

EHS/MoEF/2024- 127

30/11/2024

To
The Director,
Regional Office (South Eastern Zone)
Ministry of Environment, Forests and Climate Change
1st and 2nd Floor, Handloom Export Promotion Council,
34, Cathedral Garden Road,
Nungambakkam, Chennai-600034

Dear Sir,

Sub: Half Yearly EC (Environment Clearance) Compliance Report- regd.

Ref: F. No. J-11011/314/2007-IA II(I) dated 31.08.2007

Please find the attached half yearly compliance report of Environment Clearance issued by MOEFCC for enhanced production capacity of complex fertilizer plant from 2700 MTPD to 3900 MTPD.

Period of submission : **April- 2024 to September-2024**
Unit : **Coromandel International Limited, Visakhapatnam**

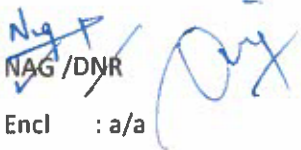
Thanking You,

Yours Sincerely,

For Coromandel International Limited



M. Gnanasundaram
VP – Head Manufacturing


NAG/DNR
Encl : a/a

CC: The Member Secretary, Head Office-APPCB, Vijayawada
Joint Chief Environmental Engineer, APPCB, Zonal Office, Visakhapatnam
Environmental Engineer, APPCB, Regional Office, Visakhapatnam

EHS2-Vizag-Coromandel

From: Nagarjuna-P-Mgr-EHS-Vizag-Coromandel
Sent: 01 December 2024 18:20
To: ecompliance-ap@gov.in; rovspappcb@gmail.com; zovspappcb
Cc: EHS2-Vizag-Coromandel; Nageswara Rao G-AsstMgr-EHS-Vizag-Coromandel; Subhradip Mondal-Mgr-Environment-Vizag-Coromandel; Nagaraju D-AGM-EHS-Vizag-Coromandel; Vinod Kumar Mishra-Sr.GM-EHS-Vizag-Coromandel
Subject: Half Yearly EC (Environment Clearance) Compliance Report- regd.
Attachments: MoEF Complex EC- Complex (Apr-24 to Sep-24).pdf

Dear Sir,

Ref: F. No. J-11011/314/2007-IA II(I) dated 31.08.2007

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Period of submission : April -2024 to September-2024
Unit : Coromandel International Limited, Visakhapatnam

Regards,
Nagarjuna P
Manager-Environment
9100443439

SAVE ENVIRONMENT SAVE LIFE

Coromandel 
FUTURE POSITIVE
Coromandel International Limited
Sriharipuram, Malkapuram PO
Visakhapatnam-530 011
Andhrapradesh, India.
F: +91 891-2578400
W: www.coromandel.biz
A MURUGAPPA GROUP COMPANY

Coromandel International Limited, Visakhapatnam

MoEF-EC- COMPLIANCE STATUS OF Environmental Clearance (EC) issued by MoEF for enhanced production capacity of complex fertilizer plant from 2700 MTPD to 3900 MTPD

Reference : Ref: J11011/314/2007-IA II (I) dt. 31st August, 2007
Period : For the period from April -2024 to September -2024

A.) SPECIFIC CONDITIONS:

S. NO	CONDITION	COMPLIANCE STATUS
i)	<p>The expansion of the project shall be based on process improvement, technology innovation, improving on stream-hours maximization of equipment capacity and continuous supply of raw materials.</p> <p>No Sulphuric acid and phosphoric acid plant shall be installed for additional requirement of Sulphuric and phosphoric acid. Due to enhancement of production pollution load shall not increase from the existing load.</p>	<p>The Complex plant during its upgradation was done with below mentioned improvements and technology innovations: -</p> <ul style="list-style-type: none">• Usage of higher capacity pipe-reactor with improved technology.• Upgrading drives for Dryer, bucket elevators, installation of new piping, pre-heaters and higher efficiency scrubber nozzles. Also enhanced infrastructure to handle the additional quantity of raw materials, bulk and finished products.• We have done the plant expansion after obtaining the necessary Environmental clearance from the MoEFCC and APPCB. <p>Reference EC: - F No. J-11011/388/2006-IA II (I) dated 18.05.2007 and F. No. J-11011/548/2008-IA-II(I) dated June 10, 2009.</p>
ii)	<p>The project authorities shall install efficient scrubbing system to control fluorine emission and bag filters for dust control in phosphoric acid plant.</p>	<p>Installed fume scrubber at phosphoric acid plant to reduce the fluorine emissions and Bag filters at Rock-grinding Section to meet the norms specified by the statutory authorities.</p>
iii)	<p>Multi stage scrubbing system shall be installed to control ammonia, fluorine and</p>	<p>Multi-stage (Four-stage) scrubbing system was incorporated for 'A' &</p>

Coromandel International Limited, Visakhapatnam

S. NO	CONDITION	COMPLIANCE STATUS
	suspended particulate matter in fertilizer plant.	<p>'B' Trains in the year 2001 and for C-Train, in the year 2000. Presently, the emissions of ammonia and fluorine from all the stacks are within the limits specified by the statutory authorities.</p> <p>Monitoring the fluoride emissions and meeting the standard of 4 mg/Nm³ from the stack of phosphoric acid plant and reports are being submitted to APPCB.</p> <p>The gaseous emissions are being monitored on a continuous basis with in house laboratory. Further, MoEF approved third party analysis is also being carried out on monthly basis and the reports are submitted regularly.</p> <p>Complex A, Complex-B & Complex C train were installed with online stack analyzer and the data is uploading to APPCB & CPCB websites through cloud server.</p> <p>SAP-I & SAP-II installed with online stack analyzer and connected to CPCB & APPCB websites.</p> <p>Phosphoric acid and rock grinding units were installed with PM Online stack analyzers. The HF analyzer is also installed at Phosphoric acid plant.</p> <p>All the analysers are connected to APPCB & CPCB websites.</p>
iv)	The project authority shall install dust collection system in fertilizer bagging plant.	<p>We implemented Pipe reactor technology for improving the granulation and reduce the dust level.</p> <p>We have additionally implemented</p>

Coromandel International Limited, Visakhapatnam

S. NO	CONDITION	COMPLIANCE STATUS
		<p>product dust prevention system by bringing modifications & improvements in the manufacturing process</p> <p>Additional product dust screens are arranged to remove the dust even before it reaches bagging plant.</p> <p>Product granulation aids (chemicals) are added to increase the granule strength as a result the product dust formation drastically reduced.</p> <p>We added de-dusting and scrubbing system for recovery of dust in the granulation plant.</p> <p>With the above actions, we avoided dust formation and avoided installation of bag filters in the bagging section as the product is hygroscopic in nature.</p>
v)	The Sulphuric Acid Plant shall be based on double conversion double absorption technology and anodically protected acid coolers shall be provided. Start-up scrubbers shall be installed in both Sulphuric acid plants to minimize SO ₂ emission during start-up.	The Sulphuric Acid Plant are based on double conversion double absorption technology and we have Installed alkali scrubbers in the Sulphuric acid plants and SO ₂ emissions are below the norms prescribed by APPCB.
vi)	The project authority shall install high efficiency scrubber nozzles, additional tail gas scrubber, improve the scrubber efficiency by optimizing the L/G ratio, install additional cyclones in scrubbing system, and install mist eliminators in scrubbers.	Installed higher-efficiency scrubber nozzles. Improved L/G ratio through installing higher capacity scrubber circulation pumps and standby cyclones kept in place to prevent the dust emissions.
vii)	Permission of the competent authority shall be obtained for drawl of additional quantity of 250m ³ /d existing Tatipudi and Meghadrigedda reservoirs.	No additional water is required from Municipal Corporation and existing quantities (De-desalination plant and GVMC) are adequate to meet additional requirements.

Coromandel International Limited, Visakhapatnam

S. NO	CONDITION	COMPLIANCE STATUS
viii)	The gaseous emissions (SO ₂ , SO ₃ , NO _x , NH ₃ , F, fertilizer dust) and particulate matter from various process units shall conform to the standards prescribed by the concerned authorities from time to time. Emission data shall be periodically monitored and reports submitted to Ministry's Regional Office, CPCB and SPCB.	<p>Complied</p> <p>All the applicable gaseous parameters including that of Fluorides are monitored vide online OCEMS and are connected to the APPCB & CPCB and are maintained within the limits. Necessary interlocking are in place to limit the emission within the limits.</p> <p>Regular 3rd party monitoring reports are submitted to the concerned authorities.</p> <p>A copy of the acknowledgment herewith is enclosed as Annexure – 01</p>
ix)	All the wastewaters generated from the various processes shall be recycled / reuse in the plant and zero discharge shall be maintained. The domestic wastewater shall be treated in septic tanks and treated waste shall be used for irrigation in the greenbelt.	Effluents from Sulfuric acid & Phosphoric acid are being treated in effluent treatment plant and recycled back in process. Zero effluent discharge from complex fertilizer plant. Sewage treatment plant has been provided for domestic wastewater treatment and the treated water is used for plantation.
x)	The proponent shall not withdraw groundwater for the plant and if it requires, the permission from the competent authority CGWA / SGWB shall be obtained.	Not applicable. No Ground water withdrawal.
xi)	The company shall develop the greenbelt in atleast 25% land area to mitigate the effect of fugitive emissions and noise as per the guidelines CPCB.	<p>Out of the 428 acres, the revised land area is 313 (after demarking from VPT) and the green belt is developed in 120 acres area which is more than 33%. Hence Complied.</p> <p>Photographs of the plantations are attached in Annexure-02</p>
xii)	The company shall implement all the recommendations made in the Charter on Corporate Responsibility for Environmental Protection (CREP) for fertilizer industries	<p>Complied.</p> <p>A copy of the submitted half-yearly CSR report is enclosed in Annexure – 03</p>

Coromandel International Limited, Visakhapatnam

B) GENERAL CONDITIONS:

	CONDITION	COMPLIANCE STATUS
i)	The project authorities shall strictly adhere to the stipulations of the SPCB/state government or any statutory body.	Agreed.
ii)	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	No further expansion would be taken up without prior environment clearance.
iii)	At no time, the emissions shall exceed the prescribed limits. In the event of failure of any pollution control system adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency has been achieved.	In case of any upset in the process resulting in increase of emissions, the plant is stopped immediately for taking necessary actions.
iv)	The locations of ambient air quality monitoring stations shall be reviewed in consultation with the State Pollution Control Board (SPCB) and additional stations shall be installed, if required, in the downwind direction as well as where maximum ground level concentrations are anticipated.	Complied We have installed 03 numbers of online ambient air monitoring stations and we have also monitored the ambient air through a third party at 05 Locations. The reports are submitted regularly.
v)	Dedicated scrubbers and stacks of appropriate height as per the Central Pollution Control Board guidelines shall be provided to control the emissions from various vents. The scrubbed water shall be sent to ETP for further treatment.	Installed stacks to the scrubbers as per the CPCB guidelines. Scrubbing liquid generated in the complex plant is reused in the process. ETP provided to treat the effluent. In Phosphoric acid plant, the fluorine recovery is done converting it to Hydro-flouro silicic acid.
vi)	All the storage tanks will be under negative pressure to avoid any leakages. Breather valves, N ₂ blanketing and secondary condensers with brine chilling system shall be provided for all the storage tanks to minimize vapor losses. All liquid raw material shall be stored in storage Tanks	Installed atmospheric ammonia storage tanks to store ammonia. Ammonia sensors are located at various locations within the factory premises.

Coromandel International Limited, Visakhapatnam

	CONDITION	COMPLIANCE STATUS
	and Drums.	All liquid raw material are stored in storage Tanks and Drums only.
vii)	The company shall undertake following Waste Minimization measures.	Installed grinding unit to recycle filter cake into granulation plant
	➤ Metering and control of quantities of active ingredients to minimize waste.	Constructed acid recovery pits to reuse in the process
	➤ Reuse of by-products from the process as raw materials or as raw material substitutes in other processes	
	➤ Use of automated filling to minimize spillage.	Identified dedusting points and connected to cyclones
		Water meters and energy meters provided to water lines and pollution control equipment.
		Installed pipe conveyors to transfer rock phosphate.
	➤ Use of "Close Feed" system into batch reactors.	These conditions are not applicable to our industry.
	➤ Venting equipment through vapor recovery system.	
	➤ Use of high-pressure hoses for equipment cleaning to reduce wastewater generation.	
viii)	Fugitive emissions in the work zone environment, product, and raw materials storage area shall be regularly monitored. The emissions shall conform to the limits imposed by the State Pollution Control Boards/Central Pollution Control Board.	Complied copy of the third-party fugitive emission monitoring reports herewith is enclosed as Annexure - 04
ix)	The project authorities shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended in October, 1994 and January, 2000 and Hazardous Waste (Management and Handling) Rules, 1989, as amended from time to time. Authorization from the SPCB shall be obtained for collection, treatment, storage, and disposal of hazardous wastes.	Complied We are complying with the MSIHC Rule 1989 as amended in 2000 and also we are complying with the Hazardous waste management rules 1988. We have obtained CCA (Combined Consent Authorization) from APPCB is valid up to 31.08.2027 A copy of the CFO is enclosed in Annexure - 05

Coromandel International Limited, Visakhapatnam

	CONDITION	COMPLIANCE STATUS
x)	The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	Complied Noise monitoring is being carried out and the noise levels are within the prescribed norms. A copy of third-party noise monitoring reports are herewith is enclosed as Annexure – 06
xi)	The company shall develop rainwater-harvesting structures to harvest the run off water for recharge of ground water.	Rain water harvesting is not feasible as the plant is very close to the sea and water table is very high in the area. However we have provided collection pit for the collection of the storm water and recycling it in the process to conserve the fresh water.
xii)	Occupational health surveillance of the workers shall be carried out on a regular basis and records shall be maintained as per the Factories Act.	Complied Dedicated OHC is available within the factory premises with full time doctor availability. Regularly conducting Annual medical check-up for employees and contract workmen according to Factories act
xiii)	The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment. The eco-development plan should be submitted to the SPCB within three months of receipt of this letter for approval.	Complied. A copy of the submitted half-yearly CSR report is enclosed in Annexure – 03
xiv)	The project proponent shall also comply with all the environmental protection measures and safeguards proposed in the EIA / EMP report.	Agreed.
xv)	A separate Environmental Management Cell equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.	Complied A separate environment management cell at the corporate level headed by AVP, HSE & A separate environment cell plant

Coromandel International Limited, Visakhapatnam

	CONDITION	COMPLIANCE STATUS
		level headed by Plant EHS level are in place. We have engaged NABL & MoEFCC accredited Lab to carry out the Environmental monitoring regularly
xvi)	The project authorities shall earmark adequate funds to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose.	Complied
xvii)	The implementation of the project vis-à-vis environmental action plans shall be monitored by the concerned Regional Office of the Ministry/SPCB / CPCB. A six monthly compliance status report shall be submitted to monitoring agencies and shall be posted on the website of the Company.	Complied Compliance reports are sent regularly and the same are uploaded to the company website. The company website link is https://www.coromandel.biz/ A copy of the submitted Half yearly is enclosed in Annexure – 07
xviii)	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry at http://envfor.nic.in . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.	Advertised in prominent news papers in local language and also English, and copies were forwarded to Regional Office, MoEF, Bangalore and SPCB.
xix)	The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.	All the projects were completed by 2009-10 with internal accruals.

Coromandel International Limited

Post Box No. 1116, Sriharipuram, Malkapuram Post
Visakhapatnam - 530 011, Andhra Pradesh, India
Tel : 91-891-2578400
DID : 91-891-2893+Extn No
Website : www.coromandel.biz
CIN : L24120AP1961PLC000892
GSTIN : 37AAACC7852K1ZC

EHS/APPCB/2024 - 103

04-10-2024

To,

The Environmental Engineer,
Regional Office, 3rd Floor
A.P. Pollution Control Board,
Visakhapatnam -530018

Dear Sir,

Sub: Submission of Environmental Monitoring Reports for the month September' 2024 – Reg.

Ref: I) CFO Order No: APPCB/VSP/65/CFO/HO/1967 - 04/08/2023

With reference to above we are here with attaching the analysis reports of the third party for the month of September' 2024. The following are the analysis reports:

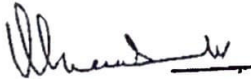
1. National Ambient Air Quality
2. Noise Monitoring Reports
3. STP Outlet Water Quality
4. ETP Outlet Water Quality
5. Piezo Well Water Quality
6. Stack Monitoring Reports
7. Ground Water Reports

This is for your kind information & Records

Thanking you,

Yours faithfully,

for Coromandel International Limited



Gnanasundaram M
Vice President & Head Mfg.


NAG



EHS/APPCB/2024 - 103

04- 10 -2024

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Vice President & Head Mfg.


NAG

Labs and Consultants

Registered Office :

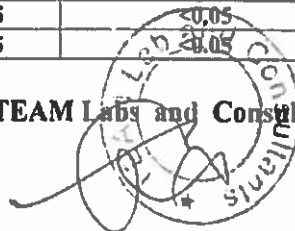
B-115, 116, 117 & 509, Annapoorna Block, Aditya Enclave, Ameerpet, Hyderabad - 530038.
Ph. : (O) 040-23748555 / 23748616, Fax : 040-23748666, Email : teamlabs@gmail.com

Recognised as Environmental Laboratory under Environmental (Protection) Act 1986
NABL Accredited Laboratory (Certificate No. TC-12956)

TEST REPORT

Test Report No.	TLC/V/Env/CIL/17/0924		dt.01.10.2024	
Description of Test	Ambient Air quality Monitoring inside the CIL			
Name of the client	Coromandel International Limited, Visakhapatnam			
Location of sampling	Stations as per details given			
Period of Monitoring	For the Month ofSEPTEMBER-2024			
Summary of Ambient Air quality Monitoring Data for the Month of SEPTEMBER-2024				
Parameters		AAQ-1 Station at the Top of Cafeteria	AAQ-2 Station near DG sets	AAQ-3 Station at Gate -13 (Near Bagging plant)
PM2.5	Minimum	22	26	22
	Maximum	40	42	42
	98%tile	40	42	42
	Average	32	35	37
PM 10 $\mu\text{g}/\text{M}^3$	Minimum	50	52	68
	Maximum	78	80	80
	98%tile	78	80	80
	Average	65	68	74
SO ₂ $\mu\text{g}/\text{M}^3$	Minimum	12.5	13.2	12.9
	Maximum	20.2	23.5	15.5
	Average	16.4	18.9	14.4
	98%tile	20.2	23.5	15.5
NO _x $\mu\text{g}/\text{M}^3$	Minimum	12.4	13.5	11.6
	Maximum	21.3	22.4	19.5
	98%tile	21.3	22.4	19.5
	Average	17.4	18.8	18.1
NH ₃ mg/M^3	Minimum	0.01	0.01	0.01
	Maximum	0.04	0.05	0.03
	98%tile	0.04	0.05	0.03
	Average	0.025	0.03	0.02
O ₃ $\mu\text{g}/\text{M}^3$	Minimum	10	10	10
	Maximum	22	22	20
	98%tile	22	22	20
	Average	16	16	15
CO mg/M^3	Minimum	0.1	0.1	0.1
	Maximum	0.2	0.2	0.3
	98%tile	0.2	0.2	0.3
	Average	0.15	0.15	0.2
Pb $\mu\text{g}/\text{M}^3$	<0.05	<0.05	<0.05	<0.05
C6H6 ng/M^3	<0.05	<0.05	<0.05	<0.05
B(a)P ng/M^3	<0.05	<0.05	<0.05	<0.05
As ng/M^3	<0.05	<0.05	<0.05	<0.05
Ni ng/M^3	<0.05	<0.05	<0.05	<0.05

For TEAM Labs and Consultants



Labs and Consultants**Registered Office :**

B-115, 116, 117 & 509, Annapoorna Block, Aditya Enclave, Ameerpet, Hyderabad - 530038.

