jyothi
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/April/2022	Submitted to:
Monitoring Date:	03.04.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	72.77	44.79	54.18	20.04	14.02	0.48	67.43	42.37	8.44	29.03	9.95	0.23	75.19	46.00	47.59	22.43	13.97	0.41
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. V. S. Murthy*
Date: 19/10

For Gangavaram Port Limited
D. Jyothi
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/April/2022	Submitted to:
Monitoring Date:	04.04.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	71.94	44.27	52.34	22.85	19.88	0.10	66.66	41.88	8.33	35.09	7.45	0.34	74.33	45.47	58.01	24.84	45.66	0.25
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *[Signature]*
4PS 1910

For Gangavaram Port Limited
[Signature]
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/April/2022	Submitted to:
Monitoring Date:	05.04.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	72.66	44.65	47.10	22.62	13.77	0.20	67.34	42.24	8.05	33.17	7.55	0.38	75.09	45.86	43.52	24.17	13.76	0.22
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. S. Saurabh*
14/04/2022

For Gangavaram Port Limited
(Signature)
 (Dr. D. Jyothi)
 Vice President (Environment)

Reference No.:	GPL/April/2022	Submitted to:
Monitoring Date:	06.04.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	74.04	45.43	48.75	21.04	14.16	0.33	68.60	42.97	10.75	34.56	7.45	0.35	76.50	46.65	44.48	23.02	14.14	0.35
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. V. S. Kumar*
LVF UPS 1910

For Gangavaram Port Limited
D. Jyothi
 (Dr. D. Jyothi)
 Vice President (Environment)

Reference No.:	GPL/April/2022	Submitted to:
Monitoring Date:	07.04.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	75.72	46.37	48.26	21.45	14.20	0.30	70.17	43.87	12.38	29.56	6.38	0.28	78.24	47.62	43.59	23.71	14.13	0.33
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. Valsan*
Date: 4/5/2022

For Gangavaram Port Limited
D. Jyothi
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/April/2022	Submitted to:
Monitoring Date:	08.04.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	73.39	45.04	49.93	22.60	14.28	0.36	68.01	42.61	11.84	34.31	6.04	0.77	75.84	46.26	45.18	24.36	14.26	0.43
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G.V.N. S. Murthy*
447 CPS 1910

For Gangavaram Port Limited
D. Jyothi
(Dr. D. Jyothi)
Vice President (Environment)

Ref erence No.:	GPL/April/2022	Submitted to:
Monitoring Date:	09.04.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	72.28	44.37	51.13	22.17	14.13	0.35	66.98	41.97	11.98	29.95	6.56	0.38	74.69	45.57	45.89	24.63	14.21	0.32
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G.V.N. Suresh*
24/4/2022

For Gangavaram Port Limited

 (Dr. D. Jyothi)
 Vice President (Environment)

Reference No.:	GPL/April/2022	Submitted to:
Monitoring Date:	10.04.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	71.47	43.96	50.83	21.68	14.17	0.61	66.23	41.58	12.08	31.84	6.21	0.41	73.85	45.15	46.75	23.31	14.17	0.71
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G.V.N. Suresh*
Date: 10/4/2022

For Gangavaram Port Limited
D. Jyothi
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/April/2022	Submitted to:
Monitoring Date:	11.04.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	71.29	43.86	48.90	21.83	14.27	0.40	66.06	41.49	11.94	32.44	5.84	0.45	73.67	45.05	45.47	23.80	14.17	0.59
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. N. S. Murthy*
4th Apr 19/10

For Gangavaram Port Limited
D. Jyothi
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/April/2022	Submitted to:
Monitoring Date:	12.04.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	71.43	43.92	51.13	21.75	14.12	0.33	66.19	41.54	12.00	29.89	5.97	0.38	73.81	45.11	46.40	24.06	14.11	0.40
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. N. Suresh*
Enr UPS 1910

For Gangavaram Port Limited
D. D. Jyothi
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/April/2022	Submitted to:
Monitoring Date:	13.04.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	70.63	43.46	51.68	22.93	14.35	0.45	65.45	41.11	12.08	29.93	6.17	0.42	72.98	44.63	49.36	25.46	14.54	0.52
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. V. S. Murthy*
Date: 11/5/2022

For Gangavaram Port Limited

D. Jyothi
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/April/2022	Submitted to:
Monitoring Date:	14.04.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	71.07	43.72	53.55	21.51	14.74	0.74	65.86	41.36	12.07	27.64	6.70	0.20	73.44	44.91	49.21	24.03	14.76	0.70
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. V. S. Murthy*
Lim 4/15/1910

For Gangavaram Port Limited

D. Jyothi
 (Dr. D. Jyothi)
 Vice President (Environment)

Reference No.:	GPL/April/2022	Submitted to:
Monitoring Date:	15.04.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	70.96	43.66	51.02	21.92	14.82	0.53	65.76	41.30	11.97	29.13	6.03	0.24	73.32	44.84	46.98	23.56	14.80	0.55
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. V. S. Murthy*
Envt UPS 1910

For Gangavaram Port Limited
D. D. Jyothi
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/April/2022	Submitted to:
Monitoring Date:	16.04.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	71.14	43.76	52.71	21.66	14.86	0.50	65.92	41.39	11.79	29.80	6.02	0.16	73.51	44.94	48.84	23.86	14.81	0.56
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³


Prepared by: *G. V. S. Murthy*
4th Apr 1910

For Gangavaram Port Limited
D. D. Jyothi
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/April/2022	Submitted to:
Monitoring Date:	17.04.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	71.21	43.78	51.24	22.87	14.89	0.38	65.99	41.42	11.75	29.89	6.29	0.34	73.59	44.97	45.97	25.73	14.89	0.39
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *GNNCHM*
4/17/2022

For Gangavaram Port Limited

 (Dr. D. Jyothi)
 Vice President (Environment)

Reference No.:	GPL/April/2022	Submitted to:
Monitoring Date:	18.04.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	72.40	44.47	50.28	22.14	14.85	0.53	67.09	42.07	11.61	29.82	5.40	0.46	74.81	45.68	45.62	24.55	14.85	0.50
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. V. S. Murthy*
24/4/22 4:25:19

For Gangavaram Port Limited

(Signature)
 (Dr. D. Jayathi)
 Vice President (Environment)

Reference No.:	GPL/April/2022	Submitted to:
Monitoring Date:	19.04.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	72.75	44.71	53.85	21.14	14.79	0.65	67.41	42.29	11.75	30.37	5.00	0.36	75.17	45.91	48.13	23.81	14.81	0.60
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. V. S. S. S. S.*
4th APS 1910

For Gangavaram Port Limited

(Signature)
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/April/2022	Submitted to:
Monitoring Date:	20.04.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	72.34	44.49	46.99	22.48	13.74	0.65	67.04	42.08	11.99	28.96	5.44	0.21	74.75	45.69	44.63	23.60	13.62	0.86
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G.N. Sridhar*
4th Apr 2022

For Gangavaram Port Limited
(Signature)
 (Dr. B. Jyothi)
 Vice President (Environment)

Reference No.:	GPL/April/2022	Submitted to:
Monitoring Date:	21.04.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	71.43	43.95	42.78	21.56	10.78	0.24	66.19	41.57	12.03	27.88	5.98	0.29	73.81	45.14	38.59	23.76	10.71	0.29
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. V. S. S. S. S.*
Date: 4/5/2022

For Gangavaram Port Limited

(Signature)
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/April/2022	Submitted to:
Monitoring Date:	22.04.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	76.87	47.24	46.31	22.50	10.75	0.58	71.23	44.68	11.55	31.88	5.21	0.17	79.44	48.52	41.96	24.93	10.77	0.54
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. V. S. N. S. S. S.*
Date: 22/4/2022

For Gangavaram Port Limited

D. S. Jyothi
(Dr. D. Jyothi)

Vice President (Environment)

Reference No.:	GPL/April/2022	Submitted to:
Monitoring Date:	23.04.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	77.71	47.79	51.08	21.60	11.19	0.87	72.01	45.21	11.80	31.46	5.06	0.22	80.30	49.08	46.42	24.78	11.32	0.87
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. N. S. Murthy*
4/5/2022

For Gangavaram Port Limited
(Signature)
 (Dr. D. Jyothi)
 Vice President (Environment)

Reference No.:	GPL/April/2022	Submitted to:
Monitoring Date:	24.04.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	80.65	49.56	51.04	24.58	12.27	0.59	74.74	46.88	11.80	35.64	4.43	0.36	83.34	50.90	48.27	27.14	12.29	0.69
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³


Prepared by: *G.V.N. Suresh*
4/5/21/910

For Gangavaram Port Limited
D. Jyothi
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/April/2022	Submitted to:
Monitoring Date:	25.04.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	79.38	48.81	51.83	21.85	12.27	0.46	73.57	46.17	11.98	31.70	5.04	0.32	82.03	50.13	49.60	25.30	12.28	0.52
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G.V.L. Suresh*
4/5/2022

For Gangavaram Port Limited

 (Dr. D. Jyothi)
 Vice President (Environment)

Reference No.:	GPL/April/2022	Submitted to:
Monitoring Date:	26.04.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	80.19	49.28	48.17	22.87	12.58	0.32	74.32	46.63	11.86	32.05	5.10	0.32	82.87	50.62	44.43	25.25	12.54	0.39
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: G. V. L. R. S. S.
21/4/2022 4:55/19/10

For Gangavaram Port Limited

 (Dr. D. Jyothi)
 Vice President (Environment)

Reference No.:	GPL/April/2022	Submitted to:
Monitoring Date:	27.04.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	79.49	48.88	50.30	22.52	12.12	0.55	73.65	46.23	6.38	36.90	8.63	0.39	82.14	50.20	45.84	24.98	12.11	0.54
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. R. S. R. S.*
Date: 4/5/2022

For Gangavaram Port Limited

(Signature)
(Dr. D. Jyothi)

Vice President (Environment)

Reference No.:	GPL/April/2022	Submitted to:
Monitoring Date:	28.04.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	79.56	48.92	49.84	22.13	11.25	0.50	73.73	46.28	0.07	32.88	12.95	0.33	82.21	50.25	46.40	24.10	11.14	0.66
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. N. S. Murthy*
28/4/2022

For Gangavaram Port Limited
D. D. Jyothi
 (Dr. D. Jyothi)
 Vice President (Environment)

Reference No.:	GPL/April/2022	Submitted to:
Monitoring Date:	29.04.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	79.29	48.75	47.62	22.14	11.54	0.41	73.48	46.11	0.17	33.53	12.58	0.32	81.93	50.06	43.99	24.24	11.91	0.47
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. V. S. Murthy*
4/5/2022

For Gangavaram Port Limited
D. D. Jyothi
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/April/2022	Submitted to:
Monitoring Date:	30.04.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	81.28	50.01	56.46	24.93	12.47	0.74	75.31	47.30	0.12	32.01	13.16	0.19	83.99	51.35	49.46	25.27	13.33	0.76
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. V. S. S. S.*
24/5 4/25/1910

For Gangavaram Port Limited
D. Jyothi
 (Dr. D. Jyothi)
 Vice President (Environment)



GANGAVARAM PORT LIMITED

GPL/ENV/APPCB/2022-23/011

Date: 06/06/2022.

To

The Environmental Engineer,
A.P. Pollution Control Board
Regional Office
APPCB Buildings, 3rd Floor
Main Road, Madhavadhara VUDA Layout
Visakhapatnam- 530 009.

Dear Sir,

Sub:- Monthly CFO Compliance, Environmental Marine & Terrestrial
Monitoring Reports and Water Consumption details (Form-1) –
Submitted – Reg.

Reff:- 1. CFO & HWA Order No. APPCB/VSP/VSP/113/CFO/HO/2015,
dated 13.01.2016, valid up to 31.12.2020.
2. CFO & HWA Order No. APPCB/VSP/VSP/113/CFO/HO/2020,
dated 10.09.2020, valid up to 31.12.2025.

@@@

With reference to the above, we are here with submitting the monthly CFO compliance reports and CAAQM, Marine & Terrestrial monitoring results along with Water Consumption details in Form - 1 for the month of May -2022.

Yours Sincerely,

Authorized Signatory

Encl: As above.

Compliance of the conditions stipulated in CFO Auto Renewal Order No. APPCB/VSP/VSP/113/CFO/HO/2020- 10/09/2020, valid up to 31.12.2025.

Sl. No.	Condition	Compliance
1.	All other conditions mentioned in Schedules A, B & C of the combined CFO&HWA order issued by the Board vide order dated 13.01.2016 will remain same.	Noted and conditions are being followed as applicable.
2.	The facility shall comply with the standards issued by MoEF&CC / CPCB from time to time.	Noted and condition is being followed.
3.	The industry shall submit Half yearly compliance reports to all the stipulated conditions in Environmental Clearance (EC), Consent for Establishment (CFE) and Consent for Operation (CFO) through website i.e., https://pcb.ap.gov.in by 1st of January and 1st July of every year. The first half yearly compliance reports shall be furnished by the industry and second half yearly compliance reports shall be the audited through NABL accredited third party failing which the Consent Order issued will be cancelled.	Self-certified 1 st half yearly compliance report for the period from April 2021 to September 2021 submitted on 29.11.2021 through web site. NABL Accredited Agency certified compliance report for the 2 nd half for the period from October 2021 to March 2022 was uploaded through website on 30.05.2022.
4.	The facility shall ensure that dedicated fund is allotted towards Environment Relief Fund (ERF) in the Public Liability Insurance policy and submit a copy of the policy at the Regional Office: Visakhapatnam every year.	GPL is having Public liability Insurance of IFFCO-TOKIO vide Policy No:41063755, dated 28.09.2021, Valid till 14/09/2022 with Premium of Rs-5615/- & ERF of Rs.5615/-
5.	In case of false certification, noncompliance of conditions / directions and discrepancy in furnishing the information by the industry, the Board can withdraw the auto renewed consent and take action under provisions of relevant Acts & Rules.	Noted and condition is being followed.
6.	The facility shall inventorize the storage quantities of hazardous chemicals as per the hazard nature of reactivity / toxicity / flammability / explosive stored/handling in the premises as defined in the Management of Storage, Import of Hazardous Chemicals (MSIHC) Rules, 1989 and the details shall be furnished to the Factories Department and to the Regional Office, APPCB on monthly basis duly certifying the same.	GPL is not handling any Hazardous cargo/Containers/Chemicals.
7.	The facility shall identify major accident hazard chemicals & list out the hazardous chemicals endangered to human health & environment and the details shall be furnished to the Factories Department and to the Regional Office, APPCB time to time duly certifying the same by the industry. Further the facility shall extend training to the working personnel's while handling hazardous chemicals for prevention of	GPL is not handling any Hazardous cargo/Containers/Chemicals.

	accidents and necessary antidotes to ensure the safety, as per the MSIHC Rules, 1989.	
8.	The facility shall submit the copy of the safety audit report and On-Site / Off Site Emergency Plans as applicable after being certified by the Factories Department/concerned authority, to the APPCB, Regional Office from time to time, if the storage quantity of hazardous chemicals is equal to or, in excess of the threshold quantities specified in schedule 2 & 3 of MSIHC Rules, 1989.	<p>An onsite and offsite emergency action plan has been prepared and submitted to APPCB, RO, VSP.</p> <p>Mock drills are being conducted twice in a year.</p>
9.	The facility shall carryout calibration of safety equipments and leak detection systems at regular intervals and shall certify the same with the Factories Department/concerned authority. That certified copy shall be submitted to the APPCB, Regional Office. The facility shall install fluorescent Wind Vane at the highest point in the facility premises.	<p>GPL install fluorescent Wind Vane at the following two places within the Port premises.</p> <ol style="list-style-type: none"> 1. On the top of Over Head Tank near Harbour Gate besides GPL Canteen. 2. On the top of Commercial Office Building (COB)
10	The facility shall inventorize the hazardous wastes and its quantities stored within the facility premises as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 (HOWM Rules, 2016) and shall furnish the details to Regional Office, APPCB on monthly basis duly certifying the same by the industry.	<p>GPL is not handling any Hazardous cargo/Containers/Chemicals.</p> <p>GPL is permitted to handle Used Lubricating oil of 12000 LPA. The generation, storage & disposal details are submitting to APPCB through Form – IV. Latest submission is on 06.06.2022 for the year 2021-2022.</p>
11	The facility shall allow import of hazardous cargoes only after the importer complies with the MSIHC Rules, 1989.	GPL Not handling any Hazardous cargo/Containers/Chemicals.

Compliance report of the conditions stipulated in Schedule A,B & C of CFO & HWA Order No. APPCB/VSP/VSP/113/CFO/HO/2015, dated 13.01.2016

Compliance of Schedule - A

Sl. No.	Condition	Compliance
1.	Any up-set condition in any plant/plants of the industry, which result in, increased effluent/ emission discharge and/ or violation of standards stipulated in this order shall be informed to this Board, under intimation to the Collector and District Magistrate and take immediate action to bring down the discharge / emission below the limits.	All conditions are being followed.
2.	The industry should carryout analysis of waste water discharges or emissions through chimneys for the parameters mentioned in this order on quarterly basis and submit to the Board.	GPL is carrying out 3 rd party monitoring and analysis. As per analysis reports, the samples are meeting the Board standards.
3.	All the rules & regulations notified by Ministry of Law and Justice, Government of India regarding Public Liability Insurance Act, 1991 should be followed as applicable.	Noted and conditions are being followed as applicable.
4.	The industry should put up two sign boards (6×4 ft. each)at publicly visible places at the main gate indicating the products , effluent discharge standards, air emission standards, hazardous waste quantities and validity of CFO and exhibit the CFO order at a prominent place in the factory premises.	Noted and condition is being followed.
5.	Notwithstanding anything contained in this consent order, the Board here by reserves the right and powers to review / revoke any and / or all the conditions imposed herein above and to make such variations as deemed fit for the purpose of the Acts by the Board.	Noted the condition.
6.	The industry shall file the water cess returns in Form-I as required under section (5) of water (Prevention and Control of Pollution) cess Act, 1977 on or before the 5 th of every calendar month, showing the quantity of water consumed in the previous monthly along with water meter readings. The industry shall remit water cess as per the assessment order as and when issued by Board.	Water consumption details of the previous month are being submitted before 5 th of subsequent month in FORM - I. The latest reports for the Month of April, 2022 were submitted on 5 th May, 2022 After introduction of GST, APPCB has instructed all the industries are not required to remit water cess charges from 1 st July, 2017 onwards.

7.	The applicant shall submit Environment statement in Form V before 30 th September every year as per Rule No.14 of E(P) Rules,1986 & amendments thereof.	Complied and Form V was Submitted on 24.09.2021 for the period 2020-2021
8.	The applicant should make applications through Online for renewal of Consent (under Water Air Acts) and Authorization under HWM Rules at least 120 days before the date of expiry of this order, along with prescribed fee under Water and Air Acts and detailed compliance of CFO conditions for obtaining Consent & HW Authorization of the board. The industry should immediately submit the revised application for consent to this Board in the event of any change in the raw material used, processes employed, quantity of trade effluents & quantity of emissions. Any change in the management shall be informed to the Board. the person authorized should not let out the premises / lend / sell / transfer their industrial premises without obtaining prior permission of the state Pollution Control Board.	GPL has obtained CFO & HWA of the Board vide order dated 13/01/2016 valid up to 31.12.2020 and extended up to 31.12.2025 vide order dated 10.09.2020.
9.	Any person aggrieved by an order made by the state board under section 25,section 26,section 27 of water Act, 1974 or section 21 of Air Act,1981 may within thirty days from the date on which the order is communicated to him, prefer an appeal as per Andhra Pradesh Water Rules,1976 and Air Rules 1982, to Appellate authority constituted under section 28 of the Water (prevention and control of pollution) Act,1974 and section 31 of the Air (prevention and control of pollution) Act,1981.	Noted and condition will be followed.

Compliance of Schedule – B

Sl. No.	Condition	Compliance																																							
	Water Pollution																																								
1.	<p>The water consumption quantities are mentioned below:</p> <table border="1"> <thead> <tr> <th>S. No</th><th>Purpose</th><th>Quantity KLD</th></tr> </thead> <tbody> <tr> <td>1</td><td>Gardening/irrigation</td><td>25</td></tr> <tr> <td>2</td><td>Dust suppression</td><td>1296.0</td></tr> <tr> <td>3</td><td>Domestic</td><td>40</td></tr> <tr> <td>4</td><td>Ship supply</td><td>32.5</td></tr> <tr> <td>5</td><td>miscellaneous</td><td>40.6</td></tr> <tr> <td></td><td>Total</td><td>1434.1</td></tr> </tbody> </table> <p>Source of water is Visakhapatnam industrial water supply Co. the following is the permitted water consumption.</p> <table border="1"> <thead> <tr> <th>S. No</th><th>Purpose</th><th>Quantity KLD</th></tr> </thead> <tbody> <tr> <td>1</td><td>Dust suppression</td><td>1296.0</td></tr> <tr> <td>2</td><td>Domestic purpose</td><td>40.00</td></tr> <tr> <td>3</td><td>Process, where by water gets polluted and pollutants are easily bio degradable.</td><td>73.1</td></tr> <tr> <td>4</td><td>Processing , where by water gets polluted and pollutants are not easily bio degradable</td><td>--</td></tr> <tr> <td></td><td>Total</td><td>1409.1</td></tr> </tbody> </table> <p>Separate water meters shall be maintained for the assessing the quantity of water used for each of the purpose mentioned above for Cess assessment purpose.</p>	S. No	Purpose	Quantity KLD	1	Gardening/irrigation	25	2	Dust suppression	1296.0	3	Domestic	40	4	Ship supply	32.5	5	miscellaneous	40.6		Total	1434.1	S. No	Purpose	Quantity KLD	1	Dust suppression	1296.0	2	Domestic purpose	40.00	3	Process, where by water gets polluted and pollutants are easily bio degradable.	73.1	4	Processing , where by water gets polluted and pollutants are not easily bio degradable	--		Total	1409.1	<p>GPL is submitting water consumption details and water cess in Form-I regularly.</p> <p>The industry is consuming water within consented quantity only.</p> <p>Provided 2 No. nos of flow meters for quantification of water used for domestic and other purposes.</p>
S. No	Purpose	Quantity KLD																																							
1	Gardening/irrigation	25																																							
2	Dust suppression	1296.0																																							
3	Domestic	40																																							
4	Ship supply	32.5																																							
5	miscellaneous	40.6																																							
	Total	1434.1																																							
S. No	Purpose	Quantity KLD																																							
1	Dust suppression	1296.0																																							
2	Domestic purpose	40.00																																							
3	Process, where by water gets polluted and pollutants are easily bio degradable.	73.1																																							
4	Processing , where by water gets polluted and pollutants are not easily bio degradable	--																																							
	Total	1409.1																																							
2.	The Gangavaram Port Limited (GPL) shall provide separate energy meters for Sewage Treatment Plant (STP) and for Air pollution Control equipments to record energy consumption.	GPL has provided separate energy meters for Sewage Treatment Plant (STP) and separate energy meter for the Air pollution Control equipments (MDSS) to record energy consumption.																																							
	Air Pollution																																								
1.	<p>The Gangavaram Port Limited (GPL) shall comply with ambient air quality standards of PM₁₀ (Particulate matter size less than 10 µm) - 100µg /m³; PM_{2.5} (Particulate matter size less than 2.5 µm) - 60µg / m³ : SO₂ - 80µg /m³ : NO_x - 80µg /m³, outside the port premises at the periphery of the industry. Standards for other parameters as mentioned in the National Ambient Air Quality Standards CPCB Notification No.B-29016/20/90/PCI-I, dated 18.11.2009</p> <p>Noise Levels: Day time (6 AM to 10 PM) - 75 dB (A) Night time (10 PM to 6 AM) - 70 dB (A).</p>	The mitigation measures being implemented by GPL ensures that the ambient air quality parameters conform to the PCB prescribed standards.																																							

2.	The Gangavaram port limited (GPL) shall maintain 3 CAAQMs with online connectivity to APPCB and maintain records.	<p>GPL installed 3 No. of CAAQM stations to measure the parameters PM 10, PM 2.5, SO₂, NO, NO₂, CO at the following locations and data connected to APPCB website.</p> <ul style="list-style-type: none"> i. Administrative office towards H.B. Colony (Station 1): ii. Project site office building towards Venkannapalem (Station2) iii. Watch tower – 4 towards Gangavaram village (Station3).As per the data, the SPM values are within Board standards.
3.	The Gangavaram Port Limited (GPL) shall Maintain wind breaking wall all along the Gangavaram village side up to a height 10 mts as wind speed is high in this area	GPL erected wind breaking wall of height 6m on the compound wall of height 3m near Gangavaram village and HB Colony to prevent any dust nuisance towards habitation & maintaining about 50 m width of green belt along port compound wall near Gangavaram (V).
4.	The Gangavaram Port Limited (GPL) shall not establish any other stock yards other than designated stock yards.	GPL has not established any stock yards other than designated stock yards.
5.	The Gangavaram Port Limited (GPL) shall maintain Telescopic chute at ship loading points	GPL is maintaining Telescopic chute at ship loading points.
6.	The Gangavaram port limited (GPL) shall not stock the Materials more than 10mts height where MDSS system available and shall restrict to 6 mts for other stocking heights where tankers water spraying system is maintained in the stockyards.	<p>GPL obtained amendment to this condition vide Amendment to CFO dated 16/09/2016 and the condition was amended as:</p> <p><i>"GPL shall not stock the materials more than 12 meters height where MDSS system is available and shall maintain stack height of 10 meters at manual stack yards"</i></p>
7.	The Gangavaram port limited (GPL) shall take up the cleaning of road connected to National Highway in co-ordination with GVMC and R&B Departments.	This condition was deleted vide direction no. 06 vide Order No.754/APPCB/UH-II/TF/VSP/ 2016, dated 12.08.2016. GVMC is taking up the cleaning of road.
8.	The Gangavaram Port Limited (GPL) shall maintain dusty cargo operations if the wind velocity crosses 20 KMPH and all MDSS sprinklers shall start immediately to maintain AAQ standards	Noted and condition is being followed.
9.	The Gangavaram Port Limited (GPL) shall maintain fully mechanized handling equipments for loading and un loading operations for dusty cargo to the maximum extent possible.	Noted and condition is being followed.

	General																					
1.	<p>The Gangavaram Port Limited (GPL) shall maintain the following records and the same shall be made available to the inspecting officers of the Board:</p> <p>a. Cargo handling material wise details.</p> <p>b. Log books for pollution control systems.</p> <p>c. Hazardous/non hazardous solid waste generated and disposed.</p> <p>d. Inspection book.</p> <p>e. Manifest copies of hazardous waste.</p>	<p>The records are being maintained and are available for inspecting officers of the Board.</p>																				
2.	<p>The Gangavaram Port Limited (GPL) shall dispose solid waste (Non Hazardous) as follows:</p> <table><tr><th>S. No</th><th>Name of the solid waste</th><th>Quantity</th><th>Disposal</th></tr><tr><td>1.</td><td>Domestic solid waste</td><td>10 T/m</td><td>Shall be collected segregated and disposed as per MSW Rules in consultation with GVMC Authorities</td></tr><tr><td>2.</td><td>Discarded material, plastic material</td><td>10 T/m</td><td>Shall be disposed to authorized recyclers only</td></tr><tr><td>3.</td><td>Sludge from STP</td><td>1.0 T/m</td><td>Shall be composted and used in green belt programme</td></tr><tr><td>4.</td><td>Lead acid batteries</td><td>---</td><td>Shall be disposed to authorized recyclers</td></tr></table>	S. No	Name of the solid waste	Quantity	Disposal	1.	Domestic solid waste	10 T/m	Shall be collected segregated and disposed as per MSW Rules in consultation with GVMC Authorities	2.	Discarded material, plastic material	10 T/m	Shall be disposed to authorized recyclers only	3.	Sludge from STP	1.0 T/m	Shall be composted and used in green belt programme	4.	Lead acid batteries	---	Shall be disposed to authorized recyclers	<p>a. GPL is disposing the municipal solid waste to GVMC.</p> <p>b. GPL is disposing the discarded material & plastic material to authorized recyclers.</p> <p>c. STP sludge is being turned in to bio-compost and used as manure to green belt.</p> <p>d. Lead acid batteries are being disposed to the supplier on buy back basis.</p>
S. No	Name of the solid waste	Quantity	Disposal																			
1.	Domestic solid waste	10 T/m	Shall be collected segregated and disposed as per MSW Rules in consultation with GVMC Authorities																			
2.	Discarded material, plastic material	10 T/m	Shall be disposed to authorized recyclers only																			
3.	Sludge from STP	1.0 T/m	Shall be composted and used in green belt programme																			
4.	Lead acid batteries	---	Shall be disposed to authorized recyclers																			
3.	<p>The Gangavaram Port Limited (GPL) shall maintain green belt in 50 meters width as stipulated in the EC order dated 07-02-2012.</p>	<p>➤ GPL has developed plantation of 5.0 Lakhs saplings in about 318.21 acres within the Port premises besides existence of Prosopis in an extent of about 150 Acres covering periphery of all yards, roads, buildings and all along conveyor belt.</p> <p>➤ Maintaining 50 m width of green belt towards North and North-West direction with special emphasis towards habitation i.e., HB Colony, Peda Gantyada, Venkannapalem, Kongapalem & Gangavaram village.</p>																				

		<ul style="list-style-type: none"> ➤ Maintaining thick greenbelt at Port Approach road, Railway track side and at Truck parking area along the wind breaking wall towards HB Colony. ➤ Developed High Density Plantation (Miyawaki) within the Port premises in an extent of 1.0 Acre with 12,120 no. of plantation, as directed by APPCB ➤ GPL established exclusive nursery with 80,000 saplings and employed 183 people to maintain and improve the green belt on continuous basis. ➤ About Rs.1.85 Cr per annum is being spent for the development of green belt in the true spirit.
4.	The Gangavaram Port Limited (GPL) shall not store/ handle any hazardous cargo containers within premises.	GPL is not handling container cargo operations.
5.	All types of the fertilizers shall be stored in the closed warehouses only. The port shall ensure that there shall not be any open storage of urea or any other fertilizer materials and all urea & fertilizer material handling warehouses shall be maintained with effluent collection pits for collection and treatment and then used for green belt in the premises after meeting the standards.	GPL is storing the Fertilizers in closed ware houses and provided leachate collection pits around the area of warehouses and connected to STP.
6.	The Gangavaram Port Limited (GPL) shall store fuel oils used for construction equipment vessels / vehicles in a well designed manner and protect them against fire hazards by construction of compound wall to prevent access to unauthorized elements. The surface run off from storage area shall pass through oil water separator before being discharging. The Gangavaram Port Limited (GPL) shall store fuel oils used for construction equipment vessels / vehicles in a well designed manner and protect them against fire hazards by construction of compound wall to prevent access to unauthorized elements. The surface run off from storage area shall pass through oil water separator before being discharging.	GPL is storing the used oil in drums under a shed.
7.	The Gangavaram Port Limited (GPL) shall maintain the Malaria control programme and Health facilities in the operation phase. Vector control programmes. Control of all	GPL is having dispensary within the premises and no malaria cases were reported as of now. All anti malarial measures are taken

	breeding ground shall be carried out by the use of larvicide's in addition to control of adult mosquitoes. The health team should include a trained entomologist.	
8.	The Gangavaram Port Limited (GPL) shall maintain a task force to check the vehicle emissions on permanent basis The Gangavaram Port Limited (GPL) shall maintain a task force to check the vehicle emissions on permanent basis	GPL has provided provision for checking vehicle emissions with a task force team including environment and safety department officials.
9.	The Gangavaram Port Limited (GPL) shall constitute an Environment Management cell with qualified and trained staff.	GPL is having a dedicated Environment Management Team headed by Vice President.
10.	The Gangavaram Port Limited (GPL) shall maintain onsite and offsite emergency action plan after carrying out risk analysis and hazop studies	Complied with the condition.
11.	The Gangavaram Port Limited (GPL) with VUDA shall ensure that no slum development and unauthorized construction occur in the surrounding area.	VMRDA (VUDA) is taking necessary precautions to see that no slum development and unauthorized construction occur in the surrounding area of GPL.
12.	The Gangavaram Port Limited (GPL) shall handle alumina in completely closed enclosures. It shall also furnish an action plan to install mechanized system.	GPL is handling the alumina in hoppers and directly through tankers.
13.	<p>The Gangavaram Port Limited (GPL) shall implement following for controlling fugitive emission :</p> <p>a. Adequate dust controlling measures should be undertaken for loading and unloading operations for dusty cargo.</p> <p>b. Closed conveyor belt with water sprinkling arrangement for suppression of dust while conveyor dusty cargo likes coal, iron ore & alumina.</p> <p>c. Vehicle movement minimized / eliminated by implementing mechanical operations.</p> <p>d. All the vehicles involved in transportation of cargo shall be covered with tarpaulin.</p> <p>e. Traffic management measures adopted to avoid traffic congestion and provide empty dusting vehicle washing / dry cleaning system to clean all out going cargo vehicles.</p>	<p>a. Mechanical Dust Suppression System (MDSS): 176 No. of water cannons were installed at stack yards for dust.</p> <p>b. Provided Dust suppression systems at discharge/feeding points of belt conveyors at each transfer tower.</p> <p>c. Laid BT road within the port premises.</p> <p>d. 5 No. of heavy duty sweeping (3 No. existing & 2 New) machines were deployed for cleaning of berths, back up areas and roads.</p> <p>e. Covering the outgoing cargo vehicles with tarpaulin.</p> <p>f. Provided dedicated truck/tyre washing facility to wash all the outgoing vehicles</p> <p>g. Provided dedicated truck parking facility.</p>

	<p>f. Sufficient parking facilities based on traffic density / vehicular movements anticipated from the port.</p> <p>g. Adequate water sprinkling provided on roads and at dusty cargo storage areas for suppression of dust</p>	<p>h. Ensuring continuous water sprinkling on the berths, back up areas, at all transfer points, hauling roads with 20 Mobile DSS tankers for dust suppression.</p>
14.	<p>The Gangavaram Port Limited (GPL) shall implement the following measures in the cargo handling and stacking area:</p> <p>a. The ship un-loader maintained with in-situ water sprinkling system and unloading hoppers provided with covers on three sides to control fugitive emissions. Iron ore shall be unloaded through wagon tipplers.</p> <p>b. Mechanical stackers cum re-claimers for stacking, transfer and reclamation; Conveyors for transfer of materials to stop manual handling / mobile machines.</p> <p>c. MDSS in stacking areas.</p>	<p>i. Established mechanical conveyor system for handling coal & Iron ore to prevent the spillage of cargo and provided closed hoods for the conveyor system to curb fugitive emissions of coal/iron ore particles into the air.</p> <p>ii. Stacker cum re-claimers are being used for loading and unloading the coal. The railway wagons are being loaded mechanically. The Port is having Stacker cum re-claimer-1no., reclaimers-3nos., stackers-3nos., wagon loader-1no., silo of 800 cu.m capacity, ship unloader-2nos, ship loader-1no., wagon tipplier-1no., mobile harbour cranes-5no.</p> <p>iii. Mechanical Dust Suppression System (MDSS): 176 No. of water cannons were installed at stack yards for dust suppression by spraying water at high pressure to form blanket of mist on surface of cargo stock to settle the dust.</p>
15.	The Gangavaram Port Limited (GPL) shall ensure AAQ standards of the Board on all environmental conditions without fail.	GPL has provided 3 nos AAQ stations with data logger and connected to APPCB website.
16.	The Gangavaram Port Limited (GPL) shall maintain standby centrifugal pump so as to ensure uninterrupted operation of MDSS.	Complied. There are 4 no. Centrifugal pumps kept standby.
17.	The Gangavaram Port Limited (GPL) shall maintain compliance of all other conditions of CFE orders issued by the Board	Complied with the condition.
18.	The Gangavaram Port Limited (GPL) shall comply with Task Force directions and other directions issued by the Board from time to time.	Complied with the condition.

Compliance of Schedule – C

Sl. No	Condition	Compliance
1.	All the rules and regulations notified by Ministry of Environment & Forests, Government of India under the E (P) Act, 1986 in respect of management, handling, transportation and storage of the Hazardous waste should be followed.	GPL is following all the rules and regulations notified by Ministry of Environment & Forests, Government of India under the E(P) Act, 1986 in respect of management, handling, transportation and storage of the Hazardous waste.
2.	The Gangavaram Port Limited (GPL) shall not store hazardous waste for more than 90 days as per the Hazardous Wastes (Management, Handling and Tran boundary Movement) Rules, 2008 and amendments thereof.	Complied with the condition.
3.	The Gangavaram Port Limited (GPL) shall dispose Used Lead Acid Batteries to the manufacturers / dealers on buyback basis	GPL is buying the Lead acid on buy back basis.
4.	The Gangavaram Port Limited (GPL) shall maintain 6 copy manifest system for transportation of waste generated and a copy shall be submitted to concern Regional Office of APPCB. The driver who transports Hazardous Waste should be well acquainted about the procedure to be followed in case of an emergency during transit. The transporter should carry a Transport Emergency (TREM) Card.	GPL is following manifest system for disposal of waste oil to APPCB authorized agencies and submitting the copies to the Board.
5.	The Gangavaram Port Limited (GPL) shall maintain proper records for Hazardous Wastes stated in Authorization in FORM-3 i.e., quantity of Incinerable waste, land disposal waste, recyclable waste etc., and file annual returns in Form- 4 as per Rule 22(2) of the Hazardous Wastes (Management, Handling & Tran boundary Movement) Rules, 2008 and amendments thereof	<p>GPL is maintaining records for Hazardous Wastes stated in Authorization in Form-3 of CFO Order and filing annual returns in Form- 4 to APPCB.</p> <p>For the year 2021-2022 Form – 3 & Form – 4 Submitted on 06.06.2022.</p>
6.	The Gangavaram Port Limited (GPL) shall submit the condition wise compliance report of the conditions stipulated in Schedule A, B & C of this Order on half yearly basis to Board Office, Hyderabad and concerned Regional Office	<p>Complied with the condition.</p> <p>GL is submitting the compliance reports on monthly basis.</p>

GANGAVARAM PORT LIMITED
(An ISO 9001:2015 & ISO 14001:2015
Certified Company)



Environment Monitoring Report
May, 2022

Corporate Office:

2,3,4th Floors, Hansa plaza,
Plot No.798, road No.36,
Jubilee Hills, Hyderabad - 500033
Phone : 040 – 33599999

Site Office:

Gangavaram (V & Post)
Pedagantyada (Mandal)
Visakhapatnam – 530 044
Phone: 0891 -2701177

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	01.05.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO
Day average value	81.64	50.16	33.95	22.24	9.57	0.26	75.66	47.45	0.12	31.11	12.98	0.40	84.37	51.51	27.32	21.55	8.73	0.23
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G.V.N.S. Murthy*
LP 151910

For Gangavaram Port Limited
D. Jyothi
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	02.05.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	82.62	50.75	45.27	29.66	12.77	0.35	76.56	48.01	9.89	36.55	9.69	0.35	85.38	52.12	28.37	21.11	9.02	0.24
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G.V.N. Choudhary*
Lst 4/5/1910

For Gangavaram Port Limited

D. Jyothi
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	03.05.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	83.10	51.03	47.34	29.04	12.12	0.48	77.01	48.27	10.25	31.24	11.62	0.41	85.87	52.41	43.21	32.14	12.21	0.51
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. V. S. Murthy*
AP/1910 LMT

For Gangavaram Port Limited

D. Jyothi
 (Dr. D. Jyothi)

Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	04.05.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO
Day average value	81.07	49.87	43.20	30.27	13.41	0.21	75.13	47.17	10.09	27.00	10.23	0.45	83.77	51.21	37.70	32.93	13.69	0.17
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: G. V. S. Murthy
LMT 4151910

For Gangavaram Port Limited

 (Dr. D. Jyothi)
 Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	05.05.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO
Day average value	85.40	52.43	45.27	29.66	12.77	0.35	79.14	49.59	9.65	26.05	9.47	0.49	88.25	53.84	32.57	19.38	10.17	0.28
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G.V.N. S. Murthy*
Unit CPS 1410

For Gangavaram Port Limited
(Dr. D. Jyothi)
 Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	06.05.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	87.36	53.49	44.09	7.35	57.84	0.31	80.95	50.60	10.24	25.84	11.10	0.38	90.26	54.93	44.98	26.04	13.00	0.56
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. V. S. Murthy*
4/5/2022

For Gangavaram Port Limited
D. Jyothi
 (Dr. D. Jyothi)
 Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	07.05.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	87.48	53.46	47.18	0.00	73.75	0.51	81.08	50.58	9.63	25.86	8.68	0.41	90.41	54.91	45.45	26.32	14.33	0.40
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. V. S. Kumar*
24/5/2022

For Gangavaram Port Limited

D. D. Jyothi
 (Dr. D. Jyothi)

Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	08.05.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO
Day average value	79.32	48.79	42.09	0.00	73.75	0.10	73.51	46.16	9.57	27.54	9.77	0.10	81.98	50.11	39.86	25.17	13.34	0.17
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. V. R. Murthy*
UP 51910

For Gangavaram Port Limited
D. Jyothi
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	09.05.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO
Day average value	76.57	47.12	36.39	0.00	73.75	0.01	70.96	44.57	10.18	23.37	13.07	0.04	79.12	48.39	34.14	23.58	13.34	0.16
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. V. S. Murthy*
Ln# 4PS1910


For Gangavaram Port Limited
D. Jayathi
 (Dr. D. Jayathi)
 Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	10.05.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO
Day average value	78.18	48.16	33.99	0.00	73.75	0.04	72.45	45.56	10.06	18.00	14.93	0.12	80.79	49.46	34.36	22.83	13.39	0.26
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: G. V. S. Murthy
Date: 10.5.2022

For Gangavaram Port Limited


(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	11.05.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO
Day average value	82.27	50.53	41.88	14.82	41.35	0.26	76.25	47.80	8.97	27.26	11.15	0.32	85.02	51.89	36.80	25.11	12.12	0.30
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. V. S. Sridhar*
Lat 4151910

For Gangavaram Port Limited

D. Jyothi
 (Dr. D. Jyothi)
 Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	12.05.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	72.89	44.67	22.33	2.02	35.84	0.11	67.53	42.24	2.67	41.40	13.50	0.22	75.32	45.87	36.54	106.48	14.91	0.21
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. V. S. Murthy*
Unit 4/5/1910

For Gangavaram Port Limited

D. D. Jyothi
 (Dr. D. Jyothi)
 Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	13.05.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	69.60	42.74	20.61	1.86	33.08	0.10	64.50	40.43	3.09	33.29	13.07	0.21	71.92	43.90	37.15	109.81	12.69	0.30
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. V. S. Murthy*
Letter LPS/1910

For Gangavaram Port Limited

D. Jyothi
 (Dr. D. Jyothi)

Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	14.05.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO
Day average value	69.36	42.67	22.20	2.00	35.62	0.11	64.27	40.36	2.96	35.26	12.49	0.34	71.67	43.82	34.17	110.08	11.56	0.37
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. V. S. Murthy*
20/5/2022

For Gangavaram Port Limited
(Signature)
 (Dr. D. Jyothi)
 Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	15.05.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	72.75	44.70	20.72	1.87	33.25	0.10	67.41	42.28	2.78	39.53	9.21	0.47	75.18	45.91	27.97	111.18	11.79	0.22
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. V. S. Murthy*
24/5/2022

For Gangavaram Port Limited
(Signature)
 (Dr. D. Jyothi)
 Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	16.05.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	64.45	39.68	34.16	10.67	37.04	0.21	59.73	37.54	2.47	35.26	6.79	0.22	66.60	40.76	36.48	117.40	11.61	0.14
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. V. S. Murthy*
16/5/2022

For Gangavaram Port Limited
D. D. Jyothi
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	17.05.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	64.66	39.81	36.29	11.34	39.35	0.22	59.91	37.65	0.24	32.10	5.01	0.25	66.81	40.88	42.73	105.89	15.65	0.14
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G.V.N.S. Murthy*
Unit 4/PS1910

For Gangavaram Port Limited

D. Jyothi

(Dr. D. Jyothi)

Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	18.05.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	64.24	39.57	34.28	10.71	37.17	0.21	59.53	37.43	9.65	40.05	10.12	0.17	66.39	40.64	44.08	104.77	15.45	0.25
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G.V.N.S. Murthy*
24/5/2022 4111910

For Gangavaram Port Limited

D. Jyothi

(Dr. D. Jyothi)

Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	19.05.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	64.18	39.54	36.18	11.31	39.23	0.22	59.48	37.40	10.89	31.54	10.14	0.32	66.32	40.61	32.53	104.69	10.45	0.28
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *GVNL Murthy*
19/5/2022

For Gangavaram Port Limited

D. Jyothi
(Dr. D. Jyothi)

Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	20.05.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	65.87	40.58	34.37	10.74	37.27	0.21	61.03	38.38	10.84	26.79	10.63	0.12	68.07	41.67	36.33	114.37	9.93	1.02
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G.V.S. Murthy*
Date: *4/5/2022*

For Gangavaram Port Limited

(Signature)
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	21.05.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	68.87	42.37	36.09	11.28	39.13	0.22	63.82	40.08	4.05	33.30	6.93	0.41	71.16	43.52	46.02	117.11	13.35	1.35
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. N. S. Murthy*
Dr. D. Jyothi

For Gangavaram Port Limited
D. Jyothi
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	22.05.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	71.53	43.91	34.45	10.77	37.35	0.21	66.28	41.54	3.04	23.57	7.62	0.20	73.91	45.10	44.50	97.34	13.36	0.58
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. V. S. K. Reddy*
LM? UPS 1910

For Gangavaram Port Limited

D. D. Jyothi
 (Dr. D. Jyothi)
 Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	23.05.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	71.10	43.63	36.01	11.25	39.05	0.22	65.89	41.27	0.53	34.27	6.06	0.59	73.47	44.81	37.40	114.84	12.32	0.62
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. Ravi Kumar*
Env UPS 1910

For Gangavaram Port Limited

D. Jyothi

(Dr. D. Jyothi)

Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	24.05.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	60.79	37.41	34.51	10.79	37.43	0.21	56.35	35.40	0.00	25.90	8.14	0.21	62.81	38.42	31.09	59.22	10.83	0.33
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. V. S. Murthy*
Date: 24/5/2022

For Gangavaram Port Limited
D. Jyothi
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	25.05.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	50.25	30.94	35.95	11.23	38.98	0.22	46.57	29.27	0.00	23.44	7.72	0.51	51.92	31.77	35.78	106.66	12.71	0.73
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. V. L. Murthy*
25/5/2022

For Gangavaram Port Limited

D. Jyothi
 (Dr. D. Jyothi)
 Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	26.05.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	54.34	33.44	36.04	10.78	40.21	0.22	50.35	31.63	0.00	30.51	8.80	0.49	56.15	34.34	38.86	109.71	12.64	0.76
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G.V.N. Suresh*
Date: 26/5/2022

For Gangavaram Port Limited
D. Jyothi
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	27.05.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO
Day average value	63.66	39.20	54.71	60.59	9.27	1.11	58.99	37.08	0.00	21.26	11.06	0.63	65.78	40.25	43.31	81.11	9.22	0.92
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. V. S. Murthy*
27/5/2022

For Gangavaram Port Limited
(Signature)
 (Dr. D. Jyothi)
 Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	28.05.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	53.00	32.64	57.35	70.47	10.31	1.12	49.11	30.87	2.58	46.66	12.04	0.74	54.76	33.52	54.95	76.46	10.21	1.12
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. V. S. Murthy*
28/5/2022

For Gangavaram Port Limited
D. Jyothi
 (Dr. D. Jyothi)
 Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	29.05.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO
Day average value	53.54	33.00	62.29	65.71	13.61	0.77	49.62	31.22	2.73	32.88	14.37	0.25	55.33	33.89	60.08	71.23	13.64	0.76
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. V. S. Murthy*
Mr. UPS 1910

For Gangavaram Port Limited
D. D. Jyothi
 (Dr. D. Jyothi)
 Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	30.05.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	51.90	31.99	56.90	48.91	12.79	0.76	48.09	30.26	1.70	35.00	12.39	0.57	53.63	32.85	54.86	53.40	12.83	0.77
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. V. S. Murthy*
Date: 4.5.1910

for Gangavaram Port Limited
D. D. Jyothi
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	31.05.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO
Day average value	51.99	31.88	46.09	49.88	10.80	0.96	48.18	30.15	34.74	40.09	2.44	0.64	53.73	32.74	41.79	44.36	10.81	0.95
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G. N. S. Murthy*
G. N. S. 1910

For Gangavaram Port Limited
D. D. Jyothi
 (Dr. D. Jyothi)
 Vice President (Environment)



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

Environmental Monitoring Reports **(14 May and 28 2022)**

Gangavaram Port LTD.
Pedagantyada(Mandal)
Gangavaram (Post)
Visakhapatnam - 530 044





BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 814222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF GROUND WATER SAMPLE

BCL Ref. No.	GPL/02/191	Issued to:
Monitoring Date	May 14, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	May 19, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Ground Water	Visakhapatnam.
Location	Gangavaram Village	
Sample Collected by	M/s. Biochem Labs	
Reference Standard	IS: 10500, 1991	

