

P-III/EC/I/47323/2023-TK

Date: 30.11.2023

To,
The Director,
The Ministry of Environment and Forest & Climate Change,
Integrated Regional Office,
1st Floor, Additional Office Block for GPOA,
Shastri Bhawan, Haddows Road,
Nungambakkam, Chennai – 600 006

Sir/Madam,

Sub: SIPCOT Industrial Park at Thervoy Kandigai – Submission of Half Yearly Compliance Report for December 2023 (i.e., for the period of April 2023 to September 2023) - Reg.

Ref: EC Obtained Vide File No 21-41/2009-IA.III. Dated: 09.08.2010

We hereby submit the Half Yearly Compliance Report for the Development of Industrial Park at Thervoy Kandigai, Thiruvallur District, Tamil Nadu for December 2023 (i.e., for the period of April 2023 to September 2023) along with the supporting documents for your perusal.

Thanking you

Yours faithfully, Sd/-MANAGING DIRECTOR

Encl: As above.

Copy to:

- 1. The Director, CPCB Zonal Office, 77-A, South Avenue Road, Ambattur Industrial Estate, Ambattur Taluk, Thiruvallur District, Chennai - 600 058.
- 2. The Chairman, Tamil Nadu Pollution Control Board, No-76, Mount Road, Guindy, Chennai-600 032.

P.T.O.

State Industries Promotion Corporation of Tamil Nadu Limited

(A Government of Tamil Nadu Undertaking)

CIN: U74999TN1971SGC005967

Regd. Office: 19-A, Rukmani Lakshmipathy Road, Post Box No.7223, Egmore, Chennai - 600 008.

Phone: 45261777, Fax: 45261796 Website: www.sipcot.tn.gov.in



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3. The Project Officer SIPCOT Industrial Park, Thervoy Kandigai.

/Forwarded by Order/

GENERAL MANAGER (P-II)

All.

State Industries Promotion Corporation of Tamil Nadu Limited

(A Government of Tamil Nadu Undertaking)
CIN: U74999TN1971SGC005967

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HALF YEARLY ENVIRONMENTAL CLEARANCE COMPLIANCE REPORT

For the Period of April 2023 to September 2023

For

"Development of Industrial Park at Thervoy Kandigai, Thiruvallur District, Tamil Nadu"

EC OBTAINED Vide Letter No 21-41/2009-IA.III. Dated: 09.08.2010

Submitted by



M/S. STATE INDUSTRIES PROMOTION CORPORATION OF TAMILNADU LTD 19/A, Rukmani Lakshmipathy Road,

Egmore, Chennai-600008.

Prepared by



ENVIRONMENTAL CONSULTANT HUBERT ENVIRO CARE SYSTEMS (P) LTD CHENNAI

November 2023

TABLE OF CONTENTS

S.No		List of Contents	Page No
1.	Proje	ect details	3
2.	Loca	ation map	4
3.	Site	photograph	5
4.	Six r	monthly environmental clearance statement	7
5.	Envi	ronmental Monitoring Details	14
	5.1	Ambient air quality monitoring	14
	5.2	Ambient noise level monitoring	14
	5.3	Soil Quality monitoring	14
	5.4	Ground water quality monitoring	14
	5.5	Surface water quality monitoring	14
6.	Con	clusion	15

LIST OF ANNEXURE

S. No	List Of Contents
Annexure 1	Copy of Environmental Clearance
Annexure 2	CMWSSB Approval letter
Annexure 3	Consent To Establishment
Annexure 4	STP photos of industries
Annexure 5	Photos of Solid waste Management area of Individual industries
Annexure 6	Photos of DG set of Individual Industry
Annexure 7	Environment Monitoring Reports
Annexure 8	Green belt Photographs
Annexure 9	Photographs of rainwater harvesting structures and weep holes
Annexure 10	Photographs of Parking area in Individual industries and LED
	lights
Annexure 11	Newspaper Advertisement
Annexure 12	Screenshot of EC copy uploaded in website
Annexure 13	Screenshot of Six monthly compliance uploaded in website
Annexure 14	Acknowledgement from TNPCB on submission of Form V
Annexure 15	Environmental Monitoring Photos

1. PROJECT DETAILS

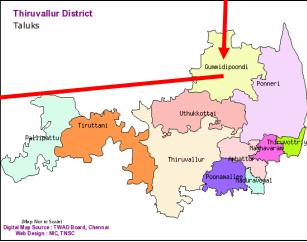
Name of the Project	SIPCOT Thervoy Kandigai Industrial Park
Name of the Proponent	M/S. State Industries Promotion Corporation of Tamil Nadu Ltd.
Location	Thervoy Kandigai, Gummidipoondi Taluk, Thiruvallur District, Tamil Nadu.
EC. No	No. 21-41/2009-IA.III(Enclosed as Annexure 1)
Total Extent	456.27 Hectares
Water Requirements	4.5 MLD Source: CMWSSB (Enclosed as Annexure 2)
Project Cost	Rs.240 Crore

1.0 LOCATION MAP



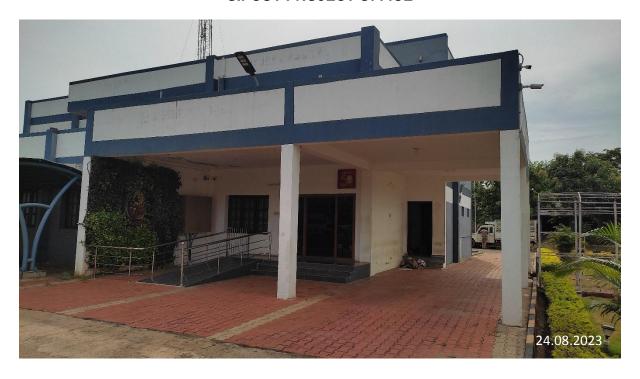






2.0 SITE PHOTOGRAPHS

SIPCOT PROJECT OFFICE





Photographs of Industries within the IP





3.0 SIX MONTHLY ENVIRONMENTAL CLEARANCE COMPLIANCE STATEMENT

PART A- SPECIFIC CONDITIONS

I. Construction Phase

Construction Phase

Not applicable since construction is completed.

Consent to Establishment has been obtained from TNPCB and CTE copy is enclosed as Annexure-3.Individual Industries are mandated to obtain CTE & CTO.

II. OPERATION PHASE

S.NO	CONDITIONS	STATUS OF COMPLIANCE
i.	The installation of the Sewage Treatment	Condition is being complied. SIPCOT
	Plant (STP) should be certified by an	has instructed all member units to have
	independent expert and a report in this	Sewage Treatment Plant. STP photos
	regard should be submitted to the Ministry	are enclosed as Annexure - 4.
	before the project is commissioned for	
	operation. Treated effluent emanating from	
	STP shall be recycled/ reused to the	
	maximum extent possible. Treatment of	
	100% grey water by decentralised treatment	
	should be done. Discharge of unused treated	
	effluent shall conform to the norms and	
	standards of the Tamil Nadu State Pollution	
	Control Board. Necessary measures should	
	be made to mitigate the odour problem from	
	STP.	
ii.	The solid waste generated should be properly	Condition is being complied. Individual
	collected and segregated. Wet garbage	Industries are instructed to have their
	should be composted and dry / inert solid	own solid waste management system.
	waste should be disposed off to the approved	Photographs of the Solid Waste
	sites for land filling after recovering recyclable	Management area are enclosed as
	material.	Annexure - 5.