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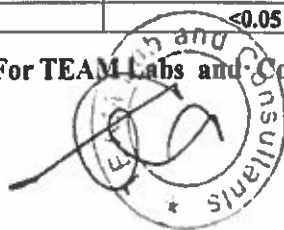
Recognised as Environmental Laboratory under Environmental (Protection) Act 1986

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TEST REPORT

Test Report No.		TLC/V/Env/CIL/18/0924	dt.01.10.2024
Description of Test		Ambient Air quality Monitoring inside the CIL unit	
Name of the client		Coromandel International Limited, Visakhapatnam	
Location of sampling		Stations as per details given	
Period of Monitoring		For the Month ofSEPTEMBER-2024	
Summary of Ambient Air quality Monitoring Data for the Month ofSEPTEMBER-2024			
Parameters		AAQ-4 Station at Warf	AAQ-5 Station near VST
PM2.5	Minimum	24	25
	Maximum	39	39
	98%tile	39	39
	Average	32	32
PM 10 µg/M ³	Minimum	50	50
	Maximum	75	76
	98%tile	75	76
	Average	63	64
SO ₂ µg/M ³	Minimum	10.9	10.8
	Maximum	16.0	16.7
	Average	13.4	13.8
	98%tile	16.0	16.7
NO ₂ µg/M ³	Minimum	12.5	12.6
	Maximum	18.8	18.8
	98%tile	18.8	18.8
	Average	15.6	15.8
NH ₃ mg/M ³	Minimum	0.01	0.01
	Maximum	0.04	0.05
	98%tile	0.04	0.05
	Average	0.02	0.03
O ₃ µg/M ³	Minimum	10	10
	Maximum	20	20
	98%tile	20	20
	Average	15	15
CO mg/M ³	Minimum	0.1	0.1
	Maximum	0.2	0.3
	98%tile	0.2	0.3
	Average	0.15	0.2
Pb µg/M ³	<0.05	<0.05	<0.05
C6H6 ng/M ³	<0.05	<0.05	<0.05
B(a)P ng/M ³	<0.05	<0.05	<0.05
As ng M ³	<0.05	<0.05	<0.05
Ni ng/M ³	<0.05	<0.05	<0.05

For TEAM Labs and Consultants



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Laboratory Recognised by Ministry of Environment, Forests and Climate Change, Govt. New Delhi
NABL Accredited Laboratory

TEST REPORT

Test Report No	TLC/V/Env/CIL/30E/0924	DATE 01-10-2024
Description of Test	Noise Level Monitoring	
Name of the client	Coromandel International Limited, Visakhapatnam	
Location of sampling	As per details provided	
Date of collection	SEPTEMBER-2024	
	LOCATION / AREA	NOISE LEVEL LIMITI (70dB)
VST Terminal		
Night	Storage Trucks Area	54
	Control Room	50
	VST Gate	49
	Transformer Area	60
	LOCATION / AREA	NOISE LEVEL LIMITI (75dB)
Day	Storage Trucks Area	65
	Control Room	66
	VST Gate	64
	Transformer Area	69

For Team Labs Consultants



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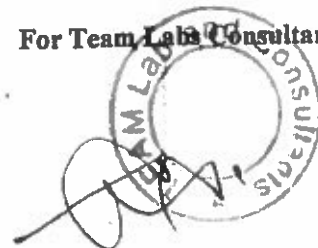
Laboratory Recognised by Ministry of Environment, Forests and Climate Change, GoI, New Delhi

NABL Accredited Laboratory

TEST REPORT

Test Report No	TLC/V/Env/CIL/30D/0924	DATE 01-10-2024
Description of Test	Noise Level Monitoring	
Name of the client	Coromandel International Limited, Visakhapatnam	
Location of sampling	As per details provided	
Date of collection	SEPTEMBER-2024	
	LOCATION / AREA	NOISE LEVEL LIMITI (70dB)
	WHARF	
Night	Control Room	52
	Trucks loading Area	50
	Boiler Area	58
	Bearth Area	62
	LOCATION / AREA	NOISE LEVEL LIMITI (75dB)
Day	Control Room	65
	Trucks loading Area	70
	Boiler Area	63
	Bearth Area	65

For Team Labs Consultants



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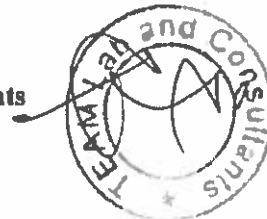
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TEST REPORT

Test Report No	TLC/V/Env/CIL/30C/0924	DATE 01-10-2024
Description of Test	Noise Level Monitoring	
Name of the client	Coromandel International Limited, Visakhapatnam	
Location of sampling	Asper details provided	
Date of collection	SEPTEMBER-2024	
	LOCATION / AREA	NOISE LEVEL LIMITI (70 dB)
Night	1St Gate	52
	2nd Gate	54
	3rd Gate (Plant)	55
	4th Gate	52
	5th Gate	48
	6th Gate	50
	7th Gate	55
	8th Gate	56
	9th Gate	54
	Contractor gate	50
	LOCATION / AREA	NOISE LEVEL LIMITI (75 dB)
Day	1St Gate	68
	2nd Gate	64
	3rd Gate (Plant)	67
	4th Gate	62
	5th Gate	63
	6th Gate	68
	7th Gate	60
	8th Gate	65
	9th Gate	66
	Contractor gate	62

For Team Labs Consultants



Labs and Consultants**Registered Office :**


B-115, 116, 117 & 509, Annapoorna Block, Aditya Enclave, Ameerpet, Hyderabad - 530038.

Ph. : (O) 040-23748555 / 23748616, Fax : 040-23748666, Email : teamlabs@gmail.com

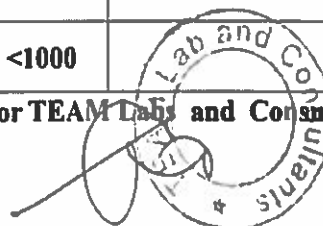
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TEST REPORT

Test Report No.		TLC/V/Env/CFL/22/0824			dt.01.10.2024
Description of Test		STP Outlet water Analysis			
Name of the client		Coromandel International Limited, Visakhapatnam			
Location of sampling		STP Out Let samples			
Date of Collection		17.09.2024			
Analysis report of STP Outlet water for the Month of SEPTEMBER-2024					
1	PH		7.6	6.5-8.5	IS:3025 Part 11-1983
2	Total Suspended Solids	mg/l	20	100	IS:3025 Part 17-1984
3	Oil & Grease	mg/l	NIL	10	IS:3025 Part 39-1991
4	Ammonical Nitrogen	mg/l	6.0	50	APHA4500C
5	Free Ammonical Nitrogen	mg/l	0.1	4.0	APHA4500C
6	Total Kjeldal Nitrogen	mg/l	18	75	APHA4500B
7	Nitrate Nitrogen	mg/l	0.1	20	APHA4500D
8	Cyanides as CN	mg/l	<0.1	0.1	SM 4500CN E
9	Arsenic as As	mg/l	<0.02	0.2	SM3125
10	Vanadium as V	mg/l	<0.1	0.2	SM3125
11	Hexa valent Chromium as Cr ⁶⁺	mg/l	<0.02	0.1	SM3125
12	Total Chromium	mg/l	<0.01	2.0	SM3125
13	Fluoride as F ⁻	mg/l	0.5	10	SM 4500 F- D
14	Phosphates as P	mg/l	0.1	5	APHA4500D
15	BOD	mg/l	16	30	IS:3025 Part 44-1993
16	COD	mg/l	80	250	IS:3025 Part 58-2006
17	Temperature difference between intake water and outlet	°C	03	5°C	
18	Fecal Coliform (FC)	1000MP N/100ml	400	<1000	

For TEAM Labs and Consultants



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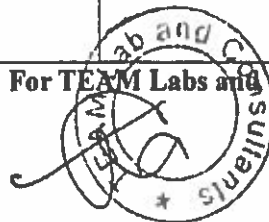
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TEST REPORT

Test Report No.		TLC/V/Env/CFL/24/0824			dt.01.10.2024
Description of Test		ETP Outlet water Analysis			
Name of the client		Coromandel International Limited, Visakhapatnam			
Location of sampling		ETP Out let samples			
Date of Collection		21.08-2024			
Analysis report of ETP Outlet water for the Month of August -2024					
S.No	Parameter	units	ETP Outlet	APPCB LIMIT	Protocol
1	PH		7.7	6.5-8.5	IS:3025 Part 11-1983
2	Total Suspended Solids	mg/l	22	100	IS:3025 Part 17-1984
3	Oil & Grease	mg/l	NIL	10	IS:3025 Part 39-1991
4	Ammonical Nitrogen	mg/l	15	50	APHA4500C
5	Free Ammonical Nitrogen	mg/l	0.2	4.0	APHA4500C
6	Total Kjeldal Nitrogen	mg/l	24	75	APHA4500B
7	Nitrate Nitrogen	mg/l	0.1	20	APHA4500D
8	Cyanides as CN	mg/l	<0.1	0.1	SM 4500CN E
9	Arsenic as As	mg/l	<0.02	0.2	SM3125
10	Vanadium as V	mg/l	<0.1	0.2	SM3125
11	Hexa valent Chromium as Cr 6+	mg/l	<0.02	0.1	SM3125
12	Total Chromium	mg/l	<0.01	2.0	SM3125
13	Fluoride as F-	mg/l	0.8	10	SM 4500 F- D
14	Phosphates as P	mg/l	0.4	5	APHA4500D
15	BOD	mg/l	14	30	IS:3025 Part 44-1993
16	COD	mg/l	70	250	IS:3025 Part 58-2006
17	Temperature difference between intake water and outlet	0C	27.5	NA	

For TEAM Labs and Consultants



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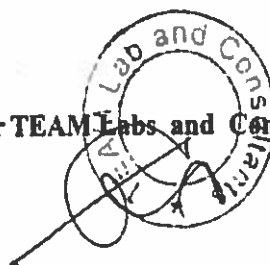
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TEST REPORT

Test Report No		TLC/V/Env/CFL/21A/0924	dt.01.10.2024
Description of Test		Peizo wells Water analysis	
Name of the client		Coromandel International Limited, Visakhapatnam	
Location of sampling		Stations as per details given	
Date of Sample collection		As per details given	
No	Date	Location of Peizo-well	F- mg/L
1	23.09.2024	CFL - colony	0.3
2	23.09.2024	Near 4 OP Gate	0.5
3	23.09.2024	Near 7 th gate	0.4
4	23.09.2024	CRC	0.4
		IS10500 Permissible limit	1.5
	Protocol		SM 4500 F- D

For TEAM Labs and Consultants



Labs and Consultants**Registered Office :**

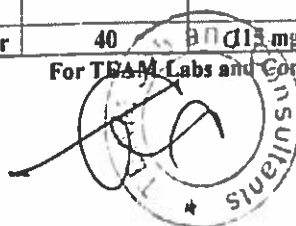
B-115, 116, 117 & 509, Annapoorna Block, Aditya Enclave, Ameerpet, Hyderabad - 530038.
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TEST REPORT

Test Report No		TLC/V/Env/CIL/16/0924		dt.01.10.2024	
Description of Test		Source Emission Monitoring inside the CIL			
Name of the client		Coromandel International Limited, Visakhapatnam			
Location of sampling		stacks attached to respective plants as per details given			
SOURCE/ STACK EMISSION MONITORING FOR THE MONTH OF SEPTEMBER-2024					
S.No	Stack attached to	Flow rate NM ³ /Hr	parameters	Conc. mg/NM ³	APPCB Standard Limit
1	Complex A	294385	Particulate matter	18	45 mg/NM ³
			Ammonia	70	165.0 mg/NM ³
			Fluoride	1.2	4.0 mg/NM ³
2	Complex B	285151	Particulate matter	19	45 mg/NM ³
			Ammonia	82	165.0 mg/NM ³
			Fluoride	1.1	4.0 mg/NM ³
3	Complex C	202349	Particulate matter	20	45 mg/NM ³
			Ammonia	52	165.0 mg/NM ³
			Fluoride	1.1	4.0 mg/NM ³
4	Sulphuric acid plant-I	97903	Sulphur dioxide	0.42Kg/MT (260mg/NM ³)	1 Kg/MT
			Sulphur trioxide	0.032Kg/MT (20mg/NM ³)	0.35 Kg/MT
			Acid mist	Nil	20 mg/NM ³
5	Sulphuric acid plant-II	26955	Sulphur dioxide	0.143Kg/MT (90mg/NM ³)	0.65 Kg/MT
			Sulphur trioxide	Nil	0.35 Kg/MT
			Acid mist	Nil	20 mg/NM ³
6	Phosphoric acid plant-I	132864	Particulate matter	25	50 mg/NM ³
			Fluoride	3.9	20 mg/NM ³
7	Rock grinding unit (Old)	7346	Particulate matter	40	50 mg/NM ³
			Total Fluoride	4.3	20 mg/NM ³
8	Wharf Boiler	10797	Particulate matter	47	115 mg/NM ³
9	Phosphoric acid plant-2	37545	Particulate matter	29	50 mg/NM ³
			Total Fluoride	4.2	20 mg/NM ³
10	Rock grinding unit (New)	7067	Particulate matter	43	50 mg/NM ³
			Total Fluoride	3.1	20 mg/NM ³
11	New SAP-3	48990	Sulphur dioxide	0.05Kg/MT (60mg/NM ³)	1 Kg/MT
			Sulphur trioxide	Nil	0.35 Kg/MT
			Acid mist	Nil	20 mg/NM ³
12	DG1	11800	Particulate matter	42	115 mg/NM ³
13	DG2	12148	Particulate matter	40	115 mg/NM ³

For TEAM Labs and Consultants



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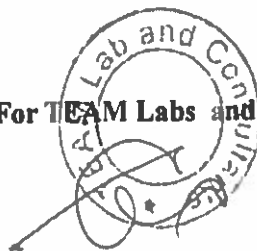
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TEST REPORT

Test Report No		TLC/V/Env/CIL/21/0924		dt.01.10.2024	
Description of Test		CIL Surrounding village wells-Ground water analysis			
Name of the client		Coromandel International Limited, Visakhapatnam			
Location of sampling		Stations as per details given			
Date of Sample collection		23.09.2024			
NO	Location of well	pH	PO4 mgpl	F- mgpl	Ammonical Nitrogen mgpl
1	Kamaladevi colony-1	7.7	Nil	0.2	Nil
2	Kamaladevi colony-2	7.4	Nil	0.3	Nil
3	Yeduruvanipalem-1	7.6	Nil	0.2	Nil
4	Yeduruvanipalem-2	7.5	Nil	0.3	Nil
5	Mulagada-1	7.4	Nil	0.3	Nil
6	Mulagada No.2	7.5	Nil	0.3	Nil
	Proocol	IS:3025 Part 11-1983	APHA4500D	SM 4500 F- D	APHA4500C

For TEAM Labs and Consultants



Annexure - 2











EHS/APP/CB/2024-113

Dated: 28/10/2024

To

The Member Secretary
Andhra Pradesh Coastal Zone Management Authority
(APCZMA), D.No.33-26-14 D/2, Near Sunrise Hospital,
Chalamavari Street, Kasturibaipet, Vijayawada-520010.

SUB: Submission of the CER/CSR Report for the period of April 2024 to September 2024

Ref: EC number F. No. 11-35/2015-IA-III, Dated 27 June 2017

Dear Sir,

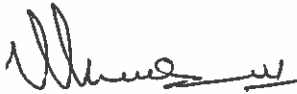
This has reference to above mentioned subject, we are submitting the detailed report of CSR/CER activities carried out by Coromandel International Limited, Vizag during the period from April 2024 to September 2024.

We recognize the importance of sustainable business practices and are committed to making a positive impact on society and the environment.

The above submission is in line with EC compliance & Record please.

Thanking you,

Yours faithfully,
For **COROMANDEL INTERNATIONAL LIMITED**



Gnanasundaram M
Vice President & Head Manufacturing.

NAG
NAG/DNR

Enclosure: CSR/CER Report

<Dial 18002666868> <Wear Masks. Stay Safe>
RN541808665IN IVR:8278541808665
RL MALKAPURAM S.O <530011>
Counter No:1.29/10/2024.11:23
To:THE MEMBER SE.D NO 33-26-14 D/
PIN:520010. Venkateswarapuram S.O
From:COROMANDEL .POST BOX NO 1116
Wt:78gms.REG=17.0
Amt:43.66.Tax:6.66.Amt.Paid:44.00(Cash)
<Track on www.indiapost.gov.in>
<Dial 18002666868> <Wear Masks. Stay Safe>

EHS/APPCB/2024-113

Dated: 28/10/2024

To

The Member Secretary
Andhra Pradesh Coastal Zone Management Authority
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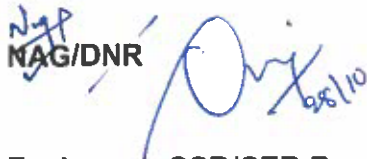
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Yours faithfully,
For **COROMANDEL INTERNATIONAL LIMITED**



Gnanasundaram M
Vice President & Head Manufacturing.


NAG/DNR

Enclosure: CSR/CER Report

CSR initiatives Report

April 2024 to Sep 2024

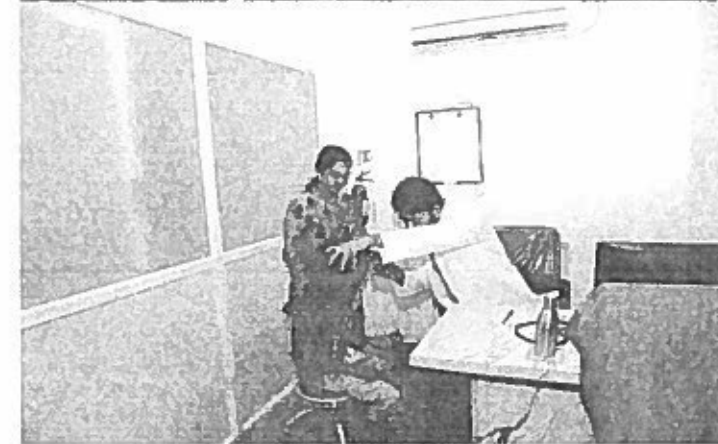
Approved Vs Spent– 24-25

S.No	Domain	Spent Budget
1	Health	25.20
2	Education	26.23
3	Community development	10.68
Total		62.11

April 2024 to Sep 2024

Coromandel Medical center

Sl No	Name of the Month	No of benefitted
1	April	2439
2	May	1906
3	June	2589
4	July	2410
5	Aaugust	2589
6	Sep	2365
	Total	14298



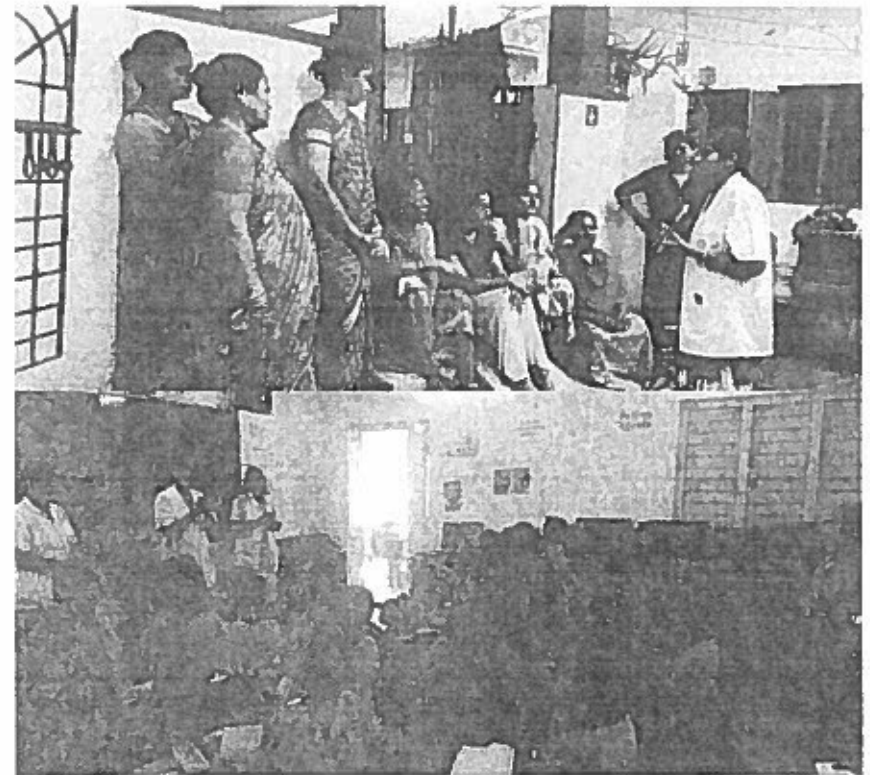
Dental screening service inauguration @CMC

- the Dental Screening Services at our CMC was inaugurated by our President & CHRO, Shri Arun Leslie George. Mr. Gnanasundaram, Vice President & Head - Mfg; Mr. GSV Raja, AVP & Head of HR; the Unit HR Head; and the Senior Leadership Team participated along with local community at CMC.
- During the event, they provided a comprehensive briefing on the CMC services, engaged with community members, and distributed tailoring kits to women to support and enhance their livelihoods. Additionally, we presented furniture to the community halls to benefit local residents. The community members were deeply moved by these contributions, and the CHRO expressed his appreciation for the CSR initiatives led by the Vizag Unit
- **Initiative on 22nd Aug 2024**



Integrated Behavioral change communication

- Comprehensive Health Outreach project aimed at strengthening local health resources and improving health outcomes in our community. The project will leverage local community structures and ambassadors for health outreach, focusing on diseases such as Tuberculosis, vector-borne diseases, Diabetes Mellitus, Hypertension, menstrual health, and adolescent health education.
- No of Beneficiaries April 2024 to Sep 2024: **28460**



Computer Lab Inaugurated By District Collector

- On 26th Sept 2024, Vizag Unit has inaugurated Computer lab as part of CSR Project towards enhancing education and digital literacy of the nearby Community students.
- Shri M. N. Harendhira Prasad, IAS – Collector & District Magistrate – Visakhapatnam in presence of Shri R. V Ramana – Regional Deputy Director - Zone 1 – Visakhapatnam, Shri B. Narasimha Patrudu – 65th Ward Corporator – GVMC & Mr. SrinivasaRao- Principal, ITI-Gajuwaka has inaugurated the Computer Lab at Pedagantyada, Gajuwaka Govt Model ITI. Vice President & Unit Head, Head CSR and DGM HR
- 80 Nos of Blankets to ITI Hostel Students have been distributed by Honorable Collector.