S. No.	Parameter	Unit	Result	Limit IS: 10500
1.	Temperature	°C	29.4	-
2.	pH	H+ concn.	7.10	6.5-8.5
3.	Total Hardness	mg/l	286	300
4.	Calcium (as Ca)	mg/l	54	75
5.	Magnesium (as Mg)	mg/l	20	30
6.	Chlorides	mg/l	114	250
7.	Manganese	mg/l	0.018	0.1
8.	Copper	mg/l	0.012	0.05
9.	Total Alkalinity	mg/l	60	200
10.	Total Dissolved Solids	mg/l	492	500
11.	Sulphate	mg/l	52	200
12.	Dissolved Oxygen	mg/l	3.0	-
13.	Nitrite (as NO ₂)	mg/l	0.016	0.02
14.	Iron	mg/l	0.14	0.3
15.	Fluoride	mg/l	0.8	1.0
16.	Oil & Grease	mg/l	BDL	0.01
17.	Chromium (as Cr ⁶⁺)	mg/l	0.012	0.05
18.	Cyanide	mg/l	NIL	0.05
19.	Zinc	mg/l	0.8	5.0
20.	Phenolic Compound	mg/l	NIL	0.001
21.	Free Residual Chlorine	mg/l	0.14	0.2
22.	Total Coli forms Count	MPN Index/100ml	10	1-11
23.	E.coli	Cfu/ml	Absent	Absent


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF GROUND WATER SAMPLE

BCL Ref. No.	GPL/02/192	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	May 14, 2022	
Reporting Date	May 19, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Ground Water	
Location	North boulder wall open well	
Sample Collected by	M/s. Biochem Labs	
Reference Standard	IS: 10500, 1991	

S. No.	Parameter	Unit	Result	Limit IS: 10500
1.	Temperature	°C	28.2	-
2.	pH	H+ concn.	7.14	6.5-8.5
3.	Total Hardness	mg/l	248	300
4.	Calcium (as Ca)	mg/l	46	75
5.	Magnesium (as Mg)	mg/l	22	30
6.	Chlorides	mg/l	64	250
7.	Manganese	mg/l	0.02	0.1
8.	Copper	mg/l	0.014	0.05
9.	Total Alkalinity	mg/l	118	200
10.	Total Dissolved Solids	mg/l	484	500
11.	Sulphate	mg/l	46	200
12.	Dissolved Oxygen	mg/l	2.0	-
13.	Nitrite (as NO ₂)	mg/l	0.014	0.02
14.	Iron	mg/l	0.12	0.3
15.	Fluoride	mg/l	0.8	1.0
16.	Oil & Grease	mg/l	BDL	0.01
17.	Chromium (as Cr ⁺⁶)	mg/l	0.01	0.05
18.	Cyanide	mg/l	NIL	0.05
19.	Zinc	mg/l	0.2	5.0
20.	Phenolic Compound	mg/l	NIL	0.001
21.	Free Residual Chlorine	mg/l	0.04	0.2
22.	Total Coli forms Count	MPN Index/100ml	6	1-11
23.	E.coli	Cfu/ml	Absent	Absent


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT NOISE LEVEL MONITORING

BCL Ref. No.	GPL/ 04/217	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	May 14, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Collected by	M/s. Biochem Labs	

S. No.	Parameter	Unit	Location	Result		CPCB Limit	
				Day time	Night time	Industrial	
						Day time	Night time
1.	Noise Level	Decibels	Cargo area	68	62	75	70
2.	Noise Level	Decibels	PedaGantiyada/ Security Gate	64	60	-	-
				Day time	Night time	Residential	
						Day time	Night time
3.	Noise Level	Decibels	Gangavaram	48	36	55	45
4.	Noise Level	Decibels	HB Colony	46	42	-	-

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT NOISE LEVEL MONITORING

BCL Ref. No.	GPL/ 04/218	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	May 28, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Collected by	M/s. Biochem Labs	

S. No.	Parameter	Unit	Location	Result		CPCB Limit	
				Day time	Night time	Industrial	
						Day time	Night time
1.	Noise Level	Decibels	Cargo area	72	68	75	70
2.	Noise Level	Decibels	PedaGantiyada/ Security Gate	68	62	-	-
				Day time	Night time	Residential	
						Day time	Night time
3.	Noise Level	Decibels	Gangavaram	44	32	55	45
4.	Noise Level	Decibels	HB Colony	52	40	-	-


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/217	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	May 14, 2022	
Reporting Date	May 19, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			Harbour Basine		Port Entrance Channel	
			Low tide	High tide	Low tide	High tide
1.	Temperature	°C	30.2	30.4	28.8	31.4
2.	pH	H+ conc	8.20	8.12	8.16	8.18
3.	Salinity	PSU	32.6	32.0	31.8	32.0
4.	Turbidity	NTU	24	18	10	12
5.	Total Suspended Solids	mg/l	30	22	14	10
6.	Transparency	Mts.	0.9	1.0	1.4	1.2
7.	Electrical Conductivity	mMHo	34.2	32.2	36.0	31.4


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/217	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	May 14, 2022	
Reporting Date	May 19, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			South brake Wall Outside		North brake Wall Outside	
			Low tide	High tide	Low tide	High tide
1.	Temperature	°C	32.2	29.8	30.2	31.8
2.	pH	H+ conc	8.26	8.22	8.20	8.24
3.	Salinity	PSU	32.4	33.0	32.2	35.0
4.	Turbidity	NTU	14	10	12	8
5.	Total Suspended Solids	mg/l	16	12	14	10
6.	Transparency	Mts.	1.2	1.4	1.2	1.6
7.	Electrical Conductivity	mMHo	34.0	32.6	33.8	34.0


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/217	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	May 14, 2022	
Reporting Date	May 19, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			Harbour Baseline		Port Entrance Channel	
			Low tide	High tide	Low tide	High tide
1.	Dissolved Oxygen	mg/l	3.2	3.4	4.2	3.8
2.	Biological Oxygen Demand	mg/l	1.0	1.2	1.6	1.8
3.	Oil & Grease	mg/l	1.4	1.0	0.8	0.4
4.	Sulphate	mg/l	1034	1026	1038	1042
5.	Phosphate	mg/l	0.32	0.34	0.24	0.30
6.	Nitrate	mg/l	3.0	2.2	2.8	2.4
7.	Nitrite	mg/l	0.026	0.028	0.022	0.024
8.	Chloride	mg/l	20836	20840	19654	21260
9.	Chromium	ppm	0.022	0.026	0.028	0.020
10.	Mercury	ppm	Nil	Nil	Nil	Nil
11.	Zinc	ppm	0.26	0.18	0.14	0.12
12.	Iron	ppm	0.03	0.024	0.026	0.028
13.	Manganese	ppm	0.024	0.026	0.022	0.018
14.	Cadmium	ppm	Nil	Nil	Nil	Nil


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/217	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	May 14, 2022	
Reporting Date	May 19, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			South brake Wall Outside		North brake Wall Outside	
			Low tide	High tide	Low tide	High tide
1.	Dissolved Oxygen	mg/l	4.0	3.2	4.4	3.6
2.	Biological Oxygen Demand	mg/l	1.8	1.0	1.6	1.2
3.	Oil & Grease	mg/l	0.6	0.8	0.4	0.6
4.	Sulphate	mg/l	1040	1026	1018	1032
5.	Phosphate	mg/l	0.32	0.24	0.36	0.22
6.	Nitrate	mg/l	3.0	2.2	1.8	2.4
7.	Nitrite	mg/l	0.028	0.026	0.02	0.022
8.	Chloride	mg/l	19684	21438	20692	19286
9.	Chromium	ppm	0.026	0.024	0.028	0.024
10.	Mercury	ppm	Nil	Nil	Nil	Nil
11.	Zinc	ppm	0.18	0.14	0.12	0.16
12.	Iron	ppm	0.03	0.022	0.026	0.02
13.	Manganese	ppm	0.02	0.014	0.016	0.018
14.	Cadmium	ppm	Nil	Nil	Nil	Nil


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/217	Issued to:
Monitoring Date	May 14, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	May 19, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: Harbourbasine / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	12000
2.	Zooplankton Count	No./m ³	800
3.	Chlorophyll a	mg/m ³	3.4
4.	Chlorophyll b	mg/m ³	2.2
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	2.8

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	28
	<i>Amphora lineolata</i>	10
	<i>Cymbella marina</i>	04
	<i>Bacteriastrum delicatulum</i>	10
	<i>Thalassionema nitzschioides</i>	32
	<i>Chaetoceros dydymus</i>	08
	<i>Skeletonemacostatum</i>	18
	<i>Thalassiothrixlongissima</i>	24
	<i>Cymbella marina</i>	02
B.	Zooplankton Species	
	<i>Foraminifera</i>	34
	<i>Chaetognatha</i>	02
	<i>Amphipoda</i>	10
	<i>Cladocera</i>	18
	<i>Eggs of fish & larvae</i>	06

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/217	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	May 14, 2022	
Reporting Date	May 19, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: Port Entrance Channel / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	9800
2.	Zooplankton Count	No./m ³	600
3.	Chlorophyll a	mg/m ³	2.6
4.	Chlorophyll b	mg/m ³	2.2
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	2.4

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	24
	<i>Amphora lineolata</i>	10
	<i>Cymbella marina</i>	14
	<i>Bacteriastrum delicatulum</i>	08
	<i>Thalassionema nitzschioides</i>	12
	<i>Chaetoceros dydymus</i>	10
	<i>Skeletonemacostatum</i>	06
	<i>Thalassiothrixlongissima</i>	12
	<i>Cymbella marina</i>	04
B.	Zooplankton Species	
	<i>Foraminifera</i>	20
	<i>Chaetognatha</i>	16
	<i>Amphipoda</i>	10
	<i>Cladocera</i>	06
	<i>Eggs of fish & larvae</i>	02

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017, Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/217	Issued to:
Monitoring Date	May 14, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	May 19, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (High Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: Harbourbasine / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	11000
2.	Zooplankton Count	No./m ³	1000
3.	Chlorophyll a	mg/m ³	3.4
4.	Chlorophyll b	mg/m ³	2.8
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	2.6

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	22
	<i>Amphora lineolata</i>	14
	<i>Cymbella marina</i>	08
	<i>Bacteriastrum delicatulum</i>	12
	<i>Thalassionema nitzschioides</i>	10
	<i>Chaetoceros dydymus</i>	04
	<i>Skeletonemacostatum</i>	08
	<i>Thalassiothrixlongissima</i>	11
	<i>Cymbella marina</i>	10
B.	Zooplankton Species	
	<i>Foraminifera</i>	04
	<i>Chaetognatha</i>	14
	<i>Amphipoda</i>	06
	<i>Cladocera</i>	10
	<i>Eggs of fish & larvae</i>	08

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/217	Issued to:
Monitoring Date	May 14, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	May 19, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (High Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: Port Entrance Channel / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	1200
2.	Zooplankton Count	No./m ³	800
3.	Chlorophyll a	mg/m ³	2.6
4.	Chlorophyll b	mg/m ³	3.2
5.	Primary Productivity	gC/m ²	2.6
6.	Biomass	mg/m ²	2.8

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	14
	<i>Amphora lineolata</i>	20
	<i>Cymbella marina</i>	14
	<i>Bacteriastrum delicatulum</i>	12
	<i>Thalassionema nitzschioides</i>	08
	<i>Chaetoceros dydymus</i>	10
	<i>Skeletonemacostatum</i>	02
	<i>Thalassiothrixlongissima</i>	12
	<i>Cymbella marina</i>	06
B.	Zooplankton Species	
	<i>Foraminifera</i>	10
	<i>Chaetognatha</i>	18
	<i>Amphipoda</i>	04
	<i>Cladocera</i>	06
	<i>Eggs of fish & larvae</i>	12


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 814222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/217	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	May 14, 2022	
Reporting Date	May 19, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: South brake Wall outside / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	12000
2.	Zooplankton Count	No./m ³	900
3.	Chlorophyll a	mg/m ³	3.2
4.	Chlorophyll b	mg/m ³	2.4
5.	Primary Productivity	gC/m ²	3.2
6.	Biomass	mg/m ²	2.8

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	42
	<i>Amphora lineolata</i>	36
	<i>Cymbella marina</i>	56
	<i>Bacteriastrum delicatulum</i>	32
	<i>Thalassionema nitzschioides</i>	04
	<i>Chaetoceros dydimus</i>	12
	<i>Skeletonemacostatum</i>	06
	<i>Thalassiothrixlongissima</i>	32
	<i>Cymbella marina</i>	10
B.	Zooplankton Species	
	<i>Foraminifera</i>	38
	<i>Chaetognatha</i>	26
	<i>Amphipoda</i>	34
	<i>Cladocera</i>	14
	<i>Eggs of fish & larvae</i>	06


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/217	Issued to:
Monitoring Date	May 14, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	May 19, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: North brake Wall Outside / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	12000
2.	Zooplankton Count	No./m ³	1000
3.	Chlorophyll a	mg/m ³	3.6
4.	Chlorophyll b	mg/m ³	2.4
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	2.2

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	34
	<i>Amphora lineolata</i>	48
	<i>Cymbella marina</i>	54
	<i>Bacteriastrum delicatulum</i>	28
	<i>Thalassionema nitzschioides</i>	40
	<i>Chaetoceros dydymus</i>	04
	<i>Skeletonemacostatum</i>	22
	<i>Thalassiothrixlongissima</i>	12
	<i>Cymbella marina</i>	06
B.	Zooplankton Species	
	<i>Foraminifera</i>	56
	<i>Chaetognatha</i>	32
	<i>Amphipoda</i>	30
	<i>Cladocera</i>	10
	<i>Eggs of fish & larvae</i>	04


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/217	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	May 14, 2022	
Reporting Date	May 19, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (High Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: South brake Wall Outside / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	9000
2.	Zooplankton Count	No./m ³	700
3.	Chlorophyll a	mg/m ³	2.8
4.	Chlorophyll b	mg/m ³	2.6
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	2.4

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	42
	<i>Amphora lineolata</i>	64
	<i>Cymbella marina</i>	28
	<i>Bacteriastrum delicatulum</i>	36
	<i>Thalassionema nitzschioides</i>	04
	<i>Chaetoceros dydymus</i>	28
	<i>Skeletonemacostatum</i>	14
	<i>Thalassiothrixlongissima</i>	10
	<i>Cymbella marina</i>	02
B.	Zooplankton Species	
	<i>Foraminifera</i>	42
	<i>Chaetognatha</i>	24
	<i>Amphipoda</i>	08
	<i>Cladocera</i>	04
	<i>Eggs of fish & larvae</i>	12


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/217	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	May 14, 2022	
Reporting Date	May 19, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (High Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: North brake Wall Outside / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	11000
2.	Zooplankton Count	No./m ³	1400
3.	Chlorophyll a	mg/m ³	3.6
4.	Chlorophyll b	mg/m ³	2.4
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	2.6

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	68
	<i>Amphora lineolata</i>	12
	<i>Cymbella marina</i>	46
	<i>Bacteriastrum delicatulum</i>	28
	<i>Thalassionema nitzschioides</i>	40
	<i>Chaetoceros dydymus</i>	32
	<i>Skeletonemacostatum</i>	06
	<i>Thalassiothrixlongissima</i>	20
	<i>Cymbella marina</i>	04
B.	Zooplankton Species	
	<i>Foraminifera</i>	30
	<i>Chaetognatha</i>	44
	<i>Amphipoda</i>	28
	<i>Cladocera</i>	14
	<i>Eggs of fish & larvae</i>	08

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/218	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	May 28, 2022	
Reporting Date	June 02, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			Harbour Basine		Port Entrance Channel	
			Low tide	High tide	Low tide	High tide
1.	Temperature	°C	32.6	30.2	32.2	29.6
2.	pH	H+ conc	8.18	8.22	8.20	8.24
3.	Salinity	PSU	32.6	33.2	32.2	33.0
4.	Turbidity	NTU	24	30	10	14
5.	Total Suspended Solids	mg/l	30	34	14	16
6.	Transparency	Mts.	0.9	0.6	1.4	1.2
7.	Electrical Conductivity	mMHo	32.8	33.4	32.4	30.8


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/218	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	May 28, 2022	
Reporting Date	June 02, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			South brake Wall Outside		North brake Wall Outside	
			Low tide	High tide	Low tide	High tide
1.	Temperature	°C	30.6	32.0	28.2	30.6
2.	pH	H+ conc	8.24	8.20	8.22	8.28
3.	Salinity	PSU	32.6	33.0	32.8	34.0
4.	Turbidity	NTU	10	14	10	12
5.	Total Suspended Solids	mg/l	12	16	14	18
6.	Transparency	Mts.	1.4	1.2	1.6	1.6
7.	Electrical Conductivity	mMHo	34.8	33.2	34.2	35.0


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/218	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	May 28, 2022	
Reporting Date	June 02, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			Harbour Basine		Port Entrance Channel	
			Low tide	High tide	Low tide	High tide
1.	Dissolved Oxygen	mg/l	4.0	3.6	3.8	3.8
2.	Biological Oxygen Demand	mg/l	1.8	1.4	1.6	1.4
3.	Oil & Grease	mg/l	0.8	0.6	0.4	0.6
4.	Sulphate	mg/l	986	992	1026	1040
5.	Phosphate	mg/l	0.3	0.32	0.26	0.28
6.	Nitrate	mg/l	3.0	2.0	2.8	2.2
7.	Nitrite	mg/l	0.024	0.026	0.016	0.018
8.	Chloride	mg/l	20680	19842	20468	18986
9.	Chromium	ppm	0.028	0.022	0.018	0.020
10.	Mercury	ppm	Nil	Nil	Nil	Nil
11.	Zinc	ppm	0.22	0.18	0.16	0.12
12.	Iron	ppm	0.028	0.026	0.02	0.024
13.	Manganese	ppm	0.02	0.022	0.016	0.018
14.	Cadmium	ppm	Nil	Nil	Nil	Nil


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 814222277,
73969 08000 | E-mail: blochemlabs@blochemlabs.in | blochemlabs888@gmail.com | www.blochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/218	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	May 28, 2022	
Reporting Date	June 02, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			South brake Wall Outside		North brake Wall Outside	
			Low tide	High tide	Low tide	High tide
1.	Dissolved Oxygen	mg/l	4.2	3.8	4.0	4.6
2.	Biological Oxygen Demand	mg/l	1.8	1.2	1.6	2.0
3.	Oil & Grease	mg/l	0.6	0.8	0.4	0.8
4.	Sulphate	mg/l	1032	1024	1068	1046
5.	Phosphate	mg/l	0.4	0.36	0.24	0.38
6.	Nitrate	mg/l	3.0	2.2	2.0	1.6
7.	Nitrite	mg/l	0.022	0.024	0.016	0.02
8.	Chloride	mg/l	20456	20160	18628	20246
9.	Chromium	ppm	0.024	0.02	0.018	0.026
10.	Mercury	ppm	Nil	Nil	Nil	Nil
11.	Zinc	ppm	0.14	0.12	0.16	0.10
12.	Iron	ppm	0.018	0.016	0.024	0.02
13.	Manganese	ppm	0.022	0.02	0.018	0.016
14.	Cadmium	ppm	Nil	Nil	Nil	Nil

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/218	Issued to:
Monitoring Date	May 28, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	June 02, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: Harbourbasine / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	12000
2.	Zooplankton Count	No./m ³	1000
3.	Chlorophyll a	mg/m ³	2.8
4.	Chlorophyll b	mg/m ³	2.4
5.	Primary Productivity	gC/m ²	2.6
6.	Biomass	mg/m ²	1.4

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	18
	<i>Amphora lineolata</i>	30
	<i>Cymbella marina</i>	04
	<i>Bacteriastrum delicatulum</i>	18
	<i>Thalassionema nitzschioides</i>	32
	<i>Chaetoceros dydymus</i>	10
	<i>Skeletonemacostatum</i>	08
	<i>Thalassiothrixlongissima</i>	06
	<i>Cymbella marina</i>	18
B.	Zooplankton Species	
	<i>Foraminifera</i>	32
	<i>Chaetognatha</i>	24
	<i>Amphipoda</i>	04
	<i>Cladocera</i>	10
	<i>Eggs of fish & larvae</i>	02


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/218	Issued to:
Monitoring Date	May 28, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	June 02, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: Port Entrance Channel / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	12000
2.	Zooplankton Count	No./m ³	900
3.	Chlorophyll a	mg/m ³	3.2
4.	Chlorophyll b	mg/m ³	2.4
5.	Primary Productivity	gC/m ²	3.2
6.	Biomass	mg/m ²	1.8

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	20
	<i>Amphora lineolata</i>	12
	<i>Cymbella marina</i>	22
	<i>Bacteriastrum delicatulum</i>	14
	<i>Thalassionema nitzschioides</i>	06
	<i>Chaetoceros dydymus</i>	32
	<i>Skeletonemacostatum</i>	04
	<i>Thalassiothrixlongissima</i>	12
	<i>Cymbella marina</i>	08
B.	Zooplankton Species	
	<i>Foraminifera</i>	24
	<i>Chaetognatha</i>	16
	<i>Amphipoda</i>	04
	<i>Cladocera</i>	02
	<i>Eggs of fish & larvae</i>	26


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/218	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	May 28, 2022	
Reporting Date	June 02, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (High Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: Harboursbasine / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	10000
2.	Zooplankton Count	No./m ³	1200
3.	Chlorophyll a	mg/m ³	2.8
4.	Chlorophyll b	mg/m ³	2.6
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	2.2

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	24
	<i>Amphora lineolata</i>	12
	<i>Cymbella marina</i>	08
	<i>Bacteriastrum delicatulum</i>	16
	<i>Thalassionema nitzschioides</i>	24
	<i>Chaetoceros dydymus</i>	08
	<i>Skeletonemacostatum</i>	12
	<i>Thalassiothrixlongissima</i>	26
	<i>Cymbella marina</i>	04
B.	Zooplankton Species	
	<i>Foraminifera</i>	12
	<i>Chaetognatha</i>	28
	<i>Amphipoda</i>	06
	<i>Cladocera</i>	10
	<i>Eggs of fish & larvae</i>	06


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/218	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	May 28, 2022	
Reporting Date	June 02, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (High Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: Port Entrance Channel / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	1000
2.	Zooplankton Count	No./m ³	800
3.	Chlorophyll a	mg/m ³	3.8
4.	Chlorophyll b	mg/m ³	2.4
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	2.4

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	34
	<i>Amphora lineolata</i>	02
	<i>Cymbella marina</i>	28
	<i>Bacteriastrum delicatulum</i>	14
	<i>Thalassionema nitzschioides</i>	08
	<i>Chaetoceros dydymus</i>	26
	<i>Skeletonemacostatum</i>	18
	<i>Thalassiothrixlongissima</i>	20
	<i>Cymbella marina</i>	06
B.	Zooplankton Species	
	<i>Foraminifera</i>	20
	<i>Chaetognatha</i>	14
	<i>Amphipoda</i>	10
	<i>Cladocera</i>	12
	<i>Eggs of fish & larvae</i>	08


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/218	Issued to:
Monitoring Date	May 28, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	June 02, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: South brake Wall outside / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	10000
2.	Zooplankton Count	No./m ³	950
3.	Chlorophyll a	mg/m ³	3.2
4.	Chlorophyll b	mg/m ³	2.8
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	2.4

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	86
	<i>Amphora lineolata</i>	28
	<i>Cymbella marina</i>	06
	<i>Bacteriastrum delicatulum</i>	10
	<i>Thalassionema nitzschioides</i>	28
	<i>Chaetoceros dydymus</i>	22
	<i>Skeletonemacostatum</i>	36
	<i>Thalassiothrixlongissima</i>	08
	<i>Cymbella marina</i>	14
B.	Zooplankton Species	
	<i>Foraminifera</i>	42
	<i>Chaetognatha</i>	21
	<i>Amphipoda</i>	04
	<i>Cladocera</i>	26
	<i>Eggs of fish & larvae</i>	08


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/218	Issued to:
Monitoring Date	May 28, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	June 02, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: North brake Wall Outside / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	9000
2.	Zooplankton Count	No./m ³	600
3.	Chlorophyll a	mg/m ³	3.0
4.	Chlorophyll b	mg/m ³	2.8
5.	Primary Productivity	gC/m ²	3.2
6.	Biomass	mg/m ²	2.8

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	68
	<i>Amphora lineolata</i>	46
	<i>Cymbella marina</i>	20
	<i>Bacteriastrum delicatulum</i>	06
	<i>Thalassionema nitzschioides</i>	10
	<i>Chaetoceros dydymus</i>	08
	<i>Skeletonemacostatum</i>	24
	<i>Thalassiothrixlongissima</i>	12
	<i>Cymbella marina</i>	04
B.	Zooplankton Species	
	<i>Foraminifera</i>	42
	<i>Chaetognatha</i>	20
	<i>Amphipoda</i>	06
	<i>Cladocera</i>	10
	<i>Eggs of fish & larvae</i>	04


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/218	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	May 28, 2022	
Reporting Date	June 02, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (High Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: South brake Wall Outside / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	11000
2.	Zooplankton Count	No./m ³	800
3.	Chlorophyll a	mg/m ³	2.6
4.	Chlorophyll b	mg/m ³	2.4
5.	Primary Productivity	gC/m ²	3.2
6.	Biomass	mg/m ²	2.6

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	90
	<i>Amphora lineolata</i>	18
	<i>Cymbella marina</i>	46
	<i>Bacteriastrum delicatulum</i>	14
	<i>Thalassionema nitzschioides</i>	28
	<i>Chaetoceros dydymus</i>	36
	<i>Skeletonemacostatum</i>	04
	<i>Thalassiothrixlongissima</i>	38
	<i>Cymbella marina</i>	02
B.	Zooplankton Species	
	<i>Foraminifera</i>	24
	<i>Chaetognatha</i>	06
	<i>Amphipoda</i>	32
	<i>Cladocera</i>	10
	<i>Eggs of fish & larvae</i>	06


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 814222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/218	Issued to:
Monitoring Date	May 28, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	June 02, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (High Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: North brake Wall Outside / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	10000
2.	Zooplankton Count	No./m ³	1200
3.	Chlorophyll a	mg/m ³	3.2
4.	Chlorophyll b	mg/m ³	2.8
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	2.4

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	86
	<i>Amphora lineolata</i>	35
	<i>Cymbella marina</i>	48
	<i>Bacteriastrum delicatulum</i>	42
	<i>Thalassionema nitzschioides</i>	12
	<i>Chaetoceros dydymus</i>	34
	<i>Skeletonemacostatum</i>	28
	<i>Thalassiothrixlongissima</i>	04
	<i>Cymbella marina</i>	12
B.	Zooplankton Species	
	<i>Foraminifera</i>	44
	<i>Chaetognatha</i>	12
	<i>Amphipoda</i>	30
	<i>Cladocera</i>	24
	<i>Eggs of fish & larvae</i>	22


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF SEDIMENT SAMPLE

BCL Ref. No.	GPL/ 06/217	Issued to:
Monitoring Date	May 14, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	May 19, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Sediment (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

S.No	Parameters	Unit	Result	
			Harbour Basine	Port Entrance Channel
1.	pH	H+ conc	7.08	7.10
2.	Organic matter	%	2.2	1.8
3.	Nitrate	mg/kg	2.4	1.6
4.	Phosphate	mg/kg	1.8	1.4
5.	Oil & Grease	mg/kg	0.12	0.1
6.	Iron	ppm	0.16	0.14
7.	Manganese	ppm	0.14	0.12
8.	Nickel	ppm	0.12	0.1
9.	Chromium	ppm	0.1	0.12
10.	Mercury	ppm	Nil	Nil
11.	Zinc	ppm	1.0	0.8
12.	Lead	ppm	0.01	0.01
13.	Arsenic	ppm	0.01	0.01
14.	Selenium	ppm	0.01	0.01
15.	Copper	ppm	0.18	0.14


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF SEDIMENT SAMPLE

BCL Ref. No.	GPL/ 06/217	Issued to:
Monitoring Date	May 14, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	May 19, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Sediment (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

S.No	Parameters	Unit	Result	
			South brake Wall Outside	North brake Wall Outside
1.	pH	H+ conc	7.06	7.10
2.	Organic matter	%	1.0	1.2
3.	Nitrate	mg/kg	2.0	1.6
4.	Phosphate	mg/kg	0.8	1.0
5.	Oil & Grease	mg/kg	0.02	0.01
6.	Iron	ppm	0.14	0.14
7.	Manganese	ppm	0.12	0.12
8.	Nickel	ppm	0.12	0.1
9.	Chromium	ppm	0.14	0.14
10.	Mercury	ppm	Nil	Nil
11.	Zinc	ppm	1.0	0.6
12.	Lead	ppm	0.01	0.01
13.	Arsenic	ppm	0.01	0.01
14.	Selenium	ppm	0.01	0.01
15.	Copper	ppm	0.2	0.16


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT BENTHIC FAUNAL DIVERSITY

BCL Ref. No.	GPL/ 06/217	Issued to:
Monitoring Date	May 14, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	May 19, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Sediment (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

S. No	Species/Group	% Composition	
		Harbour Basine	Port Entrance Channel
1.	<i>Opheliidae sp</i>	32	22
2.	<i>Glyceridae sp</i>	08	10
3.	<i>Nereidae sp</i>	24	16
4.	<i>Aphroditidae sp</i>	0	12
5.	<i>Cirratulidae sp</i>	14	10
6.	<i>Capitella sp</i>	26	06
7.	<i>Amphipoda sp.</i>	10	14
8.	<i>Gastropoda</i>	04	0
9.	<i>Chaetognatha</i>	06	12


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017, Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT BENTHIC FAUNAL DIVERSITY

BCL Ref. No.	GPL/ 06/217	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	May 14, 2022	
Reporting Date	May 19, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Sediment (Low Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Species/Group	% Composition	
		South brake Wall Outside	North brake Wall Outside
1.	Foraminifera	38	24
2.	Amphipoda	14	08
3.	Mytilusedulis	20	14
4.	Gastropod veliger	0	12
5.	Oithona	16	04
6.	Capitella	10	06
7.	Copepod nauplii	14	10
9.	Brachyuran zoea	06	22
8.	Neanthusarenaceodentata	02	06


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF SEDIMENT SAMPLE

BCL Ref. No.	GPL/ 06/218	Issued to:
Monitoring Date	May 28, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	June 02, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Sediment (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

S.No	Parameters	Unit	Result	
			South brake Wall Outside	North brake Wall Outside
1.	pH	H+ conc	7.02	7.08
2.	Organic matter	%	1.0	0.8
3.	Nitrate	mg/kg	2.0	1.6
4.	Phosphate	mg/kg	1.4	1.0
5.	Oil & Grease	mg/kg	0.06	0.04
6.	Iron	ppm	0.14	0.12
7.	Manganese	ppm	0.12	0.1
8.	Nickel	ppm	0.12	0.12
9.	Chromium	ppm	0.14	0.12
10.	Mercury	ppm	Nil	Nil
11.	Zinc	ppm	1.0	0.8
12.	Lead	ppm	0.01	0.01
13.	Arsenic	ppm	0.01	0.01
14.	Selenium	ppm	0.01	0.01
15.	Copper	ppm	0.16	0.12


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 814222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF SEDIMENT SAMPLE

BCL Ref. No.	GPL/ 06/218	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	May 28, 2022	
Reporting Date	June 02, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Sediment (Low Tide)	
Sample Collected by	M/s. Biochem Labs	

S.No	Parameters	Unit	Result	
			Harbour Basine	Port Entrance Channel
1.	pH	H+ conc	7.10	7.16
2.	Organic matter	%	2.0	1.6
3.	Nitrate	mg/kg	1.8	1.4
4.	Phosphate	mg/kg	1.0	1.0
5.	Oil & Grease	mg/kg	0.1	0.08
6.	Iron	ppm	0.14	0.12
7.	Manganese	ppm	0.16	0.14
8.	Nickel	ppm	0.14	0.1
9.	Chromium	ppm	0.12	0.1
10.	Mercury	ppm	Nil	Nil
11.	Zinc	ppm	1.0	0.6
12.	Lead	ppm	0.01	0.01
13.	Arsenic	ppm	0.01	0.01
14.	Selenium	ppm	0.01	0.01
15.	Copper	ppm	0.24	0.18


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 814222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT BENTHIC FAUNAL DIVERSITY

BCL Ref. No.	GPL/ 06/218	Issued to:
Monitoring Date	May 28, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	June 02, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Sediment (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

S. No	Species/Group	% Composition	
		Harbour Basine	Port Entrance Channel
1.	<i>Eunicidae sp.</i>	24	32
2.	<i>Paraonidae sp.</i>	36	20
3.	<i>Syllidae sp</i>	0	14
4.	<i>Sabellidae sp</i>	10	08
5.	<i>Oithona sp.</i>	14	24
6.	<i>Capitella sp.</i>	08	0
7.	<i>Syllidae sp</i>	10	08
9.	<i>Amphipoda sp.</i>	12	0
8.	<i>Nematoda sp.</i>	08	04


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73909 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT BENTHIC FAUNAL DIVERSITY

BCL Ref. No.	GPL/ 06/218	Issued to:
Monitoring Date	May 28, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	June 02, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Sediment (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

S. No	Species/Group	% Composition	
		South brake Wall Outside	North brake Wall Outside
1.	<i>Capitella sp.</i>	68	54
2.	<i>Syllidae sp</i>	36	22
3.	<i>Amphipoda sp.</i>	28	32
4.	<i>Nematoda sp.</i>	36	06
5.	<i>Capitella sp.</i>	04	24
6.	<i>Syllidae sp</i>	28	08
7.	<i>Paraonidae sp.</i>	36	12
9.	<i>Syllidae sp</i>	14	10
8.	<i>Sabellidae sp</i>	0	04


Analyst




Authorized Signatory



GANGAVARAM PORT LIMITED

GPL/ENV/APPCB/2022-23/010

Date: 06.06.2022.

To

Sr. Environmental Engineer, CESS
Andhra Pradesh Pollution Control Board,
D.no:33-26-14D/2,
Near Sunrise Hospital, Pushpa Hotel Center,
Chalamalavari Street, Kasturibaipet,
Vijayawada-520010,
Andhra Pradesh.

Dear Sir,

Sub: Water Consumption Cess Statement – Reg.

Please find enclosed herewith the water consumption statement in FORM - 1 for the month of May - 2022, prepared under the Water (Prevention and Control of Pollution) Cess Act, 1977.

We request you to kindly consider the same.

Thanking you

Yours Sincerely,


Authorized Signatory

Encl: As above.

Copy submitted to the Environmental Engineer, A.P. Pollution Control Board,
Regional Office, Visakhapatnam for kind information.

FORM - 1

Returns Regarding Water Consumed During Month of May - 2022

Name & Address	Purpose of which water consumed	Quantity of water consumed	If the meter was out of order the monthly avg. consumption of the water for the past 3 months of working period	Qty. of water qualifying for rebate according to the assesses	Remarks
(1)	(2)	(3)	(4)	(5)*	(6)
Gangavaram Port Limited, Gangavaram Post, Peda Gatyada Mandal, Visakhapatnam.	1) Industrial cooling/ spraying in mine pits or boiler feed.	25,403 Cum/KL	-	-	-
	2) Domestic Water	Cum/KL 6373.20	-	-	-

(*) for claiming rebate under Col.7, the assessed shall indicate in the column the analytical and other reports annexed to this return in support of this claim.

For Gangavaram Port Limited


(Dr. D. Nothi)

Vice President (Environment)



GANGAVARAM PORT LIMITED

GPL/ENV/APPCB/2022-23/020

Date: 05.07.2022.

To

Sr. Environmental Engineer, CESS
Andhra Pradesh Pollution Control Board,
D.no:33-26-14D/2,
Near Sunrise Hospital, Pushpa Hotel Center,
Chalamalavari Street, Kasturibaipet,
Vijayawada-520010.
Andhra Pradesh.

Dear Sir,

Sub: Water Consumption Cess Statement – Reg.

Please find enclosed herewith the water consumption statement in FORM - 1 for the month of June - 2022, prepared under the Water (Prevention and Control of Pollution) Cess Act, 1977.

We request you to kindly consider the same.

Thanking you

Yours Sincerely,

For Gangavaram Port Limited

Authorized Signatory
Vice President (Environment)

Encl: As above.

Copy submitted to the Environmental Engineer, A.P. Pollution Control Board, Regional Office, Visakhapatnam for kind information.

FORM - 1

Returns Regarding Water Consumed During Month of June - 2022

Name & Address	Purpose of which water consumed		Quantity of water consumed	If the meter was out of order the monthly avg. consumption of the water for the past 3 months of working period	Qty. of water qualifying for rebate according to the assesses	Remarks
	(1)	(2)	(3)	(4)	(5)*	(6)
Gangavaram Port Limited, Gangavaram Post, Peda Gatyada Mandal, Visakhapatnam.	1) Industrial cooling/ spraying in mine pits or boiler feed.	Total from Municipal mains i. From Municipal water supply mains ii. From well / tube well.	22,239 Cum/KL	-	-	-
	2) Domestic Water	i. From Municipal water supply mains ii. From well / tube well	Cum/KL 3891.50	-	-	-

(*) for claiming rebate under Col.7, the assessed shall indicate in the column the analytical and other reports annexed to this return in support of this claim.

For Gangavaram Port Limited


(Dr.D. Jyothi)
Vice President (Environment)



GANGAVARAM PORT LIMITED

GPL/ENV/APPCB/2022-23/021

Date: 05/07/2022.

To

The Environmental Engineer,
A.P. Pollution Control Board
Regional Office
APPCB Buildings, 3rd Floor
Main Road, Madhavadhara VUDA Layout
Visakhapatnam- 530 009.

Dear Sir,

Sub:- Monthly CFO Compliance, Environmental Marine & Terrestrial Monitoring Reports and Water Consumption details (Form-1) – Submitted – Reg.

Reff:- 1. CFO & HWA Order No. APPCB/VSP/VSP/113/CFO/HO/2015, dated 13.01.2016, valid up to 31.12.2020.
2. CFO & HWA Order No. APPCB/VSP/VSP/113/CFO/HO/2020, dated 10.09.2020, valid up to 31.12.2025.

@@@

With reference to the above, we are here with submitting the monthly CFO compliance reports and CAAQM, Marine & Terrestrial monitoring results along with Water Consumption details in Form - 1 for the month of June -2022.

Yours Sincerely,

For Gangavaram Port Limited


Authorized Signatory
Vice President (Environment)

Encl: As above.

Compliance of the conditions stipulated in CFO Auto Renewal Order No. APPCB/VSP/VSP/113/CFO/HO/2020- 10/09/2020, valid up to 31.12.2025.

Sl. No.	Condition	Compliance
1.	All other conditions mentioned in Schedules A, B & C of the combined CFO&HWA order issued by the Board vide order dated 13.01.2016 will remain same.	Noted and conditions are being followed as applicable.
2.	The facility shall comply with the standards issued by MoEF&CC / CPCB from time to time.	Noted and condition is being followed.
3.	The industry shall submit Half yearly compliance reports to all the stipulated conditions in Environmental Clearance (EC), Consent for Establishment (CFE) and Consent for Operation (CFO) through website i.e., https://pcb.ap.gov.in by 1st of January and 1st July of every year. The first half yearly compliance reports shall be furnished by the industry and second half yearly compliance reports shall be the audited through NABL accredited third party failing which the Consent Order issued will be cancelled.	Self-certified 1 st half yearly compliance report for the period from April 2021 to September 2021 submitted on 29.11.2021 through web site. NABL Accredited Agency certified compliance report for the 2 nd half for the period from October 2021 to March 2022 was uploaded through website on 30.05.2022.
4.	The facility shall ensure that dedicated fund is allotted towards Environment Relief Fund (ERF) in the Public Liability Insurance policy and submit a copy of the policy at the Regional Office: Visakhapatnam every year.	GPL is having Public liability Insurance of IFFCO-TOKIO vide Policy No:41063755, dated 28.09.2021, Valid till 14/09/2022 with Premium of Rs-5615/- & ERF of Rs.5615/-
5.	In case of false certification, noncompliance of conditions / directions and discrepancy in furnishing the information by the industry, the Board can withdraw the auto renewed consent and take action under provisions of relevant Acts & Rules.	Noted and condition is being followed.
6.	The facility shall inventorize the storage quantities of hazardous chemicals as per the hazard nature of reactivity / toxicity / flammability / explosive stored/handling in the premises as defined in the Management of Storage, Import of Hazardous Chemicals (MSIHC) Rules, 1989 and the details shall be furnished to the Factories Department and to the Regional Office, APPCB on monthly basis duly certifying the same.	GPL is not handling any Hazardous cargo/Containers/Chemicals.
7.	The facility shall identify major accident hazard chemicals & list out the hazardous chemicals endangered to human health & environment and the details shall be furnished to the Factories Department and to the Regional Office, APPCB time to time duly certifying the same by the industry. Further the facility shall extend training to the working personnel's while handling hazardous chemicals for prevention of	GPL is not handling any Hazardous cargo/Containers/Chemicals.

	accidents and necessary antidotes to ensure the safety, as per the MSIHC Rules, 1989.	
8.	The facility shall submit the copy of the safety audit report and On-Site / Off Site Emergency Plans as applicable after being certified by the Factories Department/concerned authority, to the APPCB, Regional Office from time to time, if the storage quantity of hazardous chemicals is equal to or, in excess of the threshold quantities specified in schedule 2 & 3 of MSIHC Rules, 1989.	<p>An onsite and offsite emergency action plan has been prepared and submitted to APPCB, RO, VSP.</p> <p>Mock drills are being conducted twice in a year.</p>
9.	The facility shall carryout calibration of safety equipments and leak detection systems at regular intervals and shall certify the same with the Factories Department/concerned authority. That certified copy shall be submitted to the APPCB, Regional Office. The facility shall install fluorescent Wind Vane at the highest point in the facility premises.	<p>GPL install fluorescent Wind Vane at the following two places within the Port premises.</p> <ol style="list-style-type: none"> 1. On the top of Over Head Tank near Harbour Gate besides GPL Canteen. 2. On the top of Commercial Office Building (COB)
10	The facility shall inventorize the hazardous wastes and its quantities stored within the facility premises as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 (HOWM Rules, 2016) and shall furnish the details to Regional Office, APPCB on monthly basis duly certifying the same by the industry.	<p>GPL is not handling any Hazardous cargo/Containers/Chemicals.</p> <p>GPL is permitted to handle Used Lubricating oil of 12000 LPA.</p> <p>The generation, storage & disposal details are submitting to APPCB through Form – IV.</p> <p>Latest submission is on 06.06.2022 for the year 2021-2022.</p>
11	The facility shall allow import of hazardous cargoes only after the importer complies with the MSIHC Rules, 1989.	GPL Not handling any Hazardous cargo/Containers/Chemicals.

Compliance report of the conditions stipulated in Schedule A,B & C of CFO & HWA Order No. APPCB/VSP/VSP/113/CFO/HO/2015, dated 13.01.2016

Compliance of Schedule - A

Sl. No.	Condition	Compliance
1.	Any up-set condition in any plant/plants of the industry, which result in, increased effluent/ emission discharge and/ or violation of standards stipulated in this order shall be informed to this Board, under intimation to the Collector and District Magistrate and take immediate action to bring down the discharge / emission below the limits.	All conditions are being followed.
2.	The industry should carryout analysis of waste water discharges or emissions through chimneys for the parameters mentioned in this order on quarterly basis and submit to the Board.	GPL is carrying out 3 rd party monitoring and analysis. As per analysis reports, the samples are meeting the Board standards.
3.	All the rules & regulations notified by Ministry of Law and Justice, Government of India regarding Public Liability Insurance Act, 1991 should be followed as applicable.	Noted and conditions are being followed as applicable.
4.	The industry should put up two sign boards (6×4 ft. each)at publicly visible places at the main gate indicating the products , effluent discharge standards, air emission standards, hazardous waste quantities and validity of CFO and exhibit the CFO order at a prominent place in the factory premises.	Noted and condition is being followed.
5.	Notwithstanding anything contained in this consent order, the Board here by reserves the right and powers to review / revoke any and / or all the conditions imposed herein above and to make such variations as deemed fit for the purpose of the Acts by the Board.	Noted the condition.
6.	The industry shall file the water cess returns in Form-I as required under section (5) of water (Prevention and Control of Pollution) cess Act, 1977 on or before the 5 th of every calendar month, showing the quantity of water consumed in the previous monthly along with water meter readings. The industry shall remit water cess as per the assessment order as and when issued by Board.	Water consumption details of the previous month are being submitted before 5 th of subsequent month in FORM - I. The latest reports for the Month of May, 2022 were submitted on 5 th June, 2022 After introduction of GST, APPCB has instructed all the industries are not required to remit water cess charges from 1 st July, 2017 onwards.

7.	The applicant shall submit Environment statement in Form V before 30 th September every year as per Rule No.14 of E(P) Rules,1986 & amendments thereof.	Complied and Form V was Submitted on 24.09.2021 for the period 2020-2021
8.	The applicant should make applications through Online for renewal of Consent (under Water Air Acts) and Authorization under HWM Rules at least 120 days before the date of expiry of this order, along with prescribed fee under Water and Air Acts and detailed compliance of CFO conditions for obtaining Consent & HW Authorization of the board. The industry should immediately submit the revised application for consent to this Board in the event of any change in the raw material used, processes employed, quantity of trade effluents & quantity of emissions. Any change in the management shall be informed to the Board. the person authorized should not let out the premises / lend / sell / transfer their industrial premises without obtaining prior permission of the state Pollution Control Board.	GPL has obtained CFO & HWA of the Board vide order dated 13/01/2016 valid up to 31.12.2020 and extended up to 31.12.2025 vide order dated 10.09.2020.
9.	Any person aggrieved by an order made by the state board under section 25,section 26,section 27 of water Act, 1974 or section 21 of Air Act,1981 may within thirty days from the date on which the order is communicated to him, prefer an appeal as per Andhra Pradesh Water Rules,1976 and Air Rules 1982, to Appellate authority constituted under section 28 of the Water (prevention and control of pollution) Act,1974 and section 31 of the Air (prevention and control of pollution) Act,1981.	Noted and condition will be followed.

Compliance of Schedule – B

Sl. No.	Condition	Compliance																																							
Water Pollution																																									
1.	<p>The water consumption quantities are mentioned below:</p> <table border="1"> <thead> <tr> <th>S. No</th><th>Purpose</th><th>Quantity KLD</th></tr> </thead> <tbody> <tr> <td>1</td><td>Gardening/irrigation</td><td>25</td></tr> <tr> <td>2</td><td>Dust suppression</td><td>1296.0</td></tr> <tr> <td>3</td><td>Domestic</td><td>40</td></tr> <tr> <td>4</td><td>Ship supply</td><td>32.5</td></tr> <tr> <td>5</td><td>miscellaneous</td><td>40.6</td></tr> <tr> <td colspan="2">Total</td><td>1434.1</td></tr> </tbody> </table> <p>Source of water is Visakhapatnam industrial water supply Co. the following is the permitted water consumption.</p> <table border="1"> <thead> <tr> <th>S. No</th><th>Purpose</th><th>Quantity KLD</th></tr> </thead> <tbody> <tr> <td>1</td><td>Dust suppression</td><td>1296.0</td></tr> <tr> <td>2</td><td>Domestic purpose</td><td>40.00</td></tr> <tr> <td>3</td><td>Process, where by water gets polluted and pollutants are easily bio degradable.</td><td>73.1</td></tr> <tr> <td>4</td><td>Processing , where by water gets polluted and pollutants are not easily bio degradable</td><td>--</td></tr> <tr> <td colspan="2">Total</td><td>1409.1</td></tr> </tbody> </table> <p>Separate water meters shall be maintained for the assessing the quantity of water used for each of the purpose mentioned above for Cess assessment purpose.</p>	S. No	Purpose	Quantity KLD	1	Gardening/irrigation	25	2	Dust suppression	1296.0	3	Domestic	40	4	Ship supply	32.5	5	miscellaneous	40.6	Total		1434.1	S. No	Purpose	Quantity KLD	1	Dust suppression	1296.0	2	Domestic purpose	40.00	3	Process, where by water gets polluted and pollutants are easily bio degradable.	73.1	4	Processing , where by water gets polluted and pollutants are not easily bio degradable	--	Total		1409.1	<p>GPL is submitting water consumption details and water cess in Form-I regularly.</p> <p>The industry is consuming water within consented quantity only.</p> <p>Provided 2 No. nos of flow meters for quantification of water used for domestic and other purposes.</p>
S. No	Purpose	Quantity KLD																																							
1	Gardening/irrigation	25																																							
2	Dust suppression	1296.0																																							
3	Domestic	40																																							
4	Ship supply	32.5																																							
5	miscellaneous	40.6																																							
Total		1434.1																																							
S. No	Purpose	Quantity KLD																																							
1	Dust suppression	1296.0																																							
2	Domestic purpose	40.00																																							
3	Process, where by water gets polluted and pollutants are easily bio degradable.	73.1																																							
4	Processing , where by water gets polluted and pollutants are not easily bio degradable	--																																							
Total		1409.1																																							
2.	The Gangavaram Port Limited (GPL) shall provide separate energy meters for Sewage Treatment Plant (STP) and for Air pollution Control equipments to record energy consumption.	GPL has provided separate energy meters for Sewage Treatment Plant (STP) and separate energy meter for the Air pollution Control equipments (MDSS) to record energy consumption.																																							
Air Pollution																																									
1.	<p>The Gangavaram Port Limited (GPL) shall comply with ambient air quality standards of PM₁₀ (Particulate matter size less than 10 µm) - 100µg /m³; PM_{2.5} (Particulate matter size less than 2.5 µm) - 60µg / m³; SO₂ - 80µg /m³; NO_x- 80µg /m³, outside the port premises at the periphery of the industry. Standards for other parameters as mentioned in the National Ambient Air Quality Standards CPCB Notification No.B-29016/20/90/PCI-I, dated 18.11.2009</p> <p>Noise Levels: Day time (6 AM to 10 PM) - 75 dB (A) Night time (10 PM to 6 AM) - 70 dB (A).</p>	The mitigation measures being implemented by GPL ensures that the ambient air quality parameters conform to the PCB prescribed standards.																																							

2.	The Gangavaram port limited (GPL) shall maintain 3 CAAQMs with online connectivity to APPCB and maintain records.	<p>GPL installed 3 No. of CAAQM stations to measure the parameters PM 10, PM 2.5, SO₂, NO, NO₂, CO at the following locations and data connected to APPCB website.</p> <ul style="list-style-type: none"> i. Administrative office towards H.B. Colony (Station 1): ii. Project site office building towards Venkannapalem (Station2) iii. Watch tower - 4 towards Gangavaram village (Station3).As per the data, the SPM values are within Board standards.
3.	The Gangavaram Port Limited (GPL) shall Maintain wind breaking wall all along the Gangavaram village side up to a height 10 mts as wind speed is high in this area	GPL erected wind breaking wall of height 6m on the compound wall of height 3m near Gangavaram village and HB Colony to prevent any dust nuisance towards habitation & maintaining about 50 m width of green belt along port compound wall near Gangavaram (V).
4.	The Gangavaram Port Limited (GPL) shall not establish any other stock yards other than designated stock yards.	GPL has not established any stock yards other than designated stock yards.
5.	The Gangavaram Port Limited (GPL) shall maintain Telescopic chute at ship loading points	GPL is maintaining Telescopic chute at ship loading points.
6.	The Gangavaram port limited (GPL) shall not stock the Materials more than 10mts height where MDSS system available and shall restrict to 6 mts for other stocking heights where tankers water spraying system is maintained in the stockyards.	<p>GPL obtained amendment to this condition vide Amendment to CFO dated 16/09/2016 and the condition was amended as:</p> <p><i>"GPL shall not stock the materials more than 12 meters height where MDSS system is available and shall maintain stack height of 10 meters at manual stack yards"</i></p>
7.	The Gangavaram port limited (GPL) shall take up the cleaning of road connected to National Highway in co-ordination with GVMC and R&B Departments.	This condition was deleted vide direction no. 06 vide Order No. 754/ APPCB/UH-II/TF/VSP/ 2016, dated 12.08.2016. GVMC is taking up the cleaning of road.
8.	The Gangavaram Port Limited (GPL) shall maintain dusty cargo operations if the wind velocity crosses 20 KMPH and all MDSS sprinklers shall start immediately to maintain AAQ standards	Noted and condition is being followed.
9.	The Gangavaram Port Limited (GPL) shall maintain fully mechanized handling equipments for loading and un loading operations for dusty cargo to the maximum extent possible.	Noted and condition is being followed.