iii.	Diesel power generating sets proposed as	Individual units will have their own DG
	source of backup power for elevators and	set for emergency power backup. DG
	common area illumination during operation	photo of individual unit is provided in
	phase should be of enclosed type and	Annexure -6.
	conform to rules made under the	
	Environment (Protection) Act, 1986. The	
	height of stack of DG sets should be equal to	
	the height needed for the combined capacity	
	of all proposed DG sets. Use low Sulphur	
	diesel. The location of the DG sets may be	
	decided with in consultation with Tamil Nadu	
	State Pollution Control Board.	
iv.	Noise should be controlled to ensure that it	Condition is being complied. Noise
	does not exceed prescribed standards.	monitoring reports are enclosed as
	During night time the noise levels measured	Annexure-7.
	at the boundary of the building shall be	
	restricted to the permissible levels to comply	
	with the prevalent regulations.	
V.	The green belt of the adequate width and	Condition is being complied. Green belt
	density preferably with local species along	photos are enclosed as Annexure-8 .
	the periphery of the complex shall be raised	
	so as to provide protection against	
	particulates and noise.	
vi.	Weep holes in the compound walls shall be	Condition complied. Photographs of
	provided to ensure natural drainage of rain	rainwater harvesting &Weep holes are
	water in the catchment area during the	enclosed as Annexure - 9.
	monsoon period.	
vii.	Rain water harvesting for roof surface run-	Condition is being complied. Photograph
	off, as proposed should be implemented.	of Individual industry having rainwater
	Before recharging the surface run off, pre-	harvesting, systems are enclosed as
	treatment must be done to remove	Annexure-9.
	suspended matter, oil and grease. The bore	
	well for rainwater recharging should be kept	
	at least 5 mts. above the highest ground	
	water table.	

viii.	The ground water level and its quality should	Condition is being complied. The ground
	be monitored regularly in consultation with	water quality monitoring report is
	Central Ground Water Authority.	enclosed as Annexure-7 .
ix.	Traffic congestion near the entry and exit	Condition complied. Photographs of
	points from the roads adjoining the proposed	Parking facility provided by industries are
	project site must be avoided. Parking loading	enclosed as Annexure - 10 .
	and unloading facility should be fully	
	internalized and no public space should be	
	utilized.	
X.	Energy conservation measures like	Condition is being complied.
	installation of CFLs/TFLs for the lighting the	Photographs of LED street lights is
	common areas should be integral part of the	enclosed as Annexure - 10 .
	project design and should be in place before	
	project commissioning. Use CFLs and TFLs	
	should be properly collected and disposed	
	off/sent for recycling as per the prevailing	
	guidelines/ rules of the regulatory authority to	
	avoid mercury contamination. Use of solar	
	panels may be done to the extent possible.	
xi.	Efforts may be made to use solar energy to	All the member units are advised to
	the maximum extent possible.	comply with.
xii.	Adequate measures should be taken to	SIPCOT has earmarked separate area
	prevent odour problem from Solid waste	for processing Solid Waste generated
	processing plant and STP.	within the Industrial Park. Further,
		Individual member units are mandated to
		have their own solid waste management
		system and STP as per their
		requirement. Photographs are enclosed
		as Annexure - 4 & Annexure -5.

Part - B. GENERAL CONDITIONS

S.NO	CONDITIONS	STATUS OF COMPLIANCE
1.	The environmental safeguards contained in	Condition noted.
	the EIA Report should be implemented in	
	letter and spirit.	
2.	The project proponent shall also submit six	Condition is being complied.
	monthly reports on the status of compliance	
	of the stipulated EC conditions including	
	results of monitored data (both in hard	
	copies as well as by e-mail)to the respective	
	Regional Office of MoEF, the respective	
	Zonal Office of CPCB and the SPCB.	
3.	Officials from the Regional Office of MoEF,	Condition noted.
	Bangalore who would be monitoring the	
	implementation of environmental	
	safeguards should be given full cooperation,	
	facilities and documents/data by the	
	projects, proponents during their inspection.	
	A complete set of all the documents,	
	submitted to MoEF should be forwarded to	
	the CCF, Regional office of MOEF,	
4.	Bangalore. In the case of any change(s) in the scope of	Condition noted. There is no change in
4.	the project, the project would require a fresh	scope of the project.
	appraisal by this Ministry.	scope of the project.
5.	The Ministry reserves the right to add	Condition noted.
	additional safeguard measures	
	subsequently, if found necessary, and to	
	take action including revoking of the	
	environment clearance under the provisions	
	of the Environmental (Protection) Act, 1986,	
	to ensure effective implementation of the	
	suggested safeguard measures in a time	
	bound and satisfactory.	
6.	All other statutory clearances such as the	All member units are instructed to obtain all
	approvals for storage of diesel from Chief	necessary statutory clearances and
	Controller of Explosives, Fire Department,	approvals.

S.NO	CONDITIONS	STATUS OF COMPLIANCE
	Civil Aviation Department, Forest	
	Conservation Act, 1980 and Wildlife	
	(Protection) Act, 1972 etc. shall be	
	obtained, as applicable by project	
	proponents from the respective competent	
	authorities.	
7.	These stipulations would be enforced	Condition Noted.
	among others under the provisions of Water	
	(Prevention and Control of Pollution) Act,	
	1974, the Air (Prevention and control of	
	Pollution) act 1981, the Environment	
	(Protection) Act, 1986, the Public Liability	
	(Insurance) Act, 1991 and EIA Notification,	
	2006.	
8.	The project proponent should advertise in at	Condition complied. Newspaper
	least two local Newspapers widely	advertisement photos are enclosed as
	circulated in the region, one of which shall	Annexure -11.
	be in the vernacular language informing that	
	the project has been accorded	
	Environmental Clearance and copies of	
	clearance letters are available with the	
	Tamil Nadu Pollution Control Board and	
	may also be seen on the website of the	
	Ministry of Environment and Forests at	
	http://www.envfor.nic.in. The advertisement	
	should be made within 10 days from the	
	date of receipt of the Clearance letter and a	
	copy of the same should be forwarded to	
	the Regional office of this Ministry at	
	Bangalore.	

S.NO	CONDITIONS	STATUS OF COMPLIANCE
9.	Environmental clearance is subject to final	Condition Noted.
	order of the Hon'ble Supreme Court of India	
	in the matter of Goa Foundation Vs. Union	
	of India in Writ Petition (Civil) No.460 of	
	2004 as may be applicable to this project.	
10.	Any appeal against this Environmental	No appeal lies against this environmental
	Clearance shall lie with the National	clearance.
	Environment Appellate Authority, if	
	preferred, within a period of 30 days as	
	prescribed under Section 11 of the National	
	Environment Appellate Act, 1997.	
11.	A copy of the clearance letter shall be sent	Condition complied. The clearance letter
	by the proponent to concerned Panchayat,	has also been uploaded on website and
	Zilla Parisad/Municipal Corporation; Urban	enclosed as Annexure -12 .
	Local Body and the Local NGO, if any, from	
	whom suggestions/ representations. if any,	
	were received while processing the	
	proposal. The clearance letter shall also be	
	put on the website of the company by the	
	proponent.	
12.	The proponent shall upload the status of	Condition is being complied. The six
	compliance of the stipulated EC conditions,	monthly compliance report is uploaded in
	including results of monitored data on their	the website and the screenshot of the same
	website and shall update the same	is enclosed as Annexure -13.
	periodically. It shall simultaneously be sent	
	to the Regional Office of MoEF, the	
	respective Zonal Office of CPCB and the	
	SPCB. The criteria pollutant levels namely;	
	SPM, RSPM, S02, NOx, (ambient levels as	
	well as stack emissions) or critical sectoral	
	parameters, indicated for the project shall	
	be monitored and displayed at a convenient,	
	location near the main gate of the company	
	in the public domain.	

S.NO	CONDITIONS	STATUS OF COMPLIANCE
13.	The environmental statement for each	Condition is being complied.
	financial year ending 31st March in Form-	Acknowledgement copy for submission of
	Vas is mandated to be submitted by the	Form – V to TNPCB is enclosed as
	project proponent to the concerned State	Annexure -14.
	Pollution Control Board as prescribed under	
	the Environment (Protection) Rules, 1986,	
	as amended subsequently, shall also be put	
	on the website of the company along with	
	the status of compliance of EC conditions	
	and shall also be sent to the respective	
	Regional Offices of MoEF&CC by e-mail.	

5.0 ENVIRONMENTAL MONITORING DETAILS

It is mandatory to submit six month compliance report of EC conditions to MoEF & CC Regional Office by the proponent. For the purpose of submitting Six-Monthly Compliance report, the environmental monitoring was carried out by M/s. Hubert Enviro Care Systems Pvt. Ltd for the period of April 2023 to September 2023.