Benefitted **900** ITI Students



Science lab Inaugurated By TDP State President

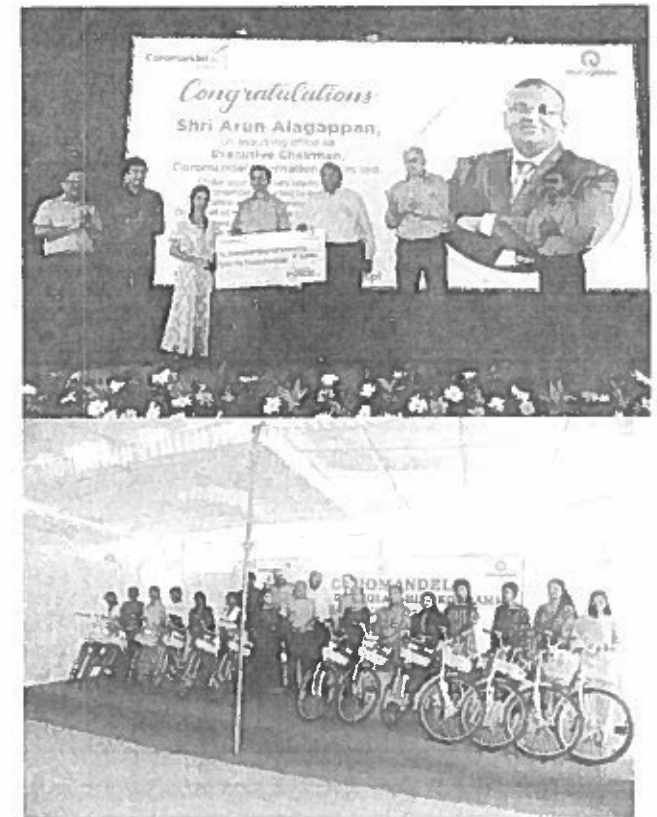
- Shri Palla Srinivasa Rao – TDP State President & MLA Gajuwaka Constituency along with Mrs. L Chandrakala – District Educational Officer, Mr. P Srinivasa Rao – 65th Ward Corporator has inaugurated the Science Lab at ZP High School on 26th Sep 2024
- Mr. Gnanasundaram – VP & unit head along with Mr. JayaGopal Chathur- Head CSR & Mr. Srinivasa Rao – DGM – HR participated
- Shri Palla Srinivasa Rao in his address has thanked the Coromandel management for recognizing the need of the students and appreciated Vizag Unit for its passion towards executing projects in the field of Education and Community development

Benefitted **1600** school children



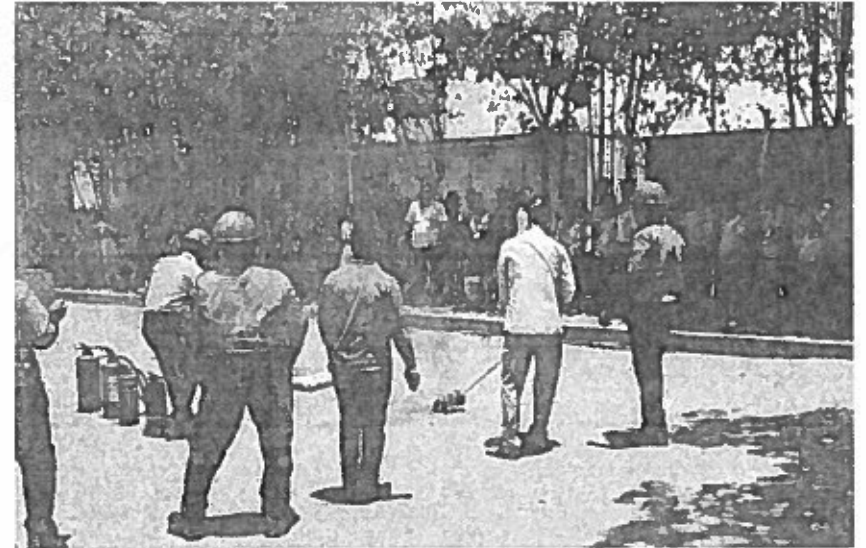
Girlchild Scholarship Distribution

- Organised Coromandel Girlchild Scholarship
- The Program Chief guest Executive Chairman Shri Arun Alagappan and senior leadership
- Total 79 scholarship we provided 22 Bicycles
- Children and parents felt very happy



National Fire Safety Week

- As part of National Fire Safety Week Coromandel conducted Awareness sessions and Fire equipment's demo session at ZP High school Mindi.
- Total 125 children & teachers got benefited.
- Prize distribution also done by the Coromandel officials



Infra Support to the Govt. Schools

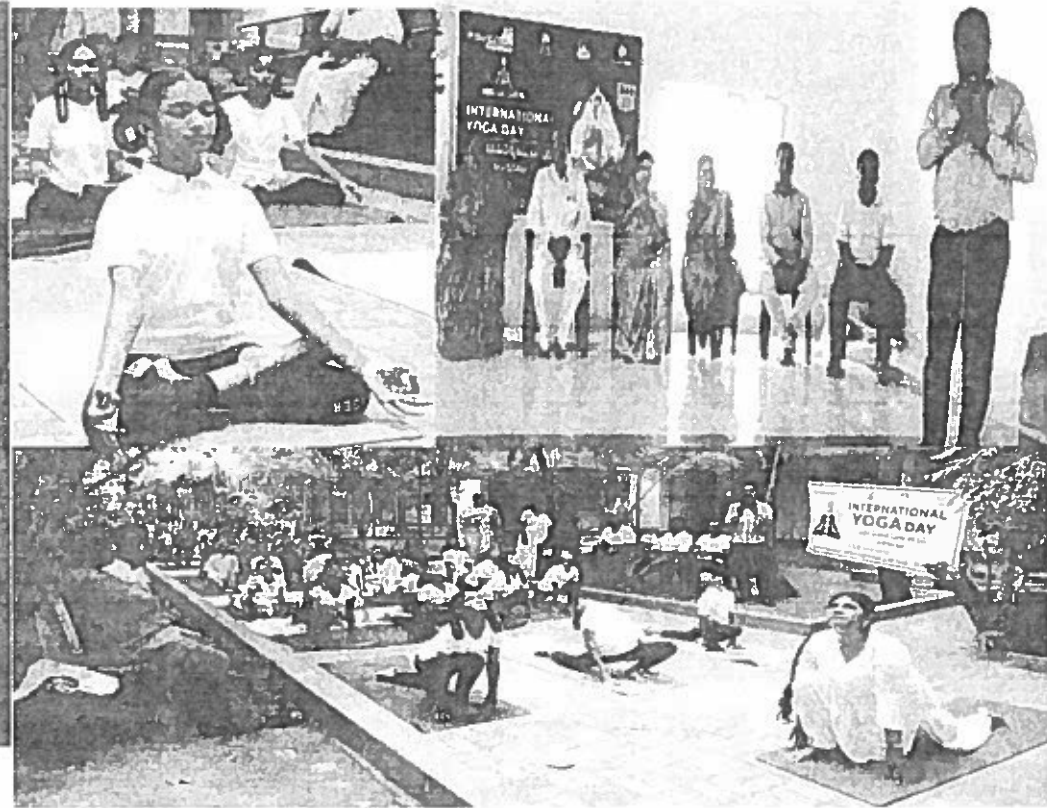
- We handed over tables, almirahs and chairs to 5-GVMC Primary School, 4 Govt High schools and 5-Anganwadi Centre's to enhance infrastructure facilities.
- Teachers & Community Members participated and expressed their gratitude to Coromandel.

1. Chairs
2. Tables
3. Almirah



International Yoga Day Celebrations 21st June 2024

- Coromandel organized International Yoga Day on June 21, 2024, at ZP High School, Mindi.
- where 150 children participated. Another Yoga Day celebration occurred at Pilakavanipalem Community, with 78 women participated
- The event aimed to increase awareness of the advantages of engaging in yoga and to foster its comprehensive approach to promoting health and well-being.
- The event was implemented by Pathriji Pyramid Spiritual Trust, Visakhapatnam.



Teachers' day celebrations

- We organized Teacher's Day celebrations on September 5, 2024, at CRC.
- A total of 110 teachers participated in the event, which was attended by Chief Guests Mandal Revenue Officer (MRO) Mrs. Tarakeswari Garu, Head HR R. Srinivasarao Garu and the Coromandel Ladies Association (CLA).
- Mr. Balaji garu explained and aware school First Aid Kit, school safety awareness. Felicitated 12 best teachers
- The program was successfully completed. Our COO Mr. Amir Alvi and Unit Head Mr. Gnanasundaram also participated in the event, offering their encouragement and best wishes to all the teachers.

MEO, teachers and the MRO were very pleased to attend the event and expressed their appreciation to Coromandel Management.



Honourable Governor of AP has given an appreciation award to Coromandel

- The District Administration Organised Divya kala Mela at AU marine Ground Visakhapatnam on 19th Sep 2024.
- Honourable Governor of AP has given an appreciation award to Coromandel international Limited in recognition for providing wheel chairs to physically challenged persons in the presence of Honourable Union minister of social justice and empowerment Dr.Veerndher Kumar guest of honor,I, Mr Bharath Member of parliament Visakhapatnam.Mr.Baburao Rajyasabha and District collector & Magistrate Shri Harendhira Prasad
- The award has been received by VP & Head Manufacturing M Gnanasundaram, Head CSR Jayagopal and Head HR Srinivasarao



Women Livelihood stall 21st Sep 2024

- MD sir Visited & Observed the Community women stall like jute bags/jewellery making/Margam design and Beauty parlour, and MD sir appreciated women livelihood project.
- Total selling 3800/-Jute bags and Jewellery materials



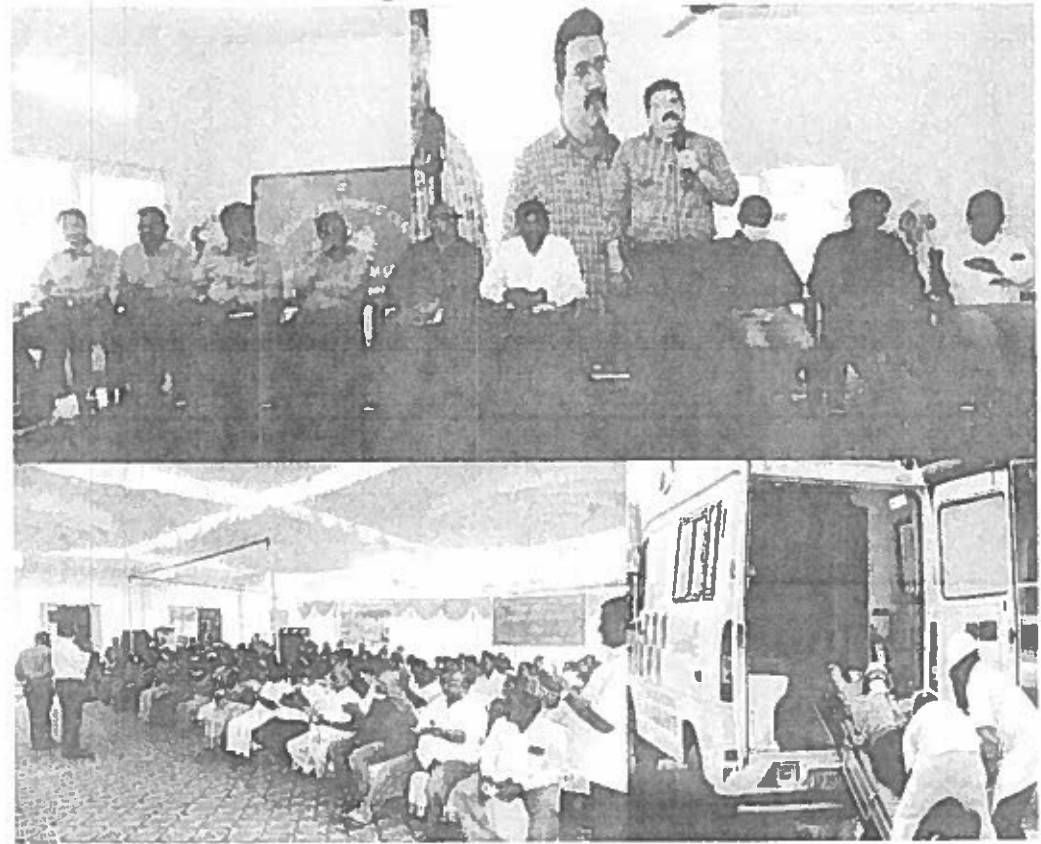
Women Livelihood Training Certificate Ceremony

- As part of Community development Coromandel initiated Women livelihood trainings.
- Like Maggam work, Jute bag work, Handmade jewellery, Beautician course trainings
- And 4 batches we trained total 120 women.
- Distributed Certificates and training kits to the all women
- 1st April 2024



Offsite Mock drill @ Pilakavanipalem

- We Organised Offsite Mock drill on 28th June 2024 at Pilakavanipalem village.
- Participated District Authorities and the factories department officials commended our efforts towards a successful demonstration in our systematic emergency preparedness and capabilities.
- Total participated village peoples 250



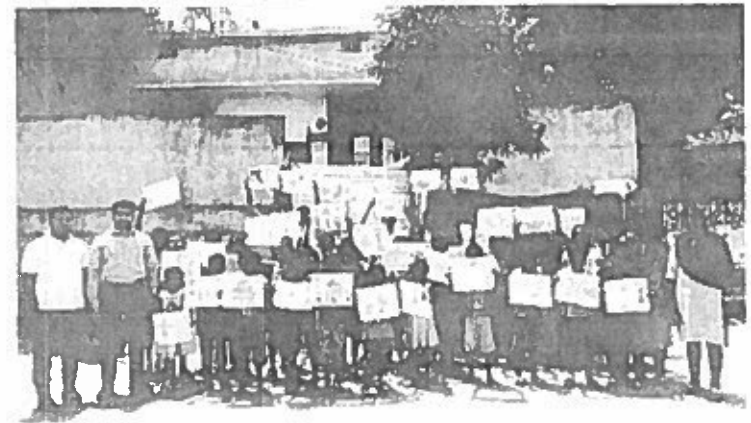
Wheelchairs Hand overing to District Administration

- The handing over ceremony took place at our Coromandel Recreation Centre in Visakhapatnam Manufacturing Unit, where we honoured to have esteemed guests Mrs. Ramamani, Assistant Director of Industries, and Ms. Sunita, Industrial Promotion Officer in presence of Mr. Amir Alvi, President & Head of Manufacturing, along with Mr. M. Gnanasundaram, HODs and representatives from our HR department.
- the 100 Wheelchairs were branded with Coromandel logo and post-election, they will be used in the Public Health Centres.



World Environment Day Celebrations 5th June-2024

- As part of our CSR initiative for World Environment Day,
- we organized celebrations at Mulagada and Yedurivanipalem to mark the occasion, saplings
- were planted on the Mukhyamantri Arogya Kendra premises with the participation of our employees and Hospital staff to foster eco-friendly practices
- and raise awareness, cloth bags were distributed to the community members
- And also we Organised Drawing competition on environment day related to community Children at Yedurivanipalem.



Eco Vizag cloth bags launched by GVMC Commissioner

- Coromandel's social responsibility initiatives are inspiring," said GVMC Commissioner Sampath Kumar. "The use of cloth bags for saving the environment is very important. The commissioner inaugurated 30,000 bags under the 'Swach Sarvekshana 2024 ECO Vizag' initiative by Coromandel Fertilizers in his chamber. In this regard, Coromandel's Vice President M. Gnanasundram first presented a flowering tree and congratulated him.
- As part of their social responsibility, they are giving 15,000 bags to GVMC, and the remaining will be distributed for free to the public in various markets and the city. Speaking on this occasion, the commissioner expressed his determination to make Vizag the cleanest city in the country for Swach Sarvekshana 2024. He emphasized the importance of public collaboration and the need to raise awareness among people to use environmentally friendly products, praising Coromandel for providing these bags. The event was attended by Coromandel Head HR R. Srinivasa Rao, Senior Manager HR K. Srikant, PR Consultant U. S. Sharma and me.



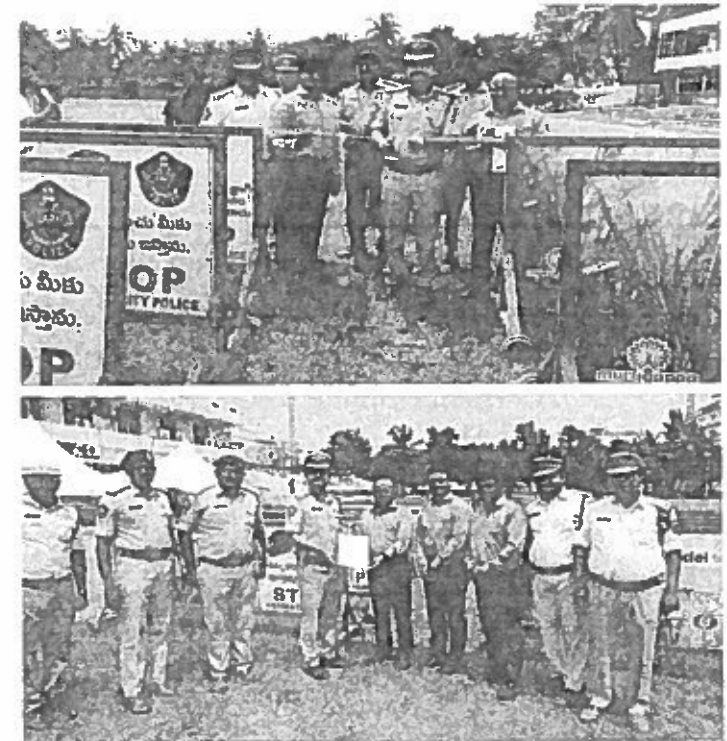
World Breastfeeding week

- we Organised world Breastfeeding celebration Month in August, our CMO Dr. Uday and field Health workers delivered an informative health talk to community breastfeeding mothers, emphasizing the significance of breastfeeding in providing optimal nutrition, boosting the immune system, and promoting mother-child bonding
- 1.Importance of breastfeeding for optimal growth and development
- 2.Essential diet and nutrients for mothers to produce high-quality breast milk:
- 3. Balanced meals rich in whole foods
- 4.Hydration and electrolyte intake
- 5.Foods that support lactation (e.g., oats, fenugreek)
- 6.Potential risks of not breastfeeding:
- 7.Hampered growth and development
- 8.Delayed uterus involution (return to pre-pregnancy size)
- 9.Increased risk of infections and diseases
- Dr. Uday addressed various questions and concerns raised by the community, providing clarity and reassurance on common issues. This empowered the community with knowledge and confidence to embrace breastfeeding and ensure the best possible start for their little ones
- **Initiative in August 2024 no of beneficiaries : 30**



Road Safety barricades Handed over to Commissioner of Police Visakhapatnam

- 50 road safety barricades have been handed over by Mr M Gnanasundaram Vice president & Head Mfg. Coromandel international limited to Shri Shanka brata Bagchi, Commissioner of police Visakhapatnam
- Our Head HR Mr. R Srinivasa Rao garu, Circle inspectors Mr.Koteswarao garu from Gajuwaka, Sub inspector Mr. Apparao garu from Malkapuram and Deputy Manager-CSR Mr. S Venkataramana have participated in the program.
- Unit Head Explained about the CSR initiatives and Public Relations which includes modernization of Police fitness Centre, Renovation of Malkapuram Police Station etc. Also explained about the rigorous safety standards followed at Coromandel and shared the proud moment of achieving Prestigious International safety award of 'Sword of Honour' from British Safety Counsel, United Kingdom.
- Commissioner of Police appreciated our Coromandel management for extending the support to the society.
- Initiative on 12th Aug 2024



Support to the Anganwadi's by Coromandel Ladies Association

- Our Coromandel Ladies Association visited the Anganwadi centre at Mulagada Village
- Handed over essential materials to enhance their facilities.
- Additionally, we established a Nutrition garden to support their needs
- Teachers, Parents and ICDS Supervisor Ms. Varalakshmi felt very happy ,Total benefitted children is 20.



Library for children supported by CLA

- Coromandel Ladies Association donated to Library Cupboards & Books to ZP High school Mindi
- Library set up handed overed by MD sir & COO sir
- Children & Teachers felt very happy

Total children Benefitted: 684



**Employees
volunteerism**

Month	No. Of Employees	Voluntary Hours	CLA	Voluntary Hours
Apr-24	33	91	10	15
May-24	18	18	0	0
Jun-24	44	124	7	14
Jul-24	12	26	10	10
Aug-24	43	80	13	26
Sep-24	46	77	10	20

TEAMORIGINAL

Form-No. TCLL/GF/RF-138

Labs and Consultants**Registered Office :**

B-115, 116, 117 & 509, Annapoorna Block, Aditya Enclave, Ameerpet, Hyderabad - 530038.