General																						
1.	The Gangavaram Port Limited (GPL) shall maintain the following records and the same shall be made available to the inspecting officers of the Board: a. Cargo handling material wise details. b. Log books for pollution control systems. c. Hazardous/non hazardous solid waste generated and disposed. d. Inspection book. e. Manifest copies of hazardous waste.	The records are being maintained and are available for inspecting officers of the Board.																				
2.	<div>The Gangavaram Port Limited (GPL) shall dispose solid waste (Non Hazardous) as follows:</div> <table><tr><th>S. No</th><th>Name of the solid waste</th><th>Quantity</th><th>Disposal</th></tr><tr><td>1.</td><td>Domestic solid waste</td><td>10 T/m</td><td>Shall be collected segregated and disposed as per MSW Rules in consultation with GVMC Authorities</td></tr><tr><td>2.</td><td>Discarded material, plastic material</td><td>10 T/m</td><td>Shall be disposed to authorized recyclers only</td></tr><tr><td>3.</td><td>Sludge from STP</td><td>1.0 T/m</td><td>Shall be composted and used in green belt programme</td></tr><tr><td>4.</td><td>Lead acid batteries</td><td>---</td><td>Shall be disposed to authorized recyclers</td></tr></table>	S. No	Name of the solid waste	Quantity	Disposal	1.	Domestic solid waste	10 T/m	Shall be collected segregated and disposed as per MSW Rules in consultation with GVMC Authorities	2.	Discarded material, plastic material	10 T/m	Shall be disposed to authorized recyclers only	3.	Sludge from STP	1.0 T/m	Shall be composted and used in green belt programme	4.	Lead acid batteries	---	Shall be disposed to authorized recyclers	<div>a. GPL is disposing the municipal solid waste to GVMC.</div> <div>b. GPL is disposing the discarded material & plastic material to authorized recyclers.</div> <div>c. STP sludge is being turned in to bio-compost and used as manure to green belt.</div> <div>d. Lead acid batteries are being disposed to the supplier on buy back basis.</div>
S. No	Name of the solid waste	Quantity	Disposal																			
1.	Domestic solid waste	10 T/m	Shall be collected segregated and disposed as per MSW Rules in consultation with GVMC Authorities																			
2.	Discarded material, plastic material	10 T/m	Shall be disposed to authorized recyclers only																			
3.	Sludge from STP	1.0 T/m	Shall be composted and used in green belt programme																			
4.	Lead acid batteries	---	Shall be disposed to authorized recyclers																			
3.	The Gangavaram Port Limited (GPL) shall maintain green belt in 50 meters width as stipulated in the EC order dated 07-02-2012.	<div>➤ GPL has developed plantation of 5.0 Lakhs saplings in about 318.21 acres within the Port premises besides existence of Prosopis in an extent of about 150 Acres covering periphery of all yards, roads, buildings and all along conveyor belt.</div> <div>➤ Maintaining 50 m width of green belt towards North and North-West direction with special emphasis towards habitation i.e., HB Colony, Peda Gantyada, Venkannapalem, Kongapalem & Gangavaram village.</div>																				

		<ul style="list-style-type: none"> ➤ Maintaining thick greenbelt at Port Approach road, Railway track side and at Truck parking area along the wind breaking wall towards HB Colony. ➤ Developed High Density Plantation (Miyawaki) within the Port premises in an extent of 1.0 Acre with 12,120 no. of plantation, as directed by APPCB ➤ GPL established exclusive nursery with 80,000 saplings and employed 183 people to maintain and improve the green belt on continuous basis. ➤ About Rs.1.85 Cr per annum is being spent for the development of green belt in the true spirit.
4.	The Gangavaram Port Limited (GPL) shall not store/ handle any hazardous cargo containers within premises.	GPL is not handling container cargo operations.
5.	All types of the fertilizers shall be stored in the closed warehouses only. The port shall ensure that there shall not be any open storage of urea or any other fertilizer materials and all urea & fertilizer material handling warehouses shall be maintained with effluent collection pits for collection and treatment and then used for green belt in the premises after meeting the standards.	GPL is storing the Fertilizers in closed ware houses and provided leachate collection pits around the area of warehouses and connected to STP.
6.	The Gangavaram Port Limited (GPL) shall store fuel oils used for construction equipment vessels / vehicles in a well designed manner and protect them against fire hazards by construction of compound wall to prevent access to unauthorized elements. The surface run off from storage area shall pass through oil water separator before being discharging. The Gangavaram Port Limited (GPL) shall store fuel oils used for construction equipment vessels / vehicles in a well designed manner and protect them against fire hazards by construction of compound wall to prevent access to unauthorized elements. The surface run off from storage area shall pass through oil water separator before being discharging.	GPL is storing the used oil in drums under a shed.
7.	The Gangavaram Port Limited (GPL) shall maintain the Malaria control programme and Health facilities in the operation phase. Vector control programmes. Control of all	GPL is having dispensary within the premises and no malaria cases were reported as of now. All anti malarial measures are taken

	breeding ground shall be carried out by the use of larvicide's in addition to control of adult mosquitoes. The health team should include a trained entomologist.	
8.	The Gangavaram Port Limited (GPL) shall maintain a task force to check the vehicle emissions on permanent basis. The Gangavaram Port Limited (GPL) shall maintain a task force to check the vehicle emissions on permanent basis.	GPL has provided provision for checking vehicle emissions with a task force team including environment and safety department officials.
9.	The Gangavaram Port Limited (GPL) shall constitute an Environment Management cell with qualified and trained staff.	GPL is having a dedicated Environment Management Team headed by Vice President.
10.	The Gangavaram Port Limited (GPL) shall maintain onsite and offsite emergency action plan after carrying out risk analysis and hazop studies.	Complied with the condition.
11.	The Gangavaram Port Limited (GPL) with VUDA shall ensure that no slum development and unauthorized construction occur in the surrounding area.	VMRDA (VUDA) is taking necessary precautions to see that no slum development and unauthorized construction occur in the surrounding area of GPL.
12.	The Gangavaram Port Limited (GPL) shall handle alumina in completely closed enclosures. It shall also furnish an action plan to install mechanized system.	GPL is handling the alumina in hoppers and directly through tankers.
13.	<p>The Gangavaram Port Limited (GPL) shall implement following for controlling fugitive emission :</p> <ul style="list-style-type: none"> a. Adequate dust controlling measures should be undertaken for loading and unloading operations for dusty cargo. b. Closed conveyor belt with water sprinkling arrangement for suppression of dust while conveyor dusty cargo like coal, iron ore & alumina. c. Vehicle movement minimized / eliminated by implementing mechanical operations. d. All the vehicles involved in transportation of cargo shall be covered with tarpaulin. e. Traffic management measures adopted to avoid traffic congestion and provide empty dusting vehicle washing / dry cleaning system to clean all out going cargo vehicles. 	<ul style="list-style-type: none"> a. Mechanical Dust Suppression System (MDSS): 176 No. of water cannons were installed at stack yards for dust. b. Provided Dust suppression systems at discharge/feeding points of belt conveyors at each transfer tower. c. Laid BT road within the port premises. d. 5 No. of heavy duty sweeping (3 No. existing & 2 New) machines were deployed for cleaning of berths, back up areas and roads. e. Covering the outgoing cargo vehicles with tarpaulin. f. Provided dedicated truck/tyre washing facility to wash all the outgoing vehicles. g. Provided dedicated truck parking facility.

	<p>f. Sufficient parking facilities based on traffic density / vehicular movements anticipated from the port.</p> <p>g. Adequate water sprinkling provided on roads and at dusty cargo storage areas for suppression of dust</p>	<p>h. Ensuring continuous water sprinkling on the berths, back up areas, at all transfer points, hauling roads with 20 Mobile DSS tankers for dust suppression.</p>
14.	<p>The Gangavaram Port Limited (GPL) shall implement the following measures in the cargo handling and stacking area:</p> <p>a. The ship un-loader maintained with in-situ water sprinkling system and unloading hoppers provided with covers on three sides to control fugitive emissions. Iron ore shall be unloaded through wagon tippers.</p> <p>b. Mechanical stackers cum re-claimers for stacking, transfer and reclamation; Conveyors for transfer of materials to stop manual handling / mobile machines.</p> <p>c. MDSS in stacking areas.</p>	<p>i. Established mechanical conveyor system for handling coal & Iron ore to prevent the spillage of cargo and provided closed hoods for the conveyor system to curb fugitive emissions of coal/iron ore particles into the air.</p> <p>ii. Stacker cum re-claimers are being used for loading and unloading the coal. The railway wagons are being loaded mechanically. The Port is having Stacker cum re-claimer-1no., reclaimers-3nos., stackers-3nos., wagon loader-1no., silo of 800 cu.m capacity, ship unloader-2nos, ship loader-1no., wagon tippler-1no., mobile harbour cranes-5no.</p> <p>iii. Mechanical Dust Suppression System (MDSS): 176 No. of water cannons were installed at stack yards for dust suppression by spraying water at high pressure to form blanket of mist on surface of cargo stock to settle the dust.</p>
15.	The Gangavaram Port Limited (GPL) shall ensure AAQ standards of the Board on all environmental conditions without fail.	GPL has provided 3 nos AAQ stations with data logger and connected to APPCB website.
16.	The Gangavaram Port Limited (GPL) shall maintain standby centrifugal pump so as to ensure uninterrupted operation of MDSS.	Complied. There are 4 no. Centrifugal pumps kept standby.
17.	The Gangavaram Port Limited (GPL) shall maintain compliance of all other conditions of CFE orders issued by the Board	Complied with the condition.
18.	The Gangavaram Port Limited (GPL) shall comply with Task Force directions and other directions issued by the Board from time to time.	Complied with the condition.

Compliance of Schedule – C

Sl. No	Condition	Compliance
1.	All the rules and regulations notified by Ministry of Environment & Forests, Government of India under the E (P) Act, 1986 in respect of management, handling, transportation and storage of the Hazardous waste should be followed.	GPL is following all the rules and regulations notified by Ministry of Environment & Forests, Government of India under the E(P) Act, 1986 in respect of management, handling, transportation and storage of the Hazardous waste.
2.	The Gangavaram Port Limited (GPL) shall not store hazardous waste for more than 90 days as per the Hazardous Wastes (Management, Handling and Tran boundary Movement) Rules, 2008 and amendments thereof.	Complied with the condition.
3.	The Gangavaram Port Limited (GPL) shall dispose Used Lead Acid Batteries to the manufacturers / dealers on buyback basis	GPL is buying the Lead acid on buy back basis.
4.	The Gangavaram Port Limited (GPL) shall maintain 6 copy manifest system for transportation of waste generated and a copy shall be submitted to concern Regional Office of APPCB. The driver who transports Hazardous Waste should be well acquainted about the procedure to be followed in case of an emergency during transit. The transporter should carry a Transport Emergency (TREM) Card.	GPL is following manifest system for disposal of waste oil to APPCB authorized agencies and submitting the copies to the Board.
5.	The Gangavaram Port Limited (GPL) shall maintain proper records for Hazardous Wastes stated in Authorization in FORM-3 i.e., quantity of Incinerable waste, land disposal waste, recyclable waste etc., and file annual returns in Form- 4 as per Rule 22(2) of the Hazardous Wastes (Management, Handling & Tran boundary Movement) Rules, 2008 and amendments thereof	<p>GPL is maintaining records for Hazardous Wastes stated in Authorization in Form-3 of CFO Order and filing annual returns in Form- 4 to APPCB.</p> <p>For the year 2021-2022 Form – 3 & Form – 4 Submitted on 06.06.2022.</p>
6.	The Gangavaram Port Limited (GPL) shall submit the condition wise compliance report of the conditions stipulated in Schedule A, B & C of this Order on half yearly basis to Board Office, Hyderabad and concerned Regional Office	<p>Complied with the condition.</p> <p>GL is submitting the compliance reports on monthly basis.</p>

GANGAVARAM PORT LIMITED
(An ISO 9001:2015 & ISO 14001:2015
Certified Company)



Environment Monitoring Report
June, 2022

Corporate Office:

2,3,4th Floors, Hansa plaza,
Plot No.798, road No.36,
Jubilee Hills, Hyderabad - 500033
Phone : 040 – 33599999

Site Office:

Gangavaram (V & Post)
Pedagantyada (Mandal)
Visakhapatnam – 530 044
Phone: 0891 -2701177

Reference No.:	GPL/May/2022	Submitted to:		
Monitoring Date:	01.06.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam		
Organization Name:	Gangavaram Port Limited			
Type Of Sample:	Ambient Air Quality			
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)			

Ambient Air Quality 24 hrs average data

Station	Station - 1 Administrative Office Building (AOB) towards HB Colony		Station - 2 Project Site Office towards Venkannapalem		Station - 3 Watch Tower - 4 towards Venkannapalem	
Parameter	PM10	PM 2.5	PM10	PM 2.5	PM10	PM 2.5
Day average value	61.06	37.35	56.57	35.32	63.09	38.36
Standard	100 µg/m ³	60 µg/m ³	100 µg/m ³	60 µg/m ³	100 µg/m ³	60 µg/m ³

Prepared by: *LP/1910*
Gruvsh

For Gangavaram Port Limited

D. Dyothu
(D.D. Dyothi)
Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	02.06.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data					
Station	Station - 1 Administrative Office Building (AOB) towards HB Colony		Station - 2 Project Site Office towards Venkannapalem		Station - 3 Watch Tower - 4 towards Venkannapalem
Parameter	PM10	PM 2.5	PM10	PM 2.5	PM 2.5
Day average value	50.50	31.00	46.76	29.30	31.81
Standard	100 µg/m ³	60 µg/m ³	100 µg/m ³	60 µg/m ³	60 µg/m ³

Prepared by: *GP*
Upst 1910
Chinnathur

For Gangavaram Port Limited

D. J. Jolly
 (Dr. D. Jolly)
 Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	03.06.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data						
Station	Station - 1 Administrative Office Building (AOB) towards HB Colony		Station - 2 Project Site Office towards Venkannapalem		Station - 3 Watch Tower - 4 towards Venkannapalem	
Parameter	PM10	PM 2.5	PM10	PM 2.5	PM10	PM 2.5
Day average value	52.08	31.92	48.28	30.21	53.81	32.78
Standard	100 µg/m³	60 µg/m³	100 µg/m³	60 µg/m³	100 µg/m³	60 µg/m³

Prepared by: *[Signature]*
[Signature]
[Signature]

For Gangavaram Port Limited

[Signature]
 (Dr.D. Jyothi)
 Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to: A.P. Pollution Control Board, Regional office, Visakhapatnam
Monitoring Date:	04.06.2022	
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data					
Station	Station - 1 Administrative Office Building (AOB) towards HB Colony		Station - 2 Project Site Office towards Venkannapalem		Station - 3 Watch Tower - 4 towards Venkannapalem
Parameter	PM10	PM 2.5	PM10	PM 2.5	PM 2.5
Day average value	50.10	30.77	46.44	29.11	31.60
Standard	100 µg/m ³	60 µg/m ³	100 µg/m ³	60 µg/m ³	60 µg/m ³

Prepared by: *[Signature]*
04/5/2022
G. V. N. S. K. S. K.

For Gangavaram Port, Limited

[Signature]
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	05.06.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data						
Station	Station - 1 Administrative Office Building (AOB) towards HB Colony		Station - 2 Project Site Office towards Venkannapalem		Station - 3 Watch Tower - 4 towards Venkannapalem	
Parameter	PM10	PM 2.5	PM10	PM 2.5	PM10	PM 2.5
Day average value	48.26	29.68	44.72	28.07	49.86	30.47
Standard	100 µg/m ³	60 µg/m ³	100 µg/m ³	60 µg/m ³	100 µg/m ³	60 µg/m ³

Prepared by: *[Signature]*
21/5/2022
Gangavaram

For Gangavaram Port Limited

[Signature]
(Dr.D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	06.06.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data						
Station	Station - 1 Administrative Office Building (AOB) towards HB Colony		Station - 2 Project Site Office towards Venkannapalem		Station - 3 Watch Tower - 4 towards Venkannapalem	
Parameter	PM10	PM 2.5	PM10	PM 2.5	PM10	PM 2.5
Day average value	53.43	32.82	49.53	31.06	55.23	33.72
Standard	100 µg/m ³	60 µg/m ³	100 µg/m ³	60 µg/m ³	100 µg/m ³	60 µg/m ³

Prepared by: *[Signature]*
6/6/2022
G R Nuthu

For Gangavaram Port Limited

[Signature]
 (Dr. D. Jyothi)

Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to: A.P. Pollution Control Board, Regional office, Visakhapatnam
Monitoring Date:	07.06.2022	
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data					
Station	Station - 1 Administrative Office Building (AOB) towards HB Colony		Station - 2 Project Site Office towards Venkannapalem		Station - 3 Watch Tower - 4 towards Venkannapalem
Parameter	PM10	PM 2.5	PM10	PM 2.5	PM 2.5
Day average value	49.82	30.65	46.18	29.00	51.51
Standard	100 µg/m ³	60 µg/m ³	100 µg/m ³	60 µg/m ³	100 µg/m ³
					60 µg/m ³

Prepared by: *Ant*
6/8/2022
G. V. S. S. S. S.

For Gangavaram Port Limited

D. Jyothi
 (Dr. D. Jyothi)
 Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	08.06.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data						
Station	Station - 1 Administrative Office Building (AOB) towards HB Colony		Station - 2 Project Site Office towards Venkannapalem		Station - 3 Watch Tower - 4 towards Venkannapalem	
Parameter	PM10	PM 2.5	PM10	PM 2.5	PM10	PM 2.5
Day average value	49.84	30.60	46.18	28.94	51.49	31.42
Standard	100 µg/m ³	60 µg/m ³	100 µg/m ³	60 µg/m ³	100 µg/m ³	60 µg/m ³

Prepared by: *[Signature]*
GPL 19/10
G. Vasanthi

For Gangavaram Port Limited

[Signature]

(Dr. D. Jyothi)

Vice President (Environment)

Reference No.:	GPL/May/2022		Submitted to: A.P. Pollution Control Board, Regional office, Visakhapatnam
Monitoring Date:	09.06.2022		
Organization Name:	Gangavaram Port Limited		
Type Of Sample:	Ambient Air Quality		
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)		

Ambient Air Quality 24 hrs average data						
Station	Station - 1 Administrative Office Building (AOB) towards HB Colony		Station - 2 Project Site Office towards Venkannapalem		Station - 3 Watch Tower - 4 towards Venkannapalem	
Parameter	PM10	PM 2.5	PM10	PM 2.5	PM10	PM 2.5
Day average value	49.37	30.31	45.71	28.65	50.98	31.11
Standard	100 µg/m ³	60 µg/m ³	100 µg/m ³	60 µg/m ³	100 µg/m ³	60 µg/m ³

Prepared by: *[Signature]*
6/5/2022
[Signature]

For Gangavaram Port Limited

[Signature]
(Dr. D. Mohan)

Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:		
Monitoring Date:	10.06.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam		
Organization Name:	Gangavaram Port Limited			
Type Of Sample:	Ambient Air Quality			
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)			

Ambient Air Quality 24 hrs average data						
Station	Station - 1 Administrative Office Building (AOB) towards HB Colony		Station - 2 Project Site Office towards Venkannapalem		Station - 3 Watch Tower - 4 towards Venkannapalem	
Parameter	PM10	PM 2.5	PM10	PM 2.5	PM10	PM 2.5
Day average value	50.08	30.73	46.35	29.04	51.71	31.54
Standard	100 µg/m ³	60 µg/m ³	100 µg/m ³	60 µg/m ³	100 µg/m ³	60 µg/m ³

Prepared by: *[Signature]*
GPS/19/10
GPR/mk

For Gangavaram Port Limited
[Signature]
 (Dr. D. Jyothi)
 Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	11.06.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data						
Station	Station - 1 Administrative Office Building (AOB) towards HB Colony		Station - 2 Project Site Office towards Venkannapalem		Station - 3 Watch Tower - 4 towards Venkannapalem	
Parameter	PM10	PM 2.5	PM10	PM 2.5	PM10	PM 2.5
Day average value	49.60	30.45	45.96	28.80	51.29	31.29
Standard	100 µg/m ³	60 µg/m ³	100 µg/m ³	60 µg/m ³	100 µg/m ³	60 µg/m ³

Prepared by: *APC*
6/8/2022
Crishank

For Gangavaram Port Limited

D. Jyothi

(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	12.06.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data						
Station	Station - 1 Administrative Office Building (AOB) towards HB Colony		Station - 2 Project Site Office towards Venkannapalem		Station - 3 Watch Tower - 4 towards Venkannapalem	
Parameter	PM10	PM 2.5	PM10	PM 2.5	PM10	PM 2.5
Day average value	47.92	29.37	44.38	27.77	49.49	30.15
Standard	100 µg/m ³	60 µg/m ³	100 µg/m ³	60 µg/m ³	100 µg/m ³	60 µg/m ³

Prepared by: *[Signature]*
GPL/1910
[Signature]

For Gangavaram Port Limited

[Signature]
 (Dr. D. Jyothi)

Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	13.06.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data						
Station	Station - 1 Administrative Office Building (AOB) towards HB Colony		Station - 2 Project Site Office towards Venkannapalem		Station - 3 Watch Tower - 4 towards Venkannapalem	
Parameter	PM10	PM 2.5	PM10	PM 2.5	PM10	PM 2.5
Day average value	49.92	30.64	46.28	28.99	51.63	31.49
Standard	100 µg/m ³	60 µg/m ³	100 µg/m ³	60 µg/m ³	100 µg/m ³	60 µg/m ³

Prepared by: *[Signature]*
13/6/2022
Gangavaram

For Gangavaram Port Limited

[Signature]

(Dr. D. Iyothi)
Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	14.06.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data						
Station	Station - 1 Administrative Office Building (AOB) towards HB Colony		Station - 2 Project Site Office towards Venkannapalem		Station - 3 Watch Tower - 4 towards Venkannapalem	
Parameter	PM10	PM 2.5	PM10	PM 2.5	PM10	PM 2.5
Day average value	48.78	29.97	45.19	28.35	50.40	30.78
Standard	100 µg/m ³	60 µg/m ³	100 µg/m ³	60 µg/m ³	100 µg/m ³	60 µg/m ³

Prepared by: *L. Anil*
14/6/2022
Upendra

For Gangavaram Port Limited

D. Jyothi
 (Dr. D. Jyothi)
 Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	15.06.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data					
Station	Station - 1 Administrative Office Building (AOB) towards HB Colony		Station - 2 Project Site Office towards Venkannapalem		Station - 3 Watch Tower - 4 towards Venkannapalem
Parameter	PM10	PM 2.5	PM10	PM 2.5	PM 2.5
Day average value	48.61	29.85	45.02	28.23	30.65
Standard	100 µg/m ³	60 µg/m ³	100 µg/m ³	60 µg/m ³	60 µg/m ³

Prepared by: *Amr*
15/6/2022
Arvind

For Gangavaram Port Limited

D. Jyothi
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	16.06.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data						
Station	Station - 1 Administrative Office Building (AOB) towards HB Colony		Station - 2 Project Site Office towards Venkannapalem		Station - 3 Watch Tower - 4 towards Venkannapalem	
Parameter	PM10	PM 2.5	PM10	PM 2.5	PM10	PM 2.5
Day average value	46.41	28.54	43.00	26.99	47.96	29.31
Standard	100 µg/m³	60 µg/m³	100 µg/m³	60 µg/m³	100 µg/m³	60 µg/m³

Prepared by: *Zia*
4/5/2020
UVRJkm5

For Gangavaram Port Limited

D. Jyothi
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	17.06.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data					
Station	Station - 1 Administrative Office Building (AOB) towards HB Colony		Station - 2 Project Site Office towards Venkannapalem		Station - 3 Watch Tower - 4 towards Venkannapalem
Parameter	PM10	PM 2.5	PM10	PM 2.5	PM 2.5
Day average value	45.61	28.07	42.25	26.54	28.82
Standard	100 µg/m ³	60 µg/m ³	100 µg/m ³	60 µg/m ³	60 µg/m ³

Prepared by: *[Signature]*
UPS 1910
Urashima

For Gangavaram Port Limited
[Signature]
 (Dr. D. Jyothi)
 Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	18.06.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data						
Station	Station - 1 Administrative Office Building (AOB) towards HB Colony		Station - 2 Project Site Office towards Venkannapalem		Station - 3 Watch Tower - 4 towards Venkannapalem	
Parameter	PM10	PM 2.5	PM10	PM 2.5	PM10	PM 2.5
Day average value	45.03	27.71	41.73	26.21	46.54	28.46
Standard	100 µg/m ³	60 µg/m ³	100 µg/m ³	60 µg/m ³	100 µg/m ³	60 µg/m ³

Prepared by: *[Signature]*
18/6/2022
Urales mrg

For Gangavaram Port Limited:

[Signature]
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	19.06.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data						
Station	Station - 1 Administrative Office Building (AOB) towards HB Colony		Station - 2 Project Site Office towards Venkannapalem		Station - 3 Watch Tower - 4 towards Venkannapalem	
Parameter	PM10	PM 2.5	PM10	PM 2.5	PM10	PM 2.5
Day average value	45.90	28.25	42.68	26.81	47.51	29.06
Standard	100 µg/m ³	60 µg/m ³	100 µg/m ³	60 µg/m ³	100 µg/m ³	60 µg/m ³

Prepared by: *[Signature]*
19/6/2022

For Gangavaram Port Limited

[Signature]
(Dr. B. Jyothi)
Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:		
Monitoring Date:	20.06.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam		
Organization Name:	Gangavaram Port Limited			
Type Of Sample:	Ambient Air Quality			
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)			

Ambient Air Quality 24 hrs average data						
Station	Station - 1 Administrative Office Building (AOB) towards HB Colony		Station - 2 Project Site Office towards Venkannapalem		Station - 3 Watch Tower - 4 towards Venkannapalem	
Parameter	PM10	PM 2.5	PM10	PM 2.5	PM10	PM 2.5
Day average value	47.12	28.97	43.67	27.41	48.62	27.21
Standard	100 µg/m³	60 µg/m³	100 µg/m³	60 µg/m³	100 µg/m³	60 µg/m³

Prepared by: *Laxmi*
01/06/2022
GVR/15/2022

For Gangavaram Port Limited

D. Jyothi
(Dr. D. Jyothi)

Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	21.06.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data					
Station	Station - 1 Administrative Office Building (AOB) towards HB Colony		Station - 2 Project Site Office towards Venkannapalem		Station - 3 Watch Tower - 4 towards Venkannapalem
Parameter	PM10	PM 2.5	PM10	PM 2.5	PM 2.5
Day average value	47.50	29.19	44.00	27.61	29.98
Standard	100 µg/m ³	60 µg/m ³	100 µg/m ³	60 µg/m ³	60 µg/m ³

Prepared by: *Lini*
6/5/2022
Y. V. S. N. S.

For Gangavaram Port Limited

D. Jyothi
 (Dr. D. Jyothi)
 Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	22.06.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data						
Station	Station - 1 Administrative Office Building (AOB) towards HB Colony		Station - 2 Project Site Office towards Venkannapalem		Station - 3 Watch Tower - 4 towards Venkannapalem	
Parameter	PM10	PM 2.5	PM10	PM 2.5	PM10	PM 2.5
Day average value	46.15	28.38	42.76	26.84	47.68	29.14
Standard	100 µg/m³	60 µg/m³	100 µg/m³	60 µg/m³	100 µg/m³	60 µg/m³

Prepared by: *[Signature]*
4/5/2020
G.V.N.S. Murthy

For Gangavaram Port Limited
[Signature]
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:		
Monitoring Date:	23.06.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam		
Organization Name:	Gangavaram Port Limited			
Type Of Sample:	Ambient Air Quality			
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)			

Ambient Air Quality 24 hrs average data						
Station	Station - 1 Administrative Office Building (AOB) towards HB Colony		Station - 2 Project Site Office towards Venkannapalem		Station - 3 Watch Tower - 4 towards Venkannapalem	
Parameter	PM10	PM 2.5	PM10	PM 2.5	PM10	PM 2.5
Day average value	47.42	29.11	43.95	27.53	49.00	29.89
Standard	100 $\mu\text{g}/\text{m}^3$	60 $\mu\text{g}/\text{m}^3$	100 $\mu\text{g}/\text{m}^3$	60 $\mu\text{g}/\text{m}^3$	100 $\mu\text{g}/\text{m}^3$	60 $\mu\text{g}/\text{m}^3$

Prepared by: *Lalit*
21/6/2022
Quality

For Gangavaram Port Limited
D. Jyothi
 (Dr. D. Jyothi)
 Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to: A.P. Pollution Control Board, Regional office, Visakhapatnam
Monitoring Date:	24.06.2022	
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data						
Station	Station - 1 Administrative Office Building (AOB) towards HB Colony		Station - 2 Project Site Office towards Venkannapalem		Station - 3 Watch Tower - 4 towards Venkannapalem	
Parameter	PM10	PM 2.5	PM10	PM 2.5	PM10	PM 2.5
Day average value	48.20	29.61	44.67	28.01	49.81	30.41
Standard	100 µg/m ³	60 µg/m ³	100 µg/m ³	60 µg/m ³	100 µg/m ³	60 µg/m ³

Prepared by: *Chaitanya*
19/06/2022

For Gangavaram Port Limited

D. D. Jyothi
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to: A.P. Pollution Control Board, Regional office, Visakhapatnam
Monitoring Date:	25.06.2022	
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data						
Station	Station - 1 Administrative Office Building (AOB) towards HB Colony		Station - 2 Project Site Office towards Venkannapalem		Station - 3 Watch Tower - 4 towards Venkannapalem	
Parameter	PM10	PM 2.5	PM10	PM 2.5	PM10	PM 2.5
Day average value	47.66	29.26	44.16	27.68	49.25	30.05
Standard	100 $\mu\text{g}/\text{m}^3$	60 $\mu\text{g}/\text{m}^3$	100 $\mu\text{g}/\text{m}^3$	60 $\mu\text{g}/\text{m}^3$	100 $\mu\text{g}/\text{m}^3$	60 $\mu\text{g}/\text{m}^3$

Prepared by: *Quor*
4/5/19/10
G. V. S. Reddy

For Gangavaram Port Limited

(Dr. D. Jyothi)

Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	26.06.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data						
Station	Station - 1 Administrative Office Building (AOB) towards HB Colony		Station - 2 Project Site Office towards Venkannapalem		Station - 3 Watch Tower - 4 towards Venkannapalem	
Parameter	PM10	PM 2.5	PM10	PM 2.5	PM10	PM 2.5
Day average value	46.45	28.60	43.05	27.05	48.00	29.37
Standard	100 µg/m ³	60 µg/m ³	100 µg/m ³	60 µg/m ³	100 µg/m ³	60 µg/m ³

Prepared by: *[Signature]*
4/5/19/10
CVNLSH

For Gangavaram Port Limited

[Signature]
(Dr. D. Jyothi)

Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	27.06.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data					
Station	Station - 1 Administrative Office Building (AOB) towards HB Colony		Station - 2 Project Site Office towards Venkannapalem		Station - 3 Watch Tower - 4 towards Venkannapalem
Parameter	PM10	PM 2.5	PM10	PM 2.5	PM 2.5
Day average value	47.01	28.95	43.56	27.39	29.73
Standard	100 µg/m ³	60 µg/m ³	100 µg/m ³	60 µg/m ³	60 µg/m ³

Prepared by: *[Signature]*
4/5/19/10
UNLS only

For Gangavaram Port Limited
[Signature]
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:
Monitoring Date:	28.06.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data						
Station	Station - 1 Administrative Office Building (AOB) towards HB Colony		Station - 2 Project Site Office towards Venkannapalem		Station - 3 Watch Tower - 4 towards Venkannapalem	
Parameter	PM10	PM 2.5	PM10	PM 2.5	PM10	PM 2.5
Day average value	47.91	29.51	44.40	27.91	49.51	30.30
Standard	100 µg/m ³	60 µg/m ³	100 µg/m ³	60 µg/m ³	100 µg/m ³	60 µg/m ³

Prepared by: *[Signature]*
 28.06.2022
 U. S. Lakshmi

For Gangavaram Port Limited

[Signature]
 (Dr. D. Jyothi)

Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:		
Monitoring Date:	29.06.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam		
Organization Name:	Gangavaram Port Limited			
Type Of Sample:	Ambient Air Quality			
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)			

Ambient Air Quality 24 hrs average data						
Station	Station - 1 Administrative Office Building (AOB) towards HB Colony		Station - 2 Project Site Office towards Venkannapalem		Station - 3 Watch Tower - 4 towards Venkannapalem	
Parameter	PM10	PM 2.5	PM10	PM 2.5	PM10	PM 2.5
Day average value	46.96	28.93	43.51	27.36	48.52	29.71
Standard	100 µg/m³	60 µg/m³	100 µg/m³	60 µg/m³	100 µg/m³	60 µg/m³

Prepared by: *[Signature]*
 GPL/29.06.2022
 CAAQ

For Gangavaram Port Limited
[Signature]
 (Dr. D. Jyothi)
 Vice President (Environment)

Reference No.:	GPL/May/2022	Submitted to:	
Monitoring Date:	30.06.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam	
Organization Name:	Gangavaram Port Limited		
Type Of Sample:	Ambient Air Quality		
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)		

Ambient Air Quality 24 hrs average data						
Station	Station - 1 Administrative Office Building (AOB) towards HB Colony		Station - 2 Project Site Office towards Venkannapalem		Station - 3 Watch Tower - 4 towards Venkannapalem	
Parameter	PM10	PM 2.5	PM10	PM 2.5	PM10	PM 2.5
Day average value	46.67	28.76	43.25	27.20	48.23	29.53
Standard	100 µg/m³	60 µg/m³	100 µg/m³	60 µg/m³	100 µg/m³	60 µg/m³

Prepared by: *[Signature]*
 GPS/910
 26/6/2022

For Gangavaram Port Limited
[Signature]
 (Dr. D. Jyothi)
 Vice President (Environment)



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

Environmental Monitoring Reports (13 June and 25 June 2022)

Gangavaram Port LTD.
Pedagantyada(Mandal)
Gangavaram (Post)
Visakhapatnam - 530 044





BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF GROUND WATER SAMPLE

BCL Ref. No.	GPL/02/193	Issued to:
Monitoring Date	June 11, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	June 16, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Ground Water	Visakhapatnam.
Location	Gangavaram Village	
Sample Collected by	M/s. Biochem Labs	
Reference Standard	IS: 10500, 1991	

S. No.	Parameter	Unit	Result	Limit IS: 10500
1.	Temperature	°C	29.6	-
2.	pH	H+ concen.	7.12	6.5-8.5
3.	Total Hardness	mg/l	296	300
4.	Calcium (as Ca)	mg/l	58	75
5.	Magnesium (as Mg)	mg/l	26	30
6.	Chlorides	mg/l	118	250
7.	Manganese	mg/l	0.016	0.1
8.	Copper	mg/l	0.012	0.05
9.	Total Alkalinity	mg/l	62	200
10.	Total Dissolved Solids	mg/l	486	500
11.	Sulphate	mg/l	50	200
12.	Dissolved Oxygen	mg/l	3.0	-
13.	Nitrite (as NO ₂)	mg/l	0.018	0.02
14.	Iron	mg/l	0.12	0.3
15.	Fluoride	mg/l	0.6	1.0
16.	Oil & Grease	mg/l	BDL	0.01
17.	Chromium (as Cr ⁺⁶)	mg/l	0.012	0.05
18.	Cyanide	mg/l	NIL	0.05
19.	Zinc	mg/l	0.4	5.0
20.	Phenolic Compound	mg/l	NIL	0.001
21.	Free Residual Chlorine	mg/l	0.12	0.2
22.	Total Coli forms Count	MPN Index/100ml	10	1-11
23.	E.coli	Cfu/ml	Absent	Absent


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF GROUND WATER SAMPLE

BCL Ref. No.	GPL/02/194	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	June 11, 2022	
Reporting Date	June 16, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Ground Water	
Location	North boulder wall open well	
Sample Collected by	M/s. Biochem Labs	
Reference Standard	IS: 10500, 1991	

S. No.	Parameter	Unit	Result	Limit IS: 10500
1.	Temperature	°C	30.2	-
2.	pH	H+ concn.	7.10	6.5-8.5
3.	Total Hardness	mg/l	256	300
4.	Calcium (as Ca)	mg/l	42	75
5.	Magnesium (as Mg)	mg/l	20	30
6.	Chlorides	mg/l	60	250
7.	Manganese	mg/l	0.02	0.1
8.	Copper	mg/l	0.016	0.05
9.	Total Alkalinity	mg/l	112	200
10.	Total Dissolved Solids	mg/l	464	500
11.	Sulphate	mg/l	42	200
12.	Dissolved Oxygen	mg/l	2.4	-
13.	Nitrite (as NO ₂)	mg/l	0.014	0.02
14.	Iron	mg/l	0.16	0.3
15.	Fluoride	mg/l	0.9	1.0
16.	Oil & Grease	mg/l	BDL	0.01
17.	Chromium (as Cr ⁺⁶)	mg/l	0.01	0.05
18.	Cyanide	mg/l	NIL	0.05
19.	Zinc	mg/l	0.6	5.0
20.	Phenolic Compound	mg/l	NIL	0.001
21.	Free Residual Chlorine	mg/l	0.04	0.2
22.	Total Coli forms Count	MPN Index/100ml	8	1-11
23.	E.coli	Cfu/ml	Absent	Absent


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT NOISE LEVEL MONITORING

BCL Ref. No.	GPL/ 04/219	Issued to:
Monitoring Date	June 11, 2022	M/s. Gangavaram Port Ltd.
Organization	M/s. Gangavaram Port Ltd.	Gangavaram (Village)
Collected by	M/s. Biochem Labs	PedaGantiyada (Mandalam)
		Visakhapatnam.

S. No.	Parameter	Unit	Location	Result		CPCB Limit	
				Day time	Night time	Industrial	
						Day time	Night time
1.	Noise Level	Decibels	Cargo area	70	64	75	70
2.	Noise Level	Decibels	PedaGantiyada/ Security Gate	66	60	-	-
				Day time	Night time	Residential	
						Day time	Night time
3.	Noise Level	Decibels	Gangavaram	46	34	55	45
4.	Noise Level	Decibels	HB Colony	50	42	-	-


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT NOISE LEVEL MONITORING

BCL Ref. No.	GPL/ 04/220	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	June 25, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Collected by	M/s. Biochem Labs	

S. No.	Parameter	Unit	Location	Result		CPCB Limit	
				Day time	Night time	Industrial	
						Day time	Night time
1.	Noise Level	Decibels	Cargo area	74	66	75	70
2.	Noise Level	Decibels	PedaGantyada/ Security Gate	64	60	-	-
				Day time	Night time	Residential	
						Day time	Night time
3.	Noise Level	Decibels	Gangavaram	42	36	55	45
4.	Noise Level	Decibels	HB Colony	54	40	-	-


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/219	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	June 11, 2022	
Reporting Date	June 16, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			Harbour Basine		Port Entrance Channel	
			Low tide	High tide	Low tide	High tide
1.	Temperature	$^{\circ}\text{C}$	29.6	31.4	28.7	31.0
2.	pH	H+ conc	8.14	8.12	8.20	8.18
3.	Salinity	PSU	31.8	32.0	31.4	32.2
4.	Turbidity	NTU	28	14	10	8
5.	Total Suspended Solids	mg/l	34	20	12	10
6.	Transparency	Mts.	1.0	1.2	1.4	1.6
7.	Electrical Conductivity	mMHo	34.6	32.8	34.0	32.4


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 814222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/219	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	June 11, 2022	
Reporting Date	June 16, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			South brake Wall Outside		North brake Wall Outside	
			Low tide	High tide	Low tide	High tide
1.	Temperature	°C	32.0	28.8	31.2	32.2
2.	pH	H+ conc	8.22	8.20	8.16	8.24
3.	Salinity	PSU	32.4	30.0	34.2	32.0
4.	Turbidity	NTU	12	10	14	10
5.	Total Suspended Solids	mg/l	14	16	18	12
6.	Transparency	Mts.	1.2	1.4	1.2	1.4
7.	Electrical Conductivity	mMHo	34.2	32.8	33.6	34.0


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/219	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	June 11, 2022	
Reporting Date	June 16, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			Harbour Baseline		Port Entrance Channel	
			Low tide	High tide	Low tide	High tide
1.	Dissolved Oxygen	mg/l	3.6	3.4	4.0	3.8
2.	Biological Oxygen Demand	mg/l	1.2	1.6	1.8	1.4
3.	Oil & Grease	mg/l	1.2	1.0	0.6	0.4
4.	Sulphate	mg/l	996	1014	1054	1046
5.	Phosphate	mg/l	0.38	0.34	0.22	0.18
6.	Nitrate	mg/l	3.2	2.6	2.8	2.0
7.	Nitrite	mg/l	0.024	0.028	0.020	0.024
8.	Chloride	mg/l	19864	19692	21438	20280
9.	Chromium	ppm	0.028	0.026	0.024	0.020
10.	Mercury	ppm	Nil	Nil	Nil	Nil
11.	Zinc	ppm	0.24	0.18	0.16	0.12
12.	Iron	ppm	0.03	0.026	0.024	0.028
13.	Manganese	ppm	0.028	0.026	0.02	0.018
14.	Cadmium	ppm	Nil	Nil	Nil	Nil


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017, Ph: 0891 - 2551277, 814222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/219	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	June 11, 2022	
Reporting Date	June 16, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			South brake Wall Outside		North brake Wall Outside	
			Low tide	High tide	Low tide	High tide
1.	Dissolved Oxygen	mg/l	4.2	3.8	4.0	3.6
2.	Biological Oxygen Demand	mg/l	1.8	1.4	1.6	1.2
3.	Oil & Grease	mg/l	0.8	0.6	0.4	0.6
4.	Sulphate	mg/l	1038	1020	1042	1026
5.	Phosphate	mg/l	0.3	0.28	0.32	0.22
6.	Nitrate	mg/l	2.6	2.4	1.8	2.2
7.	Nitrite	mg/l	0.024	0.022	0.02	0.026
8.	Chloride	mg/l	21618	20482	20368	19864
9.	Chromium	ppm	0.022	0.024	0.026	0.024
10.	Mercury	ppm	Nil	Nil	Nil	Nil
11.	Zinc	ppm	0.16	0.14	0.12	0.18
12.	Iron	ppm	0.024	0.022	0.028	0.02
13.	Manganese	ppm	0.02	0.016	0.014	0.018
14.	Cadmium	ppm	Nil	Nil	Nil	Nil


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/219	Issued to:
Monitoring Date	June 11, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	June 16, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: Harbourbasine / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	10000
2.	Zooplankton Count	No./m ³	1200
3.	Chlorophyll a	mg/m ³	3.6
4.	Chlorophyll b	mg/m ³	2.8
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	2.6

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	30
	<i>Amphora lineolata</i>	10
	<i>Cymbella marina</i>	04
	<i>Bacteriastrum delicatulum</i>	18
	<i>Thalassionema nitzschioides</i>	24
	<i>Chaetoceros dydymus</i>	06
	<i>Skeletonemacostatum</i>	18
	<i>Thalassiothrixlongissima</i>	02
	<i>Cymbella marina</i>	14
B.	Zooplankton Species	
	<i>Foraminifera</i>	26
	<i>Chaetognatha</i>	08
	<i>Amphipoda</i>	10
	<i>Cladocera</i>	04
	<i>Eggs of fish & larvae</i>	06


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/219	Issued to:
Monitoring Date	June 11, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	June 16, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: Port Entrance Channel / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	9000
2.	Zooplankton Count	No./m ³	800
3.	Chlorophyll a	mg/m ³	2.8
4.	Chlorophyll b	mg/m ³	2.4
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	2.6

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	20
	<i>Amphora lineolata</i>	10
	<i>Cymbella marina</i>	14
	<i>Bacteriastrum delicatulum</i>	08
	<i>Thalassionema nitzschioides</i>	14
	<i>Chaetoceros dydymus</i>	02
	<i>Skeletonemacostatum</i>	06
	<i>Thalassiothrixlongissima</i>	12
	<i>Cymbella marina</i>	06
B.	Zooplankton Species	
	<i>Foraminifera</i>	20
	<i>Chaetognatha</i>	12
	<i>Amphipoda</i>	10
	<i>Cladocera</i>	06
	<i>Eggs of fish & larvae</i>	04

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 814222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/219	Issued to:
Monitoring Date	June 11, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	June 16, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (High Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: Harbourbasine / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	11000
2.	Zooplankton Count	No./m ³	1200
3.	Chlorophyll a	mg/m ³	3.2
4.	Chlorophyll b	mg/m ³	2.8
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	2.4

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	16
	<i>Amphora lineolata</i>	14
	<i>Cymbella marina</i>	10
	<i>Bacteriastrum delicatulum</i>	06
	<i>Thalassionema nitzschioides</i>	10
	<i>Chaetoceros dydymus</i>	02
	<i>Skeletonemacostatum</i>	08
	<i>Thalassiothrixlongissima</i>	11
	<i>Cymbella marina</i>	12
B.	Zooplankton Species	
	<i>Foraminifera</i>	08
	<i>Chaetognatha</i>	10
	<i>Amphipoda</i>	06
	<i>Cladocera</i>	12
	<i>Eggs of fish & larvae</i>	06

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277.
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/219	Issued to:
Monitoring Date	June 11, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	June 16, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (High Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: Port Entrance Channel / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	12000
2.	Zooplankton Count	No./m ³	1000
3.	Chlorophyll a	mg/m ³	2.8
4.	Chlorophyll b	mg/m ³	3.2
5.	Primary Productivity	gC/m ²	2.4
6.	Biomass	mg/m ²	2.8

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	12
	<i>Amphora lineolata</i>	06
	<i>Cymbella marina</i>	10
	<i>Bacteriastrum delicatulum</i>	12
	<i>Thalassionema nitzschioides</i>	08
	<i>Chaetoceros dydymus</i>	10
	<i>Skeletonemacostatum</i>	06
	<i>Thalassiothrixlongissima</i>	12
	<i>Cymbella marina</i>	06
B.	Zooplankton Species	
	<i>Foraminifera</i>	12
	<i>Chaetognatha</i>	18
	<i>Amphipoda</i>	06
	<i>Cladocera</i>	04
	<i>Eggs of fish & larvae</i>	10

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/219	Issued to:
Monitoring Date	June 11, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	June 16, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: South brake Wall outside / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	12000
2.	Zooplankton Count	No./m ³	900
3.	Chlorophyll a	mg/m ³	3.0
4.	Chlorophyll b	mg/m ³	2.4
5.	Primary Productivity	gC/m ²	3.6
6.	Biomass	mg/m ²	2.4