5.1 Ambient air quality monitoring

During operation phase, particulate matter and gaseous emissions are likely to arise from the site movement of vehicles, operation of DG sets etc., the ambient air quality parameters such as suspended Particulate matter (PM10), Respirable Particulate matter (PM 2.5), Sulphur dioxide, Oxides of Nitrogen (NOx)and Carbon monoxide were monitored. The test report of ambient air quality for the period of April 2023 to September 2023 is enclosed as **Annexure - 7.**

5.2 Ambient Noise level monitoring

Ambient noise level monitoring reports recorded during the period of April 2023 to September 2023 is enclosed in **Annexure -7.**

5.3 Soil quality monitoring

The Soil samples were collected and analysed for nutrients and heavy metals. The test report of soil samples collected and analysed during April 2023 to September 2023 is enclosed as **Annexure -7.**

5.4 Ground water quality monitoring

Ground water was tested for various water quality parameters during April 223 to September 2023. The test report of bore well water collected and analyzed is enclosed as **Annexure-7.**

5.5 Surface water quality monitoring

Surface water is collected for various water quality parameters during April 2023 to September 2023. The test reports of surface water collected and analyzed is enclosed as **Annexure-7.**

6.0 CONCLUSION

- 1. The environmental monitoring was carried out at site during the period of April 2023 to September 2023
- 2. All the conditions stipulated in Environmental Clearance are being complied.

Dr. RAJKUMAR SAMUEL Director Technical

Name: Dr. Rajkumar Samuel
Designation: Director Technical
Company Name: Hubert Enviro Care
Systems Private Limited

ANNEXURE

No. 21-41/2009-IA.III

Government of India

Ministry of Environment & Forests

- Abb

Paryavaran Bhawaran CGO Complex, Lodhi Rosed, New Delhi-110 003

Dated: 9th August, 2010

The Chairman & Managing Director,
M/s. State Industries Promotion Corporation of Tamil Nadu,
(A Government of Tamil Nadu Undertaking)
19-A Rukmani Lakshmipathy Road,
Egmore, Chennai – 600 008.

Subject:

Environmental Clearance for the development of Industrial Park at SIPCOT, Thervoy Kandigal, Thirvallux-District, Tamil Nadu by M/s. State Industries Promotional Corporation of Tamil Nadu Ltd.(SIPCOT) - Reg.

Dear Sir,

This has reference to your application No. P& SP/SIP-TK/2009 dated 6.10.2010 and subsequent letter dated 04.05.2010 seeking prior Environmental Clearance for the above project under the EIA Notification, 2006. The proposal has been appraised as per prescribed procedure in the light of provisions under the EIA Notification, 2006 on the basis of the mandatory documents enclosed with the application viz., the Questionnaire, EIA, EMP and the additional clarifications furnished in response to the observations of the Expert Appraisal Committee constituted by the competent authority in its meetings held on 20th November, 2009 and 28th – 29th June, 2010.

2. It is, interalia, noted that the project involves the development of a Industrial Park on a plot area of 456.27 ha at Latitude 13 ° 21'33'N to 13 ° 22'80"N and Longitude 79 °58'41" E to 79 °59'49"E. The developed plots will be allotted to set up industries like Synthetic rubber (tubes / tyres, industrial products), Engineering fabrication / manufacturing units and Glass industries, etc. The total area under industrial plots will be 369.83 ha (81.05%). The total water requirement proposed is 4.5 MLD, which will be met by Chennai Metropolitan Water Supply and Sewage Board (Metro water) through the desalination plant. No industry will be permitted to discharge waste water and solid waste from outside the industrial park. The Hazardous wastes will be disposed at Common Hazardous Wastes Management facility at Gummidipponda. A 40 m wide green belt is proposed around the boundary of industrial park and both sides of major roads. The total cost of the project is 240 crores.

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The TOR for the project was issued on 14.12.2009 and the public hearing was conducted on 30.04.2010.

3. The Expert Appraisal Committee, after due consideration of the relevant documents submitted by the project proponent and additional clarifications furnished in response to its observations, have recommended for the grant of Environmental Clearance for the project. Accordingly, the Ministry hereby accord necessary Environmental Clearance for the above project as per the provisions of Environmental Impact Assessment Notification – 2006 and its subsequent amendments, subject to strict compliance of the terms and conditions as follows:

PART A - SPECIFIC CONDITIONS

I. Construction Phase

- (i) "Consent for Establishment" shall be obtained from Tamil Nadu State Pollution Control Board under Air and Water Act and a copy shall be submitted to the Ministry before start of any construction work at the site.
- (ii) Possibility shall be explored for providing a Common Sewage treatment Plant of modular form instead of individual STPs.
- (iii) Sewage conveyance shall be through the closed pipeline.
- (iv) Ensure zero discharge by the member industries.
- (v) Transportation and disposal of Hazardous Wastes shall be as per Rules.
- (vi) All the assurance made during Public hearing especially providing grassland for cattles shall be complied.
- (vii) The storm water drainage shall be worked out after analyzing the contour levels of the site and the surrounding area and the capacity of storm water drainage.
- (viii) Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (ix) A First Aid Room will be provided in the project both during construction/development of the project.

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- (x) All the topsoil excavated during the development activities should be stored for use in horticulture/landscape development within the project site.
- (xi) Disposal of muck during the development phase should not create any adverse effect on the neighbouring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xii) Construction spoils, including bituminous material and other hazardous materials, must not be allowed to contaminate watercourses and the dump sites for such material must be secured so that they should not leach into the ground water.
- (xiii) The diesel generator sets if used during construction phase should be low sulphur diesel type and should conform to Environment (Protection) Rules prescribed for air and noise emission standards.
- (xiv) The diesel required for operating DG sets shall be stored in underground tanks and if required, clearance from Chief Controller of Explosives shall be taken.
- (xv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards and should be operated only during nonpeak hours.
- (xvi) Ambient noise levels should conform to residential standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase. Adequate measures should be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB/ TNSPCB.
- (xvii) Fly ash should be used as building material in the construction as per the provisions of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003. (The above condition is applicable only if the project site is located within the 100 Km of Thermal Power Stations).
- (xviii) Storm water control and its re-use as per CGWB and BIS standards for various applications.
- (xix) Water demand during construction phase should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.

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- (xx) Permission to draw ground water shall be obtained from the competent Authority prior to development of the project.
- (xxi) Separation of grey and black water should be done by the use of dual plumbing line for separation of grey and black water.
- (xxii) The approval of the competent authority shall be obtained for structural safety of the buildings due to earthquake, adequacy of fire fighting equipments, etc. as per National Building Code including protection measures from lightening etc.
- (xxiii) Regular supervision of the above and other measures formonitoring should be in place all through the development phase, so as to avoid disturbance to the surroundings.
- (xxiv) Under the provisions of Environment (Protection) Act, 1986, legal action shall be initiated against the project proponent if it was found that construction of the project has been started without obtaining environmental clearance.

II. Operation Phase

- i) The installation of the Sewage Treatment Plant (STP) should be certified by an independent expert and a report in this regard should be submitted to the Ministry before the project is commissioned for operation. Treated affluent emanating from STP shall be recycled/reused to the maximum extent possible. Treatment of 100% grey water by decentralised treatment should be done. Discharge of unused treated affluent shall conform to the norms and standards of the Tamil Nadu State Pollution Control Board. Necessary measures should be made to mitigate the odour problem from STP.
- ii) The solid waste generated should be properly collected and segregated. Wet garbage should be composted and dry / inert solid waste should be disposed off to the approved sites for land filling after recovering recyclable material.
- iii) Diesel power generating sets proposed as source of back up power for elevators and common area illumination during operation phase should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use low sulphur diesel. The location of the DG sets may be decided with in consultation with Tamil Nadu State Pollution Control Board.
- iv) Noise should be controlled to ensure that it does not exceed the prescribed standards. During night time the noise levels measured

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at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations.