Ph. : (O) 040-23748555 / 23748616, Fax : 040-23748666, Email : teamlabs@gmail.com

Laboratory Recognised by Ministry of Environment, Forests and Climate Change, Govt, New Delhi

NABL Accredited Laboratory

TEST REPORT

Test Report No		TLC/V/Env/CIL/30/0424		dt.01.05.2024
Description of Test		Fugitive Emissions at workplace-NH3		
Name of the client		Coromandel International Limited, Visakhapatnam		
Location of sampling		As provided below		
Period of Collection		APRIL-2024		
Duration of sampling		8 Hrs		
Protocol		IS:5182 Part 25		
S No.	Plant/Department	Location/area	Result NH3 mg/m3	Time-weighted average concentration 8 hr allowed per Factories act schedule 2
1	A-TRAIN	Reactor top area	1.5	17.41 mg/m ³
		granulator surrounding	0.9	
		Pre scrubber area	2.6	
		dryer area	2	
2	B-TRAIN	Reactor top area	1.9	
		granulator surrounding	1.2	
		Pre scrubber area	2.9	
		dryer area	2.1	
3	C-TRAIN	Reactor top area	1.3	
		granulator surrounding	0.7	
		Pre scrubber area	2.9	
		dryer area	2.5	
4	AAST	Storage tank area	1.5	
		Ammonia Storage facility area	0.5	

For TEAM Labs and Consultants



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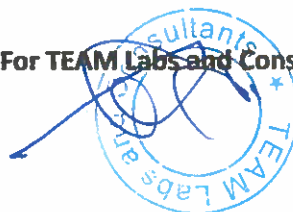
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TEST REPORT

Test Report No		TLC/V/Env/CIL/31/0424		dt.01.05.2024
Description of Test		Fugitive Emissions at workplace-SO₂		
Name of the client		Coromandel International Limited, Visakhapatnam		
Location of sampling		As provided below		
Date of Collection		15.04.2024 to 24.04.2024		
Duration of sampling		8 Hrs		
Protocol		IS:5182 Part 02		
S No.	Plant/Department	Location/area	Result SO₂ Mg/M³	Time-weighted average concentration 8 hr allowed per Factories act schedule 2
1	SAP-1	IAT area	1.4	5.24 Mg/M³
		Furnace area	2.5	
		Hot gas filter area	1.6	
		Scrubber area	1.2	
2	SAP-2	IAT area	1.4	
		Furnace area	2.5	
		Hot gas filter area	1.6	
		Scrubber area	1.2	
3	SAP-3	IAT area	1.4	
		Furnace area	2.5	
		Hot gas filter area	1.6	
		Scrubber area	1.2	
4	Wharf area	Molten Sulphur Storage tanks	0.6	
		Sulphuric acid Storage tanks	0.5	

For TEAM Labs and Consultants



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TEST REPORT

Test Report No		TLC/V/Env/CIL/32/0424		dt.01.05.2024
Description of Test	Fugitive Emissions at workplace-SPM			
Name of the client	Coromandel International Limited, Visakhapatnam			
Location of sampling	As provided below			
Period of of Collection	APRIL-2024			
Duration of sampling	8 hrs			
Protocol	IS5182 Part 23			
S No.	Plant/Depart ment	Location/area	Result SPM mg/m3	Time weighted average concentration 8 hr allowed per OSHA For total dust
1	A-TRAIN	Near granulator	2.1	15.0 mg/m3
		Bins area	2.2	
		Screen section	1.9	
		Recycle conveyor	2.5	
2	B-TRAIN	Near granulator	1.9	
		Bins area	2	
		Screen section	1.8	
		Recycle conveyor	2.3	
3	C-TRAIN	Near granulator	3.2	
		Bins area	2.5	
		Screen section	1.7	
		Recycle conveyor	2.5	
4	PAP - I	Reactor area (PAP-I)	2.3	
		Dust Bins area(PAP-I)	2.8	
		Head drum area(PAP-I)	1.4	
		RG - I (OBM)	3.5	

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TEST REPORT

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Location of sampling		As provided below			
Period of of Collection		APRIL-2024			
Duration of sampling		8 hrs			
Protocol		IS5182 Part 23			
S No.	Plant/ Depart ment	Location/area	Result SPM mg/m3	Time weighted average concentration 8 hr allowed per OSHA For total dust	
5	PAP - 2	Reactor area(PAP-II)	1.5	15.0 mg/m3	
		Dust Bins area(PAP-II)	1.6		
		Head drum area(PAP-II)	1.9		
		RG - 2 (NBM)	2.8		
6	SAP	Melter area (SAP-I)	2.2		
		Rock feeding area(SAP-I)	3		
		RMH area (SAP-I)	3.1		
		Melter area (SAP-II)	2.7		
		Rock feeding area(SAP-II)	2.1		
		RMH area (SAP-II)	2.8		
		Melter area (SAP-III)	2.4		
		Rock feeding area(SAP-III)	3.2		
		RMH area (SAP-III)	3.5		

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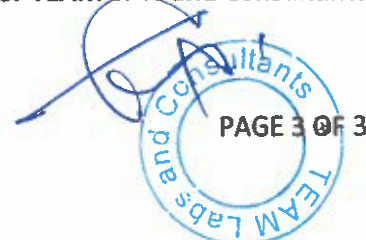
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TEST REPORT

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Description of Test	Fugitive Emissions at workplace-SPM			
Name of the client	Coromandel International Limited, Visakhapatnam			
Location of sampling	As provided below			
Period of Collection	APRIL-2024			
Duration of sampling	8 hrs			
Protocol	IS5182 Part 23			
S No.	Plant/Department	Location/area	Result SPM mg/m3	Time weighted average concentration 8 hr allowed per OSHA For total dust
7	Bagging Plant	PH Main godown	1.9	15.0 mg/m3
		BP-II godown area	2.3	
		Auto bagging (BP-I)	0.9	
		Auto bagging (BP-II)	0.5	
8	Treatment Plants	ETP Entrance	0.7	
		STP Entrance	0.4	
9	Raw Material Storage area	Rock godown near 4Op	2.4	
		Sulphur godown near Garage	2.5	
		Urea godown at Bagging plant	1.5	

For TEAM Labs and Consultants





ANDHRA PRADESH POLLUTION CONTROL BOARD
Dr. YSR Paryavaran Bhavan, APIIC Colony Road,
Gurunanak Colony, Autonagar, Vijayawada- 520007
Phone. No.0866-2463200, Website : <https://pcb.ap.gov.in/>



RED CATEGORY

CONSENT TO OPERATE & AUTHORIZATION ORDER

Consent Order No : APPCB/VSP/65/CFO/HO/1967 -

Dt. 04/08/2023

CONSENT is hereby granted to Operate under section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21/22 of Air (Prevention & Control of Pollution) Act 1981 and amendments thereof and Authorisation under Rule 6 of the Hazardous & Other Wastes (Management and Transboundary, Movement) Rules, 2016 and the rules and orders made there under (hereinafter referred to as 'the Acts', 'the Rules') to:

M/s. Coromandel International Limited,

(After Expansion)

Sriharipuram, Malkapuram (PO)

Visakhapatnam - 530 011

Email : nagarajud@coromandel.murugappa.com ; mishraVK@coromandel.murugappa.com ; nagarjunap@coromandel.murugappa.com

(Hereinafter referred to as 'the Applicant') authorizing to operate the industrial plant to discharge the effluents from the outlets and the quantity of emissions per hour from the chimneys as detailed below:

i) Out lets for discharge of effluents:

Outlet No.	Outlet Description	Max Daily Discharge (KLD)	Point of Disposal
1.	Process and Washings	1,800	<ul style="list-style-type: none"> Process effluents shall be recycled / reused within factory premises to achieve Zero discharge except during rainy season In case of low load plant operations and during rainy season, the quantity of effluent generated from Phosphoric acid post enhancement is 1800 KLD which shall be treated in the existing ETP plant and discharged along with once through cooling blow down through Meghadrigedda surplus course that joins Bay of Bengal
2.	Cooling tower blow down & Desalination Plant RO Rejects	91,600	Into Meghadrigedda surplus course that joins Bay of Bengal
3.	Domestic	530	The industry treat the waste water in the STP, after treatment in the STP the treated waste water shall be Recycled / reused within the factory premises.
	Total	93,930	

ii) Emissions from chimneys:

Chimney No.	Description of Chimney	Quantity of Emissions in m ³ /hr. at peak flow
1.	Attached to 1700 TPD Sulphuric Acid Plant	1,15,357Nm ³ /hr
2.	Attached to 400 TPD* Sulphuric Acid Plant	33,333 Nm ³ /hr
3.	Attached to 700 TPD Phosphoric Acid Plant	1,82,000 Nm ³ /hr
4.	Attached to 40 TPH Rock Grinding unit	15,000 m ³ /hr
5.	Attached to 20 TPH Rock Grinding unit	15,000 m ³ /hr
6.	Attached to Complex A-Train	2,60,700 Nm ³ /hr
7.	Attached to Complex B-Train	2,60,700 Nm ³ /hr
8.	Attached to Complex C-Train	2,67,850 Nm ³ /hr
9.	Common stack attached to Drier (2 Nos.) & process coolers (2 Nos) of 300 TPD customized fertilizer	---
10.	Attached to 1.5 TPH Oil Fired Boiler	12,000 Nm ³ /hr
11.	Attached to 4 MW D.G. Set	--
12.	Attached to 4 MW D.G. Set	--
13.	Attached to 900 TPD Phosphoric Acid Plant	35,000 Nm ³ /Hr
14.	Attached to 75 TPH Rock Phosphate grinding Unit	30,000 Nm ³ /Hr
15.	Attached to 40 TPH Coal Fired Boiler (6.7 MW) & Back pressure Turbine 5 MW	67,200 Nm ³ /Hr
16.	Attached to 910 KVA D.G. Set	--
17.	Attached to 2000 TPD SulphuricAcidPlant-3	1,61,000 Nm ³ /Hr
18.	Attached to 500 KVA D.G. Set	---
19.	Attached to 750 KVA D.G. Set	---

iii) HAZARDOUS WASTE AUTHORISATION (FORM – II) [See Rule 6 (2)]:

M/s. Coromandel International Limited, Sriharipuram, Malkapuram, Visakhapatnam District, is hereby granted an authorization to operate a facility for collection, reception, storage, treatment, transport and disposal of Hazardous Wastes namely:

● HAZARDOUS WASTE WITH DISPOSAL OPTION

S.No	Name of the waste	Stream	Quantity	Disposal Option
1.	Acid residues (Tank bottom sludge)	34.2 of Schedule-I	60 TPA	Recycle back into phosphoric acid reactor
2.	Sulphur muck (Sulphur sludge)	Class B (Sl.No.37) of Schedule-II	1500 TPA	Recycle back into the process as a filler material in the granulation plant
3.	Spent catalyst	18.1 of Schedule-I	115 TPA	Shall be routed through APEMC, to Authorised Reprocessors / Recyclers / TSDF, Parawada / Pre – processors
4.	Used lubricating oil/drained oil	5.1 of Schedule - I	60 KLPA	Shall be routed through APEMC to Authorised Reprocessors / Recyclers

5.	Detoxified Containers and container liners	33.1 of Schedule-I	15000 Nos/Anum	Shall be routed through APEMC to TSDF for detoxification and disposal / outside agencies / return to dealers, after detoxification
6.	LSHS Sludge	34.2 of Schedule-I	15TPA	Shall be routed through APEMC to cement industries for co-processing / TSDF, Parawada / Pre – processors
7.	Scrubbing sludge	37.1 of Schedule-I	450 TPA	Reuse back in the process
8.	ETP sludge	35.3 of Schedule –I	1200 TPA	Recycle back into process
9.	Off specified , expired chemicals & lab chemicals etc.	28.4 of Schedule –I	50 TPA	Shall be routed through M/s. APEMCL to TSDF Parawada for incineration /Landfill /Authorised Cement Industries for Co-Processing
10.	Glass wool	33.2 of Schedule –I	8 TPA	Shall be routed through M/s. APEMCL to TSDF Parawada for Landfill
11.	Insulation puf	33.2 of Schedule –I	8 TPA	Shall be routed through M/s. APEMCL to TSDF Parawada for Incineration

● OTHER THAN HAZARDOUS WASTE WITH DISPOSAL OPTION

S.No	Name of the waste	Quantity	Disposal Option
1.	e-waste	25 TPA	Authorised e-waste recyclers / dismantlers
2.	Fly ash	25 TPD	To cement industries / brick manufacturing units

The Consent Order No. APPCB/VSP/65/CFO/HO/1967 dated 30.09.2022 and amendment of CTO dt. 01.02.2023 valid upto 31.08.2027 stands cancelled from date of issue of this order. This consent order is valid to manufacture the following products along with quantities indicated only:

S.No.	Products	Quantity
1	Complex Fertilisers	4210 TPD*
2	Customized Fertilizer plant (Customized Fertilizersor Organic Fertilizersor Bio Stimulantsor Soil conditioners or Mixture of fertilizers) (or)	
3	Water soluble fertilizer plant	
	100% Water soluble complex fertilizers/ 100% water soluble mixture of fertilizer (or)	
	Micronutrient mixtures (powder/ liquid/ granular) (or)	
	Chelated Micronutrients (powder/ liquid/ granular) (or)	

	Urea Phosphate (or)	
	Micronized / Nano Sulphur	
4	H ₂ SO ₄	4100 TPD (SAP1 – 1700 TPD & SAP2-400 TPD, SAP3- 2000 TPD)
5	Bentonite Sulfur /Bentonite Sulphur with micronutrients	200 TPD
6	Phosphoric Acid	1600 TPD
7	Fertilizer Technology Centre (<i>Granulation</i>) – <i>Straight or Complex or Fortified or Organic or Bio stimulants or Soil conditioner or Mixture of fertilizers</i>	19 TPD
8	Fertilizer technology centre - Phosphoric acid	0.83 TPD
9	Sulpho Zinc & Sulpho Boron	50 TPD
10	Liquid Fertilizer plant – <i>Liquid Suspension or Liquid solution of primary nutrients (N,P,K)/Micronutrients/Secondary nutrients / Organics/Bio Stimulants/Nano fertilizers</i>	6.0 TPD
11	Desalination Plant	6 MLD
By-Products:		
12	Gypsum	8000 TPD
13	Hydroflorosilicic Acid	40TPD
Bulk storage facilities at site		
14	Ammonia (1x5000 MT + 1x7500 MT)	12500 MT
15	Sulphuric acid (1X4000 MT + 3X 2500MT) + 4x5000MT + 2 X 12500 MT	56500 MT
16	Phosphoric acid (P ₂ O ₅)	32890 m ³ (2 X 310 m ³ + 7 X 610 m ³ + 7 X 1000 m ³ + 3 X 3000 m ³ + Wharf - 2 X 6000 m ³ = 12000 m ³)
17	Molten sulphur **	18000 MT (2 X 7500 MT these two storage tanks located at wharf area + 2 X 1500 MT)
18	LSHS	1193 KL (2 X 500 KL + 1 X 160 KL + 33 KL)
19	Diesel	96 KL (2 X 10 KL + 1 X 16 KL + 60 KL)

20	Kerosene	1 X 50 KL
21	LPG	870 Kg

*** The industry shall produce either individual fertilizers or combination of the fertilizers at any point of time without increase in the total permitted capacity of fertilisers 4210 TPD.**

**** Molten sulphur capacity 2 X 7500 MT as per CFE dt.18.11.2021.**

Note: The industry has dismantled Petrol tank and same was deleted.

This order is subject to the provisions of 'the Acts' and the Rules' and orders made thereunder and further subject to the terms and conditions incorporated in the schedule A, B & C enclosed to this order.

This combined order of consent to operate & Hazardous Waste Authorisation shall be valid for a period ending with the **31st day of August, 2027.**

B SREEDHAR IAS, MS(BS), O/o MEMBER SECRETARY-APPCB

**To
M/s. Coromandel International Limited,
Sriharipuram, Malkapuram (PO)
Visakhapatnam - 530 011**

Copy to:

1. The JCEE, Zonal Office, **Visakhapatnam** for information and necessary action.
2. The EE, Regional Office, **Visakhapatnam** for information.

SCHEDULE – A

1. Any up-set condition in any industrial plant / activity 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.
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.
3. Notwithstanding anything contained in this consent order, the Board hereby 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.
4. The industry shall ensure that there shall not be any change in the process technology, source & composition of raw materials and scope of working without prior approval from the Board.

5. The applicant shall submit Environment statement in Form V before 30th September every year as per Rule No.14 of E(P) Rules, 1986 & amendments thereof.
6. The applicant should make applications through Online for renewal of Consent (under Water and 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.
7. 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.
8. 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.
9. The industry shall be liable to pay Environmental Compensation / Other Environmental Taxes, if any environmental damage caused to the surroundings, as fixed by the Collector & District Magistrate or any other competent authority as per the Rules in vogue.
10. The industry may explore the possibility of tapping the solar energy for their energy requirements.
11. The industry should educate the workers and nearby public of possible accidents and remedial measures.

SCHEDULE - B

The issue CTO &HWA (Expansion) to the industry was placed in the Consent Management Committee meeting held on 25.07.2023. The industry shall comply with the following conditions:

1. The industry shall provide permanent pipe line arrangement for lifting leachate generated from ETP sludge storage shed to the ETP for treatment.
2. The industry shall maintain good housekeeping within the factory premises.
3. The industry shall upgrade STP to treat the domestic wastewater of 530 KLD, until then the industry shall restrict the wastewater generation to 300 KLD, as the industry is having STP of capacity 300 KLD only to treat the wastewater.
4. The industry shall furnish emission loads of SO₂ & acid mist for all Sulphuric acid

plants.

5. The industry shall develop balance greenbelt with native species of the total area within 3 months to achieve 33% of greenbelt.

WATER POLLUTION:

6. The effluent discharged shall not contain constituents in excess of the tolerance limits mentioned below:

Outlet	Parameter	Limiting Standards
1 & 2	pH	6.5 – 8.5
	Ammonical Nitrogen	50 mg/l
	Free Ammonical Nitrogen	4.0 mg/l
	Total Kjeldahl Nitrogen	75 mg/l
	Nitrate Nitrogen	20 mg/l
	Cyanide as CN	0.1 mg/l
	Vanadium as V	0.2 mg/l
	Arsenic as As	0.2 mg/l
	Phosphate as P	5 mg/l
	Suspended solids	100 mg/l
	Oil and Grease	10 mg/l
	Fluoride as F	10 mg/l
	Hexavalent Chromium as Cr	0.1 mg/l
	Total Chromium as Cr	2.0 mg/l
	BOD	30 mg/l
	COD	250 mg/l
	Temp :- Not more than 5 °C higher than intake water.	
3	pH	6.50 – 8.50
	Oil and Grease	10 mg/l
	Biochemical Oxygen Demand	30 mg/l
	Total Suspended Solids	<100 mg/l
	Fecal Coliform (FC) (Most Probable Number per 100 milliliter, MPN/100ml)	<1000 MPN/100 ml

Note: (i) Chromium salt shall not be used in cooling tower as algicide. (ii) The effluent shall be analysed for Vanadium and Arsenic once in a year and analysis report shall be submitted to the concerned State Pollution Control Board / Pollution Control Committee.

7. The source of water is GVMC, Sea drawl & Desalination Plant. The following is the permitted water consumption:

S.NO.	Purpose	Quantity (KLD)
1	Process & Washes	Total – 16600 (Existing 10,350 + SAP3-1800 + PAP-2400 KLD) + Expansion= 2050 (SAP - 650+ PAP-1400)
2	Industrial Cooling (Make up) – Fresh Water (from GVMC or from De-salination plant or combination of both)	
3	Boiler feed	

4	Domestic & Other	
	Subtotal	16600
5	Sea water (Industrial cooling & Desalination Plant of 6 MLD capacity)	84600+16000 = 100600
	Grand Total (kl)	1,17,200

8. The effluent discharged shall comply with the tolerance limits mentioned as per MoEF notification dated 29.12.2017 prescribed for Fertilizer industry.
9. The industry shall maintain the following:
 - a. Electro Magnetic flow meters with totalisers for water used and effluent generation for different purposes as mentioned in this CTO order.
 - b. Proper records for effluent generation, treated, reused and discharged into meghadrigedda.
 - c. Water flow meter at Leachate Collection pit provided for Gypsum storage yard to quantify the effluents recycled and shall maintain registers.
10. The effluents shall be stored in above ground level collection tanks separately.
11. Effluents shall not be discharged onland or any water bodies or aquifers or outside under any circumstances. Floor washings shall be admitted into effluent collection system only and shall not be allowed to find their way into storm water drains or open areas. The industry shall maintain separate storm water drains and provide rain water harvesting structure.
12. Container, Container liners shall be detoxified at the specified covered platform with dyke walls and the wash wastewater shall be routed to low TDS collection tank.
13. The industry shall comply with the standard for fluoride (1.5 mg/l) in piezo well water samples and shall not exceed the standard
14. The industry shall submit details of maintaining temperature difference (DT) of 5⁰C before disposal to Sea via Megadri gedda every month.
15. The industry shall provide online effluent monitoring system for pH, BOD, COD, TSS, Phosphates, Fluorides, temperature with online connectivity to CPCB / APPCB as per CPCB directions dated 05.02.2014 and 02.03.2015.
16. The industry shall ensure that no Fluoride contamination in two piezo wells and monitor piezo wells on monthly basis. The industry shall submit trends every 3 months to RO, Visakhapatnam.

AIR POLLUTION:

17. The emissions shall not contain constituents in excess of the prescribed limits mentioned below.

Chimney No.	Parameter	Emission Standards
	Acid mist	20 mg/Nm ³

1	SO ₂ SO ₃	1 Kg/MT of product 0.35 Kg/MT of product
2	Acid mist SO ₂ SO ₃	20 mg/Nm ³ 0.65 Kg/MT of product 0.35 Kg/MT of product
3 & 13	Total Fluoride PM	20 mg/Nm ³ 50 mg/Nm ³
4,5 & 14	PM	50 mg/Nm ³
6 - 8	Particulate Matter Fluorine Ammonia	45 mg/Nm ³ 4 mg/Nm ³ 165 mg/Nm ³
9	Particulate Matter	50.00 mg/Nm ³
11, 12	Particulate Matter	115.00 mg/Nm ³
15	PM	50.00 mg/Nm ³
17	Acid mist SO ₂ SO ₃	20 mg/Nm ³ 1 Kg/MT of product 0.35 Kg/MT of product

18.The industry shall comply with emission limits for DG sets upto 800 KW as per the Notification G.S.R.520 (E), dated 01.07.2003 under the Environment (Protection) Amendment Rules, 2003 and G.S.R.448(E), dated 12.07.2004 under the Environment (Protection) Second Amendment Rules, 2004. In case of DG sets more than 800 KW shall comply with emission limits as per the Notification G.S.R.489 (E), dated 09.07.2002 at serial no.96, under the Environment (Protection) Act, 1986.

19.The industry shall comply with ambient air quality standards of PM10 (Particulate Matter size less than 10 microns) - 100 micro gram/ m³; PM2.5 (Particulate Matter size less than 2.5 microns) - 60 micro gram/ m³; SO₂ - 80 micro gram/ m³; NO_x - 80 micro gram/m³, outside the factory 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 shall be complied. Following standards prescribed for noise shall be complied.

Noise Levels: Day time - (6 AM to 10 PM) - 75 dB (A)

Night time - (10 PM to 6 AM) - 70 dB (A).

20.The industry shall provide a sampling port with removable dummy of not less than 15 cm diameter in the stack at a distance of 8 times the diameter of the stack from the nearest constraint such as bends etc. A platform with suitable ladder shall be provided below 1 meter of sampling port to accommodate three persons with instruments. A 15 AMP 250 V plug point shall be provided on the platform.

21.The industry shall properly maintain 400 MTPD evaporation system for Phosphoric

Acid including Fluorine recovery system as stipulated in the EC order dt.14.07.2017. The industry shall recover fluorine from phosphoric acid process to maximum extent possible.