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	54
	<i>Amphora lineolata</i>	36
	<i>Cymbella marina</i>	28
	<i>Bacteriastrum delicatulum</i>	32
	<i>Thalassionema nitzschioides</i>	30
	<i>Chaetoceros dydymus</i>	12
	<i>Skeletonemacostatum</i>	22
	<i>Thalassiothrixlongissima</i>	32
	<i>Cymbella marina</i>	12
B.	Zooplankton Species	
	<i>Foraminifera</i>	46
	<i>Chaetognatha</i>	26
	<i>Amphipoda</i>	20
	<i>Cladocera</i>	14
	<i>Eggs of fish & larvae</i>	08

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/219	Issued to:
Monitoring Date	June 11, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	June 16, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: North brake Wall Outside / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	14000
2.	Zooplankton Count	No./m ³	1000
3.	Chlorophyll a	mg/m ³	3.4
4.	Chlorophyll b	mg/m ³	2.8
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	2.6

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	36
	<i>Amphora lineolata</i>	48
	<i>Cymbella marina</i>	60
	<i>Bacteriastrum delicatulum</i>	28
	<i>Thalassionema nitzschioides</i>	42
	<i>Chaetoceros dydymus</i>	04
	<i>Skeletonemacostatum</i>	28
	<i>Thalassiothrixlongissima</i>	12
	<i>Cymbella marina</i>	14
B.	Zooplankton Species	
	<i>Foraminifera</i>	54
	<i>Chaetognatha</i>	32
	<i>Amphipoda</i>	36
	<i>Cladocera</i>	10
	<i>Eggs of fish & larvae</i>	08

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/219	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	June 11, 2022	
Reporting Date	June 16, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (High Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: South brake Wall Outside / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	9000
2.	Zooplankton Count	No./m ³	600
3.	Chlorophyll a	mg/m ³	2.4
4.	Chlorophyll b	mg/m ³	2.6
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	2.2

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	36
	<i>Amphora lineolata</i>	64
	<i>Cymbella marina</i>	28
	<i>Bacteriastrum delicatulum</i>	36
	<i>Thalassionema nitzschioides</i>	24
	<i>Chaetoceros dydymus</i>	04
	<i>Skeletonemacostatum</i>	14
	<i>Thalassiothrixlongissima</i>	26
	<i>Cymbella marina</i>	02
B.	Zooplankton Species	
	<i>Foraminifera</i>	48
	<i>Chaetognatha</i>	24
	<i>Amphipoda</i>	10
	<i>Cladocera</i>	04
	<i>Eggs of fish & larvae</i>	12


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/219	Issued to:
Monitoring Date	June 11, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	June 16, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (High Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: North brake Wall Outside / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	11000
2.	Zooplankton Count	No./m ³	1200
3.	Chlorophyll a	mg/m ³	3.4
4.	Chlorophyll b	mg/m ³	2.6
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	2.8

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	58
	<i>Amphora lineolata</i>	12
	<i>Cymbella marina</i>	44
	<i>Bacteriastrum delicatulum</i>	28
	<i>Thalassionema nitzschioides</i>	36
	<i>Chaetoceros dydymus</i>	32
	<i>Skeletonemacostatum</i>	10
	<i>Thalassiothrixlongissima</i>	20
	<i>Cymbella marina</i>	04
B.	Zooplankton Species	
	<i>Foraminifera</i>	32
	<i>Chaetognatha</i>	44
	<i>Amphipoda</i>	28
	<i>Cladocera</i>	10
	<i>Eggs of fish & larvae</i>	08

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/220	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	June 25, 2022	
Reporting Date	June 30, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			Harbour Basine		Port Entrance Channel	
			Low tide	High tide	Low tide	High tide
1.	Temperature	°C	32.8	31.2	32.6	29.8
2.	pH	H+ conc	8.24	8.22	8.20	8.22
3.	Salinity	PSU	32.4	33.6	32.0	33.4
4.	Turbidity	NTU	26	18	10	14
5.	Total Suspended Solids	mg/l	30	24	12	16
6.	Transparency	Mts.	0.9	1.0	1.4	1.2
7.	Electrical Conductivity	mMHo	36.8	33.6	32.0	31.8


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/220	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	June 25, 2022	
Reporting Date	June 30, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			South brake Wall Outside		North brake Wall Outside	
			Low tide	High tide	Low tide	High tide
1.	Temperature	°C	30.8	32.0	28.2	31.6
2.	pH	H+ conc	8.22	8.24	8.22	8.26
3.	Salinity	PSU	32.4	33.2	32.8	33.0
4.	Turbidity	NTU	12	10	14	12
5.	Total Suspended Solids	mg/l	16	12	18	16
6.	Transparency	Mts.	1.2	1.4	1.2	1.4
7.	Electrical Conductivity	mMHo	36.0	32.2	34.2	33.8


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 814222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/220	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	June 25, 2022	
Reporting Date	June 30, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			Harbour Basine		Port Entrance Channel	
			Low tide	High tide	Low tide	High tide
1.	Dissolved Oxygen	mg/l	3.8	4.0	3.8	3.6
2.	Biological Oxygen Demand	mg/l	1.4	1.8	1.6	1.4
3.	Oil & Grease	mg/l	1.6	1.0	0.8	0.6
4.	Sulphate	mg/l	1026	998	1036	1018
5.	Phosphate	mg/l	0.28	0.32	0.26	0.24
6.	Nitrate	mg/l	3.2	2.0	2.8	2.6
7.	Nitrite	mg/l	0.028	0.026	0.016	0.014
8.	Chloride	mg/l	18624	20432	21246	20618
9.	Chromium	ppm	0.026	0.022	0.018	0.022
10.	Mercury	ppm	Nil	Nil	Nil	Nil
11.	Zinc	ppm	0.20	0.18	0.14	0.12
12.	Iron	ppm	0.024	0.026	0.02	0.02
13.	Manganese	ppm	0.02	0.024	0.016	0.018
14.	Cadmium	ppm	Nil	Nil	Nil	Nil


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73009 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/220	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	June 25, 2022	
Reporting Date	June 30, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			South brake Wall Outside		North brake Wall Outside	
			Low tide	High tide	Low tide	High tide
1.	Dissolved Oxygen	mg/l	4.0	4.6	4.2	3.8
2.	Biological Oxygen Demand	mg/l	1.8	2.2	2.0	1.6
3.	Oil & Grease	mg/l	0.4	0.8	0.6	0.8
4.	Sulphate	mg/l	1036	1020	1042	1056
5.	Phosphate	mg/l	0.38	0.36	0.26	0.32
6.	Nitrate	mg/l	3.0	2.4	2.0	1.8
7.	Nitrite	mg/l	0.026	0.024	0.018	0.02
8.	Chloride	mg/l	21612	20864	19692	20486
9.	Chromium	ppm	0.026	0.02	0.016	0.02
10.	Mercury	ppm	Nil	Nil	Nil	Nil
11.	Zinc	ppm	0.16	0.12	0.18	0.10
12.	Iron	ppm	0.014	0.016	0.026	0.02
13.	Manganese	ppm	0.024	0.02	0.018	0.016
14.	Cadmium	ppm	Nil	Nil	Nil	Nil


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#3-B-6, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 814222277,
73999 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/220	Issued to:
Monitoring Date	June 25, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	June 30, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: Harbourbasine / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	14000
2.	Zooplankton Count	No./m ³	1200
3.	Chlorophyll a	mg/m ³	2.6
4.	Chlorophyll b	mg/m ³	2.2
5.	Primary Productivity	gC/m ²	2.6
6.	Biomass	mg/m ²	1.8

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	18
	<i>Amphora lineolata</i>	20
	<i>Cymbella marina</i>	04
	<i>Bacteriastrum delicatulum</i>	18
	<i>Thalassionema nitzschioides</i>	32
	<i>Chaetoceros dydymus</i>	06
	<i>Skeletonemacostatum</i>	08
	<i>Thalassiothrixlongissima</i>	04
	<i>Cymbella marina</i>	12
B.	Zooplankton Species	
	<i>Foraminifera</i>	24
	<i>Chaetognatha</i>	18
	<i>Amphipoda</i>	06
	<i>Cladocera</i>	10
	<i>Eggs of fish & larvae</i>	08

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
730009 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/220	Issued to:
Monitoring Date	June 25, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	June 30, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: Port Entrance Channel / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	12000
2.	Zooplankton Count	No./m ³	800
3.	Chlorophyll a	mg/m ³	3.0
4.	Chlorophyll b	mg/m ³	2.6
5.	Primary Productivity	gC/m ²	3.2
6.	Biomass	mg/m ²	2.8

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	14
	<i>Amphora lineolata</i>	12
	<i>Cymbella marina</i>	06
	<i>Bacteriastrum delicatulum</i>	14
	<i>Thalassionema nitzschioides</i>	10
	<i>Chaetoceros dydymus</i>	22
	<i>Skeletonemacostatum</i>	04
	<i>Thalassiothrixlongissima</i>	12
	<i>Cymbella marina</i>	06
B.	Zooplankton Species	
	<i>Foraminifera</i>	20
	<i>Chaetognatha</i>	16
	<i>Amphipoda</i>	04
	<i>Cladocera</i>	02
	<i>Eggs of fish & larvae</i>	18

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

9-6, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277.
73999 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/220	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	June 25, 2022	
Reporting Date	June 30, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (High Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: Harbourbasine / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	9000
2.	Zooplankton Count	No./m ³	600
3.	Chlorophyll a	mg/m ³	2.4
4.	Chlorophyll b	mg/m ³	2.6
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	2.8

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	28
	<i>Amphora lineolata</i>	06
	<i>Cymbella marina</i>	22
	<i>Bacteriastrum delicatulum</i>	10
	<i>Thalassionema nitzschioides</i>	24
	<i>Chaetoceros dydymus</i>	04
	<i>Skeletonemacostatum</i>	12
	<i>Thalassiothrixlongissima</i>	08
	<i>Cymbella marina</i>	10
B.	Zooplankton Species	
	<i>Foraminifera</i>	14
	<i>Chaetognatha</i>	02
	<i>Amphipoda</i>	14
	<i>Cladocera</i>	10
	<i>Eggs of fish & larvae</i>	18

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#395, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 814222277,
73000 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/220	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	June 25, 2022	
Reporting Date	June 30, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (High Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: Port Entrance Channel / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	1000
2.	Zooplankton Count	No./m ³	1400
3.	Chlorophyll a	mg/m ³	3.6
4.	Chlorophyll b	mg/m ³	2.4
5.	Primary Productivity	gC/m ²	3.2
6.	Biomass	mg/m ²	2.8

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	30
	<i>Amphora lineolata</i>	14
	<i>Cymbella marina</i>	28
	<i>Bacteriastrum delicatulum</i>	06
	<i>Thalassionema nitzschioides</i>	16
	<i>Chaetoceros dydymus</i>	04
	<i>Skeletonemacostatum</i>	18
	<i>Thalassiothrixlongissima</i>	20
	<i>Cymbella marina</i>	10
B.	Zooplankton Species	
	<i>Foraminifera</i>	22
	<i>Chaetognatha</i>	14
	<i>Amphipoda</i>	18
	<i>Cladocera</i>	06
	<i>Eggs of fish & larvae</i>	10


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#29-9, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73999 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/220	Issued to:
Monitoring Date	June 25, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	June 30, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: South brake Wall outside / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	10000
2.	Zooplankton Count	No./m ³	1400
3.	Chlorophyll a	mg/m ³	3.6
4.	Chlorophyll b	mg/m ³	2.8
5.	Primary Productivity	gC/m ²	3.2
6.	Biomass	mg/m ²	2.8

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	64
	<i>Amphora lineolata</i>	28
	<i>Cymbella marina</i>	06
	<i>Bacteriastrum delicatulum</i>	24
	<i>Thalassionema nitzschioides</i>	08
	<i>Chaetoceros dydymus</i>	48
	<i>Skeletonemacostatum</i>	36
	<i>Thalassiothrixlongissima</i>	16
	<i>Cymbella marina</i>	10
B.	Zooplankton Species	
	<i>Foraminifera</i>	56
	<i>Chaetognatha</i>	21
	<i>Amphipoda</i>	04
	<i>Cladocera</i>	26
	Eggs of fish & larvae	14

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73909 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/220	Issued to:
Monitoring Date	June 25, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	June 30, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: North brake Wall Outside / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	9000
2.	Zooplankton Count	No./m ³	500
3.	Chlorophyll a	mg/m ³	3.0
4.	Chlorophyll b	mg/m ³	2.6
5.	Primary Productivity	gC/m ²	3.2
6.	Biomass	mg/m ²	2.4

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	82
	<i>Amphora lineolata</i>	46
	<i>Cymbella marina</i>	20
	<i>Bacteriastrum delicatulum</i>	34
	<i>Thalassionema nitzschioides</i>	0
	<i>Chaetoceros dydymus</i>	28
	<i>Skeletonemacostatum</i>	04
	<i>Thalassiothrixlongissima</i>	20
	<i>Cymbella marina</i>	12
B.	Zooplankton Species	
	<i>Foraminifera</i>	28
	<i>Chaetognatha</i>	20
	<i>Amphipoda</i>	04
	<i>Cladocera</i>	10
	<i>Eggs of fish & larvae</i>	04

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No	GPL/ 05/220	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	June 25, 2022	
Reporting Date	June 30, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (High Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: South brake Wall Outside / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	11000
2.	Zooplankton Count	No./m ³	1000
3.	Chlorophyll a	mg/m ³	2.8
4.	Chlorophyll b	mg/m ³	2.4
5.	Primary Productivity	gC/m ²	3.2
6.	Biomass	mg/m ²	2.4

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	42
	<i>Amphora lineolata</i>	18
	<i>Cymbella marina</i>	34
	<i>Bacteriastrum delicatulum</i>	06
	<i>Thalassionema nitzschioides</i>	20
	<i>Chaetoceros dydymus</i>	36
	<i>Skeletonemacostatum</i>	10
	<i>Thalassiothrixlongissima</i>	38
	<i>Cymbella marina</i>	04
B.	Zooplankton Species	
	<i>Foraminifera</i>	28
	<i>Chaetognatha</i>	06
	<i>Amphipoda</i>	30
	<i>Cladocera</i>	10
	<i>Eggs of fish & larvae</i>	08

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 738888 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/220	Issued to:
Monitoring Date	June 25, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	June 30, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (High Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: North brake Wall Outside / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	10000
2.	Zooplankton Count	No./m ³	1200
3.	Chlorophyll a	mg/m ³	3.4
4.	Chlorophyll b	mg/m ³	2.8
5.	Primary Productivity	gC/m ²	3.2
6.	Biomass	mg/m ²	2.6

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	38
	<i>Amphora lineolata</i>	35
	<i>Cymbella marina</i>	24
	<i>Bacteriastrum delicatulum</i>	30
	<i>Thalassionema nitzschioides</i>	02
	<i>Chaetoceros dydymus</i>	34
	<i>Skeletonemacostatum</i>	08
	<i>Thalassiothrixlongissima</i>	20
	<i>Cymbella marina</i>	12
B.	Zooplankton Species	
	<i>Foraminifera</i>	22
	<i>Chaetognatha</i>	12
	<i>Amphipoda</i>	18
	<i>Cladocera</i>	04
	<i>Eggs of fish & larvae</i>	10

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-B-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73000 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF SEDIMENT SAMPLE

BCL Ref. No.	GPL/ 06/219	Issued to:
Monitoring Date	June 11, 2022	M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Reporting Date	June 16, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Sediment (Low Tide)	
Sample Collected by	M/s. Biochem Labs	

S.No	Parameters	Unit	Result	
			Harbour Basine	Port Entrance Channel
1.	pH	H+ conc	7.06	7.04
2.	Organic matter	%	2.0	1.6
3.	Nitrate	mg/kg	2.4	1.8
4.	Phosphate	mg/kg	1.6	1.2
5.	Oil & Grease	mg/kg	0.14	0.1
6.	Iron	ppm	0.16	0.14
7.	Manganese	ppm	0.12	0.1
8.	Nickel	ppm	0.14	0.12
9.	Chromium	ppm	0.16	0.14
10.	Mercury	ppm	Nil	Nil
11.	Zinc	ppm	0.6	0.8
12.	Lead	ppm	0.01	0.01
13.	Arsenic	ppm	0.01	0.01
14.	Selenium	ppm	0.01	0.01
15.	Copper	ppm	0.16	0.14


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#9-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73000 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF SEDIMENT SAMPLE

BCL Ref. No.	GPL/ 06/219	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	June 11, 2022	
Reporting Date	June 16, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Sediment (Low Tide)	
Sample Collected by	M/s. Biochem Labs	

S.No	Parameters	Unit	Result	
			South brake Wall Outside	North brake Wall Outside
1.	pH	H+ conc	7.0	7.08
2.	Organic matter	%	1.0	1.2
3.	Nitrate	mg/kg	2.2	1.4
4.	Phosphate	mg/kg	0.8	1.0
5.	Oil & Grease	mg/kg	0.02	0.01
6.	Iron	ppm	0.12	0.14
7.	Manganese	ppm	0.14	0.12
8.	Nickel	ppm	0.12	0.1
9.	Chromium	ppm	0.12	0.1
10.	Mercury	ppm	Nil	Nil
11.	Zinc	ppm	1.0	0.8
12.	Lead	ppm	0.01	0.01
13.	Arsenic	ppm	0.01	0.01
14.	Selenium	ppm	0.01	0.01
15.	Copper	ppm	0.18	0.12


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

9-9, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277.
73009 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT BENTHIC FAUNAL DIVERSITY

BCL Ref. No.	GPL/ 06/219	Issued to:
Monitoring Date	June 11, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	June 16, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Sediment (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

S. No	Species/Group	% Composition	
		Harbour Basine	Port Entrance Channel
1.	<i>Opheliidae sp</i>	20	24
2.	<i>Glyceridae sp</i>	12	10
3.	<i>Nereidae sp</i>	06	18
4.	<i>Aphroditidae sp</i>	08	0
5.	<i>Cirratulidae sp</i>	10	14
6.	<i>Capitella sp</i>	0	06
7.	<i>Amphipoda sp.</i>	10	12
8.	<i>Gastropoda</i>	04	0
9.	<i>Chaetognatha</i>	02	12


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

22 B-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73889 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT BENTHIC FAUNAL DIVERSITY

BCL Ref. No.	GPL/ 06/219	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	June 11, 2022	
Reporting Date	June 16, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Sediment (Low Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Species/Group	% Composition	
		South brake Wall Outside	North brake Wall Outside
1	Foraminifera	38	24
2	Amphipoda	26	36
3	Mytilusedulis	02	14
4	Gastropod veliger	20	28
5	Oithona	16	02
6	Capitella	20	16
7	Copepod nauplii	22	10
9	Brachyuran zoea	06	20
8	Neanthusarenaceodentata	10	04

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF SEDIMENT SAMPLE

BCL Ref. No.	GPL/ 06/220	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	June 25, 2022	
Reporting Date	June 30, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Sediment (Low Tide)	
Sample Collected by	M/s. Biochem Labs	

S.No	Parameters	Unit	Result	
			Harbour Basine	Port Entrance Channel
1.	pH	H+ conc	7.12	7.10
2.	Organic matter	%	2.2	1.4
3.	Nitrate	mg/kg	1.8	1.2
4.	Phosphate	mg/kg	1.0	1.0
5.	Oil & Grease	mg/kg	0.14	0.08
6.	Iron	ppm	0.16	0.12
7.	Manganese	ppm	0.14	0.12
8.	Nickel	ppm	0.12	0.14
9.	Chromium	ppm	0.12	0.12
10.	Mercury	ppm	Nil	Nil
11.	Zinc	ppm	1.0	0.8
12.	Lead	ppm	0.01	0.01
13.	Arsenic	ppm	0.01	0.01
14.	Selenium	ppm	0.01	0.01
15.	Copper	ppm	0.22	0.16


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#29-3, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
70000 0000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF SEDIMENT SAMPLE

BCL Ref. No.	GPL/ 06/220	Issued to:
Monitoring Date	June 25, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	June 30, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Sediment (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

S.No	Parameters	Unit	Result	
			South brake Wall Outside	North brake Wall Outside
1.	pH	H+ conc	7.14	7.08
2.	Organic matter	%	1.0	0.8
3.	Nitrate	mg/kg	2.0	1.4
4.	Phosphate	mg/kg	1.6	1.0
5.	Oil & Grease	mg/kg	0.02	0.04
6.	Iron	ppm	0.14	0.12
7.	Manganese	ppm	0.12	0.1
8.	Nickel	ppm	0.1	0.12
9.	Chromium	ppm	0.12	0.1
10.	Mercury	ppm	Nil	Nil
11.	Zinc	ppm	1.0	0.8
12.	Lead	ppm	0.01	0.01
13.	Arsenic	ppm	0.01	0.01
14.	Selenium	ppm	0.01	0.01
15.	Copper	ppm	0.18	0.14

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#245, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 0142222777, 70000 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT BENTHIC FAUNAL DIVERSITY

BCL Ref. No.	GPL/ 06/220	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	June 25, 2022	
Reporting Date	June 30, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Sediment (Low Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Species/Group	% Composition	
		Harbour Basine	Port Entrance Channel
1.	<i>Eunicidae sp.</i>	16	22
2.	<i>Paraonidae sp.</i>	10	14
3.	<i>Syllidae sp</i>	04	08
4.	<i>Sabellidae sp</i>	08	10
5.	<i>Oithona sp.</i>	14	26
6.	<i>Capitella sp.</i>	12	18
7.	<i>Syllidae sp</i>	10	06
9.	<i>Amphipoda sp.</i>	06	02
8.	<i>Nematoda sp.</i>	08	04


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-B, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017, Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT BENTHIC FAUNAL DIVERSITY

BCL Ref. No.	GPL/ 06/220	Issued to:
Monitoring Date	June 25, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	June 30, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Sediment (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

S. No	Species/Group	% Composition	
		South brake Wall Outside	North brake Wall Outside
1.	<i>Capitella sp.</i>	46	38
2.	<i>Syllidae sp</i>	32	24
3.	<i>Amphipoda sp.</i>	06	32
4.	<i>Nematoda sp.</i>	36	06
5.	<i>Capitella sp.</i>	10	22
6.	<i>Syllidae sp</i>	28	08
7.	<i>Paraonidae sp.</i>	12	14
9.	<i>Syllidae sp</i>	14	10
8.	<i>Sabellidae sp</i>	08	02


Analyst




Authorized Signatory



GANGAVARAM PORT LIMITED

GPL/ENV/APPGB/2022-23/028

Date: 05.08.2022.

To

Sr. Environmental Engineer, CESS
Andhra Pradesh Pollution Control Board,
D.no:33-26-14D/2,
Near Sunrise Hospital, Pushpa Hotel Center,
Chalamalavari Street, Kasturibaipet,
Vijayawada-520010.
Andhra Pradesh.

Dear Sir,

Sub: Water Consumption Cess Statement – Reg.

Please find enclosed herewith the water consumption statement in FORM - 1 for the month of July - 2022, prepared under the Water (Prevention and Control of Pollution) Cess Act, 1977.

We request you to kindly consider the same.

Thanking you

Yours Sincerely,


Authorized Signatory

Encl: As above.

Copy submitted to the Environmental Engineer, A.P. Pollution Control Board,
Regional Office, Visakhapatnam for kind information.

FORM – 1

Returns Regarding Water Consumed During Month of July - 2022

Name & Address (1)	Purpose of which water consumed (2)		Quantity of water consumed (3)	If the meter was out of order the monthly avg. consumption of the water for the past 3 months of working period (4)	Qty. of water qualifying for rebate according to the assesses (5)*	Remarks (6)
Gangavaram Port Limited, Gangavaram Post, Peda Gatyada Mandal, Visakhapatnam.	1) Industrial cooling/spraying in mine pits or boiler feed.	Total from Municipal mains i. From Municipal water supply mains ii. From well / tube well.	21,425 Cum/KL	-	-	-
	2) Domestic Water	i. From Municipal water supply mains ii. From well / tube well	Cum/KL 3819.60	-	-	-

(*) for claiming rebate under Col.7, the assessed shall indicate in the column the analytical and other reports annexed to this return in support of this claim.

For Gangavaram Port Limited


(Dr. D. Jyothi)
Vice President (Environment)



GANGAVARAM PORT LIMITED

GPL/ENV/APPCB/2022-23/029

Date: 05/08/2022.

To

The Environmental Engineer,
A.P. Pollution Control Board
Regional Office
APPCB Buildings, 3rd Floor
Main Road, Madhavadhara VUDA Layout
Visakhapatnam- 530 009.

Dear Sir,

Sub:- Monthly CFO Compliance, Environmental Marine & Terrestrial
Monitoring Reports and Water Consumption details (Form-1) –
Submitted – Reg.

Reff:- 1. CFO & HWA Order No. APPCB/VSP/VSP/113/CFO/HO/2015,
dated 13.01.2016, valid up to 31.12.2020.
2. CFO & HWA Order No. APPCB/VSP/VSP/113/CFO/HO/2020,
dated 10.09.2020, valid up to 31.12.2025.

@@@

With reference to the above, we are here with submitting the monthly CFO compliance reports and CAAQM, Marine & Terrestrial monitoring results along with Water Consumption details in Form - 1 for the month of July -2022.

Yours Sincerely,

Authorized Signatory

Encl: As above.

Compliance of the conditions stipulated in CFO Auto Renewal Order No. APPCB/VSP/VSP/113/CFO/HO/2020- 10/09/2020, valid up to 31.12.2025.

Sl. No.	Condition	Compliance
1.	All other conditions mentioned in Schedules A, B & C of the combined CFO&HWA order issued by the Board vide order dated 13.01.2016 will remain same.	Noted and conditions are being followed as applicable.
2.	The facility shall comply with the standards issued by MoEF&CC / CPCB from time to time.	Noted and condition is being followed.
3.	The industry shall submit Half yearly compliance reports to all the stipulated conditions in Environmental Clearance (EC), Consent for Establishment (CFE) and Consent for Operation (CFO) through website i.e., https://pcb.ap.gov.in by 1st of January and 1st July of every year. The first half yearly compliance reports shall be furnished by the industry and second half yearly compliance reports shall be the audited through NABL accredited third party failing which the Consent Order issued will be cancelled.	Self-certified 1 st half yearly compliance report for the period from April 2021 to September 2021 submitted on 29.11.2021 through web site. NABL Accredited Agency certified compliance report for the 2 nd half for the period from October 2021 to March 2022 was uploaded through website on 30.05.2022.
4.	The facility shall ensure that dedicated fund is allotted towards Environment Relief Fund (ERF) in the Public Liability Insurance policy and submit a copy of the policy at the Regional Office: Visakhapatnam every year.	GPL is having Public liability Insurance of IFFCO-TOKIO vide Policy No:41063755, dated 28.09.2021, Valid till 14/09/2022 with Premium of Rs-5615/- & ERF of Rs.5615/-
5.	In case of false certification, noncompliance of conditions / directions and discrepancy in furnishing the information by the industry, the Board can withdraw the auto renewed consent and take action under provisions of relevant Acts & Rules.	Noted and condition is being followed.
6.	The facility shall inventorize the storage quantities of hazardous chemicals as per the hazard nature of reactivity / toxicity / flammability / explosive stored/handling in the premises as defined in the Management of Storage, Import of Hazardous Chemicals (MSIHC) Rules, 1989 and the details shall be furnished to the Factories Department and to the Regional Office, APPCB on monthly basis duly certifying the same.	GPL is not handling any Hazardous cargo/Containers/Chemicals.

7.	The facility shall identify major accident hazard chemicals & list out the hazardous chemicals endangered to human health & environment and the details shall be furnished to the Factories Department and to the Regional Office, APPCB time to time duly certifying the same by the industry. Further the facility shall extend training to the working personnel's while handling hazardous chemicals for prevention of accidents and necessary antidotes to ensure the safety, as per the MSIHC Rules, 1989.	GPL is not handling any Hazardous cargo/Containers/Chemicals.
8.	The facility shall submit the copy of the safety audit report and On-Site / Off Site Emergency Plans as applicable after being certified by the Factories Department/concerned authority, to the APPCB, Regional Office from time to time, if the storage quantity of hazardous chemicals is equal to or, in excess of the threshold quantities specified in schedule 2 & 3 of MSIHC Rules, 1989.	An onsite and offsite emergency action plan has been prepared and submitted to APPCB, RO, VSP. Mock drills are being conducted twice in a year.
9.	The facility shall carryout calibration of safety equipments and leak detection systems at regular intervals and shall certify the same with the Factories Department/concerned authority. That certified copy shall be submitted to the APPCB, Regional Office. The facility shall install fluorescent Wind Vane at the highest point in the facility premises.	GPL install fluorescent Wind Vane at the following two places within the Port premises. 1. On the top of Over Head Tank near Harbour Gate besides GPL Canteen. 2. On the top of Commercial Office Building (COB)
10	The facility shall inventorize the hazardous wastes and its quantities stored within the facility premises as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 (HOWM Rules, 2016) and shall furnish the details to Regional Office, APPCB on monthly basis duly certifying the same by the industry.	GPL is not handling any Hazardous cargo/ Containers/Chemicals. GPL is permitted to handle Used Lubricating oil of 12000 LPA. The generation, storage & disposal details are submitting to APPCB through Form – IV. Latest submission is on 06.06.2022 for the year 2021-2022.
11	The facility shall allow import of hazardous cargoes only after the importer complies with the MSIHC Rules, 1989.	GPL Not handling any Hazardous cargo/Containers/Chemicals.

Compliance report of the conditions stipulated in Schedule A,B & C of CFO & HWA Order No. APPCB/VSP/VSP/113/CFO/HO/2015, dated 13.01.2016

Compliance of Schedule - A

Sl. No.	Condition	Compliance
1.	Any up-set condition in any plant/plants of the industry, which result in, increased effluent/ emission discharge and/ or violation of standards stipulated in this order shall be informed to this Board, under intimation to the Collector and District Magistrate and take immediate action to bring down the discharge / emission below the limits.	All conditions are being followed.
2.	The industry should carryout analysis of waste water discharges or emissions through chimneys for the parameters mentioned in this order on quarterly basis and submit to the Board.	GPL is carrying out 3 rd party monitoring and analysis. As per analysis reports, the samples are meeting the Board standards.
3.	All the rules & regulations notified by Ministry of Law and Justice, Government of India regarding Public Liability Insurance Act, 1991 should be followed as applicable.	Noted and conditions are being followed as applicable.
4.	The industry should put up two sign boards (6×4 ft. each)at publicly visible places at the main gate indicating the products , effluent discharge standards, air emission standards, hazardous waste quantities and validity of CFO and exhibit the CFO order at a prominent place in the factory premises.	Noted and condition is being followed.
5.	Notwithstanding anything contained in this consent order, the Board here by reserves the right and powers to review / revoke any and / or all the conditions imposed herein above and to make such variations as deemed fit for the purpose of the Acts by the Board.	Noted the condition.
6.	The industry shall file the water cess returns in Form-I as required under section (5) of water (Prevention and Control of Pollution) cess Act, 1977 on or before the 5 th of every calendar month, showing the quantity of water consumed in the previous monthly along with water meter readings. The industry shall remit water cess as per the assessment order as and when issued by Board.	<p>Water consumption details of the previous month are being submitted before 5th of subsequent month in FORM - I.</p> <p>The latest reports for the Month of June, 2022 were submitted on 5th July, 2022</p> <p>After introduction of GST, APPCB has instructed all the industries are not required to remit water cess charges from 1st July, 2017 onwards.</p>

7.	The applicant shall submit Environment statement in Form V before 30 th September every year as per Rule No.14 of E(P) Rules,1986 & amendments thereof.	Complied and Form V was Submitted on 24.09.2021 for the period 2020-2021
8.	The applicant should make applications through Online for renewal of Consent (under Water Air Acts) and Authorization under HWM Rules at least 120 days before the date of expiry of this order, along with prescribed fee under Water and Air Acts and detailed compliance of CFO conditions for obtaining Consent & HW Authorization of the board. The industry should immediately submit the revised application for consent to this Board in the event of any change in the raw material used, processes employed, quantity of trade effluents & quantity of emissions. Any change in the management shall be informed to the Board. the person authorized should not let out the premises / lend / sell / transfer their industrial premises without obtaining prior permission of the state Pollution Control Board.	GPL has obtained CFO & HWA of the Board vide order dated 13/01/2016 valid up to 31.12.2020 and extended up to 31.12.2025 vide order dated 10.09.2020.
9.	Any person aggrieved by an order made by the state board under section 25,section 26,section 27 of water Act, 1974 or section 21 of Air Act,1981 may within thirty days from the date on which the order is communicated to him, prefer an appeal as per Andhra Pradesh Water Rules,1976 and Air Rules 1982, to Appellate authority constituted under section 28 of the Water (prevention and control of pollution) Act,1974 and section 31 of the Air (prevention and control of pollution) Act,1981.	Noted and condition will be followed.

Compliance of Schedule – B

Sl. No.	Condition	Compliance																																							
	Water Pollution																																								
1.	<p>The water consumption quantities are mentioned below:</p> <table border="1"> <thead> <tr> <th>S. No</th><th>Purpose</th><th>Quantity KLD</th></tr> </thead> <tbody> <tr> <td>1</td><td>Gardening/irrigation</td><td>25</td></tr> <tr> <td>2</td><td>Dust suppression</td><td>1296.0</td></tr> <tr> <td>3</td><td>Domestic</td><td>40</td></tr> <tr> <td>4</td><td>Ship supply</td><td>32.5</td></tr> <tr> <td>5</td><td>miscellaneous</td><td>40.6</td></tr> <tr> <td></td><td>Total</td><td>1434.1</td></tr> </tbody> </table> <p>Source of water is Visakhapatnam industrial water supply Co. the following is the permitted water consumption.</p> <table border="1"> <thead> <tr> <th>S. No</th><th>Purpose</th><th>Quantity KLD</th></tr> </thead> <tbody> <tr> <td>1</td><td>Dust suppression</td><td>1296.0</td></tr> <tr> <td>2</td><td>Domestic purpose</td><td>40.00</td></tr> <tr> <td>3</td><td>Process, where by water gets polluted and pollutants are easily bio degradable.</td><td>73.1</td></tr> <tr> <td>4</td><td>Processing , where by water gets polluted and pollutants are not easily bio degradable</td><td>--</td></tr> <tr> <td></td><td>Total</td><td>1409.1</td></tr> </tbody> </table> <p>Separate water meters shall be maintained for the assessing the quantity of water used for each of the purpose mentioned above for Cess assessment purpose.</p>	S. No	Purpose	Quantity KLD	1	Gardening/irrigation	25	2	Dust suppression	1296.0	3	Domestic	40	4	Ship supply	32.5	5	miscellaneous	40.6		Total	1434.1	S. No	Purpose	Quantity KLD	1	Dust suppression	1296.0	2	Domestic purpose	40.00	3	Process, where by water gets polluted and pollutants are easily bio degradable.	73.1	4	Processing , where by water gets polluted and pollutants are not easily bio degradable	--		Total	1409.1	<p>GPL is submitting water consumption details and water cess in Form-I regularly.</p> <p>The industry is consuming water within consented quantity only.</p> <p>Provided 2 No. nos of flow meters for quantification of water used for domestic and other purposes.</p>
S. No	Purpose	Quantity KLD																																							
1	Gardening/irrigation	25																																							
2	Dust suppression	1296.0																																							
3	Domestic	40																																							
4	Ship supply	32.5																																							
5	miscellaneous	40.6																																							
	Total	1434.1																																							
S. No	Purpose	Quantity KLD																																							
1	Dust suppression	1296.0																																							
2	Domestic purpose	40.00																																							
3	Process, where by water gets polluted and pollutants are easily bio degradable.	73.1																																							
4	Processing , where by water gets polluted and pollutants are not easily bio degradable	--																																							
	Total	1409.1																																							
2.	The Gangavaram Port Limited (GPL) shall provide separate energy meters for Sewage Treatment Plant (STP) and for Air pollution Control equipments to record energy consumption.	GPL has provided separate energy meters for Sewage Treatment Plant (STP) and separate energy meter for the Air pollution Control equipments (MDSS) to record energy consumption.																																							
	Air Pollution																																								
1.	<p>The Gangavaram Port Limited (GPL) shall comply with ambient air quality standards of PM₁₀ (Particulate matter size less than 10 µm) - 100µg /m³; PM_{2.5} (Particulate matter size less than 2.5 µm) - 60µg / m³ : SO₂ - 80µg /m³ : NO_x - 80µg /m³, outside the port premises at the periphery of the industry. Standards for other parameters as mentioned in the National Ambient Air Quality Standards CPCB Notification No.B-29016/20/90/PCI-I, dated 18.11.2009</p> <p>Noise Levels: Day time (6 AM to 10 PM) - 75 dB (A) Night time (10 PM to 6 AM) - 70 dB (A).</p>	The mitigation measures being implemented by GPL ensures that the ambient air quality parameters conform to the PCB prescribed standards.																																							

2.	The Gangavaram port limited (GPL) shall maintain 3 CAAQMs with online connectivity to APPCB and maintain records.	<p>GPL installed 3 No. of CAAQM stations to measure the parameters PM 10, PM 2.5, SO₂, NO, NO₂, CO at the following locations and data connected to APPCB website.</p> <ul style="list-style-type: none"> i. Administrative office towards H.B. Colony (Station 1): ii. Project site office building towards Venkannapalem (Station2) iii. Watch tower - 4 towards Gangavaram village (Station3).As per the data, the SPM values are within Board standards.
3.	The Gangavaram Port Limited (GPL) shall Maintain wind breaking wall all along the Gangavaram village side up to a height 10 mts as wind speed is high in this area	GPL erected wind breaking wall of height 6m on the compound wall of height 3m near Gangavaram village and HB Colony to prevent any dust nuisance towards habitation & maintaining about 50 m width of green belt along port compound wall near Gangavaram (V).
4.	The Gangavaram Port Limited (GPL) shall not establish any other stock yards other than designated stock yards.	GPL has not established any stock yards other than designated stock yards.
5.	The Gangavaram Port Limited (GPL) shall maintain Telescopic chute at ship loading points	GPL is maintaining Telescopic chute at ship loading points.
6.	The Gangavaram port limited (GPL) shall not stock the Materials more than 10mts height where MDSS system available and shall restrict to 6 mts for other stocking heights where tankers water spraying system is maintained in the stockyards.	<p>GPL obtained amendment to this condition vide Amendment to CFO dated 16/09/2016 and the condition was amended as:</p> <p><i>"GPL shall not stock the materials more than 12 meters height where MDSS system is available and shall maintain stack height of 10 meters at manual stack yards"</i></p>
7.	The Gangavaram port limited (GPL) shall take up the cleaning of road connected to National Highway in co-ordination with GVMC and R&B Departments.	This condition was deleted vide direction no. 06 vide Order No. 754/ APPCB/UH-II/TF/VSP/ 2016, dated 12.08.2016. GVMC is taking up the cleaning of road.
8.	The Gangavaram Port Limited (GPL) shall maintain dusty cargo operations if the wind velocity crosses 20 KMPH and all MDSS sprinklers shall start immediately to maintain AAQ standards	Noted and condition is being followed.
9.	The Gangavaram Port Limited (GPL) shall maintain fully mechanized handling equipments for loading and un loading operations for dusty cargo to the maximum extent possible.	Noted and condition is being followed.

	General																					
1.	<p>The Gangavaram Port Limited (GPL) shall maintain the following records and the same shall be made available to the inspecting officers of the Board:</p> <p>a. Cargo handling material wise details.</p> <p>b. Log books for pollution control systems.</p> <p>c. Hazardous/non hazardous solid waste generated and disposed.</p> <p>d. Inspection book.</p> <p>e. Manifest copies of hazardous waste.</p>	<p>The records are being maintained and are available for inspecting officers of the Board.</p>																				
2.	<p>The Gangavaram Port Limited (GPL) shall dispose solid waste (Non Hazardous) as follows:</p> <table><tr><th>S. No</th><th>Name of the solid waste</th><th>Quantity</th><th>Disposal</th></tr><tr><td>1.</td><td>Domestic solid waste</td><td>10 T/m</td><td>Shall be collected segregated and disposed as per MSW Rules in consultation with GVMC Authorities</td></tr><tr><td>2.</td><td>Discarded material, plastic material</td><td>10 T/m</td><td>Shall be disposed to authorized recyclers only</td></tr><tr><td>3.</td><td>Sludge from STP</td><td>1.0 T/m</td><td>Shall be composted and used in green belt programme</td></tr><tr><td>4.</td><td>Lead acid batteries</td><td>---</td><td>Shall be disposed to authorized recyclers</td></tr></table>	S. No	Name of the solid waste	Quantity	Disposal	1.	Domestic solid waste	10 T/m	Shall be collected segregated and disposed as per MSW Rules in consultation with GVMC Authorities	2.	Discarded material, plastic material	10 T/m	Shall be disposed to authorized recyclers only	3.	Sludge from STP	1.0 T/m	Shall be composted and used in green belt programme	4.	Lead acid batteries	---	Shall be disposed to authorized recyclers	<p>a. GPL is disposing the municipal solid waste to GVMC.</p> <p>b. GPL is disposing the discarded material & plastic material to authorized recyclers.</p> <p>c. STP sludge is being turned in to bio-compost and used as manure to green belt.</p> <p>d. Lead acid batteries are being disposed to the supplier on buy back basis.</p>
S. No	Name of the solid waste	Quantity	Disposal																			
1.	Domestic solid waste	10 T/m	Shall be collected segregated and disposed as per MSW Rules in consultation with GVMC Authorities																			
2.	Discarded material, plastic material	10 T/m	Shall be disposed to authorized recyclers only																			
3.	Sludge from STP	1.0 T/m	Shall be composted and used in green belt programme																			
4.	Lead acid batteries	---	Shall be disposed to authorized recyclers																			
3.	<p>The Gangavaram Port Limited (GPL) shall maintain green belt in 50 meters width as stipulated in the EC order dated 07-02-2012.</p>	<p>➤ GPL has developed plantation of 5.0 Lakhs saplings in about 318.21 acres within the Port premises besides existence of Prosopis in an extent of about 150 Acres covering periphery of all yards, roads, buildings and all along conveyor belt.</p> <p>➤ Maintaining 50 m width of green belt towards North and North-West direction with special emphasis towards habitation i.e., HB Colony, Peda Gantyada, Venkannapalem, Kongapalem & Gangavaram village.</p>																				

		<ul style="list-style-type: none"> ➤ Maintaining thick greenbelt at Port Approach road, Railway track side and at Truck parking area along the wind breaking wall towards HB Colony. ➤ Developed High Density Plantation (Miyawaki) within the Port premises in an extent of 1.0 Acre with 12,120 no. of plantation, as directed by APPCB ➤ Participated in Green Visakha – Clean Visakha - Green Visakha – Clean Visakha – One million Tree Plantation Programme – GPL completed the plantation of 40,195 as on 31.07.2022 against the target of 50,000 ➤ GPL established exclusive nursery with 80,000 saplings and employed 183 people to maintain and improve the green belt on continuous basis. ➤ About Rs.1.85 Cr per annum is being spent for the development of green belt in the true spirit.
4.	The Gangavaram Port Limited (GPL) shall not store/ handle any hazardous cargo containers within premises.	GPL is not handling container cargo operations.
5.	All types of the fertilizers shall be stored in the closed warehouses only. The port shall ensure that there shall not be any open storage of urea or any other fertilizer materials and all urea & fertilizer material handling warehouses shall be maintained with effluent collection pits for collection and treatment and then used for green belt in the premises after meeting the standards.	GPL is storing the Fertilizers in closed ware houses and provided leachate collection pits around the area of warehouses and connected to STP.
6.	The Gangavaram Port Limited (GPL) shall store fuel oils used for construction equipment vessels / vehicles in a well designed manner and protect them against fire hazards by construction of compound wall to prevent access to unauthorized elements. The surface run off from storage area shall pass through oil water separator before being discharging. The Gangavaram Port Limited (GPL) shall store fuel oils used for construction equipment vessels / vehicles in a well designed manner and protect them against fire hazards by construction of compound wall to prevent access to	GPL is storing the used oil in drums under a shed.

	unauthorized elements. The surface run off from storage area shall pass through oil water separator before being discharging.	
7.	The Gangavaram Port Limited (GPL) shall maintain the Malaria control programme and Health facilities in the operation phase. Vector control programmes. Control of all breeding ground shall be carried out by the use of larvicide's in addition to control of adult mosquitoes. The health team should include a trained entomologist.	GPL is having dispensary within the premises and no malaria cases were reported as of now. All anti malarial measures are taken
8.	The Gangavaram Port Limited (GPL) shall maintain a task force to check the vehicle emissions on permanent basis The Gangavaram Port Limited (GPL) shall maintain a task force to check the vehicle emissions on permanent basis	GPL has provided provision for checking vehicle emissions with a task force team including environment and safety department officials.
9.	The Gangavaram Port Limited (GPL) shall constitute an Environment Management cell with qualified and trained staff.	GPL is having a dedicated Environment Management Team headed by Vice President.
10.	The Gangavaram Port Limited (GPL) shall maintain onsite and offsite emergency action plan after carrying out risk analysis and hazop studies	Complied with the condition.
11.	The Gangavaram Port Limited (GPL) with VUDA shall ensure that no slum development and unauthorized construction occur in the surrounding area.	VMRDA (VUDA) is taking necessary precautions to see that no slum development and unauthorized construction occur in the surrounding area of GPL.
12.	The Gangavaram Port Limited (GPL) shall handle alumina in completely closed enclosures. It shall also furnish an action plan to install mechanized system.	GPL is handling the alumina in hoppers and directly through tankers.
13.	<p>The Gangavaram Port Limited (GPL) shall implement following for controlling fugitive emission :</p> <p>a. Adequate dust controlling measures should be undertaken for loading and unloading operations for dusty cargo.</p> <p>b. Closed conveyor belt with water sprinkling arrangement for suppression of dust while conveyor dusty cargo likes coal, iron ore & alumina.</p> <p>c. Vehicle movement minimized / eliminated by implementing mechanical operations.</p>	<p>a. Mechanical Dust Suppression System (MDSS): 176 No. of water cannons were installed at stack yards for dust.</p> <p>b. Provided Dust suppression systems at discharge/feeding points of belt conveyors at each transfer tower.</p> <p>c. Laid BT road within the port premises.</p> <p>d. 5 No. of heavy duty sweeping (3 No. existing & 2 New) machines were deployed for cleaning of berths, back up areas and roads.</p> <p>e. Covering the outgoing cargo vehicles with tarpaulin.</p>

	<p>d. All the vehicles involved in transportation of cargo shall be covered with tarpaulin.</p> <p>e. Traffic management measures adopted to avoid traffic congestion and provide empty dusting vehicle washing / dry cleaning system to clean all out going cargo vehicles.</p> <p>f. Sufficient parking facilities based on traffic density / vehicular movements anticipated from the port.</p> <p>g. Adequate water sprinkling provided on roads and at dusty cargo storage areas for suppression of dust</p>	<p>f. Provided dedicated truck/tyre washing facility to wash all the outgoing vehicles</p> <p>g. Provided dedicated truck parking facility.</p> <p>h. Ensuring continuous water sprinkling on the berths, back up areas, at all transfer points, hauling roads with 20 Mobile DSS tankers for dust suppression.</p>
14.	<p>The Gangavaram Port Limited (GPL) shall implement the following measures in the cargo handling and stacking area:</p> <p>a. The ship un-loader maintained with in-situ water sprinkling system and unloading hoppers provided with covers on three sides to control fugitive emissions. Iron ore shall be unloaded through wagon tipplers.</p> <p>b. Mechanical stackers cum re-claimers for stacking, transfer and reclamation; Conveyors for transfer of materials to stop manual handling / mobile machines.</p> <p>c. MDSS in stacking areas.</p>	<p>i. Established mechanical conveyor system for handling coal & Iron ore to prevent the spillage of cargo and provided closed hoods for the conveyor system to curb fugitive emissions of coal/iron ore particles into the air.</p> <p>ii. Stacker cum re-claimers are being used for loading and unloading the coal. The railway wagons are being loaded mechanically. The Port is having Stacker cum re-claimer-1no., reclaimers-3nos., stackers-3nos., wagon loader-1no., silo of 800 cu.m capacity, ship unloader-2nos, ship loader-1no., wagon tipplier-1no., mobile harbour cranes-5no.</p> <p>iii. Mechanical Dust Suppression System (MDSS): 176 No. of water cannons were installed at stack yards for dust suppression by spraying water at high pressure to form blanket of mist on surface of cargo stock to settle the dust.</p>
15.	The Gangavaram Port Limited (GPL) shall ensure AAQ standards of the Board on all environmental conditions without fail.	GPL has provided 3 nos AAQ stations with data logger and connected to APPCB website.
16.	The Gangavaram Port Limited (GPL) shall maintain standby centrifugal pump so as to ensure uninterrupted operation of MDSS.	Complied. There are 4 no. Centrifugal pumps kept standby.
17.	The Gangavaram Port Limited (GPL) shall maintain compliance of all other conditions of CFE orders issued by the Board	Complied with the condition.