- v) The green belt of the adequate width and density preferably with local species along the periphery of the complex shall be raised so as to provide protection against particulates and noise.
- vi) Weep holes in the compound walls shall be provided to ensure natural drainage of rain water in the catchment area during the monsoon period.
- vii) Rain water harvesting for roof surface run- off, as proposed should be implemented. Before recharging the surface run off, pretreatment must be done to remove suspended matter, oil and grease. The bore well for rainwater recharging should be kept at least 5 mts. above the highest ground water table.
- viii) The ground water level and its quality should be monitored regularly in consultation with Central Ground Water Authority.
- ix) Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Parking loading and unloading facility should be fully internalized and no public space should be utilized.
- Energy conservation measures like installation of CFLs/TFLs for the lighting the common areas should be integral part of the project design and should be in place before project commissioning. Use CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination. Use of solar panels may be done to the extent possible.
- xi) Efforts may be made to use solar energy to the maximum extent possible.
- xii) Adequate measures should be taken to prevent odour problem from solid waste processing plant and STP.

PART - B. GENERAL CONDITIONS

- i) The environmental safeguards contained in the EIA Report should be implemented in letter and spirit.
- ii) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail)

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to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.

- 4. Officials from the Regional Office of MOEF, Bangalore who would be monitoring the implementation of environmental safeguards should be given full cooperation, facilities and documents/data by the project proponents during their inspection. A complete set of all the documents submitted to MoEF should be forwarded to the CCF, Regional office of MOEF, Bangalore.
- 5. In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Ministry.
- 6. The Ministry reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
- 7. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.
- 8. These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and control of Pollution) act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006.
- The project proponent should advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the Tamil Nadu Pollution Control Board and may also be seen on the website of the Ministry Environment of and **Forests** http://www.envfor.nic.in. The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional office of this Ministry at Bangalore.
- 10. Environmental clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No.460 of 2004 as may be applicable to this project.
- 11. Any appeal against this Environmental Clearance shall lie with the National Environment Appellate Authority, if preferred, within a period of

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- 30 days as prescribed under Section 11 of the National Environment
- 12. A copy of the clearance letter shall be sent by the proponent concerned Panchayat, Zilla Parisad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.
- 13. The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCI and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO₂, NO (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient to location near the main gate of the company in the public domain.
- 14. The environmental statement for each financial year ending 31 st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.

Director (IA)

Copy to:

- (1) The Secretary, Department of Environment, Government of Tamil Nadu, Chief Secretariate, Chennai.
- (2) The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi 110 032.

(3) The Chairman, Tamil Nadu State Control Board, Chennai.

- (4) The CCF, Regional Office, Ministry of Environment & Forests(SZ), Kendriya Sadan, IVth floor, E&F wings, 17th Main Road, Koramangala II Block, Bangalore 560 034.
- (5) IA Division, Monitoring Cell, MOEF, New Delhi 110003.

(6) Guard file.

(Bharat Bhushan) Director (IA)

42

MINUTES OF THE 316th MEETING OF BOARD OF DIRECTORS OF C.M.W.S.S. BOARD HELD AT 3.00 p.m. ON 09-09-2010.

AGENDA ITEM NO.16

RES.NO.168/2010

Engineering — O&M — T&T — RO II - Development of infrastructure facilities at Thervaikandiagai Village, Gummidipoondi Taluk — Providing water supply from Redhills Estimate revised - Subject placed before the Board for approval.

The Board took note of the details putforth in the agenda and the recommendations of the Management Committee and after detailed discussion the Board resolved to accord approval on the following:

- (i) to take up the work of laying pipeline and constructing booster stations for supplying 14 MLD of water to SIPCOT Industrial Park, Thervaikandigal at a tentative cost of Rs.48.80 crores and an annual Operation & Maintenance Cost of Rs.0.70 crore. The expenditure towards this work to be borne by the SIPCOT.
- (ii) to supply 14 MLD of water to the SIPCOT Industrial Park, Thervaikandigal from the Redhills Water Treatment Plant.

and

(iii) to collect charges towards supply of water at Rs.80/- per KL with 5% increase every year.

K. ASHOK VARDHAN SHETTY,14.09.2010 CHAIRMAN.

/t.c.f.b.o./

SECHETARY.

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16/9/10 Esta 229

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CONSENT ORDER No:5541 Dated:21.04.2011. PROCEEDINGS NO. T2/TNPCB/F-30016/W/RL/TLR/2011 Dated:21.04.2011.

Consent for Establishment under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974, as amended in 1988.

> Sub: TNPC Board Consent for establishment - M/s.SIPCOT INDUSTRIAL PARK -THERVOY KANDIGAL (Extent of 456.27 ha and in which total area under industrial plots of 369.83 ha(81.05%) bearing S Nos.32/2 and 33/2 of Thervoykandigai mentioned in the Consent Applications). Thervoy Kandigai Village, Gummidipoondi Taluk, Tiruvallur District - for the establishment or take steps to establish the industry under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974, as amended in 1988 (Central Act 53 of 1988).

Ref: 1. MoEF, Gol, EC.No. 21-41/2009-IA.III, Dated:09.08.2010.

- 2. Your application for consent Dated 24.09.2010.
- Hon'ble High Court order in W.P. No.9319 of 2009 and Contempt Petition No.802 of 2009, passed on 16.09 2009.
- 4. Hon'ble Supreme Court order in SLP(Civil)Nos.1386 & 1387 OF 2010, passed on 08.03.2010.
- Sub Committee –TSC II ITEM NO: 60- 11, Dated:08.04.2011.

Consent to establish or take steps to establish is hereby granted under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974, as amended in 1988 (Central Act 53 of 1988) (hereinafter referred to as 'The Act') and the Rules and Orders made there under to

The Occupier,

M/s.SIPCOT INDUSTRIAL PARK -THERVOY KANDIGAI,

(hereinafter referred to as 'The Applicant') authorising him to establish or to take steps to establish the industry in the site mentioned below:

(Extent of 456.27 ha and in which total area under industrial plots of 369.83 ha(81.05%) bearing S.Nos.32/2 and 33/2 of Thervoykandigal mentioned in the Consent Applications),

THERVOY KANDIGAI VILLAGE, GUMMIDIPOONDI TALUK,

TIRUVALLUR DISTRICT

1

POLLUTION PREVENTION PAYS அகம் தூய்மை வாய்மைக்கு! புறம் தூய்மை வாழ்வுக்கு !



This Consent to establish is valid for two years, Or till the industry obtains consent to operate under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974, as amended in 1988 whichever is earlier.

Sd/- xxx Member Secretary Tamilnadu Pollution Control Board Chennai

To

The Occupier, M/s.SIPCOT INDUSTRIAL PARK -THERVOY KANDIGAI, (Extent of 456.27 ha and in which total area under industrial plots of 369.83 ha(81.05%) bearing S.Nos.32/2 and 33/2 of Thervoykandigai mentioned in the Consent Applications), THERVOY KANDIGAI VILLAGE, GUMMIDIPOONDI TALUK, TIRUVALLUR DISTRICT.

Copy to:

- The District Environmental Engineer, Tamilnadu Pollution Control Board, Thiruvallur - for information and necessary action.
- The Commissioner Thervoy Kandigai Village Panchayat, Thervoy Kandigai.
- 3. BMS

4- Technical Section

//Forwarded by order//

For Member Secretary.

who shy

Vrl 26411



SPECIAL CONDITIONS

1. DETAILS OF THE PRODUCTS MANUFACTURED:

SI.No.	Description	Quantity/ Month
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The applicant activity is an Industrial Park to set up industries like Synthetic Rubber(tubes/tyres, industrial products), Engineering Fabrication/ manufacturing units and Glass industries, etc., and undertaking development, maintenance of the common infrastructure such as roads, water supply, sewage treatment plant, storm water drainage system and sewerage system.

This consent to establish is valid for the manufacture of products and the rate of production mentioned above. Any change in rate of and the quantity or quality of the products has to be brought to the notice of the Board.