- 22.The industry shall operate bulk handling mechanism like telescopic chute system at all raw material storage ware houses and ensure that there shall not be fugitive emissions from the raw material handling warehouses. The industry shall cover all directions of the feeding area of rock phosphate and rectify the fugitive leakages, if any.
- 23.The industry shall maintain online stack analyzers for all the stacks of complex fertilizer plant for monitoring ammonia, PM and fluorine and one analyser for monitoring fluorine in Phosphoric Acid Plant with online connectivity to CPCB/APPCB as per CPCB directions dated 05.02.2014 and 02.03.2015. The industry shall maintain the online analyzer facility for monitoring of Fluoride in the Phosphoric Acid plant immediately. The data shall be connected to the CPCB / APPCB servers.
- 24.The industry shall maintain 3 online CAAQM Stations within the plant as per the specifications of CPCB for online monitoring of SPM, RSPM, SO₂, NO_x & Ammonia with networking facility to Head Office, APPCB.
- 25.The industry shall maintain automatic caustic lye solution dosage for the scrubbers provided in the Sulphuric acid plant so as to maintain pH below 8 in acidic scrubbers provided in the plant. The industry shall maintain online pH measuring facility with auto recording system to the alkali scrubbers provided to treat the sulfuric acid plant emissions.

GENERAL:

- 26.The industry shall not manufacture new products and not exceed the consented capacity without CTE/CTO of the Board.
- 27.The industry shall evaporate (concentrate) Phosphoric acid to reduce Fluorine so as to reduce fluorine input to complex fertilizer plant;
- 28.Housekeeping shall be improved through closed transportation systems. Road sweeping machine shall be deployed for control of dust near Gypsum yard.
- 29.The industry shall maintain Hazardous waste storage area with concrete platform and leachate collection pit for storage of ETP sludge.
- 30.The industry shall comply with the guidelines issued by the CPCB regarding storage & handling of gypsum.
- 31.The industry shall not start-up the Sulfuric acid plants during night time i.e. between 6.00 PM to 8: 00 AM.
- 32.The industry shall operate bag filters at hopper i.e. rock phosphate unloading point at wharf to arrest the fugitive emissions.
- 33.The industry shall maintain the internal roads within the factory premises.
- 34.The industry shall update the Disaster Management Plan regularly.

- 35.The industry shall monitor work place online ammonia levels with online sensors in complex fertiliser plant and maintain records.
- 36.The industry shall store fresh gypsum on HDPE lining at the wagon loading area.
- 37.The industry shall submit concentration levels of Ammonia monitored by industry through sensors every month.
- 38.The industry shall ensure that there are no leaks in any unit operations and unit processes.
- 39.The industry shall take proper measures to ensure the trucks with proper leak proof bodies are used for transportation of gypsum from the industry.
- 40.The industry shall maintain the following records and the same shall be made available to the inspecting officers of the Board:
 - a. Daily production details.
 - b. Quantity of Effluents generated, treated, recycled.
 - c. Log Books for pollution control systems.
 - d. Characteristics of effluents and emissions.
 - e. Hazardous/non hazardous solid waste generated and disposed.
 - f. Inspection book.
 - g. Manifest copies of effluents / hazardous waste.
- 41.The industry shall comply with the conditions stipulated in the CTE order No.65/APPCB/CFE/RO-VSP/HO/2012, dated 08.02.2020, 24.08.2022, 27.07.2022 & 22.11.2022
- 42.The industry shall update the information in OCEMS - Industry Information Data Entry Software for Compliance Reporting Protocol in PART-II (Sections F & G) Every Quarter on 1st January, 1st April, 1st July and 1st October through this software system.
- 43.The industry shall maintain valid PLI policy which includes Environmental Relief Fund (ERF) and submit copy to RO, Visakhapatnam on yearly base.
- 44.The industry shall install digital display boards at publicly visible places at the main gate indicating the products manufactured Vs permitted quantities, Treated effluent concentrations Vs discharge standards, Stack emission & AAQ concentrations Vs standards, hazardous waste generation, disposed, stock Vs permitted quantities and validity of CTO; and exhibit the CTO order at a prominent place in the factory premises, as per Hon'ble Supreme Court order.
- 45.The industry shall submit Half yearly compliance reports to all the stipulated conditions in Environmental Clearance (EC), Consent to Establishment (CTE) and Consent to Operation (CTO) 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 MoEF&CC recognized and National Accreditation Board for Laboratory Testing (NABL) accredited third party.

46.Any other directions / circulars / notices / guidelines issued by CPCB, MoEF&CC and APPCB shall be followed from time to time.

47.The conditions are stipulated without prejudice to the rights and contentions of this Board in any Hon'ble Court of Law.

Special conditions:

48.The industry shall submit a copy of the NOC issued by the Andhra Pradesh State Disaster Response and Fire Service Dept., (APSDRFSD) at concerned Regional Office, APPCB.

49.The industry shall prepare a safety report and carry out an independent safety audit report of the respective industrial activities including chemical storages / isolated storages by an expert not associated with such industrial activity as required under Rule 10 of MSIHC Rules, 1989 and get it approved by the Factories Dept., and submit the compliance along with copy of the safety report, safety audit report and safety certificate at concerned Regional Office, APPCB.

50.The industry 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 the Regional Office, APPCB time to time duly certifying the same by the industry. Further, the industry shall extend training to the working personnel while handling hazardous chemicals for the prevention of accidents and necessary antidotes to ensure safety, as per the MSIHC Rules, 1989.

51.The industry shall carryout calibration of safety equipment and leak detection systems at regular intervals and shall certify the same with the Factories Department. That certified copy shall be submitted to the APPCB, Regional Office. The industry shall install fluorescent Wind Vane at the highest point in the industry premises.

52.The industry shall inventory the hazardous wastes and its quantities stored within the industry 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 a monthly basis duly certifying the same by the industry.

53.The industry shall conduct Risk studies to be undertaken clearly describing impact within the industry premises and outside the industry premises and emergency response system.

54.The industry shall inventorize the storage quantities of hazardous chemicals (raw materials), products, 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.

SCHEDULE - C

[see rule 6(2)]

**[CONDITIONS OF AUTHORISATION FOR OCCUPIER OR OPERATOR
HANDLING HAZARDOUS WASTES]**

1. The authorised person shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made there under.
2. The authorisation shall be produced for inspection at the request of an officer authorised by the State Pollution Control Board.
3. The person authorised shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this authorisation.
4. Any unauthorised change in personnel, equipment or working conditions as mentioned in the application by the person authorised shall constitute a breach of his authorisation.
5. The person authorised shall implement Emergency Response Procedure (ERP) for which this authorisation is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time;
6. The person authorised shall comply with the provisions outlined in the Central Pollution Control Board guidelines on “Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty”.
7. It is the duty of the authorised person to take prior permission of the State Pollution Control Board to close down the facility.
8. The industry shall enter an agreement with the Cement industries for disposal of incinerable waste or shall dispose to Alternative Fuel Raw material facility (AFRF) OR to TSDF for co-incineration.
9. The industry shall comply with the provisions of HWM Rules, 2016 in terms of interstate transport of Hazardous Waste and manifest document prescribed Under Rule 18 and 19 of the HWM Rules, 2016.
10. The industry shall not store hazardous waste for more than 90 days as per the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016.
11. The industry shall store Used / Waste Oil and Used Lead Acid Batteries in a secured way in their premises till its disposal to the manufacturers / dealers on buyback basis.
12. The industry shall transport the hazardous waste to cement industries only through vehicle fitted with GPS tracking system.
13. The industry shall maintain 7 copy manifest system for transportation of waste

generated and a copy shall be submitted to concerned 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.

14.The industry shall maintain proper records for Hazardous and Other Wastes stated in Authorisation 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 20 (2) of the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016.

15.The industry shall route the all the hazardous wastes through M/s. APEMC.

B SREEDHAR IAS, MS(BS), O/o MEMBER SECRETARY-APPCB

**To
M/s. Coromandel International Limited,
Post Box No. 1116,
Sriharipuram, Malkapuram(PO)
Visakhapatnam -530 011**

TEAMORIGINAL

Form-No. TCL/UGF/RF-138

Labs and Consultants**Registered Office :**

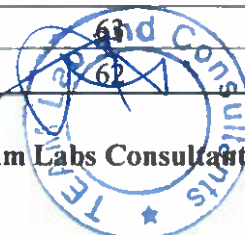
B-115, 116, 117 & 509, Annapoorna Block, Aditya Enclave, Ameerpet, Hyderabad - 530038.

Ph. : (O) 040-23748555 / 23748616, Fax : 040-23748666, Email : teamlabs@gmail.com

Laboratory Recognised by Ministry of Environment, Forests and Climate Change, Gol, New Delhi
NABL Accredited Laboratory**TEST REPORT**

Test Report No	TLC/V/Env/CIL/30/0924	DATE 01-10-2024
Description of Test	Noise Level Monitoring	
Name of the client	Coromandel International Limited, Visakhapatnam	
Location of sampling	Asper details provided	
Date of collection	SEPTEMBER-2024	
DEPARTMENT / SECTION	LOCATION / AREA	NOISE LEVEL LIMITI (75 dB)
A-Train	Granulator	72
	Screen Area	64
	Dryer	70
	Control Room	66
	Ground floor	68
	Air preheater	63
B-Train	Granulator	70
	Screen Area	62
	Dryer	74
	Control Room	63
	Ground floor	70
	Air preheater	71
C-Train	Granulator	68
	Screen Area	64
	Dryer	73
	Control Room	60
	Near the Entrance	64
	Air preheater	65
Phosphoric Acid Plant -1	Control Room	56
	Vaccum pump area	70
	Top of the Reactor	72
Phosphoric Acid Plant -2	Near Evaporatar Pumps	71
	Top of the Reactor	70
	Acid Tanks	62
	Control Room	60
PAP -1 Belt Filter - 1	Ground Floor	67
	Vacc.Pump	63
	Filter Area	62

For Team Labs Consultants



Labs and Consultants**Registered Office :**

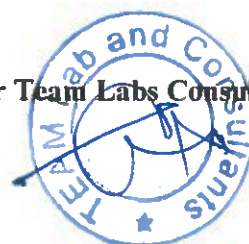
B-115, 116, 117 & 509, Annapoorna Block, Aditya Enclave, Ameerpet, Hyderabad - 530038.

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Laboratory Recognised by Ministry of Environment, Forests and Climate Change, Govt, New Delhi
NABL Accredited Laboratory**TEST REPORT**

Test Report No	TLC/V/Env/CIL/30A/0924	DATE 01-10-2024
Description of Test	Noise Level Monitoring	
Name of the client	Coromandel International Limited, Visakhapatnam	
Location of sampling	As per details provided	
Date of collection	SEPTEMBER-2024	
DEPARTMENT / SECTION	LOCATION / AREA	NOISE LEVEL LIMITI (75 dB)
PAP - 2 Belt Filter -2	Belt Filter Ground Floor	63
	Vacuum pump area	70
	Filter Area	71
Rock Grinding -1	Control Room	60
	Near Ball Mill	64
Rock Grinding - 2	Control Room	60
	Near Ball Mill	70
Sulfuric Acid Plant -1	Blower Area	65
	DCS room	62
	Near Acid Tank	72
	Near New SAP Blower	59
	Melter Area	60
Sulfuric Acid Plant -2	Blower Area	64
	DCS room	66
	Near Acid Tank	71
	Near New SAP Blower	72
	Stack Area	66
	Melter Area	65
Sulfuric Acid Plant -3	Sulfuric Acid tanks	62
	Cooling towers	63
	M S tanks	62

For Team Labs Consultants



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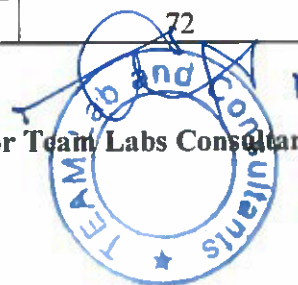
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TEST REPORT

Test Report No	TLC/V/Env/CIL/3B/0924	DATE 01-10-2024
Description of Test	Noise Level Monitoring	
Name of the client	Coromandel International Limited, Visakhapatnam	
Location of sampling	As per details provided	
Date of collection	SEPTEMBER-2024	
DEPARTMENT / SECTION	LOCATION / AREA	NOISE LEVEL LIMITI (75 dB)
Old bagging plant	Ground Floor	67
	Automatic Bagging Machine-A	62
	Automatic Bagging Machine-B	60
	Automatic Bagging Machine-C	73
	Control Room	63
	BIN floor	65
New bagging plant	Automatic Bagging Machine	68
	Control Room	59
TG Plant	Near TG(Ground Floor)	60
	Control Room	62
G-Sulphur	Sulphur Pit	68
	Conveyor Area	66
ETP	Control Room	63
	Pumps Area	69
Boiler	Near Boiler	71
	Boiler Outlet	73
	ASH Silo	60
	Control Room	62
Utility	HP to LP make up	66
	Utility Control Room	64
	Utility Room o/s Boiler	70
	Feed Water pump area	73
	Compressor Section	72

For Team Labs Consultants



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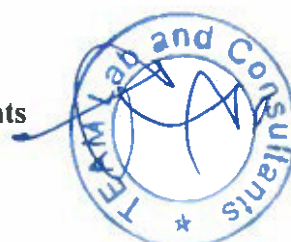
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TEST REPORT

Test Report No	TLC/V/Env/CIL/30C/0924	DATE 01-10-2024
Description of Test	Noise Level Monitoring	
Name of the client	Coromandel International Limited, Visakhapatnam	
Location of sampling	Asper details provided	
Date of collection	SEPTEMBER-2024	
	LOCATION / AREA	NOISE LEVEL LIMITI (70 dB)
Night	1St Gate	52
	2nd Gate	54
	3rd Gate (Plant)	55
	4th Gate	52
	5th Gate	48
	6th Gate	50
	7th Gate	55
	8th Gate	56
	9th Gate	54
	Contractor gate	50
	LOCATION / AREA	NOISE LEVEL LIMITI (75 dB)
Day	1St Gate	68
	2nd Gate	64
	3rd Gate (Plant)	67
	4th Gate	62
	5th Gate	63
	6th Gate	68
	7th Gate	60
	8th Gate	65
	9th Gate	66
	Contractor gate	62

For Team Labs Consultants



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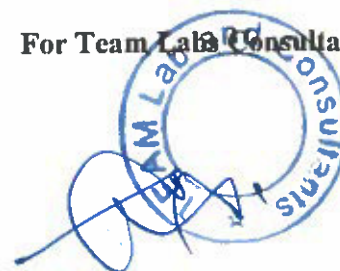
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NABL Accredited Laboratory

TEST REPORT

Test Report No	TLC/V/Env/CIL/30D/0924	DATE 01-10-2024
Description of Test	Noise Level Monitoring	
Name of the client	Coromandel International Limited, Visakhapatnam	
Location of sampling	Asper details provided	
Date of collection	SEPTEMBER-2024	
	LOCATION / AREA	NOISE LEVEL LIMITI (70dB)
WHARF		
Night	Control Room	52
	Trucks loading Area	50
	Boiler Area	58
	Bearth Area	62
	LOCATION / AREA	NOISE LEVEL LIMITI (75dB)
Day	Control Room	65
	Trucks loading Area	70
	Boiler Area	63
	Bearth Area	65

For Team Labs Consultants



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TEST REPORT

Test Report No	TLC/V/Env/CIL/30E/0924	DATE 01-10-2024
Description of Test	Noise Level Monitoring	
Name of the client	Coromandel International Limited, Visakhapatnam	
Location of sampling	Asper details provided	
Date of collection	SEPTEMBER-2024	
	LOCATION / AREA	NOISE LEVEL LIMITI (70dB)
VST Terminal		
Night	Storage Trucks Area	54
	Control Room	50
	VST Gate	49
	Transformer Area	60
	LOCATION / AREA	NOISE LEVEL LIMITI (75dB)
Day	Storage Trucks Area	65
	Control Room	66
	VST Gate	64
	Transformer Area	69

For Team Labs Consultants



EHS/MoEF/2023-094

01/12/2023

To
The Director,
Regional Office (South Eastern Zone)
Ministry of Environment, Forests and Climate Change
1st and 2nd Floor, Handloom Export Promotion Council,
34, Cathedral Garden Road,
Nungambakkam, Chennai-600034

Dear Sir,

Sub: Half Yearly EC (Environment Clearance) Compliance Report- regd.

Ref: F. No. J-11011/314/2007-IA II(I) dated 31.08.2007


Please find the attached half yearly compliance report of Environment Clearance issued by MOEFCC
for enhanced production capacity of complex fertilizer plant from 2700 MTPD to 3900 MTPD.

Period of submission : Apr'23 to Sep'23
Unit : Coromandel International Limited, Visakhapatnam

Thanking You,

Yours Sincerely,

For Coromandel International Limited



Gnanasundaram M
Vice President & Head Mfg



Encl : a/a

CC: The Member Secretary, Head Office-APPCB, Vijayawada
Joint Chief Environmental Engineer, APPCB, Zonal Office, Visakhapatnam
Environmental Engineer, APPCB, Regional Office, Visakhapatnam

EHS2-Vizag-Coromandel

From: Nagarjuna-P-Mgr-EHS-Vizag-Coromandel
Sent: 01 December 2023 17:23
To: EHS2-Vizag-Coromandel
Subject: FW: Half Yearly EC (Environment Clearance) Compliance Report- regd.
Attachments: EC MoEF Complex fertilizer plant Apr -23 to Sep-23.pdf

From: Nagarjuna-P-Mgr-EHS-Vizag-Coromandel
Sent: Friday, December 1, 2023 3:24 PM
To: eccompliance-ap@gov.in; rovspappcb@gmail.com; zovspappcb <zovspappcb@gmail.com>
Cc: Subhradip Mondal-Mgr-Environment-Vizag-Coromandel <MondalS@coromandel.murugappa.com>; Nagaraju D-AGM-EHS-Vizag-Coromandel <nagarajud@coromandel.murugappa.com>; Vinod Kumar Mishra-Sr.GM-EHS-Vizag-Coromandel <MishraVK@coromandel.murugappa.com>
Subject: Half Yearly EC (Environment Clearance) Compliance Report- regd.

Dear Sir,

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Please find the attached half yearly compliance report of Environment Clearance issued by MOEFCC for enhanced production capacity of complex fertilizer plant from 2700 MTPD to 3900 MTPD.

Period of submission : Apr'23 to Sep'23
Unit : Coromandel International Limited, Visakhapatnam

Regards,
Nagarjuna P
Manager-Environment
9100443439

SAVE ENVIRONMENT SAVE LIFE


Coromandel
FUTURE POSITIVE
Coromandel International Limited
Sriharipuram, Malkapuram PO
Visakhapatnam-530 011
Andhrapradesh, India.
F: +91 891-2578400
W: www.coromandel.biz
A MURUGAPPA GROUP COMPANY

Coromandel International Limited, Visakhapatnam

**MoEF-EC- COMPLIANCE STATUS OF Environmental Clearance (EC) issued by
MoEF for enhanced production capacity of complex fertilizer plant from
2700 MTPD to 3900 MTPD**

Reference : Ref: J11011/314/2007-IA II (I) dt. 31st August, 2007
Period : For the period from (Apr-2023 to Sep-2023)

A.) SPECIFIC CONDITIONS:

S. NO	CONDITION	COMPLIANCE STATUS
i)	The expansion of the project shall be based on process improvement, technology innovation, improving on stream-hours maximization of equipment capacity and continuous supply of raw materials. No Sulphuric acid and phosphoric acid plant shall be installed for additional requirement of Sulphuric and phosphoric acid. Due to enhancement of production pollution load shall not increase from the existing load.	<p>The Complex plant during its upgradation was done with below mentioned improvements and technology innovations :-</p> <ul style="list-style-type: none">• Usage of higher capacity pipe-reactor with improved technology.• Upgrading drives for Dryer, bucket elevators, installation of new piping, pre-heaters and higher efficiency scrubber nozzles. Also enhanced infrastructure to handle the additional quantity of raw materials, bulk and finished products.• No Sulphuric acid and phosphoric acid plant would be installed for additional requirement of Sulphuric acid and phosphoric acid.• Any shortfall of Sulphuric acid and phosphoric acid shall be purchased from either Indian suppliers or imported.
ii)	The project authorities shall install efficient scrubbing system to control fluorine emission and bag filters for dust control in phosphoric acid plant.	Installed fume scrubber at phosphoric acid plant to reduce the fluorine emissions and Bag filters at Rock-grinding Section to meet the norms specified by the statutory authorities.