18.	The Gangavaram Port Limited (GPL) shall comply with Task Force directions and other directions issued by the Board from time to time.	Complied with the condition.
-----	---	------------------------------

Compliance of Schedule – C

Sl. No.	Condition	Compliance
1.	All the rules and regulations notified by Ministry of Environment & Forests, Government of India under the E (P) Act, 1986 in respect of management, handling, transportation and storage of the Hazardous waste should be followed.	GPL is following all the rules and regulations notified by Ministry of Environment & Forests, Government of India under the E(P) Act, 1986 in respect of management, handling, transportation and storage of the Hazardous waste.
2.	The Gangavaram Port Limited (GPL) shall not store hazardous waste for more than 90 days as per the Hazardous Wastes (Management, Handling and Tran boundary Movement) Rules, 2008 and amendments thereof.	Complied with the condition.
3.	The Gangavaram Port Limited (GPL) shall dispose Used Lead Acid Batteries to the manufacturers / dealers on buyback basis	GPL is buying the Lead acid on buy back basis.
4.	The Gangavaram Port Limited (GPL) shall maintain 6 copy manifest system for transportation of waste generated and a copy shall be submitted to concern Regional Office of APPCB. The driver who transports Hazardous Waste should be well acquainted about the procedure to be followed in case of an emergency during transit. The transporter should carry a Transport Emergency (TREM) Card.	GPL is following manifest system for disposal of waste oil to APPCB authorized agencies and submitting the copies to the Board.
5.	The Gangavaram Port Limited (GPL) shall maintain proper records for Hazardous Wastes stated in Authorization in FORM-3 i.e., quantity of Incinerable waste, land disposal waste, recyclable waste etc., and file annual returns in Form- 4 as per Rule 22(2) of the Hazardous Wastes (Management, Handling & Tran boundary Movement) Rules, 2008 and amendments thereof	<p>GPL is maintaining records for Hazardous Wastes stated in Authorization in Form-3 of CFO Order and filing annual returns in Form- 4 to APPCB.</p> <p>For the year 2021-2022 Form – 3 & Form – 4 Submitted on 06.06.2022.</p>
6.	The Gangavaram Port Limited (GPL) shall submit the condition wise compliance report of the conditions stipulated in Schedule A, B & C of this Order on half yearly basis to Board Office, Hyderabad and concerned Regional Office	<p>Complied with the condition.</p> <p>GL is submitting the compliance reports on monthly basis.</p>

GANGAVARAM PORT LIMITED
(An ISO 9001:2015 & ISO 14001:2015
Certified Company)



Environment Monitoring Report
July, 2022

Corporate Office:

2,3,4th Floors, Hansa plaza,
Plot No.798, road No.36,
Jubilee Hills, Hyderabad - 500033
Phone : 040 – 33599999

Site Office:

Gangavaram (V & Post)
Pedagantyada (Mandal)
Visakhapatnam – 530 044
Phone: 0891 -2701177

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	01.07.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO
Day average value	48.68	29.94	34.04	20.87	7.37	0.72	45.11	28.33	48.03	17.76	8.72	0.71	50.30	30.75	32.50	13.90	10.50	0.69
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by:

Latif
G. V. S. S. S. S.
GP NO 1910

For Gangavaram Port Limited

D. Jyothi

(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	02.07.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO
Day average value	51.87	31.92	35.90	21.48	7.66	0.74	48.07	30.19	50.48	18.28	9.06	0.72	53.60	32.78	34.29	14.27	10.91	0.70
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by:

G. N. S. Murthy
GPS/910

For Gangavaram Port Limited

D. Jyothi

(Dr. D. Jyothi)

Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	03.07.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO
Day average value	48.27	29.71	37.68	22.11	8.02	0.75	44.73	28.11	52.85	18.83	9.48	0.73	49.88	30.51	35.99	14.66	11.41	0.71
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by:

G. V. S. Murthy
9/5/1910

For Gangavaram Port Limited

D. Jyothi

(Dr. D. Jyothi)

Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	04.07.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO
Day average value	47.40	29.13	39.29	22.75	8.38	0.77	43.93	27.56	55.06	19.38	9.90	0.75	48.98	29.92	37.54	15.05	11.92	0.73
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *[Signature]*
G. V. S. Murthy
UP.5/1910

For Gangavaram Port Limited

[Signature]
 (Dr. D. Jyothi)
 Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	05.07.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO
Day average value	46.37	28.58	40.96	23.40	8.75	0.78	42.97	27.04	57.34	19.95	10.34	0.77	47.91	29.36	36.84	37.07	13.99	0.57
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by:

G. V. S. Murthy
U.P. 1910

For Gangavaram Port Limited

D. Jyothi

(Dr. D. Jyothi)

Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	06.07.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	47.05	28.99	38.24	52.77	8.32	0.98	43.60	27.42	54.45	44.22	9.87	0.97	48.62	29.77	36.05	34.65	11.65	0.89
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by:

CVNS
4.8.5 1910

For Gangavaram Port Limited

D. Jyothi
(Dr. D. Jyothi)

Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	07.07.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	47.81	29.47	36.86	62.26	7.85	0.70	44.30	27.87	53.00	50.98	9.31	0.69	49.40	30.26	35.33	40.53	11.07	0.68
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by:

Dr. D. Jyothi
4.11.2022
4.11.2022

For Gangavaram Port Limited

Dr. D. Jyothi

(Dr. D. Jyothi)

Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	08.07.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO
Day average value	46.33	28.56	39.84	60.83	9.27	0.64	42.93	27.01	56.10	49.85	10.93	0.63	47.87	29.33	38.27	39.54	13.12	0.62
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by:

[Signature]
A. V. S. Reddy
A/S 1910

For Gangavaram Port Limited

[Signature]

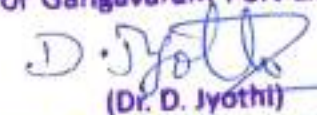
(Dr. D. Jyothi)

Vice President (Environment)

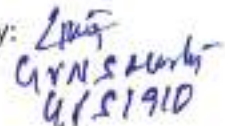
Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	09.07.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	46.57	28.70	39.00	50.55	10.23	0.52	43.16	27.15	55.30	41.64	12.06	0.50	48.13	29.48	37.43	32.69	14.49	0.49
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

For Gangavaram Port Limited


(Dr. D. Jyothi)

Vice President (Environment)

Prepared by: 
G. N. S. Murthy
4151910

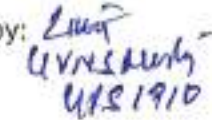
Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	10.07.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	46.83	28.86	36.77	18.23	9.05	0.61	43.39	27.30	52.81	15.84	10.70	0.60	48.39	29.64	35.27	11.08	12.83	0.59
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

For Gangavaram Port Limited


(Dr. D. Jyothi)

Vice President (Environment)

Prepared by: 
U. S. Suresh
11.5.19/10

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	11.07.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	46.52	28.68	35.62	21.01	8.37	0.73	43.11	27.13	51.54	18.05	9.92	0.72	48.07	29.45	34.19	12.97	11.87	0.71
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *Liberty*
Civil Security
4/5/90

For Gangavaram Port Limited

(Dr. D. Jyothi)

Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	12.07.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	46.63	28.74	51.02	14.11	8.20	3.30	43.21	27.18	68.33	12.49	9.70	3.29	48.18	29.51	48.70	8.42	11.61	3.25
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *Dr. D. Jyothi*
GPN/Env/4421910

For Gangavaram Port Limited

Dr. D. Jyothi

(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	13.07.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	46.84	28.86	34.71	14.50	7.23	1.06	43.40	27.30	50.56	12.80	8.59	1.04	48.40	29.64	33.39	8.67	10.26	1.04
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by:

GVNS
GVNS
6/8/2022

For Gangavaram Port Limited

D. Jyothi

(Dr. D. Jyothi)

Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	14.07.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO
Day average value	47.13	29.04	36.08	15.47	8.56	0.87	43.67	27.47	52.04	13.58	10.13	0.85	48.70	29.82	34.55	9.31	12.10	0.84
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *Dr. D. Jyothi*
4/5/1910

For Gangavaram Port Limited

Dr. D. Jyothi

(Dr. D. Jyothi)

Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	15.07.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO
Day average value	48.33	29.77	39.90	16.67	9.01	0.75	44.78	28.16	56.06	14.54	10.65	0.74	49.94	30.57	38.29	10.11	12.76	0.73
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *Arvind*
A. V. S. Murthy
4/8/19/10

For Gangavaram Port Limited
(Signature)
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	16.07.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO
Day average value	47.40	29.21	37.69	16.84	8.06	0.98	43.93	27.63	53.81	14.67	9.53	0.97	48.98	30.00	35.72	10.23	11.44	0.93
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *Chaitanya*
Gangavaram
4821910

For Gangavaram Port Limited

(Signature)
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	17.07.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

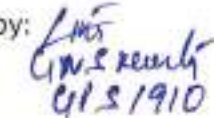
Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	46.81	28.82	33.03	19.86	6.02	0.82	43.36	27.26	48.79	17.00	7.16	0.81	48.38	29.61	31.70	12.24	8.53	0.80
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

For Gangavaram Port Limited



(Dr. D. Jyothi)

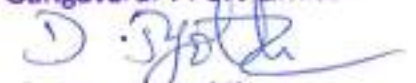
Vice President (Environment)

Prepared by: 
G. S. Reddy
G/S/1910

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	18.07.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	


Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	47.46	29.22	37.14	17.47	7.48	1.00	43.98	27.64	53.13	15.17	8.86	0.99	49.04	30.00	35.63	10.64	10.62	0.98
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

For Gangavaram Port Limited



(Dr. D. Jyothi)

Vice President (Environment)

Prepared by: 
C.V.S. Murthy
CPS 1910

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	19.07.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	47.23	29.10	33.56	18.49	8.09	0.56	43.76	27.52	49.42	15.99	9.59	0.54	48.80	29.88	32.14	11.33	11.47	0.53
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *[Signature]*
GVS 19/10

For Gangavaram Port Limited
[Signature]
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	20.07.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO
Day average value	48.11	29.64	40.52	18.57	9.90	0.92	44.58	28.04	56.83	16.06	11.71	0.90	49.72	30.44	38.84	11.38	14.04	0.89
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *U. V. S. Murthy*
4/5/1910

For Gangavaram Port Limited

D. Jyothi
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	21.07.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	48.65	29.96	41.91	18.83	11.27	0.61	45.08	28.35	58.48	16.26	13.30	0.59	50.27	30.77	40.21	11.55	15.98	0.58
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *Amritha*
AVNS
4PS 19/10

For Gangavaram Port Limited
D. Jyothi
 (Dr. D. Jyothi)
 Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	22.07.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO
Day average value	47.84	29.47	32.98	16.51	7.06	0.50	44.33	27.87	48.73	14.41	8.36	0.48	49.43	30.27	31.62	10.01	10.01	0.47
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *[Signature]*
GVNS/Kush
GPS/1910

For Gangavaram Port Limited
[Signature]
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	23.07.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO
Day average value	47.69	29.38	35.71	17.05	6.90	0.87	44.19	27.79	51.60	14.84	8.17	0.86	49.28	30.17	34.17	10.37	9.78	0.85
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *[Signature]*
GPN S. Murthy
4/5/19/10

For Gangavaram Port Limited
[Signature]
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	24.07.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO
Day average value	48.43	29.85	42.63	15.50	9.98	0.93	44.88	28.24	59.12	13.60	11.77	0.91	50.04	30.65	40.90	9.33	14.14	0.90
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *[Signature]*
C.V.N.S. Murthy
08/5/19/0

For Gangavaram Port Limited

[Signature]

(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	25.07.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

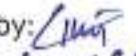
Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	48.64	29.93	45.24	17.42	9.65	0.35	45.07	28.31	61.97	15.14	11.38	0.34	50.26	30.73	43.36	10.61	13.68	0.33
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *GVNS*
GVNS
08/5/1910

For Gangavaram Port Limited
D. Jyothi
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	26.07.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO
Day average value	48.16	29.65	46.18	16.10	8.99	0.67	44.65	28.07	63.02	14.08	10.62	0.66	49.79	30.47	44.20	9.73	12.74	0.65
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
GVN Sankar
4851910

For Gangavaram Port Limited


(Dr. D. Jyothi)

Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	27.07.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO
Day average value	48.41	29.78	52.69	17.42	8.80	0.32	44.86	28.17	70.06	15.14	10.41	0.30	50.02	30.58	50.50	10.61	12.49	0.29
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *[Signature]*
G. Valsarthy
4/8/2022

For Gangavaram Port Limited

[Signature]
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	28.07.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	48.72	29.96	55.97	18.14	8.81	0.35	45.15	28.34	73.45	15.71	10.42	0.34	50.35	30.77	53.61	11.10	12.48	0.33
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *Dr. D. Jyothi*
GPS 1910

For Gangavaram Port Limited

(Signature)
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	29.07.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO	PM10	PM 2.5	SO ₂	NO	NO ₂	CO
Day average value	48.49	29.84	51.42	18.23	10.22	0.36	44.94	28.22	68.69	15.78	12.03	0.34	50.11	30.64	49.24	11.15	14.48	0.33
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *Levy*
CIVILS Academy
4/5/1910

For Gangavaram Port Limited
D. Jyothi
 (Dr. D. Jyothi)
 Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	30.07.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	46.89	28.91	45.21	17.93	10.07	0.53	43.45	27.35	62.03	15.55	11.86	0.51	48.46	29.69	43.47	10.96	14.28	0.50
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *[Signature]*
4/5/2022
4/5/2022

For Gangavaram Port Limited
[Signature]
(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	31.07.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	46.88	28.89	44.99	17.66	10.06	0.34	43.45	27.33	61.64	15.33	11.85	0.33	48.44	29.67	43.07	10.78	14.26	0.32
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *LP*
G.V.N. S. Murthy
CPS 1910

For Gangavaram Port Limited

D. Jyothi

(Dr. D. Jyothi)
 Vice President (Environment)



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

Environmental Monitoring Reports (09 July and 22 July 2022)

Gangavaram Port LTD.
Pedagantyada(Mandal)
Gangavaram (Post)
Visakhapatnam - 530 044





BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF SEWAGE WATER SAMPLE

BCL Ref. No.	GPL/03/195	Issued to: M/s.Gangavaram Port Ltd. Gangavaram(Village) PedaGantiyada(Mandalam) Visakhapatnam.
Monitoring Date	July 09, 2022	
Reporting Date	July 14, 2022	
Type of Sample	Sewage Water	
Sample Location	Kanithigeddanalla Near VSP	
Sample Collected by	M/s. Biochem Labs	

S. No.	Parameters	Unit	Result	CPCB Limit
1.	pH	H+Concn	6.04	5.0 – 9.0
2.	Total Suspended Solids	mg/l	236	100
3.	Total Dissolved Solids	mg/l	4068	2100
4.	Oil & Grease	mg/l	4.6	10
5.	COD	mg/l	384	250
6.	BOD	mg/l	62	30
7.	Ammonia Nitrogen	mg/l	2.6	50
8.	Phenolic Compounds	mg/l	0.06	1.0
10.	Nitrate	mg/l	38	50
11.	Nitrite	mg/l	0.8	1.0
11.	Sulphide	mg/l	1.0	1.0
12.	Phosphate	mg/l	3.6	5.0
13.	Cyanide	mg/l	Nil	0.2
14.	Iron	mg/l	3.2	3.0
15.	Aluminium	mg/l	1.0	2.0
16.	Copper	mg/l	1.8	3.0
17.	Chromium	mg/l	1.0	2.0
18.	Zinc	mg/l	2.4	5.0
19.	Lead	mg/l	0.01	0.1
20.	Manganese	mg/l	1.4	2.0
21.	Nickel	mg/l	0.8	3.0
22.	Mercury	mg/l	0.001	0.01
23.	Cadmium	mg/l	0.002	2.0


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF SEWAGE WATER SAMPLE

BCL Ref. No.	GPL/03/196	Issued to: M/s.Gangavaram Port Ltd. Gangavaram(Village) PedaGantiyada(Mandalam) Visakhapatnam.
Monitoring Date	July 09, 2022	
Reporting Date	July 14, 2022	
Type of Sample	Sewage Water	
Sample Location	Culvert -11 at Gangavaram Village	
Sample Collected by	M/s. Biochem Labs	

S. No.	Parameters	Unit	Result	CPCB Limit
1.	pH	H+Concen	6.14	5.0 – 9.0
2.	Total Suspended Solids	mg/l	118	100
3.	Total Dissolved Solids	mg/l	1206	2100
4.	Oil & Grease	mg/l	3.6	10
5.	COD	mg/l	214	250
6.	BOD	mg/l	36	30
7.	Ammonia Nitrogen	mg/l	18	50
8.	Phenolic Compounds	mg/l	1.0	1.0
10.	Nitrate	mg/l	28	50
11.	Nitrite	mg/l	0.6	1.0
11.	Sulphide	mg/l	0.8	1.0
12.	Phosphate	mg/l	3.4	5.0
13.	Cyanide	mg/l	Nil	0.2
14.	Iron	mg/l	1.0	3.0
15.	Aluminium	mg/l	0.1	2.0
16.	Copper	mg/l	0.6	3.0
17.	Chromium	mg/l	0.4	2.0
18.	Zinc	mg/l	1.2	5.0
19.	Lead	mg/l	0.01	0.1
20.	Manganese	mg/l	0.4	2.0
21.	Nickel	mg/l	0.8	3.0
22.	Mercury	mg/l	<0.01	0.01
23.	Cadmium	mg/l	<0.02	2.0


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT NOISE LEVEL MONITORING

BCL Ref. No.	GPL/ 04/221	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	July 09, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Collected by	M/s. Biochem Labs	

S. No.	Parameter	Unit	Location	Result		CPCB Limit	
				Day time	Night time	Industrial	
						Day time	Night time
1.	Noise Level	Decibels	Cargo area	72	68	75	70
2.	Noise Level	Decibels	PedaGantiyada/ Security Gate	65	60	-	-
				Day time	Night time	Residential	
						Day time	Night time
3.	Noise Level	Decibels	Gangavaram	48	32	55	45
4.	Noise Level	Decibels	HB Colony	52	40	-	-


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT NOISE LEVEL MONITORING

BCL Ref. No.	GPL/ 04/222	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	July 29, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Collected by	M/s. Biochem Labs	

S. No.	Parameter	Unit	Location	Result		CPCB Limit	
				Day time	Night time	Industrial	
						Day time	Night time
1.	Noise Level	Decibels	Cargo area	70	67	75	70
2.	Noise Level	Decibels	PedaGantiyada/ Security Gate	67	58	-	-
				Day time	Night time	Residential	
						Day time	Night time
3.	Noise Level	Decibels	Gangavaram	44	34	55	45
4.	Noise Level	Decibels	HB Colony	53	42	-	-


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/221	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	July 09, 2022	
Reporting Date	July 14, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			Harbour Basine		Port Entrance Channel	
			Low tide	High tide	Low tide	High tide
1.	Temperature	°C	30.4	31.2	29.7	31.0
2.	pH	H+ conc	8.18	8.16	8.20	8.24
3.	Salinity	PSU	31.6	32.2	31.8	32.0
4.	Turbidity	NTU	22	26	14	12
5.	Total Suspended Solids	mg/l	28	32	16	14
6.	Transparency	Mts.	0.9	0.8	1.2	1.4
7.	Electrical Conductivity	mMHo	32.6	31.6	34.0	32.0


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 814222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/221	Issued to:
Monitoring Date	July 09, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	July 14, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalem)
Type of Sample	Marine Water (Low Tide / High Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			South brake Wall Outside		North brake Wall Outside	
			Low tide	High tide	Low tide	High tide
1.	Temperature	°C	32.2	29.8	31.0	32.4
2.	pH	H+ conc	8.28	8.20	8.22	8.24
3.	Salinity	PSU	32.0	31.6	32.2	32.4
4.	Turbidity	NTU	12	18	14	16
5.	Total Suspended Solids	mg/l	16	22	18	20
6.	Transparency	Mts.	1.4	1.0	1.2	1.0
7.	Electrical Conductivity	mMHo	32.6	32.4	33.8	34.0


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/221	Issued to:
Monitoring Date	July 09, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	July 14, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (Low Tide / High Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			Harbour Basine		Port Entrance Channel	
			Low tide	High tide	Low tide	High tide
1.	Dissolved Oxygen	mg/l	3.2	3.8	4.0	4.2
2.	Biological Oxygen Demand	mg/l	1.4	1.6	1.8	2.0
3.	Oil & Grease	mg/l	1.0	0.8	0.6	0.8
4.	Sulphate	mg/l	1018	1026	1036	1020
5.	Phosphate	mg/l	0.32	0.34	0.24	0.18
6.	Nitrate	mg/l	3.4	2.8	2.4	2.0
7.	Nitrite	mg/l	0.026	0.028	0.022	0.024
8.	Chloride	mg/l	18642	20416	19638	19864
9.	Chromium	ppm	0.024	0.026	0.026	0.020
10.	Mercury	ppm	Nil	Nil	Nil	Nil
11.	Zinc	ppm	0.22	0.2	0.16	0.14
12.	Iron	ppm	0.02	0.028	0.024	0.026
13.	Manganese	ppm	0.026	0.022	0.02	0.018
14.	Cadmium	ppm	Nil	Nil	Nil	Nil


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 814222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/221	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	July 09, 2022	
Reporting Date	July 14, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			South brake Wall Outside		North brake Wall Outside	
			Low tide	High tide	Low tide	High tide
1.	Dissolved Oxygen	mg/l	4.0	3.8	4.2	3.6
2.	Biological Oxygen Demand	mg/l	1.6	1.4	1.8	1.6
3.	Oil & Grease	mg/l	0.8	1.0	0.4	0.6
4.	Sulphate	mg/l	1026	1014	1032	1040
5.	Phosphate	mg/l	0.26	0.28	0.3	0.24
6.	Nitrate	mg/l	2.8	2.4	2.0	2.6
7.	Nitrite	mg/l	0.026	0.028	0.02	0.024
8.	Chloride	mg/l	20436	19862	21438	20986
9.	Chromium	ppm	0.026	0.024	0.022	0.02
10.	Mercury	ppm	Nil	Nil	Nil	Nil
11.	Zinc	ppm	0.18	0.14	0.16	0.2
12.	Iron	ppm	0.026	0.022	0.028	0.02
13.	Manganese	ppm	0.02	0.018	0.02	0.018
14.	Cadmium	ppm	Nil	Nil	Nil	Nil


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/221	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	July 09, 2022	
Reporting Date	July 14, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: Harbourbasine / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	12000
2.	Zooplankton Count	No./m ³	1000
3.	Chlorophyll a	mg/m ³	3.4
4.	Chlorophyll b	mg/m ³	2.0
5.	Primary Productivity	gC/m ²	3.6
6.	Biomass	mg/m ²	2.4

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	28
	<i>Amphora lineolata</i>	10
	<i>Cymbella marina</i>	12
	<i>Bacteriastrum delicatulum</i>	08
	<i>Thalassionema nitzschioides</i>	26
	<i>Chaetoceros dydymus</i>	16
	<i>Skeletonemacostatum</i>	22
	<i>Thalassiothrixlongissima</i>	06
	<i>Cymbella marina</i>	10
B.	Zooplankton Species	
	<i>Foraminifera</i>	24
	<i>Chaetognatha</i>	06
	<i>Amphipoda</i>	12
	<i>Cladocera</i>	08
	<i>Eggs of fish & larvae</i>	10


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 814222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/221	Issued to:
Monitoring Date	July 09, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	July 14, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: Port Entrance Channel / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	1000
2.	Zooplankton Count	No./m ³	600
3.	Chlorophyll a	mg/m ³	2.6
4.	Chlorophyll b	mg/m ³	2.8
5.	Primary Productivity	gC/m ²	3.4
6.	Biomass	mg/m ²	2.6

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	26
	<i>Amphora lineolata</i>	18
	<i>Cymbella marina</i>	30
	<i>Bacteriastrum delicatulum</i>	10
	<i>Thalassionema nitzschioides</i>	14
	<i>Chaetoceros dydymus</i>	08
	<i>Skeletonemacostatum</i>	14
	<i>Thalassiothrixlongissima</i>	12
	<i>Cymbella marina</i>	04
B.	Zooplankton Species	
	<i>Foraminifera</i>	28
	<i>Chaetognatha</i>	34
	<i>Amphipoda</i>	18
	<i>Cladocera</i>	06
	<i>Eggs of fish & larvae</i>	04

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/221	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	July 09, 2022	
Reporting Date	July 14, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (High Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: Harbourbasine / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	11000
2.	Zooplankton Count	No./m ³	1200
3.	Chlorophyll a	mg/m ³	3.6
4.	Chlorophyll b	mg/m ³	2.4
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	2.8

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	34
	<i>Amphora lineolata</i>	18
	<i>Cymbella marina</i>	20
	<i>Bacteriastrum delicatulum</i>	12
	<i>Thalassionema nitzschioides</i>	06
	<i>Chaetoceros dydymus</i>	04
	<i>Skeletonemacostatum</i>	08
	<i>Thalassiothrixlongissima</i>	14
	<i>Cymbella marina</i>	12
B.	Zooplankton Species	
	<i>Foraminifera</i>	16
	<i>Chaetognatha</i>	10
	<i>Amphipoda</i>	04
	<i>Cladocera</i>	12
	<i>Eggs of fish & larvae</i>	08

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/221	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	July 09, 2022	
Reporting Date	July 14, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (High Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: Port Entrance Channel / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	14000
2.	Zooplankton Count	No./m ³	1000
3.	Chlorophyll a	mg/m ³	2.6
4.	Chlorophyll b	mg/m ³	3.0
5.	Primary Productivity	gC/m ²	2.4
6.	Biomass	mg/m ²	2.6

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	14
	<i>Amphora lineolata</i>	28
	<i>Cymbella marina</i>	10
	<i>Bacteriastrum delicatulum</i>	30
	<i>Thalassionema nitzschioides</i>	06
	<i>Chaetoceros dydymus</i>	10
	<i>Skeletonemacostatum</i>	08
	<i>Thalassiothrixlongissima</i>	14
	<i>Cymbella marina</i>	06
B.	Zooplankton Species	
	<i>Foraminifera</i>	26
	<i>Chaetognatha</i>	18
	<i>Amphipoda</i>	10
	<i>Cladocera</i>	04
	<i>Eggs of fish & larvae</i>	12


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/221	Issued to:
Monitoring Date	July 09, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	July 14, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: South brake Wall outside / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	12000
2.	Zooplankton Count	No./m ³	800
3.	Chlorophyll a	mg/m ³	3.6
4.	Chlorophyll b	mg/m ³	2.8
5.	Primary Productivity	gC/m ²	3.2
6.	Biomass	mg/m ²	2.4

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	58
	<i>Amphora lineolata</i>	36
	<i>Cymbella marina</i>	24
	<i>Bacteriastrum delicatulum</i>	06
	<i>Thalassionema nitzschioides</i>	30
	<i>Chaetoceros dydymus</i>	12
	<i>Skeletonemacostatum</i>	28
	<i>Thalassiothrixlongissima</i>	32
	<i>Cymbella marina</i>	14
B.	Zooplankton Species	
	<i>Foraminifera</i>	58
	<i>Chaetognatha</i>	26
	<i>Amphipoda</i>	24
	<i>Cladocera</i>	16
	<i>Eggs of fish & larvae</i>	06


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277.
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/221	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	July 09, 2022	
Reporting Date	July 14, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: North brake Wall Outside / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	12000
2.	Zooplankton Count	No./m ³	1000
3.	Chlorophyll a	mg/m ³	3.6
4.	Chlorophyll b	mg/m ³	2.4
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	2.8

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	54
	<i>Amphora lineolata</i>	48
	<i>Cymbella marina</i>	38
	<i>Bacteriastrum delicatulum</i>	26
	<i>Thalassionema nitzschioides</i>	42
	<i>Chaetoceros dydymus</i>	08
	<i>Skeletonemacostatum</i>	22
	<i>Thalassiothrixlongissima</i>	16
	<i>Cymbella marina</i>	14
B.	Zooplankton Species	
	<i>Foraminifera</i>	62
	<i>Chaetognatha</i>	32
	<i>Amphipoda</i>	30
	<i>Cladocera</i>	14
	<i>Eggs of fish & larvae</i>	08


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/221	Issued to:
Monitoring Date	July 09, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	July 14, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (High Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: South brake Wall Outside / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	10000
2.	Zooplankton Count	No./m ³	1200
3.	Chlorophyll a	mg/m ³	2.8
4.	Chlorophyll b	mg/m ³	2.0
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	2.6

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	50
	<i>Amphora lineolata</i>	64
	<i>Cymbella marina</i>	28
	<i>Bacteriastrum delicatulum</i>	30
	<i>Thalassionema nitzschioides</i>	24
	<i>Chaetoceros dydymus</i>	06
	<i>Skeletonemacostatum</i>	14
	<i>Thalassiothrixlongissima</i>	28
	<i>Cymbella marina</i>	02
B.	Zooplankton Species	
	<i>Foraminifera</i>	56
	<i>Chaetognatha</i>	24
	<i>Amphipoda</i>	18
	<i>Cladocera</i>	04
	<i>Eggs of fish & larvae</i>	10


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/221	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	July 09, 2022	
Reporting Date	July 14, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (High Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: North brake Wall Outside / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	11000
2.	Zooplankton Count	No./m ³	1200
3.	Chlorophyll a	mg/m ³	3.8
4.	Chlorophyll b	mg/m ³	2.6
5.	Primary Productivity	gC/m ²	3.4
6.	Biomass	mg/m ²	2.8

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	62
	<i>Amphora lineolata</i>	10
	<i>Cymbella marina</i>	44
	<i>Bacteriastrum delicatulum</i>	20
	<i>Thalassionema nitzschioides</i>	36
	<i>Chaetoceros dydymus</i>	32
	<i>Skeletonemacostatum</i>	18
	<i>Thalassiothrixlongissima</i>	20
	<i>Cymbella marina</i>	05
B.	Zooplankton Species	
	<i>Foraminifera</i>	30
	<i>Chaetognatha</i>	44
	<i>Amphipoda</i>	26
	<i>Cladocera</i>	10
	<i>Eggs of fish & larvae</i>	08

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277.
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/222	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	July 30, 2022	
Reporting Date	August 04, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			Harbour Basine		Port Entrance Channel	
			Low tide	High tide	Low tide	High tide
1.	Temperature	$^{\circ}\text{C}$	31.8	31.2	32.0	29.8
2.	pH	H+ conc	8.26	8.22	8.24	8.22
3.	Salinity	PSU	32.2	33.6	32.0	33.0
4.	Turbidity	NTU	16	24	12	14
5.	Total Suspended Solids	mg/l	20	32	14	18
6.	Transparency	Mts.	1.2	0.8	1.2	1.4
7.	Electrical Conductivity	mMHo	34.8	30.6	32.0	31.6


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/222	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	July 30, 2022	
Reporting Date	August 04, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			South brake Wall Outside		North brake Wall Outside	
			Low tide	High tide	Low tide	High tide
1.	Temperature	°C	30.6	32.0	29.2	30.6
2.	pH	H+ conc	8.18	8.24	8.20	8.26
3.	Salinity	PSU	32.6	33.6	32.8	33.0
4.	Turbidity	NTU	14	10	14	12
5.	Total Suspended Solids	mg/l	16	18	20	16
6.	Transparency	Mts.	1.2	1.4	1.2	1.4
7.	Electrical Conductivity	mMHo	36.2	32.6	34.2	33.6


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/222	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	July 29, 2022	
Reporting Date	August 03, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			Harbour Baseline		Port Entrance Channel	
			Low tide	High tide	Low tide	High tide
1.	Dissolved Oxygen	mg/l	4.2	4.0	3.8	3.6
2.	Biological Oxygen Demand	mg/l	2.0	1.8	1.6	1.4
3.	Oil & Grease	mg/l	1.0	1.4	1.0	0.8
4.	Sulphate	mg/l	986	968	1014	1036
5.	Phosphate	mg/l	0.24	0.32	0.28	0.24
6.	Nitrate	mg/l	3.0	2.4	2.8	2.6
7.	Nitrite	mg/l	0.024	0.026	0.016	0.018
8.	Chloride	mg/l	19846	21630	18982	20864
9.	Chromium	ppm	0.028	0.022	0.018	0.02
10.	Mercury	ppm	Nil	Nil	Nil	Nil
11.	Zinc	ppm	0.24	0.18	0.16	0.12
12.	Iron	ppm	0.022	0.026	0.024	0.02
13.	Manganese	ppm	0.02	0.02	0.012	0.018
14.	Cadmium	ppm	Nil	Nil	Nil	Nil


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/222	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	July 29, 2022	
Reporting Date	August 03, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			South brake Wall Outside		North brake Wall Outside	
			Low tide	High tide	Low tide	High tide
1.	Dissolved Oxygen	mg/l	3.8	4.0	4.2	3.8
2.	Biological Oxygen Demand	mg/l	1.4	2.2	1.8	1.6
3.	Oil & Grease	mg/l	0.6	0.8	1.0	0.8
4.	Sulphate	mg/l	1018	1026	1048	1052
5.	Phosphate	mg/l	0.34	0.36	0.26	0.26
6.	Nitrate	mg/l	3.0	2.8	2.0	1.8
7.	Nitrite	mg/l	0.022	0.024	0.016	0.02
8.	Chloride	mg/l	19680	20468	19846	20486
9.	Chromium	ppm	0.024	0.02	0.018	0.02
10.	Mercury	ppm	Nil	Nil	Nil	Nil
11.	Zinc	ppm	0.18	0.12	0.16	0.10
12.	Iron	ppm	0.014	0.018	0.024	0.02
13.	Manganese	ppm	0.026	0.02	0.018	0.014
14.	Cadmium	ppm	Nil	Nil	Nil	Nil


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/222	Issued to:
Monitoring Date	July 29, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	August 03, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: Harbourbasine / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	12000
2.	Zooplankton Count	No./m ³	1000
3.	Chlorophyll a	mg/m ³	2.8
4.	Chlorophyll b	mg/m ³	2.2
5.	Primary Productivity	gC/m ²	2.4
6.	Biomass	mg/m ²	1.8

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	24
	<i>Amphora lineolata</i>	20
	<i>Cymbella marina</i>	10
	<i>Bacteriastrum delicatulum</i>	18
	<i>Thalassionema nitzschioides</i>	26
	<i>Chaetoceros dydymus</i>	06
	<i>Skeletonemacostatum</i>	04
	<i>Thalassiothrixlongissima</i>	08
	<i>Cymbella marina</i>	10
B.	Zooplankton Species	
	<i>Foraminifera</i>	30
	<i>Chaetognatha</i>	18
	<i>Amphipoda</i>	04
	<i>Cladocera</i>	10
	<i>Eggs of fish & larvae</i>	05


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/222	Issued to:
Monitoring Date	July 29, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	August 03, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: Port Entrance Channel / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	12000
2.	Zooplankton Count	No./m ³	600
3.	Chlorophyll a	mg/m ³	3.2
4.	Chlorophyll b	mg/m ³	2.6
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	2.8

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	28
	<i>Amphora lineolata</i>	12
	<i>Cymbella marina</i>	06
	<i>Bacteriastrum delicatulum</i>	18
	<i>Thalassionema nitzschioides</i>	10
	<i>Chaetoceros dydymus</i>	26
	<i>Skeletonemacostatum</i>	04
	<i>Thalassiothrixlongissima</i>	18
	<i>Cymbella marina</i>	08
B.	Zooplankton Species	
	<i>Foraminifera</i>	24
	<i>Chaetognatha</i>	16
	<i>Amphipoda</i>	12
	<i>Cladocera</i>	02
	<i>Eggs of fish & larvae</i>	06

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/222	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	July 29, 2022	
Reporting Date	August 03, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (High Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: Harbourbasine / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	10000
2.	Zooplankton Count	No./m ³	1200
3.	Chlorophyll a	mg/m ³	2.8
4.	Chlorophyll b	mg/m ³	2.6
5.	Primary Productivity	gC/m ²	3.4
6.	Biomass	mg/m ²	2.8

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	30
	<i>Amphora lineolata</i>	06
	<i>Cymbella marina</i>	24
	<i>Bacteriastrum delicatulum</i>	10
	<i>Thalassionema nitzschioides</i>	22
	<i>Chaetoceros dydymus</i>	04
	<i>Skeletonemacostatum</i>	10
	<i>Thalassiothrixlongissima</i>	08
	<i>Cymbella marina</i>	10
B.	Zooplankton Species	
	<i>Foraminifera</i>	16
	<i>Chaetognatha</i>	02
	<i>Amphipoda</i>	10
	<i>Cladocera</i>	06
	<i>Eggs of fish & larvae</i>	02


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017, Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/222	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	July 29, 2022	
Reporting Date	August 03, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (High Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: Port Entrance Channel / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	12000
2.	Zooplankton Count	No./m ³	1400
3.	Chlorophyll a	mg/m ³	3.4
4.	Chlorophyll b	mg/m ³	2.8
5.	Primary Productivity	gC/m ²	3.2
6.	Biomass	mg/m ²	2.8

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	32
	<i>Amphora lineolata</i>	14
	<i>Cymbella marina</i>	28
	<i>Bacteriastrum delicatulum</i>	04
	<i>Thalassionema nitzschioides</i>	16
	<i>Chaetoceros dydymus</i>	20
	<i>Skeletonemacostatum</i>	18
	<i>Thalassiothrixlongissima</i>	22
	<i>Cymbella marina</i>	10
B.	Zooplankton Species	
	<i>Foraminifera</i>	28
	<i>Chaetognatha</i>	14
	<i>Amphipoda</i>	12
	<i>Cladocera</i>	06
	<i>Eggs of fish & larvae</i>	04

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/222	Issued to:
Monitoring Date	July 29, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	August 03, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: South brake Wall outside / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	10000
2.	Zooplankton Count	No./m ³	1200
3.	Chlorophyll a	mg/m ³	3.4
4.	Chlorophyll b	mg/m ³	2.8
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	2.4

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	66
	<i>Amphora lineolata</i>	28
	<i>Cymbella marina</i>	18
	<i>Bacteriastrum delicatulum</i>	06
	<i>Thalassionema nitzschioides</i>	34
	<i>Chaetoceros dydymus</i>	48
	<i>Skeletonemacostatum</i>	30
	<i>Thalassiothrixlongissima</i>	04
	<i>Cymbella marina</i>	10
B.	Zooplankton Species	
	<i>Foraminifera</i>	52
	<i>Chaetognatha</i>	21
	<i>Amphipoda</i>	14
	<i>Cladocera</i>	26
	<i>Eggs of fish & larvae</i>	10


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 814222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/222	Issued to:
Monitoring Date	July 29, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	August 03, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: North brake Wall Outside / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	9000
2.	Zooplankton Count	No./m ³	500
3.	Chlorophyll a	mg/m ³	3.4
4.	Chlorophyll b	mg/m ³	2.6
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	2.8

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	80
	<i>Amphora lineolata</i>	46
	<i>Cymbella marina</i>	28
	<i>Bacteriastrum delicatulum</i>	34
	<i>Thalassionema nitzschioides</i>	06
	<i>Chaetoceros dydymus</i>	28
	<i>Skeletonemacostatum</i>	06
	<i>Thalassiothrixlongissima</i>	20
	<i>Cymbella marina</i>	14
B.	Zooplankton Species	
	<i>Foraminifera</i>	26
	<i>Chaetognatha</i>	20
	<i>Amphipoda</i>	04
	<i>Cladocera</i>	10
	<i>Eggs of fish & larvae</i>	06


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/222	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	July 29, 2022	
Reporting Date	August 03, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (High Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: South brake Wall Outside / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	10000
2.	Zooplankton Count	No./m ³	800
3.	Chlorophyll a	mg/m ³	2.6
4.	Chlorophyll b	mg/m ³	3.0
5.	Primary Productivity	gC/m ²	3.4
6.	Biomass	mg/m ²	2.8

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	56
	<i>Amphora lineolata</i>	24
	<i>Cymbella marina</i>	36
	<i>Bacteriastrum delicatulum</i>	08
	<i>Thalassionema nitzschioides</i>	20
	<i>Chaetoceros dydymus</i>	34
	<i>Skeletonemacostatum</i>	10
	<i>Thalassiothrixlongissima</i>	26
	<i>Cymbella marina</i>	04
B.	Zooplankton Species	
	<i>Foraminifera</i>	28
	<i>Chaetognatha</i>	04
	<i>Amphipoda</i>	32
	<i>Cladocera</i>	10
	<i>Eggs of fish & larvae</i>	06

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/222	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	July 29, 2022	
Reporting Date	August 03, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (High Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: North brake Wall Outside / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	10000
2.	Zooplankton Count	No./m ³	1200
3.	Chlorophyll a	mg/m ³	3.8
4.	Chlorophyll b	mg/m ³	2.6
5.	Primary Productivity	gC/m ²	3.2
6.	Biomass	mg/m ²	2.4

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	62
	<i>Amphora lineolata</i>	35
	<i>Cymbella marina</i>	26
	<i>Bacteriastrum delicatulum</i>	30
	<i>Thalassionema nitzschioides</i>	08
	<i>Chaetoceros dydymus</i>	34
	<i>Skeletonemacostatum</i>	08
	<i>Thalassiothrixlongissima</i>	24
	<i>Cymbella marina</i>	12
B.	Zooplankton Species	
	<i>Foraminifera</i>	24
	<i>Chaetognatha</i>	12
	<i>Amphipoda</i>	16
	<i>Cladocera</i>	04
	<i>Eggs of fish & larvae</i>	12

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF SEDIMENT SAMPLE

BCL Ref. No.	GPL/ 06/221	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	July 09, 2022	
Reporting Date	July 14, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Sediment (Low Tide)	
Sample Collected by	M/s. Biochem Labs	

S.No	Parameters	Unit	Result	
			Harbour Basine	Port Entrance Channel
1.	pH	H+ conc	7.04	7.08
2.	Organic matter	%	2.4	1.8
3.	Nitrate	mg/kg	2.8	2.0
4.	Phosphate	mg/kg	1.6	1.4
5.	Oil & Grease	mg/kg	0.18	0.16
6.	Iron	ppm	0.16	0.18
7.	Manganese	ppm	0.14	0.12
8.	Nickel	ppm	0.12	0.14
9.	Chromium	ppm	0.16	0.12
10.	Mercury	ppm	Nil	Nil
11.	Zinc	ppm	0.8	0.6
12.	Lead	ppm	0.01	0.01
13.	Arsenic	ppm	0.01	0.01
14.	Selenium	ppm	0.01	0.01
15.	Copper	ppm	0.18	0.12


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 814222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF SEDIMENT SAMPLE

BCL Ref. No.	GPL/ 06/221	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	July 09, 2022	
Reporting Date	July 14, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Sediment (Low Tide)	
Sample Collected by	M/s. Biochem Labs	

S.No	Parameters	Unit	Result	
			South brake Wall Outside	North brake Wall Outside
1.	pH	H+ conc	7.06	7.10
2.	Organic matter	%	1.2	1.0
3.	Nitrate	mg/kg	2.0	1.6
4.	Phosphate	mg/kg	0.8	1.0
5.	Oil & Grease	mg/kg	0.02	0.01
6.	Iron	ppm	0.14	0.12
7.	Manganese	ppm	0.16	0.14
8.	Nickel	ppm	0.12	0.1
9.	Chromium	ppm	0.14	0.12
10.	Mercury	ppm	Nil	Nil
11.	Zinc	ppm	1.0	0.8
12.	Lead	ppm	0.01	0.01
13.	Arsenic	ppm	0.01	0.01
14.	Selenium	ppm	0.01	0.01
15.	Copper	ppm	0.18	0.14


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 814222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT BENTHIC FAUNAL DIVERSITY

BCL Ref. No.	GPL/ 06/221	Issued to:
Monitoring Date	July 09, 2022	M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Reporting Date	July 14, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Sediment (Low Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Species/Group	% Composition	
		Harbour Basine	Port Entrance Channel
1.	<i>Opheliidae sp</i>	32	36
2.	<i>Glyceridae sp</i>	12	10
3.	<i>Nereidae sp</i>	20	24
4.	<i>Aphroditidae sp</i>	08	12
5.	<i>Cirratulidae sp</i>	10	14
6.	<i>Capitella sp</i>	02	08
7.	<i>Amphipoda sp.</i>	18	10
8.	<i>Gastropoda</i>	04	04
9.	<i>Chaetognatha</i>	10	08


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT BENTHIC FAUNAL DIVERSITY

BCL Ref. No.	GPL/ 06/221	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	July 09, 2022	
Reporting Date	July 14, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Sediment (Low Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Species/Group	% Composition	
		South brake Wall Outside	North brake Wall Outside
1.	Foraminifera	42	54
2.	Amphipoda	26	18
3.	Mytilusedulis	14	14
4.	Gastropod veliger	20	26
5.	Oithona	10	02
6.	Capitella	08	12
7.	Copepod nauplii	22	06
9.	Brachyuran zoea	06	14
8.	Neanthusarenaceodentata	16	08


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF SEDIMENT SAMPLE

BCL Ref. No.	GPL/ 06/222	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	July 29, 2022	
Reporting Date	August 03, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Sediment (Low Tide)	
Sample Collected by	M/s. Biochem Labs	

S.No	Parameters	Unit	Result	
			Harbour Basine	Port Entrance Channel
1.	pH	H+ conc	7.10	7.12
2.	Organic matter	%	2.0	1.6
3.	Nitrate	mg/kg	1.6	1.2
4.	Phosphate	mg/kg	1.0	1.0
5.	Oil & Grease	mg/kg	0.12	0.08
6.	Iron	ppm	0.16	0.14
7.	Manganese	ppm	0.14	0.12
8.	Nickel	ppm	0.1	0.14
9.	Chromium	ppm	0.14	0.12
10.	Mercury	ppm	Nil	Nil
11.	Zinc	ppm	1.0	0.8
12.	Lead	ppm	0.01	0.01
13.	Arsenic	ppm	0.01	0.01
14.	Selenium	ppm	0.01	0.01
15.	Copper	ppm	0.20	0.14


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF SEDIMENT SAMPLE

BCL Ref. No.	GPL/ 06/222	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	July 29, 2022	
Reporting Date	August 03, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Sediment (Low Tide)	
Sample Collected by	M/s. Biochem Labs	

S.No	Parameters	Unit	Result	
			South brake Wall Outside	North brake Wall Outside
1.	pH	H+ conc	7.12	7.06
2.	Organic matter	%	1.0	0.8
3.	Nitrate	mg/kg	2.0	1.2
4.	Phosphate	mg/kg	1.8	1.0
5.	Oil & Grease	mg/kg	0.02	0.04
6.	Iron	ppm	0.14	0.12
7.	Manganese	ppm	0.12	0.1
8.	Nickel	ppm	0.1	0.12
9.	Chromium	ppm	0.14	0.1
10.	Mercury	ppm	Nil	Nil
11.	Zinc	ppm	1.0	0.8
12.	Lead	ppm	0.01	0.01
13.	Arsenic	ppm	0.01	0.01
14.	Selenium	ppm	0.01	0.01
15.	Copper	ppm	0.16	0.12


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT BENTHIC FAUNAL DIVERSITY

BCL Ref. No.	GPL/ 06/222	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	July 29, 2022	
Reporting Date	August 03, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Sediment (Low Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Species/Group	% Composition	
		Harbour Basine	Port Entrance Channel
1.	<i>Eunicidae sp.</i>	22	30
2.	<i>Paraonidae sp.</i>	10	14
3.	<i>Syllidae sp</i>	04	20
4.	<i>Sabellidae sp</i>	08	10
5.	<i>Oithona sp.</i>	10	26
6.	<i>Capitella sp.</i>	12	14
7.	<i>Syllidae sp</i>	14	06
9.	<i>Amphipoda sp.</i>	02	08
8.	<i>Nematoda sp.</i>	08	06


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-D-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs868@gmail.com | www.biochemlabs.in

TEST REPORT BENTHIC FAUNAL DIVERSITY

BCL Ref. No.	GPL/ 06/222	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	July 29, 2022	
Reporting Date	August 03, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Sediment (Low Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Species/Group	% Composition	
		South brake Wall Outside	North brake Wall Outside
1.	<i>Capitella sp.</i>	54	48
2.	<i>Syllidae sp</i>	32	24
3.	<i>Amphipoda sp.</i>	06	12
4.	<i>Nematoda sp.</i>	34	06
5.	<i>Capitella sp.</i>	10	24
6.	<i>Syllidae sp</i>	26	08
7.	<i>Paraonidae sp.</i>	12	16
9.	<i>Syllidae sp</i>	10	10
8.	<i>Sabellidae sp</i>	08	02


Analyst




Authorized Signatory



GPL/ENV/APPCB/2022-23/031

Date: 05/09/2022.

To

The Environmental Engineer,
A.P. Pollution Control Board
Regional Office
APPCB Buildings, 3rd Floor
Main Road, Madhavadhara VUDA Layout
Visakhapatnam- 530 009.

Dear Sir,

Sub:- Monthly CFO Compliance, Environmental Marine & Terrestrial
Monitoring Reports and Water Consumption details (Form-1) –
Submitted – Reg.

Reff:- 1. CFO & HWA Order No. APPCB/VSP/VSP/113/CFO/HO/2015,
dated 13.01.2016, valid up to 31.12.2020.
2. CFO & HWA Order No. APPCB/VSP/VSP/113/CFO/HO/2020,
dated 10.09.2020, valid up to 31.12.2025.

@@@

With reference to the above, we are here with submitting the monthly CFO
compliance reports and CAAQM, Marine & Terrestrial monitoring results along
with Water Consumption details in Form - 1 for the month of August -2022.

Yours Sincerely,

Authorized Signatory

Encl: As above.

Compliance of the conditions stipulated in CFO Auto Renewal Order No. APPCB/VSP/VSP/113/CFO/HO/2020- 10/09/2020, valid up to 31.12.2025.