- The unit shall install Effluent Treatment Plants as proposed, to ensure that the effluent
 to be discharged shall satisfy the standards prescribed by the Board for disposal of
 effluent into inland surface waters/public sewers/marine coastal areas/on land for
 irrigation, as indicated in the Annexure 1.
- The unit shall install sewage treatment system for the treatment of wastewater arising out of the sanitary facility and waste water generated from canteen as proposed in Annexure – 1.
- 4. The unit shall construct effluent drains/cable drains/storm waster drains separately and provide different colour, sign boards along with alignment of various drains as indicated in the site plan, furnished by the industry.
- Each vessel/reactor should have its own catch pit for the collection of pills and each
 pump in the process section must be mounted on its own catch pit with the suction line
 of the pump connected to pit to empty periodically/regularly/continuously.
- It has to be ensured by the unit that the floors with the expanded metal, slotted angle stool sinks, steel gates shall be built to the maximum possible to avoid floor washings.
- 7. If the plant layout demands that the vessels should be installed in upper floor, it shall provide suitable system to minimise spill/leakages and also to collect and drain the spillages into effluent drain leading to the Effluent Treatment Plant by providing suitable gradient to the properly lined bottom floor.



- The unit shall construct tank or lagoon of adequate capacity with compatible impervious material for the storage of hazardous/solid wastes.
- The unit shall ensure that the corrosion prone areas and construction material liable to atmospheric and process induced corrosion shall be given special attention for immediate replacement with least preventive maintenance.
- 10. The unit has to provide facilities separately outside the main production plant for carrying out detoxification operations if any.
- 11. In order to collect spills from a particular vessel before the spilled materials get a chance for contamination with spills from another vessel, the two vessels must be installed at sufficient distance to ensure that inter contamination cannot take place.
- 12. Flange joints in the pipelines should be avoided wherever possible.
- 13. The unit shall establish laboratory with adequate analytical equipments for analysing the trade effluent/sewage as well as samples of water collected from the wells nearby if any.
- 14. The unit shall construct compound wall around the boundary of the unit, to adequate height from ground level.
- 15. The unit shall appoint an Environmental Engineer with experience of minimum three years in maintenance of waste water treatment plants, before commissioning, along with supporting staff, chemist, technicial and operators.
- 16. Following location specific conditions must be satisfied:

(i) - pl. vide Annexure

(iii)

17. The following process specific conditions must be satisfied:

(i) - pl. vide Annexure

(ii) (iii)

18. The applicant unit an Industrial Park, M/s. Sipcot Industrial Park -Thervoy Kandigai, (Extent of 456.27 ha and in which total area under industrial plots of 369.83 ha(81.05%) bearing S.Nos.32/2 and 33/2 of Thervoykandigai mentioned in the Consent Applications), Thervoy Kandigai Village, Gummidipoondi Taluk, Tiruvallur



District, is legally responsible under the provisions of enacted environmental Acts for the setting up of industries like Synthetic Rubber(tubes/tyres, industrial products), Engineering Fabrication/ manufacturing units and Glass industries, etc., and undertaking development, maintenance of the common infrastructure such as roads, water supply, sewage treatment plant, storm water drainage system and sewerage system.

- 19. The unit shall ensure that no industrial activities specified in G.O.Ms.No.213, Environment & Forests Department, Dated:30.03.1989 and G.O.Ms.No.127, Environment & Forests Department, Dated:08.05.1998 should be established in the Industrial Park premises.
- 20. The unit shall ensure that treated/untreated sewage/industrial trade effluents shall not gain access to the water bodies located around the premises and also shall not be discharged either inside or outside the premises.
- 21. The unit has to ensure that development, maintenance of the common infrastructure such as roads, water supply, sewage treatment plant, storm water drainage system, sewerage system, parking facility and solid waste management system to be under taken shall not cause any environmental degradation to the land, water sources and air as a whole.
- 22.No industry in the applicant Industrial Park shall be permitted to carry out establishment works without obtaining CTE of the TNPC Board.
- 23. The applicant unit shall furnish appropriate land use reclassification certificate obtained from the competent authority before applying CTO.
- 24. The quantity of domestic waste water (sewage effluent) discharge shall not exceed 0.50 cu.m./day. Sewage shall be disposed as committed after adequate treatment and confirm to the following standards.

pH	5.5 – 9.0
BOD	Less than 20 mg/l
Suspended Solids	Less than 30 mg/l

25. The applicant—unit—shall have to comply with provisions of Hazardous Waste (Management & Handling) Rules 1989 as amended-from time to time.



- 26. No member_industry will be permitted to discharge wastewater and Solid waste from outside the Industrial Park and shall ensure zero discharge by the member industries.
- 27. The applicant unit shall establish a laboratory and technical crew comprising of environmental engineers/scientists, chemists, experienced mechanics and electricians with adequate training in (O&M) of the proposed effluent treatment systems / air pollution control measures in order to maintain the wholesomeness of the Industrial Park.
- 28. The applicant unit and its member industries shall obtain ISO 14000 certification for it's environmental compliance.
- 29.25% of the land area acquired by the applicant unit including all beneficiary units shall be developed as a green belt with trees having a thick canopy cover. The applicant unit shall also maintain the trees planted outside the premises. The species of trees should be chosen in consultation with the local DFO and seedlings should be at least 2 mt. tall. If no space is available within the premises, trees shall be planted outside the premises. The unit shall adopt drip irrigation system for green belt development.
- 30. The consent to establish is issued without prejudice to the right of Tamilnadu Pollution Control Board to collect consent fees for this consent order at the rates to be revised by the Government of Tamilnadu.
- 31. The applicant unit must provide Rainwater Harvesting facilities within the premises so as to increase the recharging of ground water in that area. Necessary permission shall be obtained from irrigation department for rainwater harvesting and recharging work. Basic survey of existing contours should be made to study the present natural drainage system. Natural drain/flow should not be obstructed by any kind of work for this. The applicant unit should submit detailed report stating technical aspects and methodology of water harvesting system along with all components and get approval thereof.
- 32. The applicant unit shall furnish the Environmental Statement for the financial year ending the 31st March of Tamilnadu Pollution Control Board on or before the thirtieth day of September every year in Form V as per Rule 14 of the Environmental (Protection) Rules, 1986 as amended.
- 33. The premises of the Industrial Park shall both inside and outside should be kept clean.
 Attention should be given to good housekeeping within the premises and the immediate vicinity of the factory. All pipes, valves, sewers and drains shall be leak





proof. Floor washings should be drained into the effluent collection system only and should not be drained into storm water drains or open areas. There should not be any debris, plastic wastes other rubbish etc., lying within or outside the factory.

- 34. The applicant unit and all it's beneficiary activities units should not be commenced without obtaining consent to operate from the Tamilnadu Pollution Control Board.
- 35. The applicant unit shall have to submit the returns in prescribed form regarding water consumption and shall have to make payment of water cess to the Board under the Water Cess Act 1977.
- 36. The solid waste generated in the complex should be segregated, treated and disposed off as per the provisions contained in the Municipal Solid Waste Rules. 2000.
- 37. The applicant unit an Industrial Park, M/s.SIPCOT INDUSTRIAL PARK -THERVOY KANDIGAI, shall ensure that its activities have authorization of the Board for waste oil used oil generated from the applicant unit, and shall be managed / handled as per Hazardous Waste (Management & Handling) Rules 1989 as amended.
- 38. The applicant unit should obtain prior authorization of the Board for Bio Medical waste generated from health care facility and shall be managed and handled as per Bio Medical Waste Rules-1998.
- 39. The project authorities, as part of their environmental management, shall prepare and implement a scheme for protection of the flora and fauna.
- 40. The services like health and education facilities which may be developed as part of the complex should be accessible to the nearby villagers at an affordable price.
- 41. The project shall resort to solar energy to the extent possible and particularly in the supply of hot water and street lighting.
- 42. A community welfare scheme for improving the socio-economic environment should be worked out and shall be converted into a time bound action plan. A report in this regard shall be submitted to the Board and Government for review.
- 43. If it is established by any competent authority that the damage is caused due to their activities to any person or his property in that case they are obliged to pay the compensation as determined by the competent authority.
- 44. The applicant unit shall have to register the Industrial Park under the provisions of the Factories Act 1948 and shall obtain the necessary Factory License.
- 45. The Environmental Management Unit / Cell shall be setup to ensure implementation and monitoring of Environmental safe guards and other conditions stipulated by



statutory authorities. The Environmental Management Unit / Cell shall directly report to the Chief Executive of the organization and shall work as a focal point for internalizing Environmental Issues. This Cell shall also co-ordinate the exercise of Environmental Audit and preparation of Environmental Statements.