Coromandel International Limited, Visakhapatnam

S. NO	CONDITION	COMPLIANCE STATUS
iii)	Multi stage scrubbing system shall be installed to control ammonia, fluorine and suspended particulate matter in fertilizer plant.	<p>Multi-stage (Four-stage) scrubbing system was incorporated for 'A' & 'B' Trains in the year 2001 and for C-Train, in the year 2000, at installation stage. Presently, the emissions of ammonia and fluorine from all the stacks are within the limits specified by the statutory authorities.</p> <p>Monitoring the fluoride emissions and meeting the standard of 4 mg/Nm³ from the stack of phosphoric acid plant and reports are being submitted to APPCB. In case of emergency plant will shut down immediately.</p> <p>The gaseous emissions are being monitored on continuous basis with in house laboratory. Further, MoEF approved third party analysis is also being carried out on monthly basis and the reports are submitted regularly.</p> <p>Complex A, Complex-B & Complex C train were installed with online stack analyzer and the data is uploading to APPCB & CPCB websites through cloud server.</p> <p>SAP-I & SAP-II installed with online stack analyzer and connected to CPCB & APPCB websites.</p> <p>Phosphoric acid and rock grinding units were installed with PM Online stack analyzers. The HF analyzer is also installed at Phosphoric acid plant.</p> <p>All the analysers are connected to APPCB & CPCB websites.</p>

Coromandel International Limited, Visakhapatnam

S. NO	CONDITION	COMPLIANCE STATUS
iv)	The project authority shall install dust collection system in fertilizer bagging plant.	<p>We implemented Pipe reactor technology for improving the granulation and reduce the dust level.</p> <p>We have additionally implemented product dust prevention system by bringing modifications & improvements in the manufacturing process</p> <p>Additional product dust screens are arranged to remove the dust even before it reaches bagging plant.</p> <p>Product granulation aids (chemicals) are added to increase the granule strength as a result the product dust formation drastically reduced.</p> <p>We added de-dusting and scrubbing system for recovery of dust in the granulation plant.</p> <p>With the above actions we avoided dust formation and avoided installation of bag filters in bagging section.</p> <p>We installed AAQ station and the values are well within the limits and the data is uploaded to APPCB website.</p>
v)	The Sulphuric Acid Plant shall be based on double conversion double absorption technology and anodically protected acid coolers shall be provided. Start-up scrubbers shall be installed in both Sulphuric acid plants to minimize SO ₂ emission during start-up.	Installed alkali scrubbers in both the Sulphuric acid plants and SO ₂ emissions are below the norms prescribed by APPCB.
vi)	The project authority shall install high efficiency scrubber nozzles, additional tail gas scrubber, improve the scrubber efficiency by optimizing the L/G ratio, install additional cyclones in scrubbing system,	Installed higher efficiency scrubber nozzles. Improved L/G ratio through installing higher capacity scrubber circulation pumps and standby

Coromandel International Limited, Visakhapatnam

S. NO	CONDITION	COMPLIANCE STATUS
	and install mist eliminators in scrubbers.	cyclones kept in place.
vii)	Permission of the competent authority shall be obtained for drawl of additional quantity of 250m ³ /d existing Tatipudi and Meghadrigedda reservoirs.	No additional water is required from Municipal Corporation and existing quantities are adequate to meet additional requirement.
viii)	The gaseous emissions (SO ₂ , SO ₃ , NO _x , NH ₃ , F, fertilizer dust) and particulate matter from various process units shall conform to the standards prescribed by the concerned authorities from time to time. Emission data shall be periodically monitored and reports submitted to Ministry's Regional Office, CPCB and SPCB.	All gaseous emissions and particulate matter data from various process units are being monitored by third party and online stack. Data is being submitted to Ministry's regional office /APPCB/CPCB. Find enclosed Annexure-01 Environment monitoring reports for your reference.
ix)	All the wastewaters generated from the various processes shall be recycled / reuse in the plant and zero discharge shall be maintained. The domestic wastewater shall be treated in septic tanks and treated waste shall be used for irrigation in the greenbelt.	Effluents from Sulfuric acid & Phosphoric acid are being treated in effluent treatment plant. Zero effluent discharge from complex fertilizer plant. Sewage treatment plant has been provided for domestic wastewater treatment and the treated water is used for plantation.
x)	The proponent shall not withdraw groundwater for the plant and if it requires, the permission from the competent authority CGWA / SGWB shall be obtained.	Not applicable. No Ground water withdrawal.
xi)	The company shall develop the greenbelt in atleast 25% land area to mitigate the effect of fugitive emissions and noise as per the guidelines CPCB.	Out of the 428 acres, the revised land area is 313 (after demarking from VPT) and the green belt is developed more than 33%. Hence Complied.
xii)	The company shall implement all the recommendations made in the Charter on Corporate Responsibility for Environmental Protection (CREP) for fertilizer industries	All the recommendations are being complied Annexure-I

Coromandel International Limited, Visakhapatnam

B) GENERAL CONDITIONS:

	CONDITION	COMPLIANCE STATUS
i)	The project authorities shall strictly adhere to the stipulations of the SPCB/state government or any statutory body.	Agreed.
ii)	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	No further expansion would be taken up without prior environment clearance.
iii)	At no time, the emissions shall exceed the prescribed limits. In the event of failure of any pollution control system adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency has been achieved.	In case of any upset in the process resulting in increase of emissions, the plant is stopped immediately for taking necessary actions.
iv)	The locations of ambient air quality monitoring stations shall be reviewed in consultation with the State Pollution Control Board (SPCB) and additional stations shall be installed, if required, in the downwind direction as well as where maximum ground level concentrations are anticipated.	Installed three online monitoring AAQM stations and connected to APPCB server. Ambient air quality is also being monitored through MoEF approved laboratory.
v)	Dedicated scrubbers and stacks of appropriate height as per the Central Pollution Control Board guidelines shall be provided to control the emissions from various vents. The scrubbed water shall be sent to ETP for further treatment.	Installed stacks to the scrubbers as per the CPCB guidelines. Scrubbing liquid generated in the complex plant is reused in the process. ETP provided to treat the effluent. In Phosphoric acid plant, the fluorine recovery is done converting it to Hydro-flouro silicic acid.
vi)	All the storage tanks will be under negative pressure to avoid any leakages. Breather valves, N ₂ blanketing and secondary condensers with brine chilling system shall be provided for all the storage tanks to minimize vapor losses. All liquid raw material shall be stored in storage Tanks and Drums.	Installed atmospheric ammonia storage tanks to store ammonia. Ammonia sensors are located at various locations within the factory premises.
vii)	The company shall undertake following	Installed grinding unit to recycle filter

Coromandel International Limited, Visakhapatnam

	CONDITION	COMPLIANCE STATUS
	<p>Waste Minimization measures.</p> <ul style="list-style-type: none"> ➤ Metering and control of quantities of active ingredients to minimize waste. ➤ Reuse of by-products from the process as raw materials or as raw material substitutes in other processes ➤ Use of automated filling to minimize spillage. 	<p>cake into granulation plant</p> <p>Constructed acid recovery pits to reuse in the process</p> <p>Identified dedusting points and connected to cyclones</p> <p>Water meters and energy meters provided to water lines and pollution control equipment.</p> <p>Installed pipe conveyors to transfer rock phosphate.</p>
	<ul style="list-style-type: none"> ➤ Use of "Close Feed" system into batch reactors. ➤ Venting equipment through vapor recovery system. ➤ Use of high-pressure hoses for equipment cleaning to reduce wastewater generation. 	<p>These conditions are not applicable to our industry.</p>
viii)	<p>Fugitive emissions in the work zone environment, product, and raw materials storage area shall be regularly monitored. The emissions shall conform to the limits imposed by the State Pollution Control Boards/Central Pollution Control Board.</p>	<p>It is being measured quarterly as per factories act 1948 Standards</p>
ix)	<p>The project authorities shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended in October, 1994 and January, 2000 and Hazardous Waste (Management and Handling) Rules, 1989, as amended from time to time. Authorization from the SPCB shall be obtained for collection, treatment, storage, and disposal of hazardous wastes.</p>	<p>Hazardous waste authorization has been obtained from APPCB and hazardous waste management is being carried out as per the provisions.</p>
x)	<p>The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).</p>	<p>Noise monitoring is being carried out and the noise levels are within the prescribed norms.</p> <p>Find enclosed Annexure-01 Environment monitoring reports for your reference.</p>

Coromandel International Limited, Visakhapatnam

	CONDITION	COMPLIANCE STATUS
xi)	The company shall develop rainwater-harvesting structures to harvest the run off water for recharge of ground water.	Noted
xii)	Occupational health surveillance of the workers shall be carried out on a regular basis and records shall be maintained as per the Factories Act.	Dedicated OHC is available within the factory premises with full time doctor availability. Regularly conducting Annual medical check-up for employees and contract workmen according to Factories act
xiii)	The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment. The eco-development plan should be submitted to the SPCB within three months of receipt of this letter for approval.	1) Four stage scrubbing system in complex plant to minimize ammonia emissions 2) Changeover to dry gypsum disposal system from wet disposal system. 3) Installed pipe conveyors to transfer raw sulfur, rock phosphate & product to minimize the dust pollution as well as spillages 4) Community welfare measures being taken up through CSR activities
xiv)	The project proponent shall also comply with all the environmental protection measures and safeguards proposed in the EIA / EMP report.	Agreed.
xv)	A separate Environmental Management Cell equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.	Environmental Management Cell is presently headed by AGM-EHS. In house laboratory is in place to monitor emissions & effluent.
xvi)	The project authorities shall earmark adequate funds to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose.	Complied
xvii)	The implementation of the project vis-à-vis environmental action plans shall be monitored by the concerned Regional Office of the Ministry/SPCB / CPCB. A six monthly compliance status report shall be	Six monthly compliance reports are being submitted and made available on the company website.

Coromandel International Limited, Visakhapatnam

	CONDITION	COMPLIANCE STATUS
	submitted to monitoring agencies and shall be posted on the website of the Company.	
xviii)	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry at http://envfor.nic.in . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.	Advertised in prominent news papers in local language and also English, and copies were forwarded to Regional Office, MoEF, Bangalore and SPCB.
xix)	The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.	All the projects were completed by 2009-10.

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Ph. : (O) 040-23748555 / 23748616, Fax : 040-23748666, Email : teamlabs@gmail.com

Laboratory Recognised by Ministry of Environment, Forests and Climate Change, Govt, New Delhi
NABL Accredited Laboratory**TEST REPORT****Test Report No.TLC/V/Env/CFL/20/0423****dt.02.05.2023****Description of Test:** Ambient Air Quality Monitoring outside the CFL**Name of the client:** Coromandel International Limited, Visakhapatnam**Location of sampling:** Near Warf**Date of Collection:** As per details Given**Analysis Report for the Month of APRIL-2023**

Date of monitoring	Time	PM _{2.5} Limit 60 µg/m ³	PM ₁₀ Limit 100 µg/m ³	SO ₂ Limit 80 µg/m ³	NO _x Limit 80 µg/m ³
26.04.2023 To 27.04.2023	09.00 to 09.00 hrs	36	78	14.0	19.4

All values are given in µg/m³**For TEAM Labs and Consultants**

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TEST REPORT

Test Report No.TLC/V/Env/CFL/20/0523

dt.01.06.2023

Description of Test: Ambient Air Quality Monitoring outside the CFL

Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Near Warf

Date of Collection: As per details Given

Analysis Report for the Month of MAY-2023

Date of monitoring	Time	PM _{2.5} Limit 60 µg/m ³	PM ₁₀ Limit 100 µg/m ³	SO ₂ Limit 80 µg/m ³	NO _x Limit 80 µg/m ³
25.05.2023 To 26.05.2023	09.00 to 09.00 hrs	38	85	15.7	20.4

All values are given in µg/m³

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TEST REPORT

Test Report No.TLC/V/Env/CFL/20/0623

dt.01.07.2023

Description of Test: Ambient Air Quality Monitoring outside the CFL

Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Near Warf

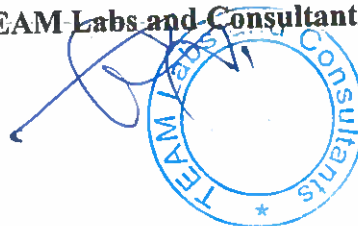
Date of Collection: As per details Given

Analysis Report for the Month of JUNE-2023

Date of monitoring	Time	PM _{2.5} Limit 60 $\mu\text{g}/\text{m}^3$	PM ₁₀ Limit 100 $\mu\text{g}/\text{m}^3$	SO ₂ Limit 80 $\mu\text{g}/\text{m}^3$	NO _x Limit 80 $\mu\text{g}/\text{m}^3$
28.06.2023 To 29.06.2023	09.00 to 09.00 hrs	40	88	16.2	22.8

All values are given in $\mu\text{g}/\text{m}^3$

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TEST REPORT

Test Report No.TLC/V/Env/CFL/20/0723

dt.01.08.2023

Description of Test: Ambient Air Quality Monitoring outside the CFL

Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Near Warf

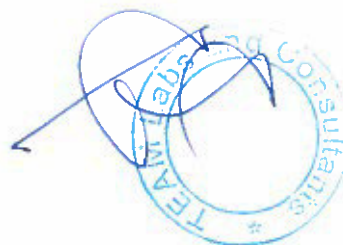
Date of Collection: As per details Given

Analysis Report for the Month of JULY-2023

Date of monitoring	Time	PM _{2.5} Limit 60 µg/m ³	PM ₁₀ Limit 100 µg/m ³	SO ₂ Limit 80 µg/m ³	NO _x Limit 80 µg/m ³
28.07.2023 To 29.07.2023	09.00 to 09.00 hrs	36	80	14.2	16.8

All values are given in µg/m³

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NABL Accredited Laboratory**TEST REPORT**

Test Report No.TLC/V/Env/CFL/20/0823

dt.01.09.2023

Description of Test: Ambient Air Quality Monitoring outside the CFL

Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Near Warf

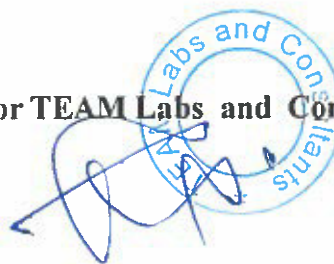
Date of Collection: As per details Given

Analysis Report for the Month of AUGUST-2023

Date of monitoring	Time	PM _{2.5} Limit 60 $\mu\text{g}/\text{m}^3$	PM ₁₀ Limit 100 $\mu\text{g}/\text{m}^3$	SO ₂ Limit 80 $\mu\text{g}/\text{m}^3$	NO _x Limit 80 $\mu\text{g}/\text{m}^3$
29.08.2023 To 30.08.2023	09.00 to 09.00 hrs	44	90	16.8	21.4

All values are given in $\mu\text{g}/\text{m}^3$

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TEST REPORT

Test Report No.TLC/V/Env/CFL/20/0923

dt.03.10.2023

Description of Test: Ambient Air Quality Monitoring outside the CFL

Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Near Warf

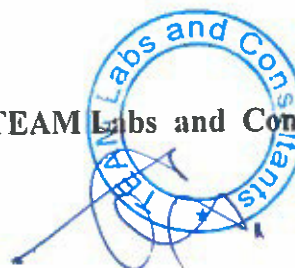
Date of Collection: As per details Given

Analysis Report for the Month of SEPTEMBER-2023

Date of monitoring	Time	PM _{2.5} Limit 60 µg/m ³	PM ₁₀ Limit 100 µg/m ³	SO ₂ Limit 80 µg/m ³	NO _x Limit 80 µg/m ³
30.09.2023 To 01.10.2023	09.00 to 09.00 hrs	35	78	12.2	15.8

All values are given in µg/m³

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TEST REPORT

Test Report No.TLC/V/Env/CIL/12/0423

dt.02.05.2023

Description of Test: Ambient Air quality Monitoring inside the CFL
Name of the client: Coromandel International Limited, Visakhapatnam
Location of sampling: Stations as per details given
Period of Monitoring : For the Month of APRIL-2023

Summary of Ambient Air quality Monitoring Data for the Month of APRIL-2023

Parameters		AAQ-1 Station at the Top of Cafeteria	AAQ-2 Station near DG sets	AAQ-3 Station at Gate -13 (Near Bagging plant)
PM2.5	Minimum	30	36	34
	Maximum	41	42	43
	98%tile	41	42	43
	Average	37	39	39
PM 10	Minimum	62	68	62
	Maximum	75	82	82
	98%tile	75	82	82
	Average	70	75	76
SO ₂	Minimum	13.9	22.0	12.8
	Maximum	21.5	26.8	15.0
	Average	18.5	24.2	13.9
	98%tile	21.5	26.8	15.0
NO _x	Minimum	17.9	22.2	16.3
	Maximum	23.3	27.2	18.5
	98%tile	23.3	27.2	18.5
	Average	21.2	24.1	17.2
NH ₃	Minimum	0.01mg/M ³	0.02mg/M ³	0.01 mg/M ³
	Maximum	0.03mg/M ³	0.04mg/M ³	0.02mg/M ³
	98%tile	0.03mg/M ³	0.04mg/M ³	0.02mg/M ³
	Average	0.02mg/M ³	0.03mg/M ³	0.02mg/M ³

All values are expressed in µg/m³
except Ammonia

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TEST REPORT

Test Report No.TLC/V/Env/CIL/12/0523

dt.01.06.2023

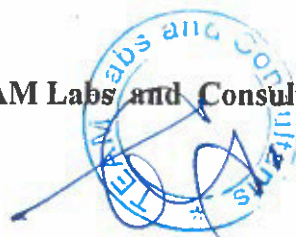
Description of Test: Ambient Air quality Monitoring inside the CFL
Name of the client: Coromandel International Limited, Visakhapatnam
Location of sampling: Stations as per details given
Period of Monitoring : For the Month ofMAY-2023

Summary of Ambient Air quality Monitoring Data for the Month ofMAY-2023

Parameters		AAQ-1 Station at the Top of Cafeteria	AAQ-2 Station near DG sets	AAQ-3 Station at Gate -13 (Near Bagging plant)
PM2.5	Minimum	32	34	36
	Maximum	43	44	45
	98%tile	43	44	45
	Average	38	39	40
PM 10	Minimum	62	69	69
	Maximum	79	84	82
	98%tile	79	84	82
	Average	71	76	77
SO ₂	Minimum	14.7	23.1	13.8
	Maximum	23.3	28.5	15.5
	Average	19.6	25.0	14.7
	98%tile	23.3	28.5	15.5
NO _x	Minimum	18.1	22.8	15.9
	Maximum	22.9	26.7	19.6
	98%tile	22.9	26.7	19.6
	Average	21.0	24.3	18.5
NH ₃	Minimum	0.01mg/M ³	0.02mg/M ³	0.01 mg/M ³
	Maximum	0.03mg/M ³	0.04mg/M ³	0.02mg/M ³
	98%tile	0.03mg/M ³	0.04mg/M ³	0.02mg/M ³
	Average	0.02mg/M ³	0.03mg/M ³	0.02mg/M ³

All values are expressed in $\mu\text{g}/\text{m}^3$
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TEST REPORT

Test Report No.TLC/V/Env/CIL/12/0623

dt.01.07.2023

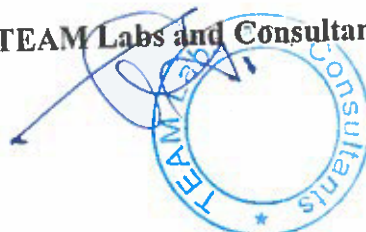
Description of Test: Ambient Air quality Monitoring inside the CFL
Name of the client: Coromandel International Limited, Visakhapatnam
Location of sampling: Stations as per details given
Period of Monitoring : For the Month of JUNE-2023

Summary of Ambient Air quality Monitoring Data for the Month of JUNE-2023

Parameters		AAQ-1 Station at the Top of Cafeteria	AAQ-2 Station near DG sets	AAQ-3 Station at Gate -13 (Near Bagging plant)
PM2.5	Minimum	28	30	29
	Maximum	42	43	44
	98%tile	42	43	44
	Average	37	39	39
PM 10	Minimum	58	61	62
	Maximum	78	85	83
	98%tile	78	85	83
	Average	70	76	76
SO ₂	Minimum	13.4	14.7	11.0
	Maximum	24.5	28.5	16.0
	Average	20.6	25.0	14.5
	98%tile	24.5	28.5	16.0
NO _x	Minimum	16.6	16.8	14.7
	Maximum	24.3	27.2	20.2
	98%tile	24.3	27.2	20.2
	Average	21.4	23.8	18.5
NH ₃	Minimum	0.01mg/M ³	0.01mg/M ³	0.01 mg/M ³
	Maximum	0.03mg/M ³	0.04mg/M ³	0.02mg/M ³
	98%tile	0.03mg/M ³	0.04mg/M ³	0.02mg/M ³
	Average	0.02mg/M ³	0.03mg/M ³	0.02mg/M ³

All values are expressed in $\mu\text{g}/\text{m}^3$
except Ammonia

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TEST REPORT

Test Report No.TLC/V/Env/CIL/12/0623

dt.01.07.2023

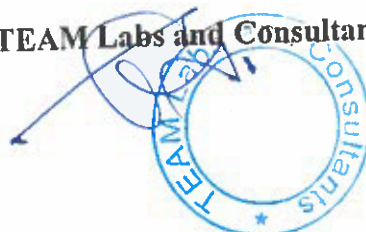
Description of Test: Ambient Air quality Monitoring inside the CFL
Name of the client: Coromandel International Limited, Visakhapatnam
Location of sampling: Stations as per details given
Period of Monitoring : For the Month of JUNE-2023

Summary of Ambient Air quality Monitoring Data for the Month of JUNE-2023

Parameters		AAQ-1 Station at the Top of Cafeteria	AAQ-2 Station near DG sets	AAQ-3 Station at Gate -13 (Near Bagging plant)
PM2.5	Minimum	28	30	29
	Maximum	42	43	44
	98%tile	42	43	44
	Average	37	39	39
PM 10	Minimum	58	61	62
	Maximum	78	85	83
	98%tile	78	85	83
	Average	70	76	76
SO ₂	Minimum	13.4	14.7	11.0
	Maximum	24.5	28.5	16.0
	Average	20.6	25.0	14.5
	98%tile	24.5	28.5	16.0
NO _x	Minimum	16.6	16.8	14.7
	Maximum	24.3	27.2	20.2
	98%tile	24.3	27.2	20.2
	Average	21.4	23.8	18.5
NH ₃	Minimum	0.01mg/M ³	0.01mg/M ³	0.01 mg/M ³
	Maximum	0.03mg/M ³	0.04mg/M ³	0.02mg/M ³
	98%tile	0.03mg/M ³	0.04mg/M ³	0.02mg/M ³
	Average	0.02mg/M ³	0.03mg/M ³	0.02mg/M ³

All values are expressed in $\mu\text{g}/\text{m}^3$
except Ammonia

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TEST REPORT

Test Report No.TLC/V/Env/CIL/12/0823

dt.01.09.2023

Description of Test:

Ambient Air quality Monitoring inside the CFL

Name of the client:

Coromandel International Limited, Visakhapatnam

Location of sampling:

Stations as per details given

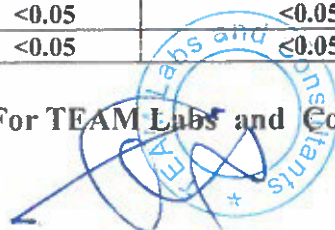
Period of Monitoring :