Sl. No.	Condition	Compliance
1.	All other conditions mentioned in Schedules A, B & C of the combined CFO&HWA order issued by the Board vide order dated 13.01.2016 will remain same.	Noted and conditions are being followed as applicable.
2.	The facility shall comply with the standards issued by MoEF&CC / CPCB from time to time.	Noted and condition is being followed.
3.	The industry shall submit Half yearly compliance reports to all the stipulated conditions in Environmental Clearance (EC), Consent for Establishment (CFE) and Consent for Operation (CFO) through website i.e., https://pcb.ap.gov.in by 1st of January and 1st July of every year. The first half yearly compliance reports shall be furnished by the industry and second half yearly compliance reports shall be the audited through NABL accredited third party failing which the Consent Order issued will be cancelled.	Self-certified 1 st half yearly compliance report for the period from April 2021 to September 2021 submitted on 29.11.2021 through web site. NABL Accredited Agency certified compliance report for the 2 nd half for the period from October 2021 to March 2022 was uploaded through website on 30.05.2022.
4.	The facility shall ensure that dedicated fund is allotted towards Environment Relief Fund (ERF) in the Public Liability Insurance policy and submit a copy of the policy at the Regional Office: Visakhapatnam every year.	GPL is having Public liability Insurance of IFFCO-TOKIO vide Policy No:41063755, dated 28.09.2021, Valid till 14/09/2022 with Premium of Rs-5615/- & ERF of Rs.5615/-
5.	In case of false certification, noncompliance of conditions / directions and discrepancy in furnishing the information by the industry, the Board can withdraw the auto renewed consent and take action under provisions of relevant Acts & Rules.	Noted and condition is being followed.
6.	The facility shall inventorize the storage quantities of hazardous chemicals as per the hazard nature of reactivity / toxicity / flammability / explosive stored/handling in the premises as defined in the Management of Storage, Import of Hazardous Chemicals (MSIHC) Rules, 1989 and the details shall be furnished to the Factories Department and to the Regional Office, APPCB on monthly basis duly certifying the same.	GPL is not handling any Hazardous cargo/Containers/Chemicals.

7.	The facility shall identify major accident hazard chemicals & list out the hazardous chemicals endangered to human health & environment and the details shall be furnished to the Factories Department and to the Regional Office, APPCB time to time duly certifying the same by the industry. Further the facility shall extend training to the working personnel's while handling hazardous chemicals for prevention of accidents and necessary antidotes to ensure the safety, as per the MSIHC Rules, 1989.	GPL is not handling any Hazardous cargo/Containers/Chemicals.
8.	The facility shall submit the copy of the safety audit report and On-Site / Off Site Emergency Plans as applicable after being certified by the Factories Department/concerned authority, to the APPCB, Regional Office from time to time, if the storage quantity of hazardous chemicals is equal to or, in excess of the threshold quantities specified in schedule 2 & 3 of MSIHC Rules, 1989.	An onsite and offsite emergency action plan has been prepared and submitted to APPCB, RO, VSP. Mock drills are being conducted twice in a year.
9.	The facility shall carryout calibration of safety equipments and leak detection systems at regular intervals and shall certify the same with the Factories Department/concerned authority. That certified copy shall be submitted to the APPCB, Regional Office. The facility shall install fluorescent Wind Vane at the highest point in the facility premises.	GPL install fluorescent Wind Vane at the following two places within the Port premises. 1. On the top of Over Head Tank near Harbour Gate besides GPL Canteen. 2. On the top of Commercial Office Building (COB)
10	The facility shall inventorize the hazardous wastes and its quantities stored within the facility premises as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 (HOWM Rules, 2016) and shall furnish the details to Regional Office, APPCB on monthly basis duly certifying the same by the industry.	GPL is not handling any Hazardous cargo/ Containers/Chemicals. GPL is permitted to handle Used Lubricating oil of 12000 LPA. The generation, storage & disposal details are submitting to APPCB through Form – IV. Latest submission is on 06.06.2022 for the year 2021-2022.
11	The facility shall allow import of hazardous cargoes only after the importer complies with the MSIHC Rules, 1989.	GPL Not handling any Hazardous cargo/Containers/Chemicals.

Compliance report of the conditions stipulated in Schedule A,B & C of CFO & HWA Order No. APPCB/VSP/VSP/113/CFO/HO/2015, dated 13.01.2016

Compliance of Schedule - A

Sl. No.	Condition	Compliance
1.	Any up-set condition in any plant/plants of the industry, which result in, increased effluent/ emission discharge and/ or violation of standards stipulated in this order shall be informed to this Board, under intimation to the Collector and District Magistrate and take immediate action to bring down the discharge / emission below the limits.	All conditions are being followed.
2.	The industry should carryout analysis of waste water discharges or emissions through chimneys for the parameters mentioned in this order on quarterly basis and submit to the Board.	GPL is carrying out 3 rd party monitoring and analysis. As per analysis reports, the samples are meeting the Board standards.
3.	All the rules & regulations notified by Ministry of Law and Justice, Government of India regarding Public Liability Insurance Act, 1991 should be followed as applicable.	Noted and conditions are being followed as applicable.
4.	The industry should put up two sign boards (6×4 ft. each)at publicly visible places at the main gate indicating the products , effluent discharge standards, air emission standards, hazardous waste quantities and validity of CFO and exhibit the CFO order at a prominent place in the factory premises.	Noted and condition is being followed.
5.	Notwithstanding anything contained in this consent order, the Board here by reserves the right and powers to review / revoke any and / or all the conditions imposed herein above and to make such variations as deemed fit for the purpose of the Acts by the Board.	Noted the condition.
6.	The industry shall file the water cess returns in Form-I as required under section (5) of water (Prevention and Control of Pollution) cess Act, 1977 on or before the 5 th of every calendar month, showing the quantity of water consumed in the previous monthly along with water meter readings. The industry shall remit water cess as per the assessment order as and when issued by Board.	<p>Water consumption details of the previous month are being submitted before 5th of subsequent month in FORM - I.</p> <p>The latest reports for the Month of July, 2022 were submitted through e.mail 17th August, 2022</p> <p>After introduction of GST, APPCB has instructed all the industries are not required to remit water cess charges from 1st July, 2017 onwards.</p>

7.	The applicant shall submit Environment statement in Form V before 30 th September every year as per Rule No.14 of E(P) Rules,1986 & amendments thereof.	Complied and Form V was Submitted on 24.09.2021 for the period 2020-2021
8.	The applicant should make applications through Online for renewal of Consent (under Water Air Acts) and Authorization under HWM Rules at least 120 days before the date of expiry of this order, along with prescribed fee under Water and Air Acts and detailed compliance of CFO conditions for obtaining Consent & HW Authorization of the board. The industry should immediately submit the revised application for consent to this Board in the event of any change in the raw material used, processes employed, quantity of trade effluents & quantity of emissions. Any change in the management shall be informed to the Board. the person authorized should not let out the premises / lend / sell / transfer their industrial premises without obtaining prior permission of the state Pollution Control Board.	GPL has obtained CFO & HWA of the Board vide order dated 13/01/2016 valid up to 31.12.2020 and extended up to 31.12.2025 vide order dated 10.09.2020.
9.	Any person aggrieved by an order made by the state board under section 25,section 26,section 27 of water Act, 1974 or section 21 of Air Act,1981 may within thirty days from the date on which the order is communicated to him, prefer an appeal as per Andhra Pradesh Water Rules,1976 and Air Rules 1982, to Appellate authority constituted under section 28 of the Water (prevention and control of pollution) Act,1974 and section 31 of the Air (prevention and control of pollution) Act,1981.	Noted and condition will be followed.

Compliance of Schedule – B

Sl. No.	Condition	Compliance																																							
	Water Pollution																																								
1.	<p>The water consumption quantities are mentioned below:</p> <table border="1"> <thead> <tr> <th>S. No</th><th>Purpose</th><th>Quantity KLD</th></tr> </thead> <tbody> <tr> <td>1</td><td>Gardening/irrigation</td><td>25</td></tr> <tr> <td>2</td><td>Dust suppression</td><td>1296.0</td></tr> <tr> <td>3</td><td>Domestic</td><td>40</td></tr> <tr> <td>4</td><td>Ship supply</td><td>32.5</td></tr> <tr> <td>5</td><td>miscellaneous</td><td>40.6</td></tr> <tr> <td></td><td>Total</td><td>1434.1</td></tr> </tbody> </table> <p>Source of water is Visakhapatnam industrial water supply Co. the following is the permitted water consumption.</p> <table border="1"> <thead> <tr> <th>S. No</th><th>Purpose</th><th>Quantity KLD</th></tr> </thead> <tbody> <tr> <td>1</td><td>Dust suppression</td><td>1296.0</td></tr> <tr> <td>2</td><td>Domestic purpose</td><td>40.00</td></tr> <tr> <td>3</td><td>Process, where by water gets polluted and pollutants are easily bio degradable.</td><td>73.1</td></tr> <tr> <td>4</td><td>Processing , where by water gets polluted and pollutants are not easily bio degradable</td><td>--</td></tr> <tr> <td></td><td>Total</td><td>1409.1</td></tr> </tbody> </table> <p>Separate water meters shall be maintained for the assessing the quantity of water used for each of the purpose mentioned above for Cess assessment purpose.</p>	S. No	Purpose	Quantity KLD	1	Gardening/irrigation	25	2	Dust suppression	1296.0	3	Domestic	40	4	Ship supply	32.5	5	miscellaneous	40.6		Total	1434.1	S. No	Purpose	Quantity KLD	1	Dust suppression	1296.0	2	Domestic purpose	40.00	3	Process, where by water gets polluted and pollutants are easily bio degradable.	73.1	4	Processing , where by water gets polluted and pollutants are not easily bio degradable	--		Total	1409.1	<p>GPL is submitting water consumption details and water cess in Form-I regularly.</p> <p>The industry is consuming water within consented quantity only.</p> <p>Provided 2 No. nos of flow meters for quantification of water used for domestic and other purposes.</p>
S. No	Purpose	Quantity KLD																																							
1	Gardening/irrigation	25																																							
2	Dust suppression	1296.0																																							
3	Domestic	40																																							
4	Ship supply	32.5																																							
5	miscellaneous	40.6																																							
	Total	1434.1																																							
S. No	Purpose	Quantity KLD																																							
1	Dust suppression	1296.0																																							
2	Domestic purpose	40.00																																							
3	Process, where by water gets polluted and pollutants are easily bio degradable.	73.1																																							
4	Processing , where by water gets polluted and pollutants are not easily bio degradable	--																																							
	Total	1409.1																																							
2.	The Gangavaram Port Limited (GPL) shall provide separate energy meters for Sewage Treatment Plant (STP) and for Air pollution Control equipments to record energy consumption.	GPL has provided separate energy meters for Sewage Treatment Plant (STP) and separate energy meter for the Air pollution Control equipments (MDSS) to record energy consumption.																																							
	Air Pollution																																								
1.	<p>The Gangavaram Port Limited (GPL) shall comply with ambient air quality standards of PM₁₀ (Particulate matter size less than 10 µm) - 100µg /m³; PM_{2.5} (Particulate matter size less than 2.5 µm) - 60µg / m³ : SO₂ - 80µg /m³ : NO_x - 80µg /m³, outside the port premises at the periphery of the industry. Standards for other parameters as mentioned in the National Ambient Air Quality Standards CPCB Notification No.B-29016/20/90/PCI-I, dated 18.11.2009</p> <p>Noise Levels: Day time (6 AM to 10 PM) - 75 dB (A) Night time (10 PM to 6 AM) - 70 dB (A).</p>	The mitigation measures being implemented by GPL ensures that the ambient air quality parameters conform to the PCB prescribed standards.																																							

2.	The Gangavaram port limited (GPL) shall maintain 3 CAAQMs with online connectivity to APPCB and maintain records.	<p>GPL installed 3 No. of CAAQM stations to measure the parameters PM 10, PM 2.5, SO₂, NO, NO₂, CO at the following locations and data connected to APPCB website.</p> <ul style="list-style-type: none"> i. Administrative office towards H.B. Colony (Station 1): ii. Project site office building towards Venkannapalem (Station2) iii. Watch tower - 4 towards Gangavaram village (Station3).As per the data, the SPM values are within Board standards.
3.	The Gangavaram Port Limited (GPL) shall Maintain wind breaking wall all along the Gangavaram village side up to a height 10 mts as wind speed is high in this area	GPL erected wind breaking wall of height 6m on the compound wall of height 3m near Gangavaram village and HB Colony to prevent any dust nuisance towards habitation & maintaining about 50 m width of green belt along port compound wall near Gangavaram (V).
4.	The Gangavaram Port Limited (GPL) shall not establish any other stock yards other than designated stock yards.	GPL has not established any stock yards other than designated stock yards.
5.	The Gangavaram Port Limited (GPL) shall maintain Telescopic chute at ship loading points	GPL is maintaining Telescopic chute at ship loading points.
6.	The Gangavaram port limited (GPL) shall not stock the Materials more than 10mts height where MDSS system available and shall restrict to 6 mts for other stocking heights where tankers water spraying system is maintained in the stockyards.	<p>GPL obtained amendment to this condition vide Amendment to CFO dated 16/09/2016 and the condition was amended as:</p> <p><i>"GPL shall not stock the materials more than 12 meters height where MDSS system is available and shall maintain stack height of 10 meters at manual stack yards"</i></p>
7.	The Gangavaram port limited (GPL) shall take up the cleaning of road connected to National Highway in co-ordination with GVMC and R&B Departments.	This condition was deleted vide direction no. 06 vide Order No. 754/ APPCB/UH-II/TF/VSP/ 2016, dated 12.08.2016. GVMC is taking up the cleaning of road.
8.	The Gangavaram Port Limited (GPL) shall maintain dusty cargo operations if the wind velocity crosses 20 KMPH and all MDSS sprinklers shall start immediately to maintain AAQ standards	Noted and condition is being followed.
9.	The Gangavaram Port Limited (GPL) shall maintain fully mechanized handling equipments for loading and un loading operations for dusty cargo to the maximum extent possible.	Noted and condition is being followed.

	General																					
1.	The Gangavaram Port Limited (GPL) shall maintain the following records and the same shall be made available to the inspecting officers of the Board: a. Cargo handling material wise details. b. Log books for pollution control systems. c. Hazardous/non hazardous solid waste generated and disposed. d. Inspection book. e. Manifest copies of hazardous waste.	The records are being maintained and are available for inspecting officers of the Board.																				
2.	<div>The Gangavaram Port Limited (GPL) shall dispose solid waste (Non Hazardous) as follows:</div> <table><tr><th>S. No</th><th>Name of the solid waste</th><th>Quantity</th><th>Disposal</th></tr><tr><td>1.</td><td>Domestic solid waste</td><td>10 T/m</td><td>Shall be collected segregated and disposed as per MSW Rules in consultation with GVMC Authorities</td></tr><tr><td>2.</td><td>Discarded material, plastic material</td><td>10 T/m</td><td>Shall be disposed to authorized recyclers only</td></tr><tr><td>3.</td><td>Sludge from STP</td><td>1.0 T/m</td><td>Shall be composted and used in green belt programme</td></tr><tr><td>4.</td><td>Lead acid batteries</td><td>---</td><td>Shall be disposed to authorized recyclers</td></tr></table>	S. No	Name of the solid waste	Quantity	Disposal	1.	Domestic solid waste	10 T/m	Shall be collected segregated and disposed as per MSW Rules in consultation with GVMC Authorities	2.	Discarded material, plastic material	10 T/m	Shall be disposed to authorized recyclers only	3.	Sludge from STP	1.0 T/m	Shall be composted and used in green belt programme	4.	Lead acid batteries	---	Shall be disposed to authorized recyclers	<div>a. GPL is disposing the municipal solid waste to GVMC.</div> <div>b. GPL is disposing the discarded material & plastic material to authorized recyclers.</div> <div>c. STP sludge is being turned in to bio-compost and used as manure to green belt.</div> <div>d. Lead acid batteries are being disposed to the supplier on buy back basis.</div>
S. No	Name of the solid waste	Quantity	Disposal																			
1.	Domestic solid waste	10 T/m	Shall be collected segregated and disposed as per MSW Rules in consultation with GVMC Authorities																			
2.	Discarded material, plastic material	10 T/m	Shall be disposed to authorized recyclers only																			
3.	Sludge from STP	1.0 T/m	Shall be composted and used in green belt programme																			
4.	Lead acid batteries	---	Shall be disposed to authorized recyclers																			
3.	The Gangavaram Port Limited (GPL) shall maintain green belt in 50 meters width as stipulated in the EC order dated 07-02-2012.	<div>➤ GPL has developed plantation of 5.0 Lakhs saplings in about 318.21 acres within the Port premises besides existence of Prosopis in an extent of about 150 Acres covering periphery of all yards, roads, buildings and all along conveyor belt.</div> <div>➤ Maintaining 50 m width of green belt towards North and North-West direction with special emphasis towards habitation i.e., HB Colony, Peda Gantyada, Venkannapalem, Kongapalem & Gangavaram village.</div>																				

		<ul style="list-style-type: none"> ➤ Maintaining thick greenbelt at Port Approach road, Railway track side and at Truck parking area along the wind breaking wall towards HB Colony. ➤ Developed High Density Plantation (Miyawaki) within the Port premises in an extent of 1.0 Acre with 12,120 no. of plantation, as directed by APPCB ➤ Participated in Green Visakha – Clean Visakha - Green Visakha – Clean Visakha – One million Tree Plantation Programme – GPL completed the targeted plantation of 50,000 by 18.08.2022 against the target of 50,000 ➤ GPL established exclusive nursery with 80,000 saplings and employed 183 people to maintain and improve the green belt on continuous basis. ➤ About Rs.1.85 Cr per annum is being spent for the development of green belt in the true spirit.
4.	The Gangavaram Port Limited (GPL) shall not store/ handle any hazardous cargo containers within premises.	GPL is not handling container cargo operations.
5.	All types of the fertilizers shall be stored in the closed warehouses only. The port shall ensure that there shall not be any open storage of urea or any other fertilizer materials and all urea & fertilizer material handling warehouses shall be maintained with effluent collection pits for collection and treatment and then used for green belt in the premises after meeting the standards.	GPL is storing the Fertilizers in closed ware houses and provided leachate collection pits around the area of warehouses and connected to STP.
6.	The Gangavaram Port Limited (GPL) shall store fuel oils used for construction equipment vessels / vehicles in a well designed manner and protect them against fire hazards by construction of compound wall to prevent access to unauthorized elements. The surface run off from storage area shall pass through oil water separator before being discharging. The Gangavaram Port Limited (GPL) shall store fuel oils used for construction equipment vessels / vehicles in a well designed manner and protect them against fire hazards by construction of compound wall to prevent access to	GPL is storing the used oil in drums under a shed.

	unauthorized elements. The surface run off from storage area shall pass through oil water separator before being discharging.	
7.	The Gangavaram Port Limited (GPL) shall maintain the Malaria control programme and Health facilities in the operation phase. Vector control programmes. Control of all breeding ground shall be carried out by the use of larvicide's in addition to control of adult mosquitoes. The health team should include a trained entomologist.	GPL is having dispensary within the premises and no malaria cases were reported as of now. All anti malarial measures are taken
8.	The Gangavaram Port Limited (GPL) shall maintain a task force to check the vehicle emissions on permanent basis The Gangavaram Port Limited (GPL) shall maintain a task force to check the vehicle emissions on permanent basis	GPL has provided provision for checking vehicle emissions with a task force team including environment and safety department officials.
9.	The Gangavaram Port Limited (GPL) shall constitute an Environment Management cell with qualified and trained staff.	GPL is having a dedicated Environment Management Team headed by Vice President.
10.	The Gangavaram Port Limited (GPL) shall maintain onsite and offsite emergency action plan after carrying out risk analysis and hazop studies	Complied with the condition.
11.	The Gangavaram Port Limited (GPL) with VUDA shall ensure that no slum development and unauthorized construction occur in the surrounding area.	VMRDA (VUDA) is taking necessary precautions to see that no slum development and unauthorized construction occur in the surrounding area of GPL.
12.	The Gangavaram Port Limited (GPL) shall handle alumina in completely closed enclosures. It shall also furnish an action plan to install mechanized system.	GPL is handling the alumina in hoppers and directly through tankers.
13.	The Gangavaram Port Limited (GPL) shall implement following for controlling fugitive emission : a. Adequate dust controlling measures should be undertaken for loading and unloading operations for dusty cargo. b. Closed conveyor belt with water sprinkling arrangement for suppression of dust while conveyor dusty cargo likes coal, iron ore & alumina. c. Vehicle movement minimized / eliminated by implementing mechanical operations.	a. Mechanical Dust Suppression System (MDSS): 176 No. of water cannons were installed at stack yards for dust. b. Provided Dust suppression systems at discharge/feeding points of belt conveyors at each transfer tower. c. Laid BT road within the port premises. d. 5 No. of heavy duty sweeping (3 No. existing & 2 New) machines were deployed for cleaning of berths, back up areas and roads. e. Covering the outgoing cargo vehicles with tarpaulin.

	<p>d. All the vehicles involved in transportation of cargo shall be covered with tarpaulin.</p> <p>e. Traffic management measures adopted to avoid traffic congestion and provide empty dusting vehicle washing / dry cleaning system to clean all out going cargo vehicles.</p> <p>f. Sufficient parking facilities based on traffic density / vehicular movements anticipated from the port.</p> <p>g. Adequate water sprinkling provided on roads and at dusty cargo storage areas for suppression of dust</p>	<p>f. Provided dedicated truck/tyre washing facility to wash all the outgoing vehicles</p> <p>g. Provided dedicated truck parking facility.</p> <p>h. Ensuring continuous water sprinkling on the berths, back up areas, at all transfer points, hauling roads with 20 Mobile DSS tankers for dust suppression.</p>
14.	<p>The Gangavaram Port Limited (GPL) shall implement the following measures in the cargo handling and stacking area:</p> <p>a. The ship un-loader maintained with in-situ water sprinkling system and unloading hoppers provided with covers on three sides to control fugitive emissions. Iron ore shall be unloaded through wagon tipplers.</p> <p>b. Mechanical stackers cum re-claimers for stacking, transfer and reclamation; Conveyors for transfer of materials to stop manual handling / mobile machines.</p> <p>c. MDSS in stacking areas.</p>	<p>i. Established mechanical conveyor system for handling coal & Iron ore to prevent the spillage of cargo and provided closed hoods for the conveyor system to curb fugitive emissions of coal/iron ore particles into the air.</p> <p>ii. Stacker cum re-claimers are being used for loading and unloading the coal. The railway wagons are being loaded mechanically. The Port is having Stacker cum re-claimer-1no., reclaimers-3nos., stackers-3nos., wagon loader-1no., silo of 800 cu.m capacity, ship unloader-2nos, ship loader-1no., wagon tippler-1no., mobile harbour cranes-5no.</p> <p>iii. Mechanical Dust Suppression System (MDSS): 176 No. of water cannons were installed at stack yards for dust suppression by spraying water at high pressure to form blanket of mist on surface of cargo stock to settle the dust.</p>
15.	The Gangavaram Port Limited (GPL) shall ensure AAQ standards of the Board on all environmental conditions without fail.	GPL has provided 3 nos AAQ stations with data logger and connected to APPCB website.
16.	The Gangavaram Port Limited (GPL) shall maintain standby centrifugal pump so as to ensure uninterrupted operation of MDSS.	Complied. There are 4 no. Centrifugal pumps kept standby.
17.	The Gangavaram Port Limited (GPL) shall maintain compliance of all other conditions of CFE orders issued by the Board	Complied with the condition.

18.	The Gangavaram Port Limited (GPL) shall comply with Task Force directions and other directions issued by the Board from time to time.	Complied with the condition.
-----	---	------------------------------

Compliance of Schedule – C

Sl. No.	Condition	Compliance
1.	All the rules and regulations notified by Ministry of Environment & Forests, Government of India under the E (P) Act, 1986 in respect of management, handling, transportation and storage of the Hazardous waste should be followed.	GPL is following all the rules and regulations notified by Ministry of Environment & Forests, Government of India under the E(P) Act, 1986 in respect of management, handling, transportation and storage of the Hazardous waste.
2.	The Gangavaram Port Limited (GPL) shall not store hazardous waste for more than 90 days as per the Hazardous Wastes (Management, Handling and Tran boundary Movement) Rules, 2008 and amendments thereof.	Complied with the condition.
3.	The Gangavaram Port Limited (GPL) shall dispose Used Lead Acid Batteries to the manufacturers / dealers on buyback basis	GPL is buying the Lead acid on buy back basis.
4.	The Gangavaram Port Limited (GPL) shall maintain 6 copy manifest system for transportation of waste generated and a copy shall be submitted to concern Regional Office of APPCB. The driver who transports Hazardous Waste should be well acquainted about the procedure to be followed in case of an emergency during transit. The transporter should carry a Transport Emergency (TREM) Card.	GPL is following manifest system for disposal of waste oil to APPCB authorized agencies and submitting the copies to the Board.
5.	The Gangavaram Port Limited (GPL) shall maintain proper records for Hazardous Wastes stated in Authorization in FORM-3 i.e., quantity of Incinerable waste, land disposal waste, recyclable waste etc., and file annual returns in Form- 4 as per Rule 22(2) of the Hazardous Wastes (Management, Handling & Tran boundary Movement) Rules, 2008 and amendments thereof	<p>GPL is maintaining records for Hazardous Wastes stated in Authorization in Form-3 of CFO Order and filing annual returns in Form- 4 to APPCB.</p> <p>For the year 2021-2022 Form – 3 & Form – 4 Submitted on 06.06.2022.</p>
6.	The Gangavaram Port Limited (GPL) shall submit the condition wise compliance report of the conditions stipulated in Schedule A, B & C of this Order on half yearly basis to Board Office, Hyderabad and concerned Regional Office	<p>Complied with the condition.</p> <p>GL is submitting the compliance reports on monthly basis.</p>

GANGAVARAM PORT LIMITED
(An ISO 9001:2015 & ISO 14001:2015
Certified Company)



Environment Monitoring Report
August, 2022

Corporate Office:

2,3,4th Floors, Hansa plaza,
Plot No.798, road No.36,
Jubilee Hills, Hyderabad - 500033
Phone : 040 – 33599999

Site Office:

Gangavaram (V & Post)
Pedagantyada (Mandal)
Visakhapatnam – 530 044
Phone: 0891 -2701177

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	01.08.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	47.85	29.50	49.63	17.80	11.35	0.54	44.35	27.90	66.63	15.44	13.36	0.53	49.45	30.29	47.50	10.87	16.09	0.52
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited

(Dr. D. Gyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	02.08.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	47.37	29.20	42.29	18.34	9.28	0.34	43.90	27.63	58.70	15.87	10.97	0.33	48.95	29.99	40.50	11.23	13.15	0.32
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited

(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	03.08.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	47.06	29.01	36.00	18.12	6.64	0.23	43.61	27.44	52.00	15.70	7.90	0.22	48.63	29.79	34.45	11.08	9.41	0.21
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited


(Dr. D. Jyothilaxmi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	04.08.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	46.69	28.79	36.37	16.66	6.62	0.27	43.26	27.23	52.34	14.52	7.88	0.26	48.24	29.56	34.84	10.11	9.37	0.25
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited



(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	05.08.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	46.88	28.91	37.54	16.25	7.49	0.47	43.44	27.34	53.62	14.20	8.88	0.46	48.44	29.69	35.88	9.83	10.61	0.45
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited

(Dr. G. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	06.08.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO
Day average value	47.11	29.04	36.47	15.95	7.81	0.61	43.65	27.47	52.49	13.96	9.27	0.60	48.68	29.83	34.97	9.65	11.06	0.59
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *Levy*
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited
D. B. Jyothi
(Dr. B. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	07.08.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO
Day average value	48.74	29.97	37.14	14.81	7.88	0.81	45.16	28.35	53.28	13.05	9.32	0.80	50.37	30.78	35.62	8.88	11.16	0.78
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited

(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	08.08.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	47.69	29.40	37.05	13.46	8.04	0.86	44.19	27.81	53.21	11.97	9.52	0.84	49.28	30.19	35.57	7.97	11.40	0.83
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited

(Dr. G. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	09.08.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	47.52	29.30	36.31	14.71	8.07	0.69	44.03	27.71	52.41	12.97	9.57	0.68	49.10	30.09	34.82	8.81	11.45	0.67
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited


(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	10.08.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	47.42	29.24	39.17	15.20	8.08	0.97	43.95	27.66	55.39	13.36	9.57	0.95	49.00	30.03	37.55	9.13	11.45	0.94
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited

(Dr. B. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	11.08.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO
Day average value	47.38	29.22	38.46	16.59	8.59	1.10	43.91	27.64	54.59	14.46	10.15	1.09	48.96	30.00	36.87	10.06	12.18	1.08
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited


(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	12.08.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO
Day average value	47.91	29.54	42.96	17.14	8.91	1.05	44.40	27.94	59.45	14.91	10.52	1.04	49.51	30.34	41.19	10.43	12.62	1.03
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited

(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	13.08.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO
Day average value	47.82	29.48	40.83	15.69	9.04	0.87	44.31	27.89	57.22	13.75	10.66	0.86	49.41	30.28	39.14	9.46	12.80	0.85
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910


For Gangavaram Port Limited

(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	14.08.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	47.43	29.25	37.93	13.92	8.77	0.62	43.95	27.67	54.10	12.34	10.37	0.61	49.01	30.04	36.34	8.28	12.45	0.60
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited

(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	15.08.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO
Day average value	47.52	29.30	39.22	15.43	8.76	0.79	44.04	27.72	55.47	13.54	10.36	0.78	49.11	30.10	37.64	9.29	12.43	0.77
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited

(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	16.08.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	48.05	29.62	40.21	16.49	9.77	0.67	44.52	28.02	56.56	14.39	11.54	0.65	49.65	30.42	38.60	9.99	13.83	0.64
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited

(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	17.08.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	48.82	30.10	41.75	16.64	9.20	0.81	45.24	28.47	58.22	14.51	10.87	0.80	50.45	30.91	40.06	10.10	13.02	0.79
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited

(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	18.08.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO
Day average value	48.98	30.20	39.61	17.15	7.93	0.73	45.39	28.57	55.90	14.92	9.38	0.71	50.62	31.01	38.05	10.43	11.24	0.71
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited

(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	19.08.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	48.27	29.76	42.31	14.38	10.36	0.84	44.73	28.15	58.80	12.71	12.22	0.83	49.88	30.56	40.52	8.59	14.66	0.82
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited

(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	20.08.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	48.29	29.76	41.12	17.73	9.23	0.86	44.75	28.16	57.41	15.37	10.91	0.85	49.90	30.57	39.30	10.82	13.08	0.84
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited

(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	21.08.2022	
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	
		A.P. Pollution Control Board, Regional office, Visakhapatnam

Ambient Air Quality 24 hrs average data

Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	48.18	29.70	39.62	16.12	8.59	0.71	44.65	28.10	55.89	14.10	10.16	0.69	49.79	30.50	37.97	9.75	12.17	0.68
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited


(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	22.08.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	48.39	29.84	68.21	22.65	8.01	0.89	44.84	28.22	87.00	19.10	9.50	0.88	50.00	30.64	65.51	14.10	11.36	0.87
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited

(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to: A.P. Pollution Control Board, Regional office, Visakhapatnam
Monitoring Date:	23.08.2022	
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO
Day average value	47.79	29.46	42.36	18.71	8.66	0.32	44.29	27.87	58.79	16.17	10.24	0.31	49.38	30.26	40.67	11.48	12.25	0.30
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited

(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	24.08.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	45.80	28.23	37.61	14.74	8.91	0.39	42.44	26.71	53.71	12.99	10.54	0.37	47.33	28.99	36.11	8.82	12.62	0.36
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited

(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	25.08.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	43.88	27.05	36.24	16.68	9.42	0.34	40.67	25.59	52.18	14.54	11.12	0.33	45.35	27.78	34.82	10.12	13.34	0.32
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910


For Gangavaram Port Limited

(Dr. B. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	26.08.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	42.06	25.93	32.84	17.23	7.84	0.39	38.98	24.53	48.60	14.98	9.30	0.37	43.46	26.63	31.44	10.49	11.11	0.36
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited

(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	27.08.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO
Day average value	48.66	30.00	33.90	17.00	7.92	0.44	45.10	28.38	49.70	14.80	9.39	0.43	50.29	30.81	32.54	10.34	11.21	0.42
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910


For Gangavaram Port Limited

(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:	
Monitoring Date:	28.08.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam	
Organization Name:	Gangavaram Port Limited		
Type Of Sample:	Ambient Air Quality		
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)		

Ambient Air Quality 24 hrs average data

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (A08) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	48.98	30.20	41.59	17.20	11.05	0.43	45.39	28.57	57.98	14.94	13.07	0.41	50.61	31.02	39.86	10.47	15.66	0.40
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited

(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:	
Monitoring Date:	29.08.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam	
Organization Name:	Gangavaram Port Limited		
Type Of Sample:	Ambient Air Quality		
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)		

Ambient Air Quality 24 hrs average data

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower – 4 towards Venkannapalem					
Parameter	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO
Day average value	48.25	29.75	42.93	17.16	13.28	0.32	44.71	28.14	59.46	14.92	15.68	0.31	49.86	30.55	41.21	10.44	18.84	0.30
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited

(Dr. G. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	30.08.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	48.09	29.65	42.31	17.56	10.21	0.19	44.56	28.05	58.86	15.25	12.04	0.17	49.69	30.45	40.65	10.71	14.45	0.16
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited

(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/July/2022/029	Submitted to:
Monitoring Date:	31.08.2022	
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	
		A.P. Pollution Control Board, Regional office, Visakhapatnam

Ambient Air Quality 24 hrs average data

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO
Day average value	47.91	29.54	41.45	16.57	8.16	0.35	44.40	27.94	57.81	14.46	9.66	0.34	49.51	30.34	39.77	10.05	11.58	0.33
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited

(Dr. D. Jyothi)
Vice President (Environment)



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

Environmental Monitoring Reports

(13 August and 27 August 2022)

Gangavaram Port LTD.
Pedagantyada(Mandal)
Gangavaram (Post)
Visakhapatnam - 530 044





BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 814222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF GROUND WATER SAMPLE

BCL Ref. No.	GPL/02/198	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	August 13, 2022	
Reporting Date	August 18, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Ground Water	
Location	North boulder wall open well	
Sample Collected by	M/s. Biochem Labs	
Reference Standard	IS: 10500, 1991	

S. No.	Parameter	Unit	Result	Limit IS: 10500
1.	Temperature	°C	29.4	-
2.	pH	H+ concn.	7.0	6.5-8.5
3.	Total Hardness	mg/l	282	300
4.	Calcium (as Ca)	mg/l	42	75
5.	Magnesium (as Mg)	mg/l	20	30
6.	Chlorides	mg/l	56	250
7.	Manganese	mg/l	0.02	0.1
8.	Copper	mg/l	0.016	0.05
9.	Total Alkalinity	mg/l	110	200
10.	Total Dissolved Solids	mg/l	480	500
11.	Sulphate	mg/l	40	200
12.	Dissolved Oxygen	mg/l	2.8	-
13.	Nitrite (as NO ₂)	mg/l	0.016	0.02
14.	Iron	mg/l	0.14	0.3
15.	Fluoride	mg/l	0.9	1.0
16.	Oil & Grease	mg/l	BDL	0.01
17.	Chromium (as Cr ⁺⁶)	mg/l	0.01	0.05
18.	Cyanide	mg/l	NIL	0.05
19.	Zinc	mg/l	0.8	5.0
20.	Phenolic Compound	mg/l	NIL	0.001
21.	Free Residual Chlorine	mg/l	0.04	0.2
22.	Total Coli forms Count	MPN Index/100ml	6	1-11
23.	E.coli	Cfu/ml	Absent	Absent


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF GROUND WATER SAMPLE

BCL Ref. No.	GPL/02/197	Issued to:
Monitoring Date	August 13, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	August 18, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Ground Water	Visakhapatnam.
Location	Gangavaram Village	
Sample Collected by	M/s. Biochem Labs	
Reference Standard	IS: 10500, 1991	

S. No.	Parameter	Unit	Result	Limit IS: 10500
1.	Temperature	°C	30.6	-
2.	pH	H+ concn.	7.12	6.5-8.5
3.	Total Hardness	mg/l	286	300
4.	Calcium (as Ca)	mg/l	50	75
5.	Magnesium (as Mg)	mg/l	28	30
6.	Chlorides	mg/l	112	250
7.	Manganese	mg/l	0.016	0.1
8.	Copper	mg/l	0.014	0.05
9.	Total Alkalinity	mg/l	60	200
10.	Total Dissolved Solids	mg/l	496	500
11.	Sulphate	mg/l	52	200
12.	Dissolved Oxygen	mg/l	3.0	-
13.	Nitrite (as NO ₂)	mg/l	0.016	0.02
14.	Iron	mg/l	0.14	0.3
15.	Fluoride	mg/l	0.8	1.0
16.	Oil & Grease	mg/l	BDL	0.01
17.	Chromium (as Cr ^{VI})	mg/l	0.016	0.05
18.	Cyanide	mg/l	NIL	0.05
19.	Zinc	mg/l	0.6	5.0
20.	Phenolic Compound	mg/l	NIL	0.001
21.	Free Residual Chlorine	mg/l	0.12	0.2
22.	Total Coli forms Count	MPN Index/100ml	10	1-11
23.	E.coli	Cfu/ml	Absent	Absent


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT NOISE LEVEL MONITORING

BCL Ref. No.	GPL/ 04/224	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	August 27, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Collected by	M/s. Biochem Labs	

S. No.	Parameter	Unit	Location	Result		CPCB Limit	
				Day time	Night time	Industrial	
						Day time	Night time
1.	Noise Level	Decibels	Cargo area	72	66	75	70
2.	Noise Level	Decibels	PedaGantyada/ Security Gate	64	60	-	-
				Day time	Night time	Residential	
						Day time	Night time
3.	Noise Level	Decibels	Gangavaram	46	30	55	45
4.	Noise Level	Decibels	HB Colony	52	40	-	-


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT NOISE LEVEL MONITORING

BCL Ref. No.	GPL/ 04/223	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	August 13, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Collected by	M/s. Biochem Labs	

S. No.	Parameter	Unit	Location	Result		CPCB Limit	
				Day time	Night time	Industrial	
						Day time	Night time
1.	Noise Level	Decibels	Cargo area	70	68	75	70
2.	Noise Level	Decibels	PedaGantyada/ Security Gate	66	62	-	-
				Day time	Night time	Residential	
						Day time	Night time
3.	Noise Level	Decibels	Gangavaram	48	34	55	45
4.	Noise Level	Decibels	HB Colony	50	42	-	-


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/223	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	August 13, 2022	
Reporting Date	August 18, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			Harbour Basine		Port Entrance Channel	
			Low tide	High tide	Low tide	High tide
1.	Temperature	$^{\circ}\text{C}$	32.4	31.5	30.7	31.0
2.	pH	H+ conc	8.16	8.22	8.20	8.18
3.	Salinity	PSU	31.8	32.0	31.6	32.0
4.	Turbidity	NTU	30	24	14	10
5.	Total Suspended Solids	mg/l	34	22	18	12
6.	Transparency	Mts.	1.0	1.0	1.2	1.6
7.	Electrical Conductivity	mMHo	32.8	31.4	34.0	32.0


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/223	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	August 13, 2022	
Reporting Date	August 18, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			South brake Wall Outside		North brake Wall Outside	
			Low tide	High tide	Low tide	High tide
1.	Temperature	°C	32.0	29.6	31.0	32.4
2.	pH	H+ conc	8.24	8.20	8.22	8.26
3.	Salinity	PSU	32.0	31.8	32.2	32.6
4.	Turbidity	NTU	14	18	20	16
5.	Total Suspended Solids	mg/l	18	22	24	18
6.	Transparency	Mts.	1.4	1.2	1.0	1.0
7.	Electrical Conductivity	mMHo	32.2	32.4	31.8	33.0


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/223	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	August 13, 2022	
Reporting Date	August 18, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			Harbour Basine		Port Entrance Channel	
			Low tide	High tide	Low tide	High tide
1.	Dissolved Oxygen	mg/l	4.0	3.8	4.0	4.2
2.	Biological Oxygen Demand	mg/l	1.6	1.6	1.8	2.0
3.	Oil & Grease	mg/l	0.8	0.6	0.4	0.8
4.	Sulphate	mg/l	1048	1032	1018	1034
5.	Phosphate	mg/l	0.36	0.34	0.24	0.28
6.	Nitrate	mg/l	3.2	2.8	2.6	2.0
7.	Nitrite	mg/l	0.024	0.028	0.022	0.026
8.	Chloride	mg/l	20684	19842	19690	18968
9.	Chromium	ppm	0.022	0.026	0.024	0.020
10.	Mercury	ppm	Nil	Nil	Nil	Nil
11.	Zinc	ppm	0.24	0.2	0.16	0.18
12.	Iron	ppm	0.02	0.022	0.024	0.028
13.	Manganese	ppm	0.026	0.024	0.02	0.016
14.	Cadmium	ppm	Nil	Nil	Nil	Nil


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 814222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/223	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	August 13, 2022	
Reporting Date	August 18, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			South brake Wall Outside		North brake Wall Outside	
			Low tide	High tide	Low tide	High tide
1.	Dissolved Oxygen	mg/l	4.2	3.8	4.2	4.0
2.	Biological Oxygen Demand	mg/l	2.0	1.6	1.8	1.8
3.	Oil & Grease	mg/l	0.6	0.6	0.4	0.6
4.	Sulphate	mg/l	1028	1036	1054	1040
5.	Phosphate	mg/l	0.24	0.28	0.32	0.24
6.	Nitrate	mg/l	2.6	2.4	2.2	2.6
7.	Nitrite	mg/l	0.024	0.028	0.02	0.028
8.	Chloride	mg/l	19482	18638	21432	19296
9.	Chromium	ppm	0.028	0.024	0.026	0.02
10.	Mercury	ppm	Nil	Nil	Nil	Nil
11.	Zinc	ppm	0.18	0.12	0.16	0.24
12.	Iron	ppm	0.024	0.022	0.02	0.02
13.	Manganese	ppm	0.026	0.018	0.02	0.018
14.	Cadmium	ppm	Nil	Nil	Nil	Nil


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
739009 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/223	Issued to:
Monitoring Date	August 13, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	August 18, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: Harbourbasine / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	14000
2.	Zooplankton Count	No./m ³	1000
3.	Chlorophyll a	mg/m ³	3.2
4.	Chlorophyll b	mg/m ³	2.0
5.	Primary Productivity	gC/m ²	3.8
6.	Biomass	mg/m ²	2.4

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	14
	<i>Amphora lineolata</i>	26
	<i>Cymbella marina</i>	12
	<i>Bacteriastrum delicatulum</i>	10
	<i>Thalassionema nitzschioides</i>	26
	<i>Chaetoceros dydymus</i>	18
	<i>Skeletonemacostatum</i>	26
	<i>Thalassiothrixlongissima</i>	06
	<i>Cymbella marina</i>	12
B.	Zooplankton Species	
	<i>Foraminifera</i>	28
	<i>Chaetognatha</i>	04
	<i>Amphipoda</i>	18
	<i>Cladocera</i>	06
	<i>Eggs of fish & larvae</i>	16

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/223	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	August 13, 2022	
Reporting Date	August 18, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: Port Entrance Channel / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	10000
2.	Zooplankton Count	No./m ³	800
3.	Chlorophyll a	mg/m ³	2.2
4.	Chlorophyll b	mg/m ³	2.8
5.	Primary Productivity	gC/m ²	3.4
6.	Biomass	mg/m ²	2.0

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	24
	<i>Amphora lineolata</i>	18
	<i>Cymbella marina</i>	16
	<i>Bacteriastrum delicatulum</i>	10
	<i>Thalassionema nitzschioides</i>	14
	<i>Chaetoceros dydymus</i>	06
	<i>Skeletonemacostatum</i>	14
	<i>Thalassiothrixlongissima</i>	12
	<i>Cymbella marina</i>	06
B.	Zooplankton Species	
	<i>Foraminifera</i>	24
	<i>Chaetognatha</i>	34
	<i>Amphipoda</i>	12
	<i>Cladocera</i>	06
	<i>Eggs of fish & larvae</i>	08


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 739009 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/223	Issued to:
Monitoring Date	August 13, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	August 18, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (High Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: Harbourbasine / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	11000
2.	Zooplankton Count	No./m ³	1400
3.	Chlorophyll a	mg/m ³	3.8
4.	Chlorophyll b	mg/m ³	2.4
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	2.6

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	36
	<i>Amphora lineolata</i>	18
	<i>Cymbella marina</i>	24
	<i>Bacteriastrum delicatulum</i>	12
	<i>Thalassionema nitzschoides</i>	08
	<i>Chaetoceros dydymus</i>	04
	<i>Skeletonemacostatum</i>	08
	<i>Thalassiothrixlongissima</i>	10
	<i>Cymbella marina</i>	12
B.	Zooplankton Species	
	<i>Foraminifera</i>	14
	<i>Chaetognatha</i>	10
	<i>Amphipoda</i>	08
	<i>Cladocera</i>	10
	<i>Eggs of fish & larvae</i>	06


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/223	Issued to:
Monitoring Date	August 13, 2022	M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Reporting Date	August 18, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (High Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: Port Entrance Channel / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	12000
2.	Zooplankton Count	No./m ³	1000
3.	Chlorophyll a	mg/m ³	2.8
4.	Chlorophyll b	mg/m ³	3.0
5.	Primary Productivity	gC/m ²	2.2
6.	Biomass	mg/m ²	2.6

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	18
	<i>Amphora lineolata</i>	24
	<i>Cymbella marina</i>	12
	<i>Bacteriastrum delicatulum</i>	30
	<i>Thalassionema nitzschioides</i>	06
	<i>Chaetoceros dydymus</i>	12
	<i>Skeletonemacostatum</i>	08
	<i>Thalassiothrixlongissima</i>	14
	<i>Cymbella marina</i>	02
B.	Zooplankton Species	
	<i>Foraminifera</i>	22
	<i>Chaetognatha</i>	18
	<i>Amphipoda</i>	12
	<i>Cladocera</i>	04
	<i>Eggs of fish & larvae</i>	10


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277.