- 46. The applicant unit shall have to obtain public liability insurance policy as per PLI Act 1991 and submit the copy of the same to the Board.
- 47. The unit shall have and use only one outlet for the discharge of its effluent and no effluent shall be discharged without requisite treatment and without satisfying with the TNPC Board Norms prescribed. The unit shall not keep any bypass line or system or loose or flexible pipe for discharging effluent outside or even for transporting treated or un-treated effluent within the premises, within effluent treatment plants or in the compound of the park premises.
- 48. The printed log books shall be maintained and get it certificate for a). Energy / Fuel consumption b): Wastewater / gaseous flow at inlet and outlet of STP and Air Pollution Control Measures. c). Quantity of sludge generated d). Laboratory analysis / reports for each of the specified parameters of liquid effluents and sludge samples.
- 49. The ground water quality around the Industrial Park mall should be monitored on a regular basis. The monitored data should be submitted to the TNPC Board once in six months.
- 50. Periodical medical check up of the workers should be done and records maintained as a measure to provide occupational health service to the workers.
- 51. The facilities to be constructed for the project shall not cause any inconvenience or disturbance to the local communities including the farmers.
- 52. The applicant unit, an Industrial Park, M/s.SIPCOT INDUSTRIAL PARK -THERVOY KANDIGAL; shall ensure that the topsoil excavated during construction activities should be stored for use in horticulture/ landscape development within the project site.
- 53. The applicant unit, an Industrial Park, M/s.SIPCOT INDUSTRIAL PARK -THERVOY KANDIGAL, shall ensure that soil and ground water samples will be tested to ascertain that there is no threat to ground water quality by leaching of heavy metals and other toxic contaminants.
- 54. The applicant unit, an Industrial Park, M/s.SIPCOT INDUSTRIAL PARK -THERVOY KANDIGAI, shall ensure that fly ash-should be used as building material in the construction as per the provisions of Fly Ash Notification of September, 1999 and



amended as on 27th August, 2003. (The above condition is applicable only if the project site is located within the 100 Km of thermal Power Stations.)

- 55. The applicant unit, aπ Industrial Park, M/s.SIPCOT INDUSTRIAL PARK -THERVOY KANDIGAI, shall ensure that the approval of the competent authority shall be obtained for structural safety of the buildings due to earthquake, adequacy of fire fighting equipments, etc. as per National Building Code including protection measures from lightening etc.
- 56. The applicant unit, an Industrial Park, M/s.SIPCOT INDUSTRIAL PARK -THERVOY KANDIGAI, shall comply with the specific conditions imposed under heads in the Environmental Clearance issued by Ministry of Environment and Forests, Government of India, in EC.No: 21-41/2009-IA.III, Dated:09.08.2010, viz., (Part-A) I. Construction Phase, II. Operation Phase and Part-B. General Conditions scrupulously.
- 57. The applicant unit, an Industrial Park, M/s.SIPCOT INDUSTRIAL PARK -THERVOY KANDIGAI, shall ensure that there shall be no discharge of effluents on land or any water resources and if the applicant unit / member units fails to achieve the same for any reason, all it's beneficiary units shall stop their production and operations in the process house forthwith and restart the same after ensuring that the discharge of effluents on land or any water resources is restrained.
- 58. The applicant unit, an Industrial Park, M/s.SIPCOT INDUSTRIAL PARK -THERVOY KANDIGAI, shall ensure that all the member/beneficiary units have to apply for consent to establish under the Water & Air Acts and no establishment activities shall be carried out by the member/beneficiary units without obtaining the consent to establish under the Water & Air Acts.
- 59. The unit shall dispose the E-waste from the Industrial Park as well as in their registered offices through the Authorised E-waste recyclers notified in TNPC Board web site.

Sd/- xxx MEMBER SECRETARY TAMIL NADU POLLUTION CONTROL BOARD CHENNAL

//Forwarded by order//

For Member Secretary.

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POLLUTION PREVENTION PAYS அகம் தூய்மை வாய்மைக்கு! புறம் தூய்மை வாழ்வுக்கு!



GENERAL CONDITIONS.

- 1. The above Consent to establish cannot be construed as Consent to operate.
- The industry shall make a request for grant of consent to operate atleast sixty days before the commissioning of trail production.
- 3. The applicant shall maintain good house-keeping both within the factory and in the premises. All pipes, valves, sewers and drains shall be leak proof. Floor washings shall be admitted into the effluent collection system only and shall not be allowed to find their way to storm water drains or open areas.
- The unit has to provide sludge and silt traps and manholes along the effluent drains for periodical desilting and desludging operation.
- 5. All places of storage of solid/liquid material are to be dyked with bunding facilities and the flooring within the dyked and bunding area shall be lined and impervious materials depending upon the nature of the solid/liquid to be stored.
- 6. As the unit proposes to utilise the treated trade effluent on inland for irrigation, the land has to be made fit for irrigation in consultation with the agricultural scientist to avoid more percolation.
- Samples of water from the wells or any other nearby water sources have to be taken
 by the unit and get them analysed by the Board Laboratory to develop base line data
 to assess the existing water quality.
- The unit shall provide separate power connection for the Effluent Treatment Plant and install separate energy meter for Effluent Treatment Plant as well as for aerators if any.
- 9. The unit shall provide an alternate power source sufficient to operate all the facilities to be installed in Effluent Treatment Plant by the applicant.
- 10. This consent does not authorise or approve the construction of any physical structures or facilities or the undertaking of any work in any natural water course.
- 11. Any change in the details furnished in the conditions has to be brought to the notice of the Board and got approved by the Board, before obtaining consent to operate under the said Act.



TAMILNADU POLLUTION CONTROL BOARD

- 12. The unit has to comply with the provisions of Public Liability Insurance Act, 1991 to provide immediate relief in the event of any hazard to human beings, other living creatures/plants and properties while handling and storage of hazardous substances.
- 13. Consent to operate will not be issued unless the unit complied with the conditions of Consent to establish, otherwise, the order of Consent to establish already issued will be revoked with immediate effect.

Sd/- xxx

MEMBER SECRETARY

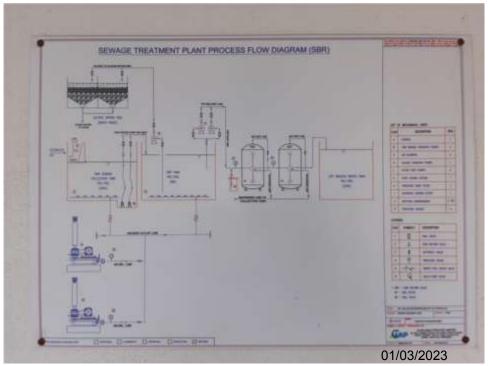
TAMIL NADU POLLUTION CONTROL BOARD
CHENNAI.

//Forwarded by order//

For Member Secretary.

STP









Solid Waste Management









Diesel generator



#18, 92nd Street, Ashok Nagar,

Chennai - 600 083.

Ph: 42985555 Fax : 42985500 E-mail : labsales@hecs.in

Annexure - 7 Laboratory Services Division

(Chemical & Biological Testing) Recognized by MoEF, BIS FSSAI Notified Laboratory ISO 9001, 14001 & 45001 Certified.