For the Month of AUGUST-2023

Summary of Ambient Air quality Monitoring Data for the Month of AUGUST-2023

Parameters		AAQ-1 Station at the Top of Cafeteria	AAQ-2 Station near DG sets	AAQ-3 Station at Gate -13 (Near Bagging plant)
PM2.5	Minimum	30	34	32
	Maximum	43	45	40
	98%tile	43	45	40
	Average	37	40	36
PM 10 $\mu\text{g}/\text{M}^3$	Minimum	54	60	60
	Maximum	80	82	75
	98%tile	80	82	75
	Average	71	75	69
SO ₂ $\mu\text{g}/\text{M}^3$	Minimum	13.8	14.9	9.5
	Maximum	22.3	27.0	14.8
	Average	19.7	22.8	13.3
	98%tile	22.3	27.0	14.8
NO _x $\mu\text{g}/\text{M}^3$	Minimum	15.0	13.8	12.8
	Maximum	22.8	26.0	18.2
	98%tile	22.8	26.0	18.2
	Average	20.3	21.1	15.5
NH ₃ mg/M^3	Minimum	0.01	0.01	0.01
	Maximum	0.02	0.03	0.01
	98%tile	0.02	0.03	0.01
	Average	0.015	0.02	0.01
O ₃ $\mu\text{g}/\text{M}^3$	Minimum	10	10	10
	Maximum	18	20	12
	98%tile	18	20	12
	Average	11.8	14.5	10.25
CO mg/M^3	Minimum	0.1	0.1	0.1
	Maximum	0.1	0.2	0.2
	98%tile	0.1	0.2	0.2
	Average	0.1	0.12	0.11
Pb $\mu\text{g}/\text{M}^3$	<0.05	<0.05	<0.05	<0.05
C6H6 ng/M^3	<0.05	<0.05	<0.05	<0.05
B(a)P ng/M^3	<0.05	<0.05	<0.05	<0.05
As ng/M^3	<0.05	<0.05	<0.05	<0.05
Ni ng/M^3	<0.05	<0.05	<0.05	<0.05

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TEST REPORT

Test Report No.TLC/V/Env/CIL/12/0923

dt.03.10.2023

Description of Test:

Ambient Air quality Monitoring inside the CFL

Name of the client:

Coromandel International Limited, Visakhapatnam

Location of sampling:

Stations as per details given

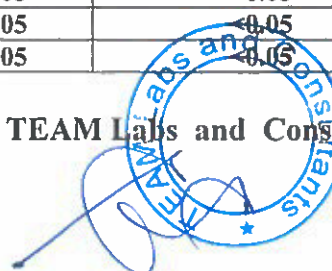
Period of Monitoring :

For the Month ofSEPTEMBER-2023

Summary of Ambient Air quality Monitoring Data for the Month ofSEPTEMBER-2023

Parameters		AAQ-1 Station at the Top of Cafeteria	AAQ-2 Station near DG sets	AAQ-3 Station at Gate -13 (Near Bagging plant)
PM2.5	Minimum	28	26	25
	Maximum	40	42	41
	98%tile	40	42	41
	Average	35	35	34
PM 10 µg/M ³	Minimum	55	50	48
	Maximum	74	79	72
	98%tile	74	79	72
	Average	67	67	64
SO ₂ µg/M ³	Minimum	11.2	10.5	8.9
	Maximum	18.0	24.3	14.9
	Average	15.4	18.1	12.5
	98%tile	18.0	24.3	14.9
NO _x µg/M ³	Minimum	13.8	19.3	11.3
	Maximum	20.4	25.0	16.8
	98%tile	20.4	25.0	16.8
	Average	17.8	22.2	14.4
NH ₃ mg/M ³	Minimum	0.01	0.01	0.01
	Maximum	0.02	0.03	0.012
	98%tile	0.02	0.03	0.012
	Average	0.015	0.017	0.011
O ₃ µg/M ³	Minimum	8	8	8
	Maximum	14	18	14
	98%tile	14	18	14
	Average	11.2	13.5	11.2
CO mg/M ³	Minimum	0.1	0.1	0.1
	Maximum	0.1	0.2	0.2
	98%tile	0.1	0.2	0.2
	Average	0.1	0.14	0.13
Pb µg/M ³	<0.05	<0.05	<0.05	<0.05
C6H6 ng/M ³	<0.05	<0.05	<0.05	<0.05
B(a)P ng/M ³	<0.05	<0.05	<0.05	<0.05
As ng/M ³	<0.05	<0.05	<0.05	<0.05
Ni ng/M ³	<0.05	<0.05	<0.05	<0.05

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NABL Accredited Laboratory**TEST REPORT**

Test Report No.TLC/V/Env/CIL/15/0423

dt.02.05.2023

Description of Test: Surrounding village wells-Ground water analysis

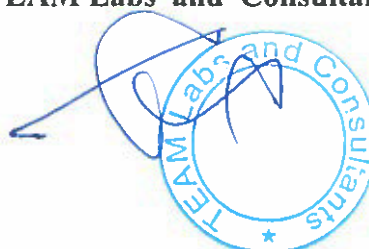
Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Stations as per details given

Date of Sample collection: 25.04.2023

NO	Location of well	pH	PO4 mgpl	F- mgpl	Ammonica l Nitrogen mgpl
1	Kamaladevi colony- No.1	7.6	Nil	0.2	Nil
2	Kamaladevi colony- No.2	7.4	Nil	0.3	Nil
3	Yeduruvanipalem-1	7.3	Nil	0.3	Nil
4	Yeduruvanipalem-2	7.4	Nil	0.3	Nil
5	Mulagada No.1	7.3	Nil	0.3	Nil
6	Mulagada No.2	7.4	Nil	0.3	Nil
7	Mulagada No.3	7.5	Nil	0.3	Nil
8	Kodipandala dibba	7.4	Nil	0.2	Nil
	Proocol	IS:3025 Part 11-1983	APHA4500D	SM 4500 F- D	APHA4500C

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Test Report No.TLC/V/Env/CIL/15/0523

dt.01.06.2023

Description of Test: Surrounding village wells-Ground water analysis

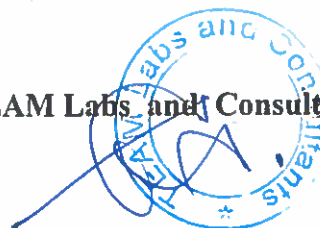
Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Stations as per details given

Date of Sample collection: 20.05.2023

NO	Location of well	pH	PO4 mgpl	F- mgpl	Ammonica I Nitrogen mgpl
1	Kamaladevi colony- No.1	7.8	Nil	0.3	Nil
2	Kamaladevi colony- No.2	7.7	Nil	0.2	Nil
3	Yeduruvanipalem-1	7.5	Nil	0.3	Nil
4	Yeduruvanipalem-2	7.4	Nil	0.2	Nil
5	Mulagada No.1	7.5	Nil	0.3	Nil
6	Mulagada No.2	7.6	Nil	0.2	Nil
7	Mulagada No.3	7.7	Nil	0.3	Nil
8	Kodipandala dibba	7.4	Nil	0.2	Nil
	Proocol	IS:3025 Part 11-1983	APHA4500D	SM 4500 F- D	APHA4500C

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TEST REPORT

Test Report No.TLC/V/Env/CIL/15/0623

dt.01.07.2023

Description of Test: Surrounding village wells-Ground water analysis

Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Stations as per details given

Date of Sample collection: 22.06.2023

NO	Location of well	pH	PO4 mgpl	F- mgpl	Ammonica I Nitrogen mgpl
1	Kamaladevi colony- No.1	7.8	Nil	0.3	Nil
2	Kamaladevi colony- No.2	7.7	Nil	0.2	Nil
3	Yeduruvanipalem-1	7.5	Nil	0.3	Nil
4	Yeduruvanipalem-2	7.4	Nil	0.2	Nil
5	Mulagada No.1	7.5	Nil	0.3	Nil
6	Mulagada No.2	7.6	Nil	0.2	Nil
7	Mulagada No.3	7.7	Nil	0.3	Nil
8	Kodipandala dibba	7.4	Nil	0.2	Nil
	Proocol	IS:3025 Part 11-1983	APHA4500D	SM 4500 F- D	APHA4500C

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TEST REPORT

Test Report No.TLC/V/Env/CIL/15/0723

dt.01.08.2023

Description of Test: Surrounding village wells-Ground water analysis

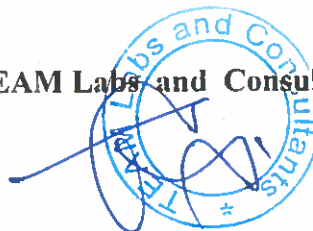
Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Stations as per details given

Date of Sample collection: 17.07.2023

NO	Location of well	pH	PO4 mgpl	F- mgpl	Ammonica I Nitrogen mgpl
1	Kamaladevi colony- No.1	7.7	Nil	0.2	Nil
2	Kamaladevi colony- No.2	7.8	Nil	0.2	Nil
3	Yeduruvanipalem-1	7.7	Nil	0.2	Nil
4	Yeduruvanipalem-2	7.8	Nil	0.2	Nil
5	Mulagada No.1	7.5	Nil	0.3	Nil
6	Mulagada No.2	7.6	Nil	0.2	Nil
7	Mulagada No.3	7.7	Nil	0.2	Nil
8	Kodipandala dibba	7.6	Nil	0.2	Nil
	Proocol	IS:3025 Part 11-1983	APHA4500D	SM 4500 F- D	APHA4500C

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NABL Accredited Laboratory**TEST REPORT**

Test Report No.TLC/V/Env/CIL/15/0823

dt.01.09.2023

Description of Test: Surrounding village wells-Ground water analysis

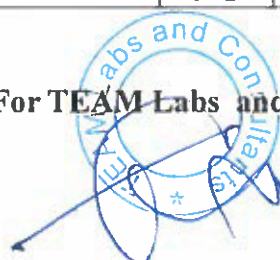
Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Stations as per details given

Date of Sample collection: 19.08.2023

NO	Location of well	pH	PO4 mgpl	F- mgpl	Ammonical Nitrogen mgpl
1	Kamaladevi colony- No.1	7.6	Nil	0.2	Nil
2	Kamaladevi colony- No.2	7.7	Nil	0.2	Nil
3	Yeduruvanipalem-1	7.5	Nil	0.2	Nil
4	Yeduruvanipalem-2	7.7	Nil	0.2	Nil
5	Mulagada No.1	7.5	Nil	0.3	Nil
6	Mulagada No.2	7.5	Nil	0.2	Nil
7	Mulagada No.3	7.6	Nil	0.2	Nil
8	Kodipandala dibba	7.6	Nil	0.2	Nil
	Proocol	IS:3025 Part 11- 1983	APHA4500D	SM 4500 F- D	APHA4500C

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TEST REPORT

Test Report No.TLC/V/Env/CIL/15/0923

dt.03.10.2023

Description of Test: Surrounding village wells-Ground water analysis

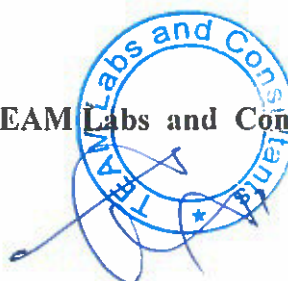
Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Stations as per details given

Date of Sample collection: 28.09.2023

NO	Location of well	pH	PO4 mgpl	F- mgpl	Ammonica I Nitrogen mgpl
1	Kamaladevi colony- No.1	7.7	Nil	0.2	Nil
2	Kamaladevi colony- No.2	7.7	Nil	0.2	Nil
3	Yeduruvanipalem-1	7.6	Nil	0.2	Nil
4	Yeduruvanipalem-2	7.8	Nil	0.2	Nil
5	Mulagada No.1	7.7	Nil	0.3	Nil
6	Mulagada No.2	7.5	Nil	0.2	Nil
7	Mulagada No.3	7.7	Nil	0.2	Nil
8	Kodipandala dibba	7.8	Nil	0.2	Nil
	Proocol	IS:3025 Part 11-1983	APHA4500D	SM 4500 F- D	APHA4500C

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NABL Accredited Laboratory**TEST REPORT**

Test Report No.TLC/V/Env/CFL/16/0423

dt.02.05.2023

Description of Test: Peizo wells analysis

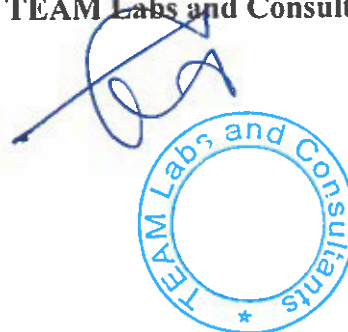
Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Stations as per details given

Date of Sample collection : As per details given

No	Date	Location of Peizo-well	F- mg/L
1	25.04.2023	CFL - colony	0.4
2	"	Near 4 OP Gate	0.5
3	"	Near 7 th gate	0.5
4	"	CRC	0.6
		IS10500 Permissible limit	1.5
	Protocol		SM 4500 F- D

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TEST REPORT

Test Report No.TLC/V/Env/CFL/16/0523

dt.01.06.2023

Description of Test: Peizo wells analysis

Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Stations as per details given

Date of Sample collection : As per details given

No	Date	Location of Peizo-well	F- mg/L
1	20.05.2023	CFL - colony	0.5
2	„	Near4 OP Gate	0.6
3	„	Near 7 th gate	0.5
4	„	CRC	0.7
		IS10500 Permissible limit	1.5
	Protocol		SM 4500 F- D

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NABL Accredited Laboratory**TEST REPORT**

Test Report No.TLC/V/Env/CFL/16/0623

dt.01.07.2023

Description of Test: Peizo wells analysis

Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Stations as per details given

Date of Sample collection : As per details given

No	Date	Location of Peizo-well	F- mg/L
1	16.06.2023	CFL - colony	0.5
2	"	Near 4 OP Gate	0.6
3	"	Near 7 th gate	0.5
4	"	CRC	0.7
		IS10500 Permissible limit	1.5
	Protocol		SM 4500 F- D

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TEST REPORT

Test Report No.TLC/V/Env/CFL/16/0723

dt.01.08.2023

Description of Test: Peizo wells analysis

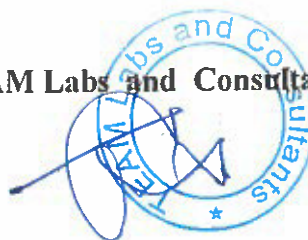
Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Stations as per details given

Date of Sample collection : As per details given

No	Date	Location of Peizo-well	F- mg/L
1	18.07.2023	CFL - colony	0.4
2	18.07.2023	Near4 OP Gate	0.5
3	18.07.2023	Near 7 th gate	0.6
4	18.07.2023	CRC	0.6
		IS10500 Permissible limit	1.5
	Protocol		SM 4500 F- D

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NABL Accredited Laboratory**TEST REPORT**

Test Report No.TLC/V/Env/CFL/16/0823

dt.01.09.2023

Description of Test: Peizo wells analysis

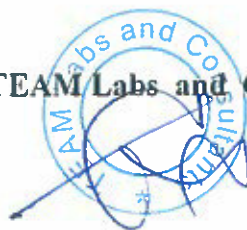
Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Stations as per details given

Date of Sample collection : As per details given

No	Date	Location of Peizo-well	F- mg/L
1	12.08.2023	CFL - colony	0.4
2	12.08.2023	Near 4 OP Gate	0.5
3	12.08.2023	Near 7 th gate	0.6
4	12.08.2023	CRC	0.6
		IS10500 Permissible limit	1.5
	Protocol		SM 4500 F- D

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TEST REPORT

Test Report No.TLC/V/Env/CFL/16/0923

dt.03.10.2023

Description of Test: Peizo wells analysis

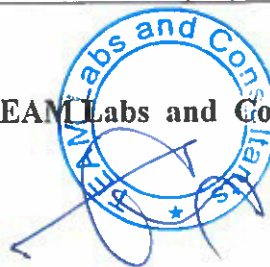
Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Stations as per details given

Date of Sample collection : As per details given

No	Date	Location of Peizo-well	F- mg/L
1	26.09.2023	CFL - colony	0.5
2	26.09.2023	Near4 OP Gate	0.6
3	26.09.2023	Near 7 th gate	0.7
4	26.09.2023	CRC	0.6
		IS10500 Permissible limit	1.5
	Protocol		SM 4500 F- D

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TEST REPORT

Test Report No.TLC/V/Env/CIL/11/0423

dt.02.05.2023

Description of Test:

Source Emission Monitoring inside the CFL

Name of the client:

Coromandel International Limited, Visakhapatnam

Location of sampling: stacks attached to respective plants as per details given

SOURCE/ STACK EMISSION MONITORING FOR THE MONTH OF APRIL-2023

S.No	Stack attached to	Flow rate NM ³ /Hr	parameters	Conc. mg/NM ³	APPCB Standard Limit
1	Complex A	194615	Particulate matter	22	45 mg/NM ³
			Ammonia	95	165.0 mg/NM ³
			Fluoride	0.6	4.0 mg/NM ³
2	Complex B	182573	Particulate matter	24	45 mg/NM ³
			Ammonia	105	165.0 mg/NM ³
			Fluoride	1.4	4.0 mg/NM ³
3	Complex C	171260	Particulate matter	20	45 mg/NM ³
			Ammonia	90	165.0 mg/NM ³
			Fluoride	1.2	4.0 mg/NM ³
4	Sulphuric acid plant-I	96029	Sulphur dioxide	0.081Kg/MT (60mg/NM ³)	1 Kg/MT
			Sulphur trioxide	Nil	0.35 Kg/MT
			Acid mist	Nil	20 mg/NM ³
5	Sulphuric acid plant-II	24581	Sulphur dioxide	0.029Kg/MT (20mg/NM ³)	0.65 Kg/MT
			Sulphur trioxide	Nil	0.35 Kg/MT
			Acid mist	Nil	20 mg/NM ³
6	Phosphoric acid plant-1	158651	Particulate matter	20	50 mg/NM ³
			Fluoride	6.8	20 mg/NM ³
7	Rock grinding unit (Old)	8593	Particulate matter	27	50 mg/NM ³
			Total Fluoride	2.1	20 mg/NM ³
8	Wharf Boiler	7257	Particulate matter	40	115 mg/NM ³
9	Phosphoric acid plant-2	26241	Particulate matter	24	50 mg/NM ³
			Total Fluoride	2.2	20 mg/NM ³
10	Rock grinding unit (New)	7623	Particulate matter	45	50 mg/NM ³
			Total Fluoride	3.8	20 mg/NM ³

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TEST REPORT

Test Report No.TLC/V/Env/CIL/11/0523

dt.01.06.2023

Description of Test:

Source Emission Monitoring inside the CFL

Name of the client:

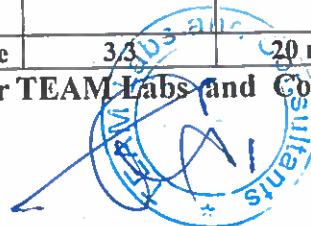
Coromandel International Limited, Visakhapatnam

Location of sampling: stacks attached to respective plants as per details given

SOURCE/ STACK EMISSION MONITORING FOR THE MONTH OFMAY-2023

S.No	Stack attached to	Flow rate NM ³ /Hr	parameters	Conc. mg/NM ³	APPCB Standard Limit
1	Complex A	204895	Particulate matter	20	45 mg/NM ³
			Ammonia	66	165.0 mg/NM ³
			Fluoride	0.9	4.0 mg/NM ³
2	Complex B	196420	Particulate matter	22	45 mg/NM ³
			Ammonia	85	165.0 mg/NM ³
			Fluoride	1.3	4.0 mg/NM ³
3	Complex C	196883	Particulate matter	18	45 mg/NM ³
			Ammonia	72	165.0 mg/NM ³
			Fluoride	1.4	4.0 mg/NM ³
4	Sulphuric acid plant-1	92518	Sulphur dioxide	0.125Kg/MT (95mg/NM ³)	1 Kg/MT
			Sulphur trioxide	Nil	0.35 Kg/MT
			Acid mist	Nil	20 mg/NM ³
5	Sulphuric acid plant-II	266931	Sulphur dioxide	0.048Kg/MT (30mg/NM ³)	0.65 Kg/MT
			Sulphur trioxide	Nil	0.35 Kg/MT
			Acid mist	Nil	20 mg/NM ³
6	Phosphoric acid plant-1	155293	Particulate matter	19	50 mg/NM ³
			Fluoride	5.8	20 mg/NM ³
7	Rock grinding unit (Old)	9009	Particulate matter	25	50 mg/NM ³
			Total Fluoride	2.3	20 mg/NM ³
8	Wharf Boiler	8571	Particulate matter	35	115 mg/NM ³
9	Phosphoric acid plant-2	26867	Particulate matter	22	50 mg/NM ³
			Total Fluoride	2.1	20 mg/NM ³
10	Rock grinding unit (New)	8316	Particulate matter	39	50 mg/NM ³
			Total Fluoride	3.3	20 mg/NM ³

For TEAM Labs and Consultants



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Ph. : (O) 040-23748555 / 23748616, Fax : 040-23748666, Email : teamlabs@gmail.com

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TEST REPORT**SOURCE/ STACK EMISSION MONITORING FOR THE MONTH OF JUNE-2023**

S.No	Stack attached to	Flow rate NM ³ /Hr	parameters	Conc. mg/NM ³	APPCB Standard Limit
1	Complex A	201864	Particulate matter	22	45 mg/NM ³
			Ammonia	65	165.0 mg/NM ³
			Fluoride	1.0	4.0 mg/NM ³
2	Complex B	192974	Particulate matter	20	45 mg/NM ³
			Ammonia	90	165.0 mg/NM ³
			Fluoride	1.8	4.0 mg/NM ³
3	Complex C	195186	Particulate matter	19	45 mg/NM ³
			Ammonia	85	165.0 mg/NM ³
			Fluoride	1.6	4.0 mg/NM ³
4	Sulphuric acid plant-1	98724	Sulphur dioxide	0.299Kg/MT (215mg/NM ³)	1 Kg/MT
			Sulphur trioxide	Nil	0.35 Kg/MT
			Acid mist	Nil	20 mg/NM ³
5	Sulphuric acid plant-II	30430	Sulphur dioxide	0.164Kg/MT (90mg/NM ³)	0.65 Kg/MT
			Sulphur trioxide	Nil	0.35 Kg/MT
			Acid mist	Nil	20 mg/NM ³
6	Phosphoric acid plant-1	159643	Particulate matter	30	50 mg/NM ³
			Fluoride	8.8	20 mg/NM ³
7	Rock grinding unit (Old)	8316	Particulate matter	30	50 mg/NM ³
			Total Fluoride	3.3	20 mg/NM ³
8	Wharf Boiler	8292	Particulate matter	24	115 mg/NM ³
9	Phosphoric acid plant-2	26506	Particulate matter	32	50 mg/NM ³
			Total Fluoride	4.8	20 mg/NM ³
10	Rock grinding unit (New)	8177	Particulate matter	35	50 mg/NM ³
			Total Fluoride	3.8	20 mg/NM ³