73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/223	Issued to:
Monitoring Date	August 13, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	August 18, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: South brake Wall outside / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	12000
2.	Zooplankton Count	No./m ³	600
3.	Chlorophyll a	mg/m ³	3.4
4.	Chlorophyll b	mg/m ³	2.8
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	2.4

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	64
	<i>Amphora lineolata</i>	36
	<i>Cymbella marina</i>	28
	<i>Bacteriastrum delicatulum</i>	04
	<i>Thalassionema nitzschioides</i>	30
	<i>Chaetoceros dydymus</i>	18
	<i>Skeletonemacostatum</i>	26
	<i>Thalassiothrixlongissima</i>	32
	<i>Cymbella marina</i>	14
B.	Zooplankton Species	
	<i>Foraminifera</i>	46
	<i>Chaetognatha</i>	28
	<i>Amphipoda</i>	24
	<i>Cladocera</i>	18
	<i>Eggs of fish & larvae</i>	06


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/223	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	August 13, 2022	
Reporting Date	August 18, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: North brake Wall Outside / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	12000
2.	Zooplankton Count	No./m ³	1000
3.	Chlorophyll a	mg/m ³	3.8
4.	Chlorophyll b	mg/m ³	2.6
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	2.2

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	62
	<i>Amphora lineolata</i>	48
	<i>Cymbella marina</i>	20
	<i>Bacteriastrum delicatulum</i>	26
	<i>Thalassionema nitzschioides</i>	42
	<i>Chaetoceros dydymus</i>	08
	<i>Skeletonemacostatum</i>	20
	<i>Thalassiothrixlongissima</i>	16
	<i>Cymbella marina</i>	10
B.	Zooplankton Species	
	<i>Foraminifera</i>	44
	<i>Chaetognatha</i>	32
	<i>Amphipoda</i>	28
	<i>Cladocera</i>	14
	<i>Eggs of fish & larvae</i>	06


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/223	Issued to:
Monitoring Date	August 13, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	August 18, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (High Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: South brake Wall Outside / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	10000
2.	Zooplankton Count	No./m ³	1200
3.	Chlorophyll a	mg/m ³	2.4
4.	Chlorophyll b	mg/m ³	2.0
5.	Primary Productivity	gC/m ²	3.2
6.	Biomass	mg/m ²	2.6

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	30
	<i>Amphora lineolata</i>	64
	<i>Cymbella marina</i>	28
	<i>Bacteriastrum delicatulum</i>	32
	<i>Thalassionema nitzschioides</i>	24
	<i>Chaetoceros dydymus</i>	08
	<i>Skeletonemacostatum</i>	14
	<i>Thalassiothrixlongissima</i>	28
	<i>Cymbella marina</i>	04
B.	Zooplankton Species	
	<i>Foraminifera</i>	50
	<i>Chaetognatha</i>	24
	<i>Amphipoda</i>	16
	<i>Cladocera</i>	04
	<i>Eggs of fish & larvae</i>	12


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
739009 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/223	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	August 13, 2022	
Reporting Date	August 18, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (High Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: North brake Wall Outside / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	11000
2.	Zooplankton Count	No./m ³	1400
3.	Chlorophyll a	mg/m ³	3.4
4.	Chlorophyll b	mg/m ³	2.6
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	2.8

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	60
	<i>Amphora lineolata</i>	10
	<i>Cymbella marina</i>	42
	<i>Bacteriastrum delicatulum</i>	20
	<i>Thalassionema nitzschioides</i>	28
	<i>Chaetoceros dydymus</i>	32
	<i>Skeletonemacostatum</i>	18
	<i>Thalassiothrixlongissima</i>	24
	<i>Cymbella marina</i>	05
B.	Zooplankton Species	
	<i>Foraminifera</i>	32
	<i>Chaetognatha</i>	44
	<i>Amphipoda</i>	24
	<i>Cladocera</i>	10
	<i>Eggs of fish & larvae</i>	08


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#9-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 814222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/224	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	August 27, 2022	
Reporting Date	September 01, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			Harbour Basine		Port Entrance Channel	
			Low tide	High tide	Low tide	High tide
1.	Temperature	°C	31.0	29.2	32.0	30.8
2.	pH	H+ conc	8.18	8.22	8.24	8.20
3.	Salinity	PSU	32.6	33.0	32.2	33.0
4.	Turbidity	NTU	20	28	10	14
5.	Total Suspended Solids	mg/l	24	30	14	16
6.	Transparency	Mts.	1.0	0.8	1.4	1.2
7.	Electrical Conductivity	mMHo	36.8	32.6	35.0	31.6


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#19-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 814222277,
73060 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/224	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	August 27, 2022	
Reporting Date	September 01, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			South brake Wall Outside		North brake Wall Outside	
			Low tide	High tide	Low tide	High tide
1.	Temperature	°C	30.8	32.4	29.2	31.6
2.	pH	H+ conc	8.22	8.24	8.20	8.26
3.	Salinity	PSU	32.8	33.6	32.4	33.0
4.	Turbidity	NTU	10	12	8	12
5.	Total Suspended Solids	mg/l	14	16	12	18
6.	Transparency	Mts.	1.4	1.2	1.6	1.4
7.	Electrical Conductivity	mMHo	36.8	31.6	34.0	33.6


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#19-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
730009 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/224	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	August 27, 2022	
Reporting Date	September 01, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			Harbour Baseline		Port Entrance Channel	
			Low tide	High tide	Low tide	High tide
1.	Dissolved Oxygen	mg/l	4.0	3.8	3.8	4.2
2.	Biological Oxygen Demand	mg/l	1.8	1.6	1.4	2.0
3.	Oil & Grease	mg/l	0.8	1.2	0.6	0.8
4.	Sulphate	mg/l	1014	986	1028	1036
5.	Phosphate	mg/l	0.26	0.24	0.28	0.22
6.	Nitrate	mg/l	3.0	2.6	2.4	2.6
7.	Nitrite	mg/l	0.028	0.026	0.012	0.018
8.	Chloride	mg/l	20648	19836	21062	20824
9.	Chromium	ppm	0.026	0.024	0.018	0.022
10.	Mercury	ppm	Nil	Nil	Nil	Nil
11.	Zinc	ppm	0.2	0.18	0.12	0.12
12.	Iron	ppm	0.022	0.024	0.028	0.02
13.	Manganese	ppm	0.02	0.018	0.012	0.016
14.	Cadmium	ppm	Nil	Nil	Nil	Nil


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#9-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/224	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	August 27, 2022	
Reporting Date	September 01, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			South brake Wall Outside		North brake Wall Outside	
			Low tide	High tide	Low tide	High tide
1.	Dissolved Oxygen	mg/l	4.4	4.0	4.2	3.8
2.	Biological Oxygen Demand	mg/l	2.2	1.8	2.0	1.6
3.	Oil & Grease	mg/l	0.6	0.8	1.0	0.4
4.	Sulphate	mg/l	1056	1020	1048	1034
5.	Phosphate	mg/l	0.32	0.36	0.26	0.28
6.	Nitrate	mg/l	3.0	2.4	2.0	1.8
7.	Nitrite	mg/l	0.028	0.024	0.014	0.02
8.	Chloride	mg/l	21438	19864	20692	19890
9.	Chromium	ppm	0.026	0.02	0.018	0.024
10.	Mercury	ppm	Nil	Nil	Nil	Nil
11.	Zinc	ppm	0.16	0.12	0.14	0.10
12.	Iron	ppm	0.012	0.018	0.028	0.02
13.	Manganese	ppm	0.024	0.02	0.012	0.014
14.	Cadmium	ppm	Nil	Nil	Nil	Nil


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#20-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017, Ph: 0891 - 2551277, 8142222277,
73000 00000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/224	Issued to:
Monitoring Date	August 27, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	September 01, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: Harbourbasine / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	14000
2.	Zooplankton Count	No./m ³	1000
3.	Chlorophyll a	mg/m ³	2.6
4.	Chlorophyll b	mg/m ³	2.2
5.	Primary Productivity	gC/m ²	2.0
6.	Biomass	mg/m ²	1.8

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	18
	<i>Amphora lineolata</i>	20
	<i>Cymbella marina</i>	12
	<i>Bacteriastrum delicatulum</i>	18
	<i>Thalassionema nitzschioides</i>	26
	<i>Chaetoceros dydymus</i>	14
	<i>Skeletonemacostatum</i>	06
	<i>Thalassiothrixlongissima</i>	08
	<i>Cymbella marina</i>	12
B.	Zooplankton Species	
	<i>Foraminifera</i>	26
	<i>Chaetognatha</i>	18
	<i>Amphipoda</i>	10
	<i>Cladocera</i>	12
	<i>Eggs of fish & larvae</i>	05


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73999 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/224	Issued to:
Monitoring Date	August 27, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	September 01, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: Port Entrance Channel / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	14000
2.	Zooplankton Count	No./m ³	1000
3.	Chlorophyll a	mg/m ³	3.8
4.	Chlorophyll b	mg/m ³	2.4
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	2.2

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	20
	<i>Amphora lineolata</i>	12
	<i>Cymbella marina</i>	06
	<i>Bacteriastrum delicatulum</i>	14
	<i>Thalassionema nitzschioides</i>	10
	<i>Chaetoceros dydymus</i>	26
	<i>Skeletonemacostatum</i>	02
	<i>Thalassiothrixlongissima</i>	18
	<i>Cymbella marina</i>	04
B.	Zooplankton Species	
	<i>Foraminifera</i>	22
	<i>Chaetognatha</i>	16
	<i>Amphipoda</i>	10
	<i>Cladocera</i>	02
	<i>Eggs of fish & larvae</i>	06


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 814222277,
73069 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/224	Issued to:
Monitoring Date	August 27, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	September 01, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (High Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: Harbourbasine / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	10000
2.	Zooplankton Count	No./m ³	1200
3.	Chlorophyll a	mg/m ³	2.4
4.	Chlorophyll b	mg/m ³	2.6
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	2.8

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	32
	<i>Amphora lineolata</i>	06
	<i>Cymbella marina</i>	20
	<i>Bacteriastrum delicatulum</i>	10
	<i>Thalassionema nitzschioides</i>	28
	<i>Chaetoceros dydymus</i>	04
	<i>Skeletonemacostatum</i>	10
	<i>Thalassiothrixlongissima</i>	06
	<i>Cymbella marina</i>	10
B.	Zooplankton Species	
	<i>Foraminifera</i>	14
	<i>Chaetognatha</i>	02
	<i>Amphipoda</i>	18
	<i>Cladocera</i>	06
	<i>Eggs of fish & larvae</i>	04


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#0-0-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73989 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/224	Issued to:
Monitoring Date	August 27, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	September 01, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (High Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: Port Entrance Channel / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	12000
2.	Zooplankton Count	No./m ³	1000
3.	Chlorophyll a	mg/m ³	3.6
4.	Chlorophyll b	mg/m ³	2.8
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	2.8

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	38
	<i>Amphora lineolata</i>	14
	<i>Cymbella marina</i>	26
	<i>Bacteriastrum delicatulum</i>	04
	<i>Thalassionema nitzschioides</i>	10
	<i>Chaetoceros dydymus</i>	20
	<i>Skeletonemacostatum</i>	12
	<i>Thalassiothrixlongissima</i>	22
	<i>Cymbella marina</i>	10
B.	Zooplankton Species	
	<i>Foraminifera</i>	22
	<i>Chaetognatha</i>	14
	<i>Amphipoda</i>	10
	<i>Cladocera</i>	06
	Eggs of fish & larvae	02


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#9-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73060 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/224	Issued to:
Monitoring Date	August 27, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	September 01, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: South brake Wall outside / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	10000
2.	Zooplankton Count	No./m ³	1200
3.	Chlorophyll a	mg/m ³	3.2
4.	Chlorophyll b	mg/m ³	2.8
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	2.6

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	54
	<i>Amphora lineolata</i>	28
	<i>Cymbella marina</i>	18
	<i>Bacteriastrum delicatulum</i>	02
	<i>Thalassionema nitzschioides</i>	34
	<i>Chaetoceros dydymus</i>	42
	<i>Skeletonemacostatum</i>	30
	<i>Thalassiothrixlongissima</i>	04
	<i>Cymbella marina</i>	18
B.	Zooplankton Species	
	<i>Foraminifera</i>	34
	<i>Chaetognatha</i>	20
	<i>Amphipoda</i>	14
	<i>Cladocera</i>	22
	<i>Eggs of fish & larvae</i>	14


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#9-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017, Ph: 0891 - 2551277, 8142222277,
730060 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/224	Issued to:
Monitoring Date	August 27, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	September 01, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: North brake Wall Outside / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	10000
2.	Zooplankton Count	No./m ³	1200
3.	Chlorophyll a	mg/m ³	3.2
4.	Chlorophyll b	mg/m ³	2.6
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	2.4

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	82
	<i>Amphora lineolata</i>	46
	<i>Cymbella marina</i>	28
	<i>Bacteriastrum delicatulum</i>	36
	<i>Thalassionema nitzschioides</i>	06
	<i>Chaetoceros dydymus</i>	24
	<i>Skeletonemacostatum</i>	06
	<i>Thalassiothrixlongissima</i>	28
	<i>Cymbella marina</i>	10
B.	Zooplankton Species	
	<i>Foraminifera</i>	28
	<i>Chaetognatha</i>	20
	<i>Amphipoda</i>	04
	<i>Cladocera</i>	12
	<i>Eggs of fish & larvae</i>	06


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#3-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/224	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	August 27, 2022	
Reporting Date	September 01, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (High Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: South brake Wall Outside / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	10000
2.	Zooplankton Count	No./m ³	1000
3.	Chlorophyll a	mg/m ³	2.8
4.	Chlorophyll b	mg/m ³	3.0
5.	Primary Productivity	gC/m ²	3.4
6.	Biomass	mg/m ²	2.6

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	82
	<i>Amphora lineolata</i>	24
	<i>Cymbella marina</i>	40
	<i>Bacteriastrum delicatulum</i>	06
	<i>Thalassionema nitzschioides</i>	20
	<i>Chaetoceros dydymus</i>	38
	<i>Skeletonemacostatum</i>	10
	<i>Thalassiothrixlongissima</i>	26
	<i>Cymbella marina</i>	04
B.	Zooplankton Species	
	<i>Foraminifera</i>	22
	<i>Chaetognatha</i>	04
	<i>Amphipoda</i>	32
	<i>Cladocera</i>	16
	<i>Eggs of fish & larvae</i>	04


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#9-9-B, Near Sarnatha College, Sector -9, MVP Colony, Visakhapatnam-530 017, Ph: 0891 - 2551277, 8142222277,
730609 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/224	Issued to:
Monitoring Date	August 27, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	September 01, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (High Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: North brake Wall Outside / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	10000
2.	Zooplankton Count	No./m ³	1200
3.	Chlorophyll a	mg/m ³	3.6
4.	Chlorophyll b	mg/m ³	2.4
5.	Primary Productivity	gC/m ²	3.2
6.	Biomass	mg/m ²	2.8

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	64
	<i>Amphora lineolata</i>	35
	<i>Cymbella marina</i>	28
	<i>Bacteriastrum delicatulum</i>	30
	<i>Thalassionema nitzschioides</i>	08
	<i>Chaetoceros dydymus</i>	32
	<i>Skeletonemacostatum</i>	08
	<i>Thalassiothrixlongissima</i>	26
	<i>Cymbella marina</i>	12
B.	Zooplankton Species	
	<i>Foraminifera</i>	28
	<i>Chaetognatha</i>	12
	<i>Amphipoda</i>	18
	<i>Cladocera</i>	04
	<i>Eggs of fish & larvae</i>	10


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
74999 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF SEDIMENT SAMPLE

BCL Ref. No.	GPL/ 06/223	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	August 13, 2022	
Reporting Date	August 18, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Sediment (Low Tide)	
Sample Collected by	M/s. Biochem Labs	

S.No	Parameters	Unit	Result	
			Harbour Basine	Port Entrance Channel
1.	pH	H+ conc	6.96	7.02
2.	Organic matter	%	2.0	1.6
3.	Nitrate	mg/kg	2.8	2.0
4.	Phosphate	mg/kg	1.4	1.2
5.	Oil & Grease	mg/kg	0.18	0.16
6.	Iron	ppm	0.16	0.14
7.	Manganese	ppm	0.14	0.1
8.	Nickel	ppm	0.1	0.14
9.	Chromium	ppm	0.14	0.16
10.	Mercury	ppm	Nil	Nil
11.	Zinc	ppm	0.8	0.6
12.	Lead	ppm	0.01	0.01
13.	Arsenic	ppm	0.01	0.01
14.	Selenium	ppm	0.01	0.01
15.	Copper	ppm	0.16	0.18


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#D-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF SEDIMENT SAMPLE

BCL Ref. No.	GPL/ 06/223	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	August 13, 2022	
Reporting Date	August 18, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Sediment (Low Tide)	
Sample Collected by	M/s. Biochem Labs	

S.No	Parameters	Unit	Result	
			South brake Wall Outside	North brake Wall Outside
1.	pH	H+ conc	7.04	7.06
2.	Organic matter	%	1.2	1.0
3.	Nitrate	mg/kg	2.0	1.4
4.	Phosphate	mg/kg	0.8	1.0
5.	Oil & Grease	mg/kg	0.02	0.01
6.	Iron	ppm	0.18	0.14
7.	Manganese	ppm	0.16	0.12
8.	Nickel	ppm	0.14	0.1
9.	Chromium	ppm	0.16	0.12
10.	Mercury	ppm	Nil	Nil
11.	Zinc	ppm	1.0	0.8
12.	Lead	ppm	0.01	0.01
13.	Arsenic	ppm	0.01	0.01
14.	Selenium	ppm	0.01	0.01
15.	Copper	ppm	0.14	0.12


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#005, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT BENTHIC FAUNAL DIVERSITY

BCL Ref. No.	GPL/ 06/223	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	August 13, 2022	
Reporting Date	August 18, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Sediment (Low Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Species/Group	% Composition	
		Harbour Basine	Port Entrance Channel
1.	<i>Opheliidae sp</i>	18	24
2.	<i>Glyceridae sp</i>	12	10
3.	<i>Nereidae sp</i>	24	06
4.	<i>Aphroditidae sp</i>	02	12
5.	<i>Cirratulidae sp</i>	10	16
6.	<i>Capitella sp</i>	02	08
7.	<i>Amphipoda sp.</i>	16	10
8.	<i>Gastropoda</i>	04	06
9.	<i>Chaetognatha</i>	0	08


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT BENTHIC FAUNAL DIVERSITY

BCL Ref. No.	GPL/ 06/223	Issued to:
Monitoring Date	August 13, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	August 18, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Sediment (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

S. No	Species/Group	% Composition	
		South brake Wall Outside	North brake Wall Outside
1.	Foraminifera	48	56
2.	Amphipoda	26	18
3.	Mytilusedulis	14	20
4.	Gastropod veliger	26	12
5.	Oithona	10	06
6.	Capitella	08	12
7.	Copepod nauplii	20	06
9.	Brachyuran zoea	06	14
8.	Neanthusarenaceodentata	18	02


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#29-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73009 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF SEDIMENT SAMPLE

BCL Ref. No.	GPL/ 06/224	Issued to:
Monitoring Date	August 27, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	September 01, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Sediment (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

S.No	Parameters	Unit	Result	
			Harbour Basine	Port Entrance Channel
1.	pH	H+ conc	6.98	7.06
2.	Organic matter	%	2.2	1.8
3.	Nitrate	mg/kg	1.8	1.2
4.	Phosphate	mg/kg	1.0	1.0
5.	Oil & Grease	mg/kg	0.12	0.08
6.	Iron	ppm	0.18	0.12
7.	Manganese	ppm	0.14	0.16
8.	Nickel	ppm	0.12	0.14
9.	Chromium	ppm	0.16	0.12
10.	Mercury	ppm	Nil	Nil
11.	Zinc	ppm	1.0	0.8
12.	Lead	ppm	0.01	0.01
13.	Arsenic	ppm	0.01	0.01
14.	Selenium	ppm	0.01	0.01
15.	Copper	ppm	0.20	0.18


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#29-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73999 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF SEDIMENT SAMPLE

BCL Ref. No.	GPL/ 06/224	Issued to:
Monitoring Date	August 27, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	September 01, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Sediment (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

S.No	Parameters	Unit	Result	
			South brake Wall Outside	North brake Wall Outside
1.	pH	H+ conc	7.04	7.06
2.	Organic matter	%	1.0	0.8
3.	Nitrate	mg/kg	2.0	1.4
4.	Phosphate	mg/kg	1.6	1.0
5.	Oil & Grease	mg/kg	0.02	0.04
6.	Iron	ppm	0.16	0.18
7.	Manganese	ppm	0.12	0.1
8.	Nickel	ppm	0.1	0.12
9.	Chromium	ppm	0.14	0.1
10.	Mercury	ppm	Nil	Nil
11.	Zinc	ppm	1.0	0.8
12.	Lead	ppm	0.01	0.01
13.	Arsenic	ppm	0.01	0.01
14.	Selenium	ppm	0.01	0.01
15.	Copper	ppm	0.18	0.14


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#29-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73060 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT BENTHIC FAUNAL DIVERSITY

BCL Ref. No.	GPL/ 06/224	Issued to:
Monitoring Date	August 27, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	September 01, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Sediment (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

S. No	Species/Group	% Composition	
		Harbour Basine	Port Entrance Channel
1.	<i>Eunicidae sp.</i>	20	26
2.	<i>Paraonidae sp.</i>	10	14
3.	<i>Syllidae sp</i>	06	18
4.	<i>Sabellidae sp</i>	08	10
5.	<i>Oithona sp.</i>	10	16
6.	<i>Capitella sp.</i>	06	14
7.	<i>Syllidae sp</i>	12	06
9.	<i>Amphipoda sp.</i>	02	04
8.	<i>Nematoda sp.</i>	08	06


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
730010 00000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT BENTHIC FAUNAL DIVERSITY

BCL Ref. No.	GPL/ 06/224	Issued to:
Monitoring Date	August 27, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	September 01, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Sediment (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

S. No	Species/Group	% Composition	
		South brake Wall Outside	North brake Wall Outside
1.	<i>Capitella sp.</i>	62	56
2.	<i>Syllidae sp</i>	32	24
3.	<i>Amphipoda sp.</i>	08	10
4.	<i>Nematoda sp.</i>	34	06
5.	<i>Capitella sp.</i>	10	12
6.	<i>Syllidae sp</i>	24	08
7.	<i>Paraonidae sp.</i>	12	10
9.	<i>Syllidae sp</i>	18	14
8.	<i>Sabellidae sp</i>	06	02


Analyst




Authorized Signatory



GANGAVARAM PORT LIMITED

GPL/ENV/APPCB/2022-23/030

Date: 05.09.2022.

To

Sr. Environmental Engineer, CESS
Andhra Pradesh Pollution Control Board,
D.no:33-26-14D/2,
Near Sunrise Hospital, Pushpa Hotel Center,
Chalamalavari Street, Kasturibaipet,
Vijayawada-520010.
Andhra Pradesh.

Dear Sir,

Sub: Water Consumption Cess Statement – Reg.

Please find enclosed herewith the water consumption statement in FORM - 1 for the month of August - 2022, prepared under the Water (Prevention and Control of Pollution) Cess Act, 1977.

We request you to kindly consider the same.

Thanking you

Yours Sincerely,

Authorized Signatory

Encl: As above.

Copy submitted to the Environmental Engineer, A.P. Pollution Control Board, Regional Office, Visakhapatnam for kind information.

FORM - 1

Returns Regarding Water Consumed During Month of August - 2022

Name & Address	Purpose of which water consumed		Quantity of water consumed	If the meter was out of order the monthly avg. consumption of the water for the past 3 months of working period	Qty. of water qualifying for rebate according to the assesses	Remarks
(1)	(2)		(3)	(4)	(5)*	(6)
Gangavaram Port Limited, Gangavaram Post, Peda Gatyada Mandal, Visakhapatnam.	1) Industrial cooling/spraying in mine pits or boiler feed.	Total from Municipal mains i. From Municipal water supply mains ii. From well / tube well.	23,820 Cum/KL	-	-	-
	2) Domestic Water	i. From Municipal water supply mains ii. From well / tube well	Cum/KL 4318.0	-	-	-

(*) for claiming rebate under Col.7, the assessed shall indicate in the column the analytical and other reports annexed to this return in support of this claim.

For Gangavaram Port Limited


(D. B. Iyothi)
Vice President (Environment)



GANGAVARAM PORT LIMITED

GPL/ENV/APPCB/2022-23/038

Date: 06/10/2022.

To

The Environmental Engineer,
A.P. Pollution Control Board
Regional Office
APPCB Buildings, 3rd Floor
Main Road, Madhavadhara VUDA Layout
Visakhapatnam- 530 009.

Dear Sir,

Sub:- Monthly CFO Compliance, Environmental Marine & Terrestrial
Monitoring Reports and Water Consumption details (Form-1) –
Submitted – Reg.

Ref:- 1. CFO & HWA Order No. APPCB/VSP/VSP/113/CFO/HO/2015,
dated 13.01.2016, valid up to 31.12.2020.
2. CFO & HWA Order No. APPCB/VSP/VSP/113/CFO/HO/2020,
dated 10.09.2020, valid up to 31.12.2025.

@@@

With reference to the above, we are here with submitting the monthly CFO
compliance reports and CAAQM, Marine & Terrestrial monitoring results along
with Water Consumption details in Form - 1 for the month of September -2022.

Yours Sincerely,



Authorized Signatory

Encl: As above.

Compliance report of the conditions stipulated in Schedule A,B & C of CFO & HWA Order No. APPCB/VSP/VSP/113/CFO/HO/2015, dated 13.01.2016

Compliance of Schedule - A

Sl. No.	Condition	Compliance
1.	Any up-set condition in any plant/plants of the industry, which result in, increased effluent/ emission discharge and/ or violation of standards stipulated in this order shall be informed to this Board, under intimation to the Collector and District Magistrate and take immediate action to bring down the discharge / emission below the limits.	All conditions are being followed.
2.	The industry should carryout analysis of waste water discharges or emissions through chimneys for the parameters mentioned in this order on quarterly basis and submit to the Board.	GPL is carrying out 3 rd party monitoring and analysis. As per analysis reports, the samples are meeting the Board standards.
3.	All the rules & regulations notified by Ministry of Law and Justice, Government of India regarding Public Liability Insurance Act, 1991 should be followed as applicable.	Noted and conditions are being followed as applicable.
4.	The industry should put up two sign boards (6×4 ft. each)at publicly visible places at the main gate indicating the products , effluent discharge standards, air emission standards, hazardous waste quantities and validity of CFO and exhibit the CFO order at a prominent place in the factory premises.	Noted and condition is being followed.
5.	Notwithstanding anything contained in this consent order, the Board here by reserves the right and powers to review / revoke any and / or all the conditions imposed herein above and to make such variations as deemed fit for the purpose of the Acts by the Board.	Noted the condition.
6.	The industry shall file the water cess returns in Form-I as required under section (5) of water (Prevention and Control of Pollution) cess Act, 1977 on or before the 5 th of every calendar month, showing the quantity of water consumed in the previous monthly along with water meter readings. The industry shall remit water cess as per the assessment order as and when issued by Board.	<p>Water consumption details of the previous month are being submitted before 5th of subsequent month in FORM - I.</p> <p>The latest reports for the Month of August, 2022 were submitted through e.mail 17th September, 2022</p> <p>After introduction of GST, APPCB has instructed all the industries are not required to remit water cess charges from 1st July, 2017 onwards.</p>

7.	The applicant shall submit Environment statement in Form V before 30 th September every year as per Rule No.14 of E(P) Rules,1986 & amendments thereof.	Complied and Form V was Submitted on 30.09.2022 for the period 2021-2022
8.	The applicant should make applications through Online for renewal of Consent (under Water Air Acts) and Authorization under HWM Rules at least 120 days before the date of expiry of this order, along with prescribed fee under Water and Air Acts and detailed compliance of CFO conditions for obtaining Consent & HW Authorization of the board. The industry should immediately submit the revised application for consent to this Board in the event of any change in the raw material used, processes employed, quantity of trade effluents & quantity of emissions. Any change in the management shall be informed to the Board. the person authorized should not let out the premises / lend / sell / transfer their industrial premises without obtaining prior permission of the state Pollution Control Board.	GPL has obtained CFO & HWA of the Board vide order dated 13/01/2016 valid up to 31.12.2020 and extended up to 31.12.2025 vide order dated 10.09.2020.
9.	Any person aggrieved by an order made by the state board under section 25,section 26,section 27 of water Act, 1974 or section 21 of Air Act,1981 may within thirty days from the date on which the order is communicated to him, prefer an appeal as per Andhra Pradesh Water Rules,1976 and Air Rules 1982, to Appellate authority constituted under section 28 of the Water (prevention and control of pollution) Act,1974 and section 31 of the Air (prevention and control of pollution) Act,1981.	Noted and condition will be followed.

Compliance of Schedule – B

Sl. No.	Condition	Compliance																																							
	Water Pollution																																								
1.	<p>The water consumption quantities are mentioned below:</p> <table border="1"> <thead> <tr> <th>S. No</th><th>Purpose</th><th>Quantity KLD</th></tr> </thead> <tbody> <tr> <td>1</td><td>Gardening/irrigation</td><td>25</td></tr> <tr> <td>2</td><td>Dust suppression</td><td>1296.0</td></tr> <tr> <td>3</td><td>Domestic</td><td>40</td></tr> <tr> <td>4</td><td>Ship supply</td><td>32.5</td></tr> <tr> <td>5</td><td>miscellaneous</td><td>40.6</td></tr> <tr> <td></td><td>Total</td><td>1434.1</td></tr> </tbody> </table> <p>Source of water is Visakhapatnam industrial water supply Co. the following is the permitted water consumption.</p> <table border="1"> <thead> <tr> <th>S. No</th><th>Purpose</th><th>Quantity KLD</th></tr> </thead> <tbody> <tr> <td>1</td><td>Dust suppression</td><td>1296.0</td></tr> <tr> <td>2</td><td>Domestic purpose</td><td>40.00</td></tr> <tr> <td>3</td><td>Process, where by water gets polluted and pollutants are easily bio degradable.</td><td>73.1</td></tr> <tr> <td>4</td><td>Processing , where by water gets polluted and pollutants are not easily bio degradable</td><td>--</td></tr> <tr> <td></td><td>Total</td><td>1409.1</td></tr> </tbody> </table> <p>Separate water meters shall be maintained for the assessing the quantity of water used for each of the purpose mentioned above for Cess assessment purpose.</p>	S. No	Purpose	Quantity KLD	1	Gardening/irrigation	25	2	Dust suppression	1296.0	3	Domestic	40	4	Ship supply	32.5	5	miscellaneous	40.6		Total	1434.1	S. No	Purpose	Quantity KLD	1	Dust suppression	1296.0	2	Domestic purpose	40.00	3	Process, where by water gets polluted and pollutants are easily bio degradable.	73.1	4	Processing , where by water gets polluted and pollutants are not easily bio degradable	--		Total	1409.1	<p>GPL is submitting water consumption details and water cess in Form-I regularly.</p> <p>The industry is consuming water within consented quantity only.</p> <p>Provided 2 No. nos of flow meters for quantification of water used for domestic and other purposes.</p>
S. No	Purpose	Quantity KLD																																							
1	Gardening/irrigation	25																																							
2	Dust suppression	1296.0																																							
3	Domestic	40																																							
4	Ship supply	32.5																																							
5	miscellaneous	40.6																																							
	Total	1434.1																																							
S. No	Purpose	Quantity KLD																																							
1	Dust suppression	1296.0																																							
2	Domestic purpose	40.00																																							
3	Process, where by water gets polluted and pollutants are easily bio degradable.	73.1																																							
4	Processing , where by water gets polluted and pollutants are not easily bio degradable	--																																							
	Total	1409.1																																							
2.	The Gangavaram Port Limited (GPL) shall provide separate energy meters for Sewage Treatment Plant (STP) and for Air pollution Control equipments to record energy consumption.	GPL has provided separate energy meters for Sewage Treatment Plant (STP) and separate energy meter for the Air pollution Control equipments (MDSS) to record energy consumption.																																							
	Air Pollution																																								
1.	<p>The Gangavaram Port Limited (GPL) shall comply with ambient air quality standards of PM₁₀ (Particulate matter size less than 10 µm) - 100µg /m³; PM_{2.5} (Particulate matter size less than 2.5 µm) - 60µg / m³ : SO₂ - 80µg /m³ : NO_x - 80µg /m³, outside the port premises at the periphery of the industry. Standards for other parameters as mentioned in the National Ambient Air Quality Standards CPCB Notification No.B-29016/20/90/PCI-I, dated 18.11.2009</p> <p>Noise Levels: Day time (6 AM to 10 PM) - 75 dB (A) Night time (10 PM to 6 AM) - 70 dB (A).</p>	The mitigation measures being implemented by GPL ensures that the ambient air quality parameters conform to the PCB prescribed standards.																																							

2.	The Gangavaram port limited (GPL) shall maintain 3 CAAQMs with online connectivity to APPCB and maintain records.	<p>GPL installed 3 No. of CAAQM stations to measure the parameters PM 10, PM 2.5, SO₂, NO, NO₂, CO at the following locations and data connected to APPCB website.</p> <ul style="list-style-type: none"> i. Administrative office towards H.B. Colony (Station 1); ii. Project site office building towards Venkannapalem (Station2) iii. Watch tower - 4 towards Gangavaram village (Station3).As per the data, the SPM values are within Board standards.
3.	The Gangavaram Port Limited (GPL) shall Maintain wind breaking wall all along the Gangavaram village side up to a height 10 mts as wind speed is high in this area	GPL erected wind breaking wall of height 6m on the compound wall of height 3m near Gangavaram village and HB Colony to prevent any dust nuisance towards habitation & maintaining about 50 m width of green belt along port compound wall near Gangavaram (V).
4.	The Gangavaram Port Limited (GPL) shall not establish any other stock yards other than designated stock yards.	GPL has not established any stock yards other than designated stock yards.
5.	The Gangavaram Port Limited (GPL) shall maintain Telescopic chute at ship loading points	GPL is maintaining Telescopic chute at ship loading points.
6.	The Gangavaram port limited (GPL) shall not stock the Materials more than 10mts height where MDSS system available and shall restrict to 6 mts for other stocking heights where tankers water spraying system is maintained in the stockyards.	<p>GPL obtained amendment to this condition vide Amendment to CFO dated 16/09/2016 and the condition was amended as:</p> <p><i>"GPL shall not stock the materials more than 12 meters height where MDSS system is available and shall maintain stack height of 10 meters at manual stack yards"</i></p>
7.	The Gangavaram port limited (GPL) shall take up the cleaning of road connected to National Highway in co-ordination with GVMC and R&B Departments.	This condition was deleted vide direction no. 06 vide Order No. 754/ APPCB/UH-II/TF/VSP/ 2016, dated 12.08.2016. GVMC is taking up the cleaning of road.
8.	The Gangavaram Port Limited (GPL) shall maintain dusty cargo operations if the wind velocity crosses 20 KMPH and all MDSS sprinklers shall start immediately to maintain AAQ standards	Noted and condition is being followed.
9.	The Gangavaram Port Limited (GPL) shall maintain fully mechanized handling equipments for loading and un loading operations for dusty cargo to the maximum extent possible.	Noted and condition is being followed.

	General																					
1.	<p>The Gangavaram Port Limited (GPL) shall maintain the following records and the same shall be made available to the inspecting officers of the Board:</p> <p>a. Cargo handling material wise details.</p> <p>b. Log books for pollution control systems.</p> <p>c. Hazardous/non hazardous solid waste generated and disposed.</p> <p>d. Inspection book.</p> <p>e. Manifest copies of hazardous waste.</p>	<p>The records are being maintained and are available for inspecting officers of the Board.</p>																				
2.	<p>The Gangavaram Port Limited (GPL) shall dispose solid waste (Non Hazardous) as follows:</p> <table><tr><th>S. No</th><th>Name of the solid waste</th><th>Quantity</th><th>Disposal</th></tr><tr><td>1.</td><td>Domestic solid waste</td><td>10 T/m</td><td>Shall be collected segregated and disposed as per MSW Rules in consultation with GVMC Authorities</td></tr><tr><td>2.</td><td>Discarded material, plastic material</td><td>10 T/m</td><td>Shall be disposed to authorized recyclers only</td></tr><tr><td>3.</td><td>Sludge from STP</td><td>1.0 T/m</td><td>Shall be composted and used in green belt programme</td></tr><tr><td>4.</td><td>Lead acid batteries</td><td>---</td><td>Shall be disposed to authorized recyclers</td></tr></table>	S. No	Name of the solid waste	Quantity	Disposal	1.	Domestic solid waste	10 T/m	Shall be collected segregated and disposed as per MSW Rules in consultation with GVMC Authorities	2.	Discarded material, plastic material	10 T/m	Shall be disposed to authorized recyclers only	3.	Sludge from STP	1.0 T/m	Shall be composted and used in green belt programme	4.	Lead acid batteries	---	Shall be disposed to authorized recyclers	<p>a. GPL is disposing the municipal solid waste to GVMC.</p> <p>b. GPL is disposing the discarded material & plastic material to authorized recyclers.</p> <p>c. STP sludge is being turned in to bio-compost and used as manure to green belt.</p> <p>d. Lead acid batteries are being disposed to the supplier on buy back basis.</p>
S. No	Name of the solid waste	Quantity	Disposal																			
1.	Domestic solid waste	10 T/m	Shall be collected segregated and disposed as per MSW Rules in consultation with GVMC Authorities																			
2.	Discarded material, plastic material	10 T/m	Shall be disposed to authorized recyclers only																			
3.	Sludge from STP	1.0 T/m	Shall be composted and used in green belt programme																			
4.	Lead acid batteries	---	Shall be disposed to authorized recyclers																			
3.	<p>The Gangavaram Port Limited (GPL) shall maintain green belt in 50 meters width as stipulated in the EC order dated 07-02-2012.</p>	<p>➤ GPL has developed plantation of 5.0 Lakhs saplings in about 318.21 acres within the Port premises besides existence of Prosopis in an extent of about 150 Acres covering periphery of all yards, roads, buildings and all along conveyor belt.</p> <p>➤ Maintaining 50 m width of green belt towards North and North-West direction with special emphasis towards habitation i.e., HB Colony, Peda Gantyada, Venkannapalem, Kongapalem & Gangavaram village.</p>																				

		<ul style="list-style-type: none"> ➤ Maintaining thick greenbelt at Port Approach road, Railway track side and at Truck parking area along the wind breaking wall towards HB Colony. ➤ Developed High Density Plantation (Miyawaki) within the Port premises in an extent of 1.0 Acre with 12,120 no. of plantation, as directed by APPCB ➤ Participated in Green Visakha – Clean Visakha - Green Visakha – Clean Visakha – One million Tree Plantation Programme – GPL completed the targeted plantation of 50,000 by 18.08.2022 against the target of 50,000 ➤ GPL established exclusive nursery with 80,000 saplings and employed 183 people to maintain and improve the green belt on continuous basis. ➤ About Rs.1.85 Cr per annum is being spent for the development of green belt in the true spirit.
4.	The Gangavaram Port Limited (GPL) shall not store/ handle any hazardous cargo containers within premises.	GPL is not handling hazardous cargo.
5.	All types of the fertilizers shall be stored in the closed warehouses only. The port shall ensure that there shall not be any open storage of urea or any other fertilizer materials and all urea & fertilizer material handling warehouses shall be maintained with effluent collection pits for collection and treatment and then used for green belt in the premises after meeting the standards.	GPL is storing the Fertilizers in closed ware houses and provided leachate collection pits around the area of warehouses and connected to STP.
6.	The Gangavaram Port Limited (GPL) shall store fuel oils used for construction equipment vessels / vehicles in a well designed manner and protect them against fire hazards by construction of compound wall to prevent access to unauthorized elements. The surface run off from storage area shall pass through oil water separator before being discharging. The Gangavaram Port Limited (GPL) shall store fuel oils used for construction equipment vessels / vehicles in a well designed manner and protect them against fire hazards by construction of compound wall to prevent access to	GPL is storing the used oil in drums under a shed.

	unauthorized elements. The surface run off from storage area shall pass through oil water separator before being discharging.	
7.	The Gangavaram Port Limited (GPL) shall maintain the Malaria control programme and Health facilities in the operation phase. Vector control programmes. Control of all breeding ground shall be carried out by the use of larvicide's in addition to control of adult mosquitoes. The health team should include a trained entomologist.	GPL is having dispensary within the premises and no malaria cases were reported as of now. All anti malarial measures are taken
8.	The Gangavaram Port Limited (GPL) shall maintain a task force to check the vehicle emissions on permanent basis The Gangavaram Port Limited (GPL) shall maintain a task force to check the vehicle emissions on permanent basis	GPL has provided provision for checking vehicle emissions with a task force team including environment and safety department officials.
9.	The Gangavaram Port Limited (GPL) shall constitute an Environment Management cell with qualified and trained staff.	GPL is having a dedicated Environment Management Team headed by Vice President.
10.	The Gangavaram Port Limited (GPL) shall maintain onsite and offsite emergency action plan after carrying out risk analysis and hazop studies	Complied with the condition.
11.	The Gangavaram Port Limited (GPL) with VUDA shall ensure that no slum development and unauthorized construction occur in the surrounding area.	VMRDA (VUDA) is taking necessary precautions to see that no slum development and unauthorized construction occur in the surrounding area of GPL.
12.	The Gangavaram Port Limited (GPL) shall handle alumina in completely closed enclosures. It shall also furnish an action plan to install mechanized system.	GPL is handling the alumina in hoppers and directly through tankers.
13.	The Gangavaram Port Limited (GPL) shall implement following for controlling fugitive emission : a. Adequate dust controlling measures should be undertaken for loading and unloading operations for dusty cargo. b. Closed conveyor belt with water sprinkling arrangement for suppression of dust while conveyor dusty cargo likes coal, iron ore & alumina. c. Vehicle movement minimized / eliminated by implementing mechanical operations.	a. Mechanical Dust Suppression System (MDSS): 176 No. of water cannons were installed at stack yards for dust. b. Provided Dust suppression systems at discharge/feeding points of belt conveyors at each transfer tower. c. Laid BT road within the port premises. d. 5 No. of heavy duty sweeping (3 No. existing & 2 New) machines were deployed for cleaning of berths, back up areas and roads. e. Covering the outgoing cargo vehicles with tarpaulin.

	<p>d. All the vehicles involved in transportation of cargo shall be covered with tarpaulin.</p> <p>e. Traffic management measures adopted to avoid traffic congestion and provide empty dusting vehicle washing / dry cleaning system to clean all out going cargo vehicles.</p> <p>f. Sufficient parking facilities based on traffic density / vehicular movements anticipated from the port.</p> <p>g. Adequate water sprinkling provided on roads and at dusty cargo storage areas for suppression of dust</p>	<p>f. Provided dedicated truck/tyre washing facility to wash all the outgoing vehicles</p> <p>g. Provided dedicated truck parking facility.</p> <p>h. Ensuring continuous water sprinkling on the berths, back up areas, at all transfer points, hauling roads with 20 Mobile DSS tankers for dust suppression.</p>
14.	<p>The Gangavaram Port Limited (GPL) shall implement the following measures in the cargo handling and stacking area:</p> <p>a. The ship un-loader maintained with in-situ water sprinkling system and unloading hoppers provided with covers on three sides to control fugitive emissions. Iron ore shall be unloaded through wagon tipplers.</p> <p>b. Mechanical stackers cum re-claimers for stacking, transfer and reclamation; Conveyors for transfer of materials to stop manual handling / mobile machines.</p> <p>c. MDSS in stacking areas.</p>	<p>i. Established mechanical conveyor system for handling coal & Iron ore to prevent the spillage of cargo and provided closed hoods for the conveyor system to curb fugitive emissions of coal/iron ore particles into the air.</p> <p>ii. Stacker cum re-claimers are being used for loading and unloading the coal. The railway wagons are being loaded mechanically. The Port is having Stacker cum re-claimer-1no., reclaimers-3nos., stackers-3nos., wagon loader-1no., silo of 800 cu.m capacity, ship unloader-2nos, ship loader-1no., wagon tippler-1no., mobile harbour cranes-5no.</p> <p>iii. Mechanical Dust Suppression System (MDSS): 176 No. of water cannons were installed at stack yards for dust suppression by spraying water at high pressure to form blanket of mist on surface of cargo stock to settle the dust.</p>
15.	The Gangavaram Port Limited (GPL) shall ensure AAQ standards of the Board on all environmental conditions without fail.	GPL has provided 3 nos AAQ stations with data logger and connected to APPCB website.
16.	The Gangavaram Port Limited (GPL) shall maintain standby centrifugal pump so as to ensure uninterrupted operation of MDSS.	Complied. There are 4 no. Centrifugal pumps kept standby.
17.	The Gangavaram Port Limited (GPL) shall maintain compliance of all other conditions of CFE orders issued by the Board	Complied with the condition.

18.	The Gangavaram Port Limited (GPL) shall comply with Task Force directions and other directions issued by the Board from time to time.	Complied with the condition.
-----	---	------------------------------

Compliance of Schedule – C

Sl. No.	Condition	Compliance
1.	All the rules and regulations notified by Ministry of Environment & Forests, Government of India under the E (P) Act, 1986 in respect of management, handling, transportation and storage of the Hazardous waste should be followed.	GPL is following all the rules and regulations notified by Ministry of Environment & Forests, Government of India under the E(P) Act, 1986 in respect of management, handling, transportation and storage of the Hazardous waste.
2.	The Gangavaram Port Limited (GPL) shall not store hazardous waste for more than 90 days as per the Hazardous Wastes (Management, Handling and Tran boundary Movement) Rules, 2008 and amendments thereof.	Complied with the condition.
3.	The Gangavaram Port Limited (GPL) shall dispose Used Lead Acid Batteries to the manufacturers / dealers on buyback basis	GPL is buying the Lead acid on buy back basis.
4.	The Gangavaram Port Limited (GPL) shall maintain 6 copy manifest system for transportation of waste generated and a copy shall be submitted to concern Regional Office of APPCB. The driver who transports Hazardous Waste should be well acquainted about the procedure to be followed in case of an emergency during transit. The transporter should carry a Transport Emergency (TREM) Card.	GPL is following manifest system for disposal of waste oil to APPCB authorized agencies and submitting the copies to the Board.
5.	The Gangavaram Port Limited (GPL) shall maintain proper records for Hazardous Wastes stated in Authorization in FORM-3 i.e., quantity of Incinerable waste, land disposal waste, recyclable waste etc., and file annual returns in Form- 4 as per Rule 22(2) of the Hazardous Wastes (Management, Handling & Tran boundary Movement) Rules, 2008 and amendments thereof	<p>GPL is maintaining records for Hazardous Wastes stated in Authorization in Form-3 of CFO Order and filing annual returns in Form- 4 to APPCB.</p> <p>For the year 2021-2022 Form – 3 & Form – 4 Submitted on 06.06.2022.</p>
6.	The Gangavaram Port Limited (GPL) shall submit the condition wise compliance report of the conditions stipulated in Schedule A, B & C of this Order on half yearly basis to Board Office, Hyderabad and concerned Regional Office	<p>Complied with the condition.</p> <p>GL is submitting the compliance reports on monthly basis.</p>

Compliance of the conditions stipulated in CFO Auto Renewal Order No. APPCB/VSP/VSP/113/CFO/HO/2020- 10/09/2020, valid up to 31.12.2025.

Sl. No.	Condition	Compliance
1.	All other conditions mentioned in Schedules A, B & C of the combined CFO&HWA order issued by the Board vide order dated 13.01.2016 will remain same.	Noted and conditions are being followed as applicable.
2.	The facility shall comply with the standards issued by MoEF&CC / CPCB from time to time.	Noted and condition is being followed.
3.	The industry shall submit Half yearly compliance reports to all the stipulated conditions in Environmental Clearance (EC), Consent for Establishment (CFE) and Consent for Operation (CFO) through website i.e., https://pcb.ap.gov.in by 1st of January and 1st July of every year. The first half yearly compliance reports shall be furnished by the industry and second half yearly compliance reports shall be the audited through NABL accredited third party failing which the Consent Order issued will be cancelled.	Self-certified 1 st half yearly compliance report for the period from April 2021 to September 2021 submitted on 29.11.2021 through web site. NABL Accredited Agency certified compliance report for the 2 nd half for the period from October 2021 to March 2022 was uploaded through website on 30.05.2022.
4.	The facility shall ensure that dedicated fund is allotted towards Environment Relief Fund (ERF) in the Public Liability Insurance policy and submit a copy of the policy at the Regional Office: Visakhapatnam every year.	GPL is having Public liability Insurance of IFFCO-TOKIO vide Policy No:41072639, dated 15.09.2022, Valid till 14/09/2023 with Premium of Rs-5925/- & ERF of Rs.5925/-
5.	In case of false certification, noncompliance of conditions / directions and discrepancy in furnishing the information by the industry, the Board can withdraw the auto renewed consent and take action under provisions of relevant Acts & Rules.	Noted and condition is being followed.
6.	The facility shall inventorize the storage quantities of hazardous chemicals as per the hazard nature of reactivity / toxicity / flammability / explosive stored/handling in the premises as defined in the Management of Storage, Import of Hazardous Chemicals (MSIHC) Rules, 1989 and the details shall be furnished to the Factories Department and to the Regional Office, APPCB on monthly basis duly certifying the same.	GPL is not handling any Hazardous cargo/Containers/Chemicals.

7.	The facility shall identify major accident hazard chemicals & list out the hazardous chemicals endangered to human health & environment and the details shall be furnished to the Factories Department and to the Regional Office, APPCB time to time duly certifying the same by the industry. Further the facility shall extend training to the working personnel's while handling hazardous chemicals for prevention of accidents and necessary antidotes to ensure the safety, as per the MSIHC Rules, 1989.	GPL is not handling any Hazardous cargo/Containers/Chemicals.
8.	The facility shall submit the copy of the safety audit report and On-Site / Off Site Emergency Plans as applicable after being certified by the Factories Department/concerned authority, to the APPCB, Regional Office from time to time, if the storage quantity of hazardous chemicals is equal to or, in excess of the threshold quantities specified in schedule 2 & 3 of MSIHC Rules, 1989.	An onsite and offsite emergency action plan has been prepared and submitted to APPCB, RO, VSP. Mock drills are being conducted twice in a year.
9.	The facility shall carryout calibration of safety equipments and leak detection systems at regular intervals and shall certify the same with the Factories Department/concerned authority. That certified copy shall be submitted to the APPCB, Regional Office. The facility shall install fluorescent Wind Vane at the highest point in the facility premises.	GPL install fluorescent Wind Vane at the following two places within the Port premises. 1. On the top of Over Head Tank near Harbour Gate besides GPL Canteen. 2. On the top of Commercial Office Building (COB)
10	The facility shall inventorize the hazardous wastes and its quantities stored within the facility premises as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 (HOWM Rules, 2016) and shall furnish the details to Regional Office, APPCB on monthly basis duly certifying the same by the industry.	GPL is not handling any Hazardous cargo/ Containers/Chemicals. GPL is permitted to handle Used Lubricating oil of 12000 LPA. The generation, storage & disposal details are submitting to APPCB through Form – IV. Latest submission is on 06.06.2022 for the year 2021-2022.
11	The facility shall allow import of hazardous cargoes only after the importer complies with the MSIHC Rules, 1989.	GPL Not handling any Hazardous cargo/Containers/Chemicals.