TEST REPORT

Page: 1 of 1

Name of the Client

: M/s. SIPCOT

Report No. : HECSL/AA/09/260823

Address of the Client

: Thervoy Kandigai

Report Date: 31/08/2023

Sample Description

: Ambient Air Quality

Sampling Location

: Project Area

Sample Drawn By

: Hubert Enviro Care Systems (p) Ltd

Sampling/received Date

: 24/08/2023 -26/08/2023

Analysis Commenced On : 26/08/2023

Completed On: 31/08/2023

S.No.	Parameters	Units	Results Obtained	Test Method	NAAQ Standards: 2009	
1	Sulphur Dioxide	μg/m³	11.49	CPCB guide lines Volume 1: 2012	80 (24 hours)	50 (Annual)
2	Nitrogen Dioxide	μg/m³	23.58	IS 5182 (Part - 6) : 2006	80 (24 hours)	40 (Annual)
3	Particulate Matter Size Less than 10 µm	μg/m³	54.26	IS 5182 (Part - 23) : 2006	100 (24 hours)	60 (Annual)
4	Particulate Matter Size Less than 2.5 µm	μ g/m³	- 26.37	IS 5182 (Part - 24): 2019	60 (24 hours)	40 (Annual)
5	Carbon Monoxide	mg/m³	BLQ(LOQ 0.05)	IS 5182 (Part - 10) : 1999	4 (1 hours)	2 (8 hours)
6	Lead	μg/m³	BLQ(LOQ 0.05)	IS 5182 (Part - 22) : 2004	1 (24 hours)	0.5 (Annual)
7	Ozone	μ g/m³	12.29	IS 5182 (Part - 9): 1974	180 (1 hours)	100 (8 hours)
8	Ammonia	μg/m³	7.83	IS 5182 (Part - 25): 2018	400 (24 hours)	100 (Annual)
9	Benzene	μg/m³	BLQ(LOQ I)	IS 5182 (Part - 11): 2006	5 (Annual)	5 (Annual)
10	Benzo(a)pyrene	ng/m³	BLQ(LOQ 1)	IS 5182 (Part - 12) : 2004	1 (Annual)	I (Annual)
11	Arsenic	ng/m³	BLQ(LOQ 2)	HECS/AA/SOP/019: 2016	6 (Annual)	6 (Annual)
12	Nickel	ng/im³	BLQ(LOQ 10)	HECS/AA/SOP/009 : 2016	20 (Annual)	20 (Annual)
13	Volatile Organic Compounds	μ g/m³	BLQ(LÓQ 0.05)	HECS/INS/SOP/073	NA	NA

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, μg/m³- Micrograms per cubic meter, mg/m³-Milligrams per cubic meter, ng/m³-Nanograms per cubic meter.

Remarks: The Tested Parameters as above are within the Limits of NAAQ Standards 2009.

End of Report

Chennai 600 083

Authorized Signatory

^{1.} The report in full or part shall not be used for any promotional or publicity purpose without written consent by HECS organization 2. Samples are not drawn by HECS unless or otherwise mentioned 3. Unless specifically requested by customer the test items will not be retained more than 15 days from the date of issue of test report. 4. Under no circumstances lab accepts any liability or loss / damage caused by use or misuse of test report after invoicing or issue of test report. 5. The test results relate only to the test items. 6. HECS will not be responsible for the information shared by clients related to samples tested.

HECS/Q/FMT/50

18, 92nd Street, Ashok Nagar,

Chennai - 600 083.

Ph: 42985555 Fax : 42985500 E-mail : labsales@hecs.in

Laboratory Services Division

(Chemical & Biological Testing)
Recognized by MoEF, BIS
FSSAI Notified Laboratory
ISO 9001, 14001 & 45001 Certified.

TEST REPORT

Page: 1 of 1

Name of the Client

: M/s. SIPCOT

Report No. : HECSL/AA/010/260823

Address of the Client

: Thervoy Kandigai

Report Date: 31/08/2023

Sample Description

: Ambient Air Quality

Sampling Location

; Karadipudur

Sample Drawn By

: Hubert Enviro Care Systems (p) Ltd

Sampling/received Date

: 24/08/2023 -26/08/2023

Analysis Commenced On : 26/08/2023

Completed On: 31/08/2023

S.No.	Parameters	Units	Results Obtained	Test Method	NAAQ Standards: 2009	
1	Sulphur Dioxide	μg/m³	8.35	CPCB guide lines Volume 1: 2012	80 (24 hours)	50 (Annual)
2	Nitrogen Dioxide	μg/m³	19.68	IS 5182 (Part - 6): 2006	80 (24 hours)	40 (Annual)
3	Particulate Matter Size Less than 10 μm	μg/m³	40.29	IS 5182 (Part - 23): 2006	100 (24 hours)	60 (Annual)
.4	Particulate Matter Size Less than 2.5 µm	μg/m³	21.35	IS 5182 (Part - 24): 2019	60 (24 hours)	40 (Annual)
-5	Carbon Monoxide	mg/m³	BLQ(LOQ 0.05)	IS 5182 (Part - 10): 1999	4 (1 hours)	2 (8 hours)
6	Lead	μg/m³	BLQ(LOQ 0.05)	IS 5182 (Part - 22) : 2004	1 (24 hours)	0.5 (Annual)
7	Ozone	μg/m³	BLQ(LOQ 10)	IS 5182 (Part - 9): 1974	180 (1 hours)	100 (8 hours)
8	Ammonia	μg/m³	5.22	IS 5182 (Part - 25) : 2018	400 (24 hours)	100 (Annual)
9	Benzene	μ g/m³	BLQ(LOQ 1)	IS 5182 (Part - 11) : 2006	5 (Annual)	5 (Annual)
10	Benzo(a)pyrene	ng/m³	BLQ(LOQ 1)	IS 5182 (Part - 12) : 2004	i (Annual)	I (Annual)
11	Arsenic	ng/m³	BLQ(LOQ 2)	HECS/AA/SOP/019: 2016	6 (Annual)	6 (Annual)
12	Nickel	ng/m³	BLQ(LOQ 10)	HECS/AA/SOP/009 : 2016	20 (Annual)	20 (Annual)
13	Volatile Organic Compounds	μg/m³	BLQ(LOQ 0.05)	HECS/INS/SOP/073	NA	NA

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, μg/m³- Micrograms per cubic meter, mg/m³-Milligrams per cubic meter, ng/m³-Nanograms per cubic meter.

Remarks: The Tested Parameters as above are within the Limits of NAAQ Standards 2009.

End of Report

Chennai Chenna

Authorized Signatory

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TEST REPORT

Page: 1 of 1

Name of the Client

: M/s. SIPCOT

Report No. : HECSL/AA/011/260823

Address of the Client

: Thervoy Kandigai

Report Date: 31/08/2023

Sample Description

: Ambient Air Quality

Sampling Location

: Kollanur

Sample Drawn By

: Hubert Enviro Care Systems (p) Ltd

Sampling/received Date

: 25/08/2023

-26/08/2023

Analysis Commenced On

: 26/08/2023

Completed On :31/08/2023

S.No.	Parameters	Units	Results Obtained	Test Method	NAAQ Standards: 2009	
1	Sulphur Dioxide	μg/m³	10.66	CPCB guide lines Volume 1: 2012	80 (24 hours)	50 (Annual)
2	Nitrogen Dioxide	μg/m³	20.39	IS 5182 (Part - 6): 2006	80 (24 hours)	40 (Annual)
3	Particulate Matter Size Less than 10 µm	μg/m³	44.48	IS 5182 (Part - 23) : 2006	100 (24 hours)	60 (Annual)
4	Particulate Matter Size Less than 2.5 µm	μg/m³	22.16	IS 5182 (Part - 24): 2019	60 (24 hours)	40 (Annual)
5	Carbon Monoxide	mg/m³	BLQ(LOQ 0.05)	IS 5182 (Part - 10): 1999	4 (1 hours)	2 (8 hours)
6	Lead	μg/m³	BLQ(LOQ 0.05)	IS 5182 (Part - 22) : 2004	1 (24 hours)	0.5 (Annual)
7	Ozone	μg/m³	10.68	IS 5182 (Part - 9): 1974	180 (1 hours)	100 (8 hours)
8	Ammonia	μg/m³	6.25	IS 5182 (Part - 25) : 2018	400 (24 hours)	100 (Annual)
9	Benzene	μg/m³	BLQ(LOQ I)	IS 5182 (Part - 11): 2006	5 (Annual)	5 (Annual)
10	Benzo(a)pyrene	ng/m³	BLQ(LOQ 1)	IS 5182 (Part - 12): 2004	1 (Annual)	l (Annual)
11	Arsenic	ng/m³	BLQ(LOQ 2)	HECS/AA/SOP/019 ; 2016	6 (Annual)	6 (Annual)
12	Nickel	ng/m³	BLQ(LOQ 10)	HECS/AA/SOP/009 : 2016	20 (Annual)	20 (Annual)
13	Volatile Organic Compounds	μg/m³	BLQ(LOQ 0,05)	HECS/INS/SOP/073	NA	NA

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, µg/m³- Micrograms per cubic meter, mg/m³-Milligrams per cubic meter, ng/m³-Nanograms per cubic meter.