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TEST REPORT

Test Report No.TLC/V/Env/CFL/16/0723

dt.01.08.2023

Description of Test: Peizo wells analysis

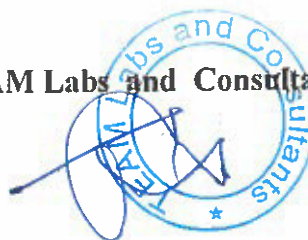
Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Stations as per details given

Date of Sample collection : As per details given

No	Date	Location of Peizo-well	F- mg/L
1	18.07.2023	CFL - colony	0.4
2	18.07.2023	Near4 OP Gate	0.5
3	18.07.2023	Near 7 th gate	0.6
4	18.07.2023	CRC	0.6
		IS10500 Permissible limit	1.5
	Protocol		SM 4500 F- D

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TEST REPORT

Test Report No.TLC/V/Env/CIL/11/0823

dt.01.09.2023

Description of Test:

Source Emission Monitoring inside the CFL

Name of the client:

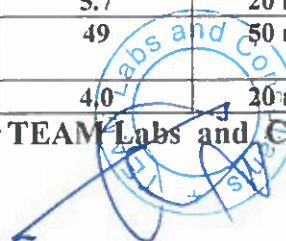
Coromandel International Limited, Visakhapatnam

Location of sampling: stacks attached to respective plants as per details given

SOURCE/ STACK EMISSION MONITORING FOR THE MONTH OF AUGUST-2023

S.No	Stack attached to	Flow rate NM ³ /Hr	parameters	Conc. mg/NM ³	APPCB Standard Limit
1	Complex A	194605	Particulate matter	21	45 mg/NM ³
			Ammonia	90	165.0 mg/NM ³
			Fluoride	1.4	4.0 mg/NM ³
2	Complex B	183191	Particulate matter	20	45 mg/NM ³
			Ammonia	80	165.0 mg/NM ³
			Fluoride	2.0	4.0 mg/NM ³
3	Complex C	187851	Particulate matter	24	45 mg/NM ³
			Ammonia	65	165.0 mg/NM ³
			Fluoride	1.6	4.0 mg/NM ³
4	Sulphuric acid plant-I	100877	Sulphur dioxide	0.170Kg/MT (120mg/NM ³)	1 Kg/MT
			Sulphur trioxide	Nil	0.35 Kg/MT
			Acid mist	Nil	20 mg/NM ³
5	Sulphuric acid plant-II	32449	Sulphur dioxide	0.117Kg/MT (60mg/NM ³)	0.65 Kg/MT
			Sulphur trioxide	Nil	0.35 Kg/MT
			Acid mist	Nil	20 mg/NM ³
6	Phosphoric acid plant-1	143374	Particulate matter	40	50 mg/NM ³
			Fluoride	8.1	20 mg/NM ³
7	Rock grinding unit (Old)	8316	Particulate matter	48	50 mg/NM ³
			Total Fluoride	4.7	20 mg/NM ³
8	Wharf Boiler	8466	Particulate matter	31	115 mg/NM ³
9	Phosphoric acid plant-2	27662	Particulate matter	42	50 mg/NM ³
			Total Fluoride	5.7	20 mg/NM ³
10	Rock grinding unit (New)	8177	Particulate matter	49	50 mg/NM ³
			Total Fluoride	4.0	20 mg/NM ³

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TEST REPORT

Test Report No. TLC/V/Env/CIL/11/0923

dt.03.10.2023

Description of Test:

Source Emission Monitoring inside the CFL

Name of the client:

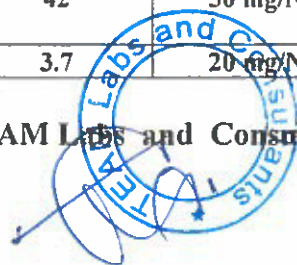
Coromandel International Limited, Visakhapatnam

Location of sampling: stacks attached to respective plants as per details given

SOURCE/ STACK EMISSION MONITORING FOR THE MONTH OF SEPTEMBER-2023

S.No	Stack attached to	Flow rate NM ³ /Hr	parameters	Conc. mg/NM ³	APPCB Standard Limit
1	Complex A	196883	Particulate matter	18	45 mg/NM ³
			Ammonia	95	165.0 mg/NM ³
			Fluoride	1.2	4.0 mg/NM ³
2	Complex B	188955	Particulate matter	22	45 mg/NM ³
			Ammonia	75	165.0 mg/NM ³
			Fluoride	1.9	4.0 mg/NM ³
3	Complex C	200182	Particulate matter	20	45 mg/NM ³
			Ammonia	72	165.0 mg/NM ³
			Fluoride	1.5	4.0 mg/NM ³
4	Sulphuric acid plant-I	99750	Sulphur dioxide	0.154Kg/MT (110mg/NM ³)	1 Kg/MT
			Sulphur trioxide	Nil	0.35 Kg/MT
			Acid mist	Nil	20 mg/NM ³
5	Sulphuric acid plant-II	31884	Sulphur dioxide	0.126Kg/MT (66mg/NM ³)	0.65 Kg/MT
			Sulphur trioxide	Nil	0.35 Kg/MT
			Acid mist	Nil	20 mg/NM ³
6	Phosphoric acid plant-1	143822	Particulate matter	36	50 mg/NM ³
			Fluoride	6.9	20 mg/NM ³
7	Rock grinding unit (Old)	8455	Particulate matter	45	50 mg/NM ³
			Total Fluoride	3.9	20 mg/NM ³
8	Wharf Boiler	8728	Particulate matter	38	115 mg/NM ³
9	Phosphoric acid plant-2	28097	Particulate matter	40	50 mg/NM ³
			Total Fluoride	4.4	20 mg/NM ³
10	Rock grinding unit (New)	7900	Particulate matter	42	50 mg/NM ³
			Total Fluoride	3.7	20 mg/NM ³

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Test Report No.TLC/V/Env/CIL/14/0423

dt.02.05.2023

Description of Test: Ambient Air Quality Monitoring outside the CFL

Name of the client: Coromandel International Limited, Visakhapatnam

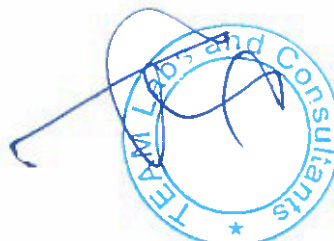
Location of sampling: Gullalapalem

Date of Collection: As per details given

Analysis Report for the Month of APRIL-2023

Date of monitoring	PM2.5 Limit 60 $\mu\text{g}/\text{m}^3$	PM10 Limit 100 $\mu\text{g}/\text{m}^3$	SO ₂ Limit 80 $\mu\text{g}/\text{m}^3$	NO _x Limit 80 $\mu\text{g}/\text{m}^3$
03.04.2023	24	45	10.2	13.3
06.04.2023	26	50	11.3	14.7
10.04.2023	28	55	10.4	15.6
12.04.2023	30	60	9.7	14.4
17.04.2023	32	65	12.2	17.7
19.04.2023	28	59	10.8	15.3
24.04.2023	25	53	9.5	14.7
Protocol	Gravi metric, CPCB anual	IS5182 PART- 23 -2006	IS5182 PART- 2 -2001	IS5182 PART- 6 -2004

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NABL Accredited Laboratory**TEST REPORT**

Test Report No. TLC/V/Env/CIL/13/0423

dt.02.05.2023

Description of Test: Ambient Air Quality Monitoring outside the CFL

Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Mulagada

Date of Collection: As per details given

Analysis Report for the Month of APRIL-2023

Date of monitoring	PM2.5 Limit 60 $\mu\text{g}/\text{m}^3$	PM10 Limit 100 $\mu\text{g}/\text{m}^3$	SO ₂ Limit 80 $\mu\text{g}/\text{m}^3$	NO _x Limit 80 $\mu\text{g}/\text{m}^3$
03.04.2023	28	57	10.1	13.3
06.04.2023	27	56	9.8	14.3
10.04.2023	30	60	12.7	16.6
12.04.2023	32	65	13.0	16.6
17.04.2023	29	60	10.2	15.5
19.04.2023	30	64	11.2	17.2
24.04.2023	26	55	9.7	13.7
Protocol	Gravi metric, CPCB anual	IS5182 PART- 23 -2006	IS5182 PART- 2 -2001	IS5182 PART- 6 -2004

All values are given in $\mu\text{g}/\text{m}^3$

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TEST REPORT

Test Report No.TLC/V/Env/CIL/13/0523

dt.01.06.2023

Description of Test: Ambient Air Quality Monitoring outside the CFL

Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Mulagada

Date of Collection: As per details given

Analysis Report for the Month of MAY-2023

Date of monitoring	PM2.5 Limit 60 $\mu\text{g}/\text{m}^3$	PM10 Limit 100 $\mu\text{g}/\text{m}^3$	SO ₂ Limit 80 $\mu\text{g}/\text{m}^3$	NO _x Limit 80 $\mu\text{g}/\text{m}^3$
02.05.2023	30	58	11.5	15.5
04.05.2023	28	55	10.6	14.3
09.05.2023	31	62	12.5	16.6
11.05.2023	32	66	14.7	18.2
15.05.2023	28	58	10.5	15.5
19.05.2023	30	62	9.9	16.6
20.05.2023	27	56	9.2	14.7
Protocol	Gravi metric, CPCB anual	IS5182 PART- 23 -2006	IS5182 PART- 2 -2001	IS5182 PART- 6 -2004

All values are given in $\mu\text{g}/\text{m}^3$

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TEST REPORT

Test Report No.TLC/V/Env/CIL/14/0523

dt.01.06.2023

Description of Test: Ambient Air Quality Monitoring outside the CFL

Name of the client: Coromandel International Limited, Visakhapatnam

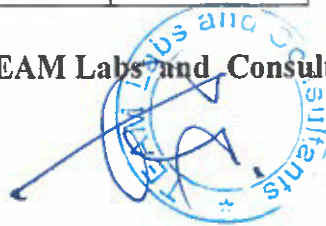
Location of sampling: Gullalapalem

Date of Collection: As per details given

Analysis Report for the Month of MAY-2023

Date of monitoring	PM2.5 Limit 60 $\mu\text{g}/\text{m}^3$	PM10 Limit 100 $\mu\text{g}/\text{m}^3$	SO ₂ Limit 80 $\mu\text{g}/\text{m}^3$	NO _x Limit 80 $\mu\text{g}/\text{m}^3$
02.05.2023	27	52	10.5	13.5
04.05.2023	29	54	12.0	15.8
09.05.2023	28	53	10.4	15.6
11.05.2023	31	62	12.7	19.5
15.05.2023	32	66	14.0	20.2
19.05.2023	28	58	1.2	16.9
20.05.2023	25	53	9.2	14.7
Protocol	Gravi metric, CPCB anual	IS5182 PART- 23 -2006	IS5182 PART- 2 -2001	IS5182 PART- 6 -2004

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TEST REPORT

Test Report No.TLC/V/Env/CIL/14/0523

dt.01.06.2023

Description of Test: Ambient Air Quality Monitoring outside the CFL

Name of the client: Coromandel International Limited, Visakhapatnam

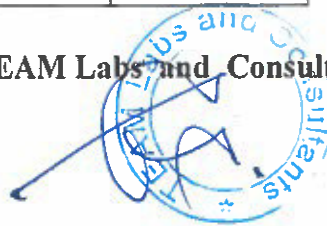
Location of sampling: Gullalapalem

Date of Collection: As per details given

Analysis Report for the Month of MAY-2023

Date of monitoring	PM2.5 Limit 60 $\mu\text{g}/\text{m}^3$	PM10 Limit 100 $\mu\text{g}/\text{m}^3$	SO ₂ Limit 80 $\mu\text{g}/\text{m}^3$	NO _x Limit 80 $\mu\text{g}/\text{m}^3$
02.05.2023	27	52	10.5	13.5
04.05.2023	29	54	12.0	15.8
09.05.2023	28	53	10.4	15.6
11.05.2023	31	62	12.7	19.5
15.05.2023	32	66	14.0	20.2
19.05.2023	28	58	1.2	16.9
20.05.2023	25	53	9.2	14.7
Protocol	Gravi metric, CPCB anual	IS5182 PART- 23 -2006	IS5182 PART- 2 -2001	IS5182 PART- 6 -2004

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TEST REPORT

Test Report No.TLC/V/Env/CIL/13/0623

dt.01.07.2023

Description of Test: Ambient Air Quality Monitoring outside the CFL
Name of the client: Coromandel International Limited, Visakhapatnam
Location of sampling: Mulagada
Date of Collection: As per details given

Analysis Report for the Month of JUNE-2023

Date of monitoring	PM2.5 Limit 60 $\mu\text{g}/\text{m}^3$	PM10 Limit 100 $\mu\text{g}/\text{m}^3$	SO ₂ Limit 80 $\mu\text{g}/\text{m}^3$	NO _x Limit 80 $\mu\text{g}/\text{m}^3$
05.06.2023	31	60	11.5	13.8
07.06.2023	30	58	12.0	16.3
13.06.2023	32	62	12.5	16.6
15.06.2023	34	66	14.2	18.2
20.06.2023	25	55	10.2	15.5
23.06.2023	20	56	8.0	10.8
26.06.2023	29	60	9.7	14.3
Protocol	Gravi metric, CPCB anual	IS5182 PART- 23 -2006	IS5182 PART- 2 -2001	IS5182 PART- 6 -2004

All values are given in $\mu\text{g}/\text{m}^3$

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TEST REPORT

Test Report No.TLC/V/Env/CIL/14/0723

dt.01.08.2023

Description of Test: Ambient Air Quality Monitoring outside the CFL

Name of the client: Coromandel International Limited, Visakhapatnam

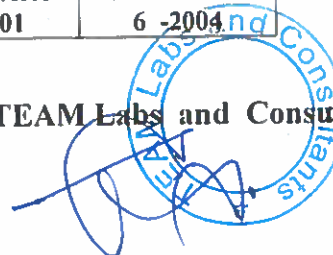
Location of sampling: Gullalapalem

Date of Collection: As per details given

Analysis Report for the Month of JULY-2023

Date of monitoring	PM2.5 Limit 60 $\mu\text{g}/\text{m}^3$	PM10 Limit 100 $\mu\text{g}/\text{m}^3$	SO ₂ Limit 80 $\mu\text{g}/\text{m}^3$	NO _x Limit 80 $\mu\text{g}/\text{m}^3$
05.07.2023	22	48	9.5	12.6
08.07.2023	24	50	10.2	13.3
10.07.2023	22	45	9.4	11.8
13.07.2023	19	40	8.6	10.5
18.07.2023	16	34	7.4	9.8
22.07.2023	14	30	7.0	9.5
24.07.2023	15	38	8.0	10.8
Protocol	Gravi metric, CPCB anual	IS5182 PART- 23 -2006	IS5182 PART- 2 -2001	IS5182 PART- 6 -2004

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TEST REPORT

Test Report No.TLC/V/Env/CIL/13/0723

dt.01.08.2023

Description of Test: Ambient Air Quality Monitoring outside the CFL

Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Mulagada

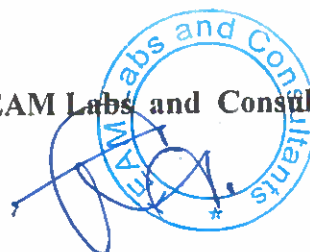
Date of Collection: As per details given

Analysis Report for the Month of JULY-2023

Date of monitoring	PM2.5 Limit 60 $\mu\text{g}/\text{m}^3$	PM10 Limit 100 $\mu\text{g}/\text{m}^3$	SO ₂ Limit 80 $\mu\text{g}/\text{m}^3$	NO _x Limit 80 $\mu\text{g}/\text{m}^3$
05.07.2023	28	54	11.0	13.8
08.07.2023	26	55	10.5	14.2
10.07.2023	30	60	11.8	15.2
13.07.2023	20	42	9.7	13.5
18.07.2023	18	40	8.0	10.6
22.07.2023	16	35	7.8	10.0
24.07.2023	20	40	8.0	10.8
Protocol	Gravi metric, CPCB anual	IS5182 PART- 23 -2006	IS5182 PART- 2 -2001	IS5182 PART- 6 -2004

All values are given in $\mu\text{g}/\text{m}^3$

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NABL Accredited Laboratory**TEST REPORT**

Test Report No.TLC/V/Env/CIL/14/0823

dt.01.09.2023

Description of Test: Ambient Air Quality Monitoring outside the CFL

Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Gullalapalem

Date of Collection: As per details given

Analysis Report for the Month of AUGUST-2023

Date of monitoring	PM2.5 Limit 60 µg/m ³	PM10 Limit 100 µg/m ³	SO ₂ Limit 80 µg/m ³	NO _x Limit 80 µg/m ³
02.08.2023	28	58	9.8	14.2
04.08.2023	26	55	10.0	13.5
09.08.2023	30	60	9.6	12.7
11.08.2023	32	57	11.2	15.0
16.08.2023	27	52	9.5	11.6
18.08.2023	15	38	8.0	10.2
21.08.2023	24	50	9.7	12.2
Protocol	Gravi metric, CPCB annual	IS5182 PART- 23 -2006	IS5182 PART-2 - 2001	IS5182 PART-6 -2004

For TEAM Labs and Consultants

Labs and Consultants**Registered Office :**

B-115, 116, 117 & 509, Annapoorna Block, Aditya Enclave, Ameerpet, Hyderabad - 530038.

Ph. : (O) 040-23748555 / 23748616, Fax : 040-23748666, Email : teamlabs@gmail.com

Laboratory Recognised by Ministry of Environment, Forests and Climate Change, Govt, New Delhi
NABL Accredited Laboratory**TEST REPORT**

Test Report No.TLC/V/Env/CIL/13/0823

dt.01.09.2023

Description of Test: Ambient Air Quality Monitoring outside the CFL

Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Mulagada

Date of Collection: As per details given

Analysis Report for the Month of AUGUST-2023

Date of monitoring	PM2.5 Limit 60 $\mu\text{g}/\text{m}^3$	PM10 Limit 100 $\mu\text{g}/\text{m}^3$	SO ₂ Limit 80 $\mu\text{g}/\text{m}^3$	NO _x Limit 80 $\mu\text{g}/\text{m}^3$
02.08.2023	26	54	10.8	14.0
04.08.2023	27	55	9.9	13.2
09.08.2023	32	64	11.0	16.3
11.08.2023	25	50	10.2	13.5
16.08.2023	28	56	9.7	13.2
18.08.2023	12	38	8.1	11.3
21.08.2023	26	54	9.1	10.9
Protocol	Gravi metric, CPCB anual	IS5182 PART-23 - 2006	IS5182 PART-2 - 2001	IS5182 PART-6 - 2004

All values are given in $\mu\text{g}/\text{m}^3$

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TEST REPORT

Test Report No.TLC/V/Env/CIL/13/0923

dt.03.10.2023

Description of Test: Ambient Air Quality Monitoring outside the CFL

Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Mulagada

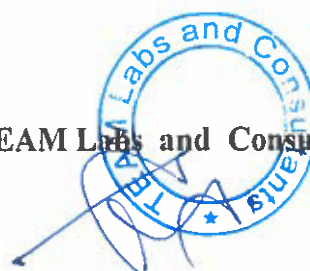
Date of Collection: As per details given

Analysis Report for the Month of SEPTEMBER-2023

Date of monitoring	PM2.5 Limit 60 $\mu\text{g}/\text{m}^3$	PM10 Limit 100 $\mu\text{g}/\text{m}^3$	SO ₂ Limit 80 $\mu\text{g}/\text{m}^3$	NO _x Limit 80 $\mu\text{g}/\text{m}^3$
04.09.2023	24	52	9.8	11.6
06.09.2023	20	48	8.0	10.8
11.09.2023	22	50	8.3	11.2
13.09.2023	15	38	7.8	10.2
19.09.2023	20	44	8.6	12.2
21.09.2023	25	48	9.5	13.8
25.09.2023	26	54	9.7	14.2
Protocol	Gravi metric, CPCB anual	IS5182 PART- 23 -2006	IS5182 PART- 2 -2001	IS5182 PART- 6 -2004

All values are given in $\mu\text{g}/\text{m}^3$

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TEST REPORT**Test Report No.TLC/V/Env/CIL/14/0923****dt.03.10.2023****Description of Test: Ambient Air Quality Monitoring outside the CFL****Name of the client: Coromandel International Limited, Visakhapatnam****Location of sampling: Gullalapalem****Date of Collection: As per details given****Analysis Report for the Month of SEPTEMBER-2023**

Date of monitoring	PM2.5 Limit 60 µg/m ³	PM10 Limit 100 µg/m ³	SO ₂ Limit 80 µg/m ³	NO _x Limit 80 µg/m ³
04.09.2023	25	52	9.5	13.3
06.09.2023	22	46	8.8	12.4
11.09.2023	20	42	7.8	10.6
13.09.2023	16	35	7.2	10.6
19.09.2023	21	45	9.7	12.8
21.09.2023	25	48	9.5	11.6
25.09.2023	27	50	10.1	13.8
Protocol	Gravi metric, CPCB anual	IS5182 PART- 23 -2006	IS5182 PART- 2 -2001	IS5182 PART- 2 -2004

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