GANGAVARAM PORT LIMITED
(An ISO 9001:2015 & ISO 14001:2015
Certified Company)



Environment Monitoring Report
September, 2022

Corporate Office:

2,3,4th Floors, Hansa plaza,
Plot No.798, road No.36,
Jubilee Hills, Hyderabad - 500033
Phone : 040 – 33599999

Site Office:

Gangavaram (V & Post)
Pedagantyada (Mandal)
Visakhapatnam – 530 044
Phone: 0891 -2701177

Reference No.:	GPL/September/2022/038	Submitted to:
Date:	01.09.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	47.73	29.43	37.12	17.22	6.76	0.16	44.23	27.84	53.20	14.97	8.03	0.15	49.32	30.22	35.67	10.48	9.59	0.14
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited



(Dr. D. Jyothi)

Vice President (Environment)

Reference No.:	GPL/September/2022/038	Submitted to:
Date:	02.09.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	47.59	29.34	34.73	17.75	6.38	0.17	44.09	27.76	50.52	15.40	7.60	0.15	49.17	30.14	33.19	10.83	9.05	0.14
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited

(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/September/2022/038	Submitted to:
Date:	03.09.2022	
Organization Name:	Gangavaram Port Limited	A.P. Pollution Control Board, Regional office, Visakhapatnam
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	47.90	29.53	44.97	16.83	10.18	0.41	44.39	27.94	61.72	14.66	12.02	0.40	49.50	30.33	43.21	10.22	14.44	0.39
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited


(Dr. D. Jyothilal)
Vice President (Environment)

Reference No.:	GPL/September/2022/038	Submitted to:
Date:	04.09.2022	
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	A.P. Pollution Control Board, Regional office, Visakhapatnam

Ambient Air Quality 24 hrs average data

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO
Day average value	48.11	29.67	42.13	16.72	9.38	0.36	44.59	28.06	58.60	14.58	11.06	0.35	49.72	30.47	40.41	10.15	13.27	0.34
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited


(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/September/2022/038	Submitted to:
Date:	05.09.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO
Day average value	47.97	29.58	35.42	17.33	7.31	0.41	44.46	27.98	51.39	15.06	8.68	0.40	49.57	30.38	34.00	10.56	10.37	0.39
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited



(Dr. D. Mothi)
Vice President (Environment)

Reference No.:	GPL/September/2022/038	Submitted to:
Date:	06.09.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	48.04	29.62	48.46	16.30	6.90	0.37	44.51	28.02	65.31	14.24	8.20	0.36	49.64	30.42	46.42	9.86	9.78	0.34
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 

G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited



(Dr. D. Kothi)
Vice President (Environment)

Reference No.:	GPL/September/2022/038	Submitted to:
Date:	07.09.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO
Day average value	48.12	29.67	48.30	15.06	10.41	0.31	44.59	28.07	65.30	13.25	12.30	0.30	49.72	30.47	46.30	9.04	14.76	0.29
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited



(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/September/2022/038	Submitted to:
Date:	08.09.2022	
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

A.P. Pollution Control Board,
Regional office, Visakhapatnam

Ambient Air Quality 24 hrs average data

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	47.62	29.36	40.81	14.92	11.83	0.17	44.12	27.78	57.18	13.13	13.99	0.16	49.20	30.16	39.35	8.94	16.76	0.15
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

for Gangavaram Port Limited


(Dr. D. Mythi)
Vice President (Environment)

Ref erence No.:	GPL/September/2022/038	Submitted to:
Date:	09.09.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO
Day average value	47.58	29.34	40.28	15.60	8.10	0.21	44.09	27.75	56.74	13.68	9.56	0.20	49.16	30.13	38.62	9.40	11.47	0.19
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910


For Gangavaram Port Limited

(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/September/2022/038	Submitted to:
Date:	10.09.2022	
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	A.P. Pollution Control Board, Regional office, Visakhapatnam

Ambient Air Quality 24 hrs average data

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO
Day average value	47.82	29.48	41.28	14.02	7.89	0.72	44.31	27.89	57.63	12.41	9.33	0.70	49.41	30.28	39.58	8.34	11.20	0.69
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited

(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/September/2022/038	Submitted to:
Date:	11.09.2022	
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	


A.P. Pollution Control Board,
Regional office, Visakhapatnam

Ambient Air Quality 24 hrs average data

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO
Day average value	48.08	29.65	40.60	15.57	8.36	0.86	44.56	28.05	56.83	13.65	9.90	0.85	49.68	30.45	38.81	9.38	11.86	0.84
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited


(Dr. D. Gyothi)
Vice President (Environment)

Reference No.:	GPL/September/2022/038	Submitted to:
Date:	12.09.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO
Day average value	47.82	29.49	45.41	17.73	9.35	0.42	44.31	27.89	63.44	15.50	11.07	0.40	49.41	30.29	43.56	10.72	13.26	0.39
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited

(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/September/2022/038	Submitted to:
Date:	14.09.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO
Day average value	48.56	29.95	38.84	16.09	7.91	0.87	45.00	28.33	55.02	14.07	9.38	0.86	50.18	30.75	37.23	9.73	11.21	0.85
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited


(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/September/2022/038	Submitted to:
Date:	15.09.2022	
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

A.P. Pollution Control Board,
Regional office, Visakhapatnam

Ambient Air Quality 24 hrs average data

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	48.94	30.18	44.74	17.01	10.78	1.12	45.35	28.55	61.37	14.81	12.73	1.10	50.57	30.99	42.98	10.34	15.28	1.09
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 

G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited



(Dr. D. Jyothi)

Vice President (Environment)

Reference No.:	GPL/September/2022/038	Submitted to:
Date:	16.09.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO
Day average value	48.43	29.86	39.49	17.41	10.38	0.67	44.88	28.25	55.74	15.13	12.25	0.66	50.04	30.67	37.79	10.61	14.73	0.65
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910


For Gangavaram Port Limited

(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/September/2022/038	Submitted to:
Date:	17.09.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO
Day average value	48.59	29.96	37.14	18.46	8.33	0.69	45.03	28.34	53.10	15.97	9.83	0.67	50.21	30.77	35.72	11.31	11.82	0.66
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 

G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited



(Dr. D. Jyothi)

Vice President (Environment)

Reference No.:	GPL/September/2022/038	Submitted to:
Date:	18.09.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	48.80	30.09	40.92	16.72	8.65	0.50	45.22	28.47	57.35	14.57	10.23	0.48	50.43	30.90	39.25	10.14	12.26	0.47
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited

(Dr. D. Vyathi)
Vice President (Environment)

Reference No.:	GPL/September/2022/038	Submitted to:
Date:	19.09.2022	
Organization Name:	Gangavaram Port Limited	A.P. Pollution Control Board, Regional office, Visakhapatnam
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO
Day average value	48.58	29.96	38.76	15.84	8.19	0.47	45.02	28.34	54.33	13.80	9.69	0.46	50.21	30.77	37.18	9.60	11.62	0.45
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G.V.N.S. Murthy*
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited
(Dr. B. Jyothi)
Vice President (Environment)

Reference No.:	GPL/September/2022/038	Submitted to: A.P. Pollution Control Board, Regional office, Visakhapatnam
Date:	20.09.2022	
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	48.85	30.12	39.19	30.19	8.02	0.75	45.27	28.50	55.39	25.36	9.49	0.74	50.48	30.94	38.31	19.13	11.40	0.73
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited


(Dr. D. Jyothi)

Vice President (Environment)


Reference No.:	GPL/September/2022/038	Submitted to:
Date:	21.09.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	48.99	30.21	40.72	17.35	8.60	0.51	45.40	28.58	54.38	14.36	9.68	0.47	50.63	31.03	37.24	10.06	11.61	0.46
Standard	100 µg/m³	60 µg/m³	80 µg/m³	80 µg/m³	80 µg/m³	4 µg/m³	100 µg/m³	60 µg/m³	80 µg/m³	80 µg/m³	80 µg/m³	4 µg/m³	100 µg/m³	60 µg/m³	80 µg/m³	80 µg/m³	80 µg/m³	4 µg/m³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited


(Dr. D. Jyothi)

Vice President (Environment)

Reference No.:	GPL/September/2022/038	Submitted to:
Date:	22.09.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	49.21	30.34	38.87	16.56	8.20	0.48	45.59	28.70	56.97	15.04	10.15	0.49	50.84	31.16	39.01	10.54	12.16	0.48
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited

(Dr. D. Jyothish)
Vice President (Environment)

Reference No.:	GPL/September/2022/038	Submitted to:
Date:	23.09.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem				Station - 3 - Watch Tower - 4 towards Venkannapalem							
Parameter	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO
Day average value	52.85	32.34	40.64	17.31	8.58	0.51	48.98	30.59	56.97	15.04	10.15	0.49	54.61	33.22	35.76	10.08	11.63	0.46
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited

(D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/September/2022/038	Submitted to:
Date:	24.09.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO
Day average value	52.11	31.99	38.95	16.59	8.22	0.49	48.29	30.26	54.60	14.41	9.72	0.47	53.85	32.86	37.25	10.52	12.14	0.48
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910


For Gangavaram Port Limited


(Dr. B. Jyothi)

Vice President (Environment)

Reference No.:	GPL/September/2022/038	Submitted to:
Date:	25.09.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	51.52	31.68	40.57	17.28	8.56	0.51	47.74	29.97	56.87	15.01	10.13	0.49	53.23	32.53	38.80	10.10	11.65	0.46
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 

G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited


(Dr. D. Jyothi)

Vice President (Environment)

Reference No.:	GPL/September/2022/038	Submitted to:
Date:	26.09.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	51.59	31.68	39.01	16.61	8.23	0.49	47.80	29.96	54.69	14.44	9.74	0.47	53.30	32.53	37.31	10.50	12.12	0.48
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 

G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited




(Dr. B. Yodhi)

Vice President (Environment)

Reference No.:	GPL/September/2022/038	Submitted to:
Date:	27.09.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

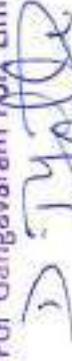
Ambient Air Quality 24 hrs average data

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO	PM10	PM2.5	SO ²	NO	NO ²	CO
Day average value	52.15	32.03	39.01	16.02	7.94	0.47	48.32	30.29	52.73	13.92	9.39	0.46	53.88	32.88	35.98	9.75	11.25	0.45
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 

G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited



(Dr. B. Jyothi)

Vice President (Environment)

Reference No.:	GPL/September/2022/038	Submitted to:
Date:	28.09.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	51.31	31.53	51.03	15.27	13.26	0.39	47.55	29.83	68.41	13.42	15.53	0.38	53.02	32.38	48.87	9.19	18.75	0.37
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited


(Dr. D. Jyothi)
Vice President (Environment)

Reference No.:	GPL/September/2022/038	Submitted to:
Date:	29.09.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	49.42	30.45	44.91	15.87	13.83	0.28	45.80	28.80	61.59	13.89	16.22	0.27	51.07	31.27	42.91	9.58	19.61	0.25
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: 
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited

(Dr. B. Jayanthi)
Vice President (Environment)

Reference No.:	GPL/September/2022/038	Submitted to:
Date:	30.09.2022	A.P. Pollution Control Board, Regional office, Visakhapatnam
Organization Name:	Gangavaram Port Limited	
Type Of Sample:	Ambient Air Quality	
Sampled By:	Gangavaram Port Limited (CAAQ Monitoring Data)	

Ambient Air Quality 24 hrs average data																		
Station	Station - 1 - Administrative Office Building (AOB) towards HB Colony						Station - 2 - Project Site Office towards Venkannapalem						Station - 3 - Watch Tower - 4 towards Venkannapalem					
Parameter	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO	PM10	PM 2.5	SO ²	NO	NO ²	CO
Day average value	49.89	30.71	37.96	17.53	9.27	0.25	46.23	29.05	54.00	15.23	10.92	0.24	51.55	31.53	36.32	10.69	13.15	0.23
Standard	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³	100 µg/m ³	60 µg/m ³	80 µg/m ³	80 µg/m ³	80 µg/m ³	4 µg/m ³

Prepared by: *G.V.N.S. Murthy*
G.V.N.S. Murthy, GPS 1910

For Gangavaram Port Limited

D. B. Jyothi
(Dr. B. Jyothi)

Vice President (Environment)



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

Environmental Monitoring Reports (10 September and 24 September 2022)

Gangavaram Port LTD.
Pedagantyada(Mandal)
Gangavaram (Post)
Visakhapatnam - 530 044





BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF GROUND WATER SAMPLE

BCL Ref. No.	GPL/02/199	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	September 10, 2022	
Reporting Date	September 15, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Ground Water	
Location	Gangavaram Village	
Sample Collected by	M/s. Biochem Labs	
Reference Standard	IS: 10500, 1991	

S. No.	Parameter	Unit	Result	Limit IS: 10500
1.	Temperature	°C	31.6	-
2.	pH	H ⁺ concn.	7.10	6.5-8.5
3.	Total Hardness	mg/l	282	300
4.	Calcium (as Ca)	mg/l	54	75
5.	Magnesium (as Mg)	mg/l	28	30
6.	Chlorides	mg/l	116	250
7.	Manganese	mg/l	0.012	0.1
8.	Copper	mg/l	0.016	0.05
9.	Total Alkalinity	mg/l	48	200
10.	Total Dissolved Solids	mg/l	490	500
11.	Sulphate	mg/l	54	200
12.	Dissolved Oxygen	mg/l	3.0	-
13.	Nitrite (as NO ₂)	mg/l	0.018	0.02
14.	Iron	mg/l	0.14	0.3
15.	Fluoride	mg/l	0.6	1.0
16.	Oil & Grease	mg/l	BDL	0.01
17.	Chromium (as Cr ⁺⁶)	mg/l	0.014	0.05
18.	Cyanide	mg/l	NIL	0.05
19.	Zinc	mg/l	0.8	5.0
20.	Phenolic Compound	mg/l	NIL	0.001
21.	Free Residual Chlorine	mg/l	0.14	0.2
22.	Total Coli forms Count	MPN Index/100ml	8	1-11
23.	E.coli	Cfu/ml	Absent	Absent


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF GROUND WATER SAMPLE

BCL Ref. No.	GPL/02/200	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	September 10, 2022	
Reporting Date	September 15, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Ground Water	
Location	North boulder wall open well	
Sample Collected by	M/s. Biochem Labs	
Reference Standard	IS: 10500, 1991	

S. No.	Parameter	Unit	Result	Limit IS: 10500
1.	Temperature	°C	29.8	-
2.	pH	H+ concn.	6.96	6.5-8.5
3.	Total Hardness	mg/l	268	300
4.	Calcium (as Ca)	mg/l	40	75
5.	Magnesium (as Mg)	mg/l	24	30
6.	Chlorides	mg/l	50	250
7.	Manganese	mg/l	0.02	0.1
8.	Copper	mg/l	0.018	0.05
9.	Total Alkalinity	mg/l	64	200
10.	Total Dissolved Solids	mg/l	482	500
11.	Sulphate	mg/l	40	200
12.	Dissolved Oxygen	mg/l	2.8	-
13.	Nitrite (as NO ₂)	mg/l	0.016	0.02
14.	Iron	mg/l	0.18	0.3
15.	Fluoride	mg/l	0.5	1.0
16.	Oil & Grease	mg/l	BDL	0.01
17.	Chromium (as Cr ^{VI})	mg/l	0.01	0.05
18.	Cyanide	mg/l	NIL	0.05
19.	Zinc	mg/l	0.6	5.0
20.	Phenolic Compound	mg/l	NIL	0.001
21.	Free Residual Chlorine	mg/l	0.04	0.2
22.	Total Coli forms Count	MPN Index/100ml	6	1-11
23.	E.coli	Cfu/ml	Absent	Absent


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: blochemlabs@blochemlabs.in | blochemlabs888@gmail.com | www.blochemlabs.in

TEST REPORT NOISE LEVEL MONITORING

BCL Ref. No.	GPL/ 04/225	Issued to:
Monitoring Date	September 10, 2022	M/s. Gangavaram Port Ltd.
Organization	M/s. Gangavaram Port Ltd.	Gangavaram (Village)
Collected by	M/s. Biochem Labs	PedaGantiyada (Mandalam)
		Visakhapatnam.

S. No.	Parameter	Unit	Location	Result		CPCB Limit	
				Day time	Night time	Industrial	
						Day time	Night time
1.	Noise Level	Decibels	Cargo area	72	66	75	70
2.	Noise Level	Decibels	PedaGantiyada/ Security Gate	68	64	-	-
				Day time	Night time	Residential	
						Day time	Night time
3.	Noise Level	Decibels	Gangavaram	50	32	55	45
4.	Noise Level	Decibels	HB Colony	52	40	-	-


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT NOISE LEVEL MONITORING

BCL Ref. No.	GPL/ 04/226	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	September 24, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Collected by	M/s. Biochem Labs	

S. No.	Parameter	Unit	Location	Result		CPCB Limit	
				Day time	Night time	Industrial	
						Day time	Night time
1.	Noise Level	Decibels	Cargo area	70	64	75	70
2.	Noise Level	Decibels	PedaGantyada/ Security Gate	66	60	-	-
				Day time	Night time	Residential	
						Day time	Night time
3.	Noise Level	Decibels	Gangavaram	48	34	55	45
4.	Noise Level	Decibels	HB Colony	50	42	-	-


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 814222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/225	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	September 10, 2022	
Reporting Date	September 15, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			Harbour Baseline		Port Entrance Channel	
			Low tide	High tide	Low tide	High tide
1.	Temperature	°C	33.4	34.5	33.7	34.0
2.	pH	H+ conc	8.20	8.18	8.202	8.16
3.	Salinity	PSU	32.0	32.4	31.8	32.0
4.	Turbidity	NTU	28	20	14	12
5.	Total Suspended Solids	mg/l	32	26	16	10
6.	Transparency	Mts.	0.8	1.0	1.2	1.4
7.	Electrical Conductivity	mMHo	33.8	32.4	34.0	35.0


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017, Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/225	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	September 10, 2022	
Reporting Date	September 15, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			South brake Wall Outside		North brake Wall Outside	
			Low tide	High tide	Low tide	High tide
1.	Temperature	$^{\circ}\text{C}$	33.0	32.6	34.0	32.6
2.	pH	H+ conc	8.26	8.24	8.22	8.20
3.	Salinity	PSU	32.4	31.8	32.0	32.2
4.	Turbidity	NTU	12	14	10	16
5.	Total Suspended Solids	mg/l	16	18	12	14
6.	Transparency	Mts.	1.4	1.2	1.6	1.4
7.	Electrical Conductivity	mMHo	34.2	36.4	32.8	33.0


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/225	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	September 10, 2022	
Reporting Date	September 15, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			Harbour Basine		Port Entrance Channel	
			Low tide	High tide	Low tide	High tide
1.	Dissolved Oxygen	mg/l	3.6	3.8	4.0	4.2
2.	Biological Oxygen Demand	mg/l	1.0	1.4	1.8	2.0
3.	Oil & Grease	mg/l	1.0	0.8	0.6	0.4
4.	Sulphate	mg/l	994	1018	1038	1020
5.	Phosphate	mg/l	0.32	0.34	0.26	0.24
6.	Nitrate	mg/l	3.4	2.4	2.6	2.2
7.	Nitrite	mg/l	0.026	0.028	0.022	0.024
8.	Chloride	mg/l	20438	21468	19892	20868
9.	Chromium	ppm	0.024	0.026	0.028	0.020
10.	Mercury	ppm	Nil	Nil	Nil	Nil
11.	Zinc	ppm	0.22	0.2	0.14	0.18
12.	Iron	ppm	0.02	0.026	0.024	0.028
13.	Manganese	ppm	0.028	0.024	0.02	0.014
14.	Cadmium	ppm	Nil	Nil	Nil	Nil


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 814222277,
73969 06000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/225	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	September 10, 2022	
Reporting Date	September 15, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			South brake Wall Outside		North brake Wall Outside	
			Low tide	High tide	Low tide	High tide
1.	Dissolved Oxygen	mg/l	4.0	3.8	4.0	4.2
2.	Biological Oxygen Demand	mg/l	1.8	1.4	1.6	2.0
3.	Oil & Grease	mg/l	0.6	0.8	0.4	0.2
4.	Sulphate	mg/l	1048	1024	1062	1036
5.	Phosphate	mg/l	0.26	0.22	0.28	0.24
6.	Nitrate	mg/l	2.8	2.4	2.0	2.6
7.	Nitrite	mg/l	0.026	0.028	0.022	0.028
8.	Chloride	mg/l	21436	19868	20642	19496
9.	Chromium	ppm	0.024	0.026	0.028	0.02
10.	Mercury	ppm	Nil	Nil	Nil	Nil
11.	Zinc	ppm	0.16	0.12	0.14	0.24
12.	Iron	ppm	0.026	0.028	0.02	0.02
13.	Manganese	ppm	0.024	0.018	0.02	0.016
14.	Cadmium	ppm	Nil	Nil	Nil	Nil


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/225	Issued to:
Monitoring Date	September 10, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	September 15, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: Harboursbasine / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	12000
2.	Zooplankton Count	No./m ³	1000
3.	Chlorophyll a	mg/m ³	3.6
4.	Chlorophyll b	mg/m ³	2.0
5.	Primary Productivity	gC/m ²	3.4
6.	Biomass	mg/m ²	2.8

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	22
	<i>Amphora lineolata</i>	16
	<i>Cymbella marina</i>	12
	<i>Bacteriastrum delicatulum</i>	10
	<i>Thalassionema nitzschioides</i>	30
	<i>Chaetoceros dydymus</i>	08
	<i>Skeletonemacostatum</i>	20
	<i>Thalassiothrixlongissima</i>	04
	<i>Cymbella marina</i>	10
B.	Zooplankton Species	
	<i>Foraminifera</i>	20
	<i>Chaetognatha</i>	12
	<i>Amphipoda</i>	18
	<i>Cladocera</i>	04
	<i>Eggs of fish & larvae</i>	18


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/225	Issued to:
Monitoring Date	September 10, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	September 15, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: Port Entrance Channel / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	10000
2.	Zooplankton Count	No./m ³	1000
3.	Chlorophyll a	mg/m ³	2.8
4.	Chlorophyll b	mg/m ³	2.6
5.	Primary Productivity	gC/m ²	3.4
6.	Biomass	mg/m ²	2.0

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	14
	<i>Amphora lineolata</i>	18
	<i>Cymbella marina</i>	04
	<i>Bacteriastrum delicatulum</i>	10
	<i>Thalassionema nitzschioides</i>	12
	<i>Chaetoceros dydymus</i>	06
	<i>Skeletonemacostatum</i>	22
	<i>Thalassiothrixlongissima</i>	12
	<i>Cymbella marina</i>	08
B.	Zooplankton Species	
	<i>Foraminifera</i>	26
	<i>Chaetognatha</i>	30
	<i>Amphipoda</i>	12
	<i>Cladocera</i>	14
	<i>Eggs of fish & larvae</i>	06

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/225	Issued to:
Monitoring Date	September 10, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	September 15, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (High Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: Harbourbasine / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	11000
2.	Zooplankton Count	No./m ³	1200
3.	Chlorophyll a	mg/m ³	3.6
4.	Chlorophyll b	mg/m ³	2.4
5.	Primary Productivity	gC/m ²	3.2
6.	Biomass	mg/m ²	2.8

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	30
	<i>Amphora lineolata</i>	18
	<i>Cymbella marina</i>	10
	<i>Bacteriastrum delicatulum</i>	12
	<i>Thalassionema nitzschioides</i>	06
	<i>Chaetoceros dydymus</i>	14
	<i>Skeletonemacostatum</i>	08
	<i>Thalassiothrixlongissima</i>	10
	<i>Cymbella marina</i>	04
B.	Zooplankton Species	
	<i>Foraminifera</i>	18
	<i>Chaetognatha</i>	10
	<i>Amphipoda</i>	04
	<i>Cladocera</i>	10
	<i>Eggs of fish & larvae</i>	16


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/225	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	September 10, 2022	
Reporting Date	September 15, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (High Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: Port Entrance Channel / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	14000
2.	Zooplankton Count	No./m ³	1000
3.	Chlorophyll a	mg/m ³	3.8
4.	Chlorophyll b	mg/m ³	3.2
5.	Primary Productivity	gC/m ²	2.2
6.	Biomass	mg/m ²	2.8

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	26
	<i>Amphora lineolata</i>	08
	<i>Cymbella marina</i>	12
	<i>Bacteriastrum delicatulum</i>	32
	<i>Thalassionema nitzschioides</i>	06
	<i>Chaetoceros dydymus</i>	18
	<i>Skeletonemacostatum</i>	04
	<i>Thalassiothrixlongissima</i>	22
	<i>Cymbella marina</i>	02
B.	Zooplankton Species	
	<i>Foraminifera</i>	12
	<i>Chaetognatha</i>	18
	<i>Amphipoda</i>	20
	<i>Cladocera</i>	04
	<i>Eggs of fish & larvae</i>	12


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/225	Issued to:
Monitoring Date	September 10, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	September 15, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: South brake Wall outside / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	12000
2.	Zooplankton Count	No./m ³	800
3.	Chlorophyll a	mg/m ³	3.6
4.	Chlorophyll b	mg/m ³	2.8
5.	Primary Productivity	gC/m ²	3.2
6.	Biomass	mg/m ²	2.4

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	70
	<i>Amphora lineolata</i>	36
	<i>Cymbella marina</i>	24
	<i>Bacteriastrum delicatulum</i>	10
	<i>Thalassionema nitzschioides</i>	30
	<i>Chaetoceros dydymus</i>	06
	<i>Skeletonemacostatum</i>	26
	<i>Thalassiothrixlongissima</i>	38
	<i>Cymbella marina</i>	14
B.	Zooplankton Species	
	<i>Foraminifera</i>	54
	<i>Chaetognatha</i>	28
	<i>Amphipoda</i>	22
	<i>Cladocera</i>	18
	Eggs of fish & larvae	04

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/225	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	September 10, 2022	
Reporting Date	September 15, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: North brake Wall Outside / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	10000
2.	Zooplankton Count	No./m ³	1200
3.	Chlorophyll a	mg/m ³	3.4
4.	Chlorophyll b	mg/m ³	2.6
5.	Primary Productivity	gC/m ²	3.8
6.	Biomass	mg/m ²	2.6

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	80
	<i>Amphora lineolata</i>	48
	<i>Cymbella marina</i>	36
	<i>Bacteriastrum delicatulum</i>	28
	<i>Thalassionema nitzschioides</i>	42
	<i>Chaetoceros dydymus</i>	08
	<i>Skeletonemacostatum</i>	12
	<i>Thalassiothrixlongissima</i>	16
	<i>Cymbella marina</i>	04
B.	Zooplankton Species	
	<i>Foraminifera</i>	48
	<i>Chaetognatha</i>	32
	<i>Amphipoda</i>	26
	<i>Cladocera</i>	14
	<i>Eggs of fish & larvae</i>	02


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 814222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/225	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	September 10, 2022	
Reporting Date	September 15, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (High Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: South brake Wall Outside / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	10000
2.	Zooplankton Count	No./m ³	1200
3.	Chlorophyll a	mg/m ³	2.6
4.	Chlorophyll b	mg/m ³	3.0
5.	Primary Productivity	gC/m ²	3.2
6.	Biomass	mg/m ²	2.8

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	48
	<i>Amphora lineolata</i>	64
	<i>Cymbella marina</i>	20
	<i>Bacteriastrum delicatulum</i>	06
	<i>Thalassionema nitzschioides</i>	24
	<i>Chaetoceros dydymus</i>	12
	<i>Skeletonemacostatum</i>	14
	<i>Thalassiothrixlongissima</i>	28
	<i>Cymbella marina</i>	08
B.	Zooplankton Species	
	<i>Foraminifera</i>	54
	<i>Chaetognatha</i>	26
	<i>Amphipoda</i>	16
	<i>Cladocera</i>	08
	<i>Eggs of fish & larvae</i>	12


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/225	Issued to:
Monitoring Date	September 10, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	September 15, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (High Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: North brake Wall Outside / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	11000
2.	Zooplankton Count	No./m ³	1200
3.	Chlorophyll a	mg/m ³	3.8
4.	Chlorophyll b	mg/m ³	2.6
5.	Primary Productivity	gC/m ²	3.2
6.	Biomass	mg/m ²	2.8

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	88
	<i>Amphora lineolata</i>	10
	<i>Cymbella marina</i>	42
	<i>Bacteriastrum delicatulum</i>	24
	<i>Thalassionema nitzschioides</i>	06
	<i>Chaetoceros dydymus</i>	32
	<i>Skeletonemacostatum</i>	10
	<i>Thalassiothrixlongissima</i>	24
	<i>Cymbella marina</i>	04
B.	Zooplankton Species	
	<i>Foraminifera</i>	36
	<i>Chaetognatha</i>	40
	<i>Amphipoda</i>	24
	<i>Cladocera</i>	12
	<i>Eggs of fish & larvae</i>	08


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/226	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	September 24, 2022	
Reporting Date	September 29, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			Harbour Baseline		Port Entrance Channel	
			Low tide	High tide	Low tide	High tide
1.	Temperature	°C	33.0	32.2	32.6	31.8
2.	pH	H+ conc	8.16	8.20	8.24	8.22
3.	Salinity	PSU	31.6	33.0	32.4	33.0
4.	Turbidity	NTU	36	28	12	14
5.	Total Suspended Solids	mg/l	40	30	14	18
6.	Transparency	Mts.	0.6	0.8	1.4	1.2
7.	Electrical Conductivity	mMHo	36.4	38.6	35.2	34.6


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: blochemlabs@blochemlabs.in | blochemlabs888@gmail.com | www.blochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/226	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	September 24, 2022	
Reporting Date	September 29, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			South brake Wall Outside		North brake Wall Outside	
			Low tide	High tide	Low tide	High tide
1.	Temperature	°C	31.8	32.0	31.2	31.6
2.	pH	H+ conc	8.26	8.28	8.24	8.26
3.	Salinity	PSU	32.4	33.6	32.0	33.0
4.	Turbidity	NTU	14	12	8	10
5.	Total Suspended Solids	mg/l	18	16	10	12
6.	Transparency	Mts.	1.4	1.2	1.8	1.6
7.	Electrical Conductivity	mMHo	36.4	32.6	34.0	33.8


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/226	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	September 24, 2022	
Reporting Date	September 29, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide / High Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			Harbour Basine		Port Entrance Channel	
			Low tide	High tide	Low tide	High tide
1.	Dissolved Oxygen	mg/l	3.8	3.8	4.0	4.2
2.	Biological Oxygen Demand	mg/l	1.6	1.4	1.8	2.0
3.	Oil & Grease	mg/l	1.2	1.0	0.8	0.8
4.	Sulphate	mg/l	1026	986	1034	1040
5.	Phosphate	mg/l	0.28	0.24	0.22	0.20
6.	Nitrate	mg/l	3.2	2.6	2.8	2.6
7.	Nitrite	mg/l	0.024	0.026	0.016	0.018
8.	Chloride	mg/l	21840	19684	20438	21692
9.	Chromium	ppm	0.028	0.026	0.024	0.022
10.	Mercury	ppm	Nil	Nil	Nil	Nil
11.	Zinc	ppm	0.18	0.14	0.16	0.12
12.	Iron	ppm	0.022	0.024	0.03	0.02
13.	Manganese	ppm	0.02	0.016	0.014	0.016
14.	Cadmium	ppm	Nil	Nil	Nil	Nil


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 0142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/226	Issued to:
Monitoring Date	September 24, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	September 29, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (Low Tide / High Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

S. No	Parameter	Unit	Result			
			South brake Wall Outside		North brake Wall Outside	
			Low tide	High tide	Low tide	High tide
1.	Dissolved Oxygen	mg/l	3.8	4.0	3.6	4.2
2.	Biological Oxygen Demand	mg/l	1.6	1.8	1.4	2.0
3.	Oil & Grease	mg/l	0.6	0.8	1.0	0.8
4.	Sulphate	mg/l	1018	1026	1048	1052
5.	Phosphate	mg/l	0.34	0.36	0.24	0.28
6.	Nitrate	mg/l	3.0	2.8	2.0	1.6
7.	Nitrite	mg/l	0.022	0.024	0.018	0.02
8.	Chloride	mg/l	20684	21438	21268	20824
9.	Chromium	ppm	0.028	0.02	0.016	0.024
10.	Mercury	ppm	Nil	Nil	Nil	Nil
11.	Zinc	ppm	0.14	0.12	0.16	0.10
12.	Iron	ppm	0.016	0.018	0.024	0.02
13.	Manganese	ppm	0.022	0.02	0.018	0.014
14.	Cadmium	ppm	Nil	Nil	Nil	Nil


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/226	Issued to:
Monitoring Date	September 24, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	September 29, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: Harbourbasine / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	12000
2.	Zooplankton Count	No./m ³	800
3.	Chlorophyll a	mg/m ³	3.4
4.	Chlorophyll b	mg/m ³	3.2
5.	Primary Productivity	gC/m ²	2.0
6.	Biomass	mg/m ²	1.6

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	14
	<i>Amphora lineolata</i>	20
	<i>Cymbella marina</i>	12
	<i>Bacteriastrum delicatulum</i>	10
	<i>Thalassionema nitzschioides</i>	08
	<i>Chaetoceros dydymus</i>	14
	<i>Skeletonemacostatum</i>	06
	<i>Thalassiothrixlongissima</i>	12
	<i>Cymbella marina</i>	04
B.	Zooplankton Species	
	<i>Foraminifera</i>	24
	<i>Chaetognatha</i>	18
	<i>Amphipoda</i>	12
	<i>Cladocera</i>	06
	<i>Eggs of fish & larvae</i>	05


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/226	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	September 24, 2022	
Reporting Date	September 29, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: Port Entrance Channel / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	12000
2.	Zooplankton Count	No./m ³	1000
3.	Chlorophyll a	mg/m ³	3.6
4.	Chlorophyll b	mg/m ³	2.4
5.	Primary Productivity	gC/m ²	3.4
6.	Biomass	mg/m ²	2.2

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	10
	<i>Amphora lineolata</i>	12
	<i>Cymbella marina</i>	06
	<i>Bacteriastrum delicatulum</i>	18
	<i>Thalassionema nitzschioides</i>	10
	<i>Chaetoceros dydymus</i>	24
	<i>Skeletonemacostatum</i>	02
	<i>Thalassiothrixlongissima</i>	18
B.	Zooplankton Species	
	<i>Foraminifera</i>	20
	<i>Chaetognatha</i>	08
	<i>Amphipoda</i>	10
	<i>Cladocera</i>	02
	Eggs of fish & larvae	12


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/226	Issued to:
Monitoring Date	September 24, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	September 29, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (High Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: Harbourbasine / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	10000
2.	Zooplankton Count	No./m ³	1000
3.	Chlorophyll a	mg/m ³	2.8
4.	Chlorophyll b	mg/m ³	3.6
5.	Primary Productivity	gC/m ²	3.2
6.	Biomass	mg/m ²	2.8

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	20
	<i>Amphora lineolata</i>	12
	<i>Cymbella marina</i>	20
	<i>Bacteriastrum delicatulum</i>	04
	<i>Thalassionema nitzschioides</i>	28
	<i>Chaetoceros dydymus</i>	12
	<i>Skeletonemacostatum</i>	10
	<i>Thalassiothrixlongissima</i>	06
	<i>Cymbella marina</i>	10
B.	Zooplankton Species	
	<i>Foraminifera</i>	16
	<i>Chaetognatha</i>	06
	<i>Amphipoda</i>	18
	<i>Cladocera</i>	10
	<i>Eggs of fish & larvae</i>	04


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017, Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/226	Issued to:
Monitoring Date	September 24, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	September 29, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (High Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: Port Entrance Channel / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	12000
2.	Zooplankton Count	No./m ³	1000
3.	Chlorophyll a	mg/m ³	3.4
4.	Chlorophyll b	mg/m ³	2.6
5.	Primary Productivity	gC/m ²	3.0
6.	Biomass	mg/m ²	2.4

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	30
	<i>Amphora lineolata</i>	14
	<i>Cymbella marina</i>	22
	<i>Bacteriastrum delicatulum</i>	18
	<i>Thalassionema nitzschioides</i>	10
	<i>Chaetoceros dydymus</i>	20
	<i>Skeletonemacostatum</i>	06
	<i>Thalassiothrixlongissima</i>	22
	<i>Cymbella marina</i>	10
B.	Zooplankton Species	
	<i>Foraminifera</i>	20
	<i>Chaetognatha</i>	14
	<i>Amphipoda</i>	12
	<i>Cladocera</i>	06
	<i>Eggs of fish & larvae</i>	08


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277.
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/226	Issued to:
Monitoring Date	September 24, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	September 29, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Marine Water (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

Station Name: South brake Wall outside / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	10000
2.	Zooplankton Count	No./m ³	1000
3.	Chlorophyll a	mg/m ³	3.6
4.	Chlorophyll b	mg/m ³	2.8
5.	Primary Productivity	gC/m ²	3.4
6.	Biomass	mg/m ²	2.6

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	68
	<i>Amphora lineolata</i>	28
	<i>Cymbella marina</i>	18
	<i>Bacteriastrum delicatulum</i>	10
	<i>Thalassionema nitzschioides</i>	34
	<i>Chaetoceros dydymus</i>	08
	<i>Skeletonemacostatum</i>	30
	<i>Thalassiothrixlongissima</i>	04
	<i>Cymbella marina</i>	10
B.	Zooplankton Species	
	<i>Foraminifera</i>	38
	<i>Chaetognatha</i>	20
	<i>Amphipoda</i>	06
	<i>Cladocera</i>	22
	<i>Eggs of fish & larvae</i>	14


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277.

73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/226	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	September 24, 2022	
Reporting Date	September 29, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (Low Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: North brake Wall Outside / Low Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	12000
2.	Zooplankton Count	No./m ³	1200
3.	Chlorophyll a	mg/m ³	3.4
4.	Chlorophyll b	mg/m ³	2.6
5.	Primary Productivity	gC/m ²	3.2
6.	Biomass	mg/m ²	2.4

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	80
	<i>Amphora lineolata</i>	46
	<i>Cymbella marina</i>	28
	<i>Bacteriastrum delicatulum</i>	34
	<i>Thalassionema nitzschioides</i>	06
	<i>Chaetoceros dydymus</i>	24
	<i>Skeletonemacostatum</i>	04
	<i>Thalassiothrixlongissima</i>	28
	<i>Cymbella marina</i>	12
B.	Zooplankton Species	
	<i>Foraminifera</i>	32
	<i>Chaetognatha</i>	20
	<i>Amphipoda</i>	04
	<i>Cladocera</i>	18
	Eggs of fish & larvae	06

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/226	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	September 24, 2022	
Reporting Date	September 29, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (High Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: South brake Wall Outside / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	10000
2.	Zooplankton Count	No./m ³	1200
3.	Chlorophyll a	mg/m ³	2.6
4.	Chlorophyll b	mg/m ³	3.0
5.	Primary Productivity	gC/m ²	3.2
6.	Biomass	mg/m ²	2.6

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	66
	<i>Amphora lineolata</i>	24
	<i>Cymbella marina</i>	42
	<i>Bacteriastrum delicatulum</i>	06
	<i>Thalassionema nitzschioides</i>	20
	<i>Chaetoceros dydymus</i>	34
	<i>Skeletonemacostatum</i>	10
	<i>Thalassiothrixlongissima</i>	26
	<i>Cymbella marina</i>	08
B.	Zooplankton Species	
	<i>Foraminifera</i>	26
	<i>Chaetognatha</i>	04
	<i>Amphipoda</i>	30
	<i>Cladocera</i>	16
	Eggs of fish & larvae	08

Analyst



Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF MARINE WATER

BCL Ref. No.	GPL/ 05/226	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	September 24, 2022	
Reporting Date	September 29, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Marine Water (High Tide)	
Sample Collected by	M/s. Biochem Labs	

Station Name: North brake Wall Outside / High Tide

S. No	PARAMETERS	UNIT	RESULT
1.	Phytoplankton Count	No. /L	10000
2.	Zooplankton Count	No./m ³	1200
3.	Chlorophyll a	mg/m ³	3.2
4.	Chlorophyll b	mg/m ³	2.8
5.	Primary Productivity	gC/m ²	3.2
6.	Biomass	mg/m ²	2.0

S.No	Species	Total Species count in 1L
A.	Phytoplankton Species	
	<i>Prorocentrummicans</i>	80
	<i>Amphora lineolata</i>	35
	<i>Cymbella marina</i>	26
	<i>Bacteriastrum delicatulum</i>	30
	<i>Thalassionema nitzschioides</i>	08
	<i>Chaetoceros dydymus</i>	46
	<i>Skeletonemacostatum</i>	04
	<i>Thalassiothrixlongissima</i>	26
	<i>Cymbella marina</i>	10
B.	Zooplankton Species	
	<i>Foraminifera</i>	22
	<i>Chaetognatha</i>	10
	<i>Amphipoda</i>	18
	<i>Cladocera</i>	06
	<i>Eggs of fish & larvae</i>	10


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF SEDIMENT SAMPLE

BCL Ref. No.	GPL/ 06/225	Issued to:
Monitoring Date	September 10, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	September 15, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Sediment (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

S.No	Parameters	Unit	Result	
			Harbour Basine	Port Entrance Channel
1.	pH	H+ conc	6.90	7.04
2.	Organic matter	%	2.2	1.8
3.	Nitrate	mg/kg	2.6	2.0
4.	Phosphate	mg/kg	1.8	1.2
5.	Oil & Grease	mg/kg	0.14	0.1
6.	Iron	ppm	0.16	0.14
7.	Manganese	ppm	0.12	0.16
8.	Nickel	ppm	0.1	0.12
9.	Chromium	ppm	0.16	0.14
10.	Mercury	ppm	Nil	Nil
11.	Zinc	ppm	0.8	0.6
12.	Lead	ppm	0.01	0.01
13.	Arsenic	ppm	0.01	0.01
14.	Selenium	ppm	0.01	0.01
15.	Copper	ppm	0.18	0.14


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF SEDIMENT SAMPLE

BCL Ref. No.	GPL/ 06/225	Issued to:
Monitoring Date	September 10, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	September 15, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Sediment (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

S.No	Parameters	Unit	Result	
			South brake Wall Outside	North brake Wall Outside
1.	pH	H+ conc	6.84	6.94
2.	Organic matter	%	1.0	1.0
3.	Nitrate	mg/kg	2.0	1.6
4.	Phosphate	mg/kg	0.8	1.0
5.	Oil & Grease	mg/kg	0.02	0.01
6.	Iron	ppm	0.18	0.14
7.	Manganese	ppm	0.18	0.16
8.	Nickel	ppm	0.14	0.12
9.	Chromium	ppm	0.16	0.14
10.	Mercury	ppm	Nil	Nil
11.	Zinc	ppm	1.0	0.8
12.	Lead	ppm	0.01	0.01
13.	Arsenic	ppm	0.01	0.01
14.	Selenium	ppm	0.01	0.01
15.	Copper	ppm	0.16	0.18


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT BENTHIC FAUNAL DIVERSITY

BCL Ref. No.	GPL/ 06/225	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	September 10, 2022	
Reporting Date	September 15, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Sediment (Low Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Species/Group	% Composition	
		Harbour Baseline	Port Entrance Channel
1.	<i>Opheliidae sp</i>	16	26
2.	<i>Glyceridae sp</i>	12	18
3.	<i>Nereidae sp</i>	26	20
4.	<i>Aphroditidae sp</i>	14	12
5.	<i>Cirratulidae sp</i>	08	36
6.	<i>Capitella sp</i>	26	08
7.	<i>Amphipoda sp.</i>	12	22
8.	<i>Gastropoda</i>	18	10
9.	<i>Chaetognatha</i>	04	06


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT BENTHIC FAUNAL DIVERSITY

BCL Ref. No.	GPL/ 06/225	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGentiyada (Mandalam) Visakhapatnam.
Monitoring Date	September 10, 2022	
Reporting Date	September 15, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Sediment (Low Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Species/Group	% Composition	
		South brake Wall Outside	North brake Wall Outside
1.	Foraminifera	50	42
2.	Amphipoda	26	18
3.	Mytilusedulis	28	20
4.	Gastropod veliger	0	38
5.	Oithona	14	06
6.	Capitella	02	14
7.	Copepod nauplii	22	0
9.	Brachyuran zoea	06	14
8.	Neanthusarenaceodentata	10	16


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 06000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF SEDIMENT SAMPLE

BCL Ref. No.	GPL/ 06/226	Issued to:
Monitoring Date	September 24, 2022	M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Reporting Date	September 29, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Sediment (Low Tide)	
Sample Collected by	M/s. Biochem Labs	

S.No	Parameters	Unit	Result	
			Harbour Basine	Port Entrance Channel
1.	pH	H+ conc	6.86	7.0
2.	Organic matter	%	2.0	1.6
3.	Nitrate	mg/kg	1.6	1.2
4.	Phosphate	mg/kg	1.4	1.0
5.	Oil & Grease	mg/kg	0.12	0.08
6.	Iron	ppm	0.18	0.14
7.	Manganese	ppm	0.16	0.12
8.	Nickel	ppm	0.18	0.16
9.	Chromium	ppm	0.16	0.12
10.	Mercury	ppm	Nil	Nil
11.	Zinc	ppm	1.0	0.8
12.	Lead	ppm	0.01	0.01
13.	Arsenic	ppm	0.01	0.01
14.	Selenium	ppm	0.01	0.01
15.	Copper	ppm	0.20	0.16


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277,
73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT ANALYSIS OF SEDIMENT SAMPLE

BCL Ref. No.	GPL/ 06/226	Issued to:
Monitoring Date	September 24, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	September 29, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Sediment (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

S.No	Parameters	Unit	Result	
			South brake Wall Outside	North brake Wall Outside
1.	pH	H+ conc	6.92	6.96
2.	Organic matter	%	1.0	0.8
3.	Nitrate	mg/kg	2.0	1.2
4.	Phosphate	mg/kg	1.4	1.0
5.	Oil & Grease	mg/kg	0.02	0.04
6.	Iron	ppm	0.14	0.12
7.	Manganese	ppm	0.12	0.1
8.	Nickel	ppm	0.1	0.12
9.	Chromium	ppm	0.12	0.1
10.	Mercury	ppm	Nil	Nil
11.	Zinc	ppm	1.0	0.8
12.	Lead	ppm	0.01	0.01
13.	Arsenic	ppm	0.01	0.01
14.	Selenium	ppm	0.01	0.01
15.	Copper	ppm	0.12	0.1


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 814222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT BENTHIC FAUNAL DIVERSITY

BCL Ref. No.	GPL/ 06/226	Issued to: M/s. Gangavaram Port Ltd. Gangavaram (Village) PedaGantiyada (Mandalam) Visakhapatnam.
Monitoring Date	September 24, 2022	
Reporting Date	September 29, 2022	
Organization	M/s. Gangavaram Port Ltd.	
Type of Sample	Sediment (Low Tide)	
Sample Collected by	M/s. Biochem Labs	

S. No	Species/Group	% Composition	
		Harbour Basine	Port Entrance Channel
1.	<i>Eunicidae sp.</i>	14	36
2.	<i>Paraonidae sp.</i>	10	14
3.	<i>Syllidae sp</i>	28	28
4.	<i>Sabellidae sp</i>	08	10
5.	<i>Olithona sp.</i>	20	30
6.	<i>Capitella sp.</i>	06	14
7.	<i>Syllidae sp</i>	12	22
9.	<i>Amphipoda sp.</i>	16	04
8.	<i>Nematoda sp.</i>	10	12


Analyst




Authorized Signatory



BIOCHEMLABS

An ISO 9001 : 2015 Certified Lab

Centre for Aquaculture & Environmental Sciences

#2-9-5, Near Samatha College, Sector -9, MVP Colony, Visakhapatnam-530 017. Ph: 0891 - 2551277, 8142222277, 73969 08000 | E-mail: biochemlabs@biochemlabs.in | biochemlabs888@gmail.com | www.biochemlabs.in

TEST REPORT BENTHIC FAUNAL DIVERSITY

BCL Ref. No.	GPL/ 06/226	Issued to:
Monitoring Date	September 24, 2022	M/s. Gangavaram Port Ltd.
Reporting Date	September 29, 2022	Gangavaram (Village)
Organization	M/s. Gangavaram Port Ltd.	PedaGantiyada (Mandalam)
Type of Sample	Sediment (Low Tide)	Visakhapatnam.
Sample Collected by	M/s. Biochem Labs	

S. No	Species/Group	% Composition	
		South brake Wall Outside	North brake Wall Outside
1.	<i>Capitella sp.</i>	48	36
2.	<i>Syllidae sp</i>	32	24
3.	<i>Amphipoda sp.</i>	10	10
4.	<i>Nematoda sp.</i>	34	14
5.	<i>Capitella sp.</i>	12	12
6.	<i>Syllidae sp</i>	24	08
7.	<i>Paraonidae sp.</i>	06	04
9.	<i>Syllidae sp</i>	18	14
8.	<i>Sabellidae sp</i>	04	02


Analyst




Authorized Signatory



GANGAVARAM PORT LIMITED

GPL/ENV/APP/2022-23/037

Date: 06.10.2022.

To

Sr. Environmental Engineer, CESS
Andhra Pradesh Pollution Control Board,
D.no:33-26-14D/2,
Near Sunrise Hospital, Pushpa Hotel Center,
Chalamalavari Street, Kasturibaipet,
Vijayawada-520010.
Andhra Pradesh.

Dear Sir,

Sub: Water Consumption Cess Statement – Reg.

Please find enclosed herewith the water consumption statement in FORM - 1 for the month of September - 2022, prepared under the Water (Prevention and Control of Pollution) Cess Act, 1977.

We request you to kindly consider the same.

Thanking you

Yours Sincerely,


Authorized Signatory

Encl: As above.

Copy submitted to the Environmental Engineer, A.P. Pollution Control Board, Regional Office, Visakhapatnam for kind information.

FORM – 1

Returns Regarding Water Consumed During Month of September - 2022

Name & Address	Purpose of which water consumed		Quantity of water consumed	If the meter was out of order the monthly avg. consumption of the water for the past 3 months of working period	Qty. of water qualifying for rebate according to the assesses	Remarks
(1)	(2)		(3)	(4)	(5)*	(6)
Gangavaram Port Limited, Gangavaram Post, Peda Gatyada Mandal, Visakhapatnam.	1) Industrial cooling/ spraying in mine pits or boiler feed.	Total from Municipal mains i. From Municipal water supply mains ii. From well / tube well.	23,438 Cum/KL	-	-	-
	2) Domestic Water	i. From Municipal water supply mains ii. From well / tube well	Cum/KL 4802.0	-	-	-

(*) for claiming rebate under Col.7, the assessed shall indicate in the column the analytical and other reports annexed to this return in support of this claim.

For Gangavaram Port Limited


(Dr. D. Jayothi)

Vice President (Environment)