Remarks: The Tested Parameters as above are within the Limits of NAAQ Standards 2009.

End of Report



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TEST REPORT

Page: 1 of 1

Name of the Client

: M/s. SIPCOT

Report No. : HECSL/AA/012/260823

Address of the Client

: Thervoy Kandigai

Report Date: 31/08/2023

Sample Description

: Ambient Air Quality

Sampling Location

: Chinnapuliyur

Sample Drawn By

: Hubert Enviro Care Systems (p) Ltd : 25/08/2023 -26/08/2023

Sampling/received Date
Analysis Commenced On

: 26/08/2023

Completed On: 31/08/2023

S.No.	Parameters	Units	Results Obtained	Test Method	NAAQ Standards: 2009	
1	Sulphur Dioxide	μg/m³	8.83	CPCB guide lines Volume 1: 2012	80 (24 hours)	50 (Annual)
-2	Nitrogen Dioxide	μg/m³	20.18	IS 5182 (Part - 6) : 2006	80 (24 hours)	40 (Annual)
3	Particulate Matter Size Less than 10 µm	μg/m³	43.65	IS 5182 (Part - 23): 2006	100 (24 hours)	60 (Annual)
4	Particulate Matter Size Less than 2.5 µm	μ g/m³	21.39	IS 5182 (Part - 24) : 2019	60 (24 hours)	40 (Annual)
5	Carbon Monoxide	mg/m³	BLQ(LOQ 0.05)	IS 5182 (Part - 10): 1999	4 (1 hours)	2 (8 hours)
6	Lead	μ g/m³	BLQ(LOQ 0.05)	IS 5182 (Part - 22) 2004	1 (24 hours)	0.5 (Annual)
7	Ozone	μg/m³	BLQ(LOQ 10)	IS 5182 (Part - 9) : 1974	180 (1 hours)	100 (8 hours)
8	Ammonia	μg/m³	6.22	IS 5182 (Part - 25) : 2018	400 (24 hours)	100 (Annual)
9	Benzene	μg/m³	BLQ(LOQ 1)	IS 5182 (Part - 11): 2006	5 (Annual)	5 (Annual)
10	Benzo(a)pyrene	ng/m³	BLQ(LOQ 1)	IS 5182 (Part - 12): 2004	1 (Annual)	1 (Annual)
11	Arsenic	ng/m³	BLQ(LOQ 2)	HECS/AA/SOP/019: 2016	6 (Annual)	6 (Annual)
12	Nickel	ng/m³	BLQ(LOQ 10)	HECS/AA/SOP/009 : 2016	20 (Annual)	20 (Annual)
13	Volatile Organic Compounds	μg/m³	BLQ(LOQ 0.05)	HECS/INS/SOP/073	NA	NA

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, µg/m³- Micrograms per cubic meter, mg/m³-Milligrams per cubic meter, ng/m³-Nanograms per cubic meter.

Remarks: The Tested Parameters as above are within the Limits of NAAQ Standards 2009.

End of Report



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TEST REPORT

Page: 1 of 1

Name of the Client

: M/s. SIPCOT

Report No. : HECSL/AA/013/260823

Address of the Client

: Thervoy Kandigai

Report Date: 31/08/2023

Sample Description

: Ambient Air Quality : Thervoy Village

Sampling Location Sample Drawn By

: Hubert Enviro Care Systems (p) Ltd

Sampling/received Date

: 25/08/2023 -26/08/2023

Analysis Commenced On : 26/

: 26/08/2023

Completed On: 31/08/2023

S.No.	Parameters	Units	Results Obtained	Test Method	NAAQ Standards: 2009	
1	Sulphur Dioxide	μg/mi³	9.25	CPCB guide lines Volume 1: 2012	80 (24 hours)	50 (Annual)
2	Nitrogen Dioxide	μg/m³	18.66	IS 5182 (Part - 6): 2006	80 (24 hours)	40 (Annual)
3	Particulate Matter Size Less than 10 µm	μg/m³	39.85	IS 5182 (Part - 23) : 2006	100 (24 hours)	60 (Annual)
4	Particulate Matter Size Less than 2.5 µm	μg/m³	20.68	IS 5182 (Part - 24) : 2019	60 (24 hours)	40 (Annual)
5	Carbon Monoxide	mg/m³	BLQ(LOQ 0.05)	IS 5182 (Part - 10) : 1999	4 (1 hours)	2 (8 hours)
6	Lead	μg/m³	BLQ(LOQ 0.05)	IS 5182 (Part - 22): 2004	I (24 hours)	0.5 (Annual)
7	Ozone	μg/m³	BLQ(LOQ 10)	IS 5182 (Part - 9): 1974	180 (1 hours)	100 (8 hours)
8	Ammonia	μg/m³	5.39	IS 5182 (Part - 25) : 2018	400 (24 hours)	100 (Annual)
9	Benzene	μg/m³	BLQ(LOQ 1)	IS 5182 (Part - 11) : 2006	5 (Annual)	5 (Annual)
10.	Benzo(a)pyrene	ng/m³	BLQ(LOQ 1)	IS 5182 (Part - 12) : 2004	1 (Annual)	l (Annual)
11	Arsenic	ng/m³	BLQ(LOQ 2)	HECS/AA/SOP/019 : 2016	6 (Annual)	6 (Annual)
12	Nickel	ng/m³	BLQ(LOQ 10)	HECS/AA/SOP/009 : 2016	20 (Annual)	20 (Annual)
13	Volatile Organic Compounds	μg/m³	BLQ(LOQ 0.05)	HECS/INS/SOP/073	NA	NA

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, µg/m³- Micrograms per cubic meter, mg/m³-Milligrams per cubic meter, ng/m³-Nanograms per cubic meter.

Remarks: The Tested Parameters as above are within the Limits of NAAQ Standards 2009.

End of Report

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Lab Manager

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TEST REPORT

Page: 1 of 2

Name of the Client : M/s. SIPCOT

Report No. : HECSL/WT/006/260823

Address of the Client

Report Date : 31/08/2023

Sample Description

: WATER

: Thervoy Kandigai

Sample Mark Sample

: Project Area - Ground Water

Drawn By

: Hubert Enviro Care Systems (p) Ltd

Sampling/received Date

: 24/08/2023 -26/08/2023

Analysis Commenced On

: 26/08/2023

Completed On: 31/08/2023

S.No.	Parameters	Units	Results	Test Method	IS:105	500-2012
2:140	ranameters		Atosuits	1 St Melion	Acceptable Limits	Permissible Limits
1	pH (at 25 °C)		7.54	IS 3025 (Part - 11):1983	6.5 - 8.5	No relaxation
2	Total Alkalinity as CaCO3	mg/l	70.0	IS 3025 (Part - 23):1986	200	600
3	Electrical conductivity	μS/cm	234.0	IS 3025 (Part - 14):1983	NA	NA
4	Colour	Hazen Unit	BLQ(LOQ:1.0)	IS 3025(Part - 4):1983	5	15
5	Turbidity	NTU	2.9	IS 3025(Part - 10):1984	1	5
6	Total Hardness as CaCO3	.mg/l	90.0	IS 3025 (Part - 21):1983	200	600
7	Calcium as Ca	mg/l	23.65	IS 3025 (Part - 40):1991	75	200
8	Chloride as Cl	mg/l	22.27	4500 Cl B APHA 23rd Edn: 2017	250	1000
9	Magnesium as Mg	mg/l	7.53	IS 3025 (Part - 46) 1994	30	100
10.	Total Dissolved Solids	mg/l	158.0	IS 3025(Part -16):1984	500	2000
11	Sulphate as SO4	mg/l	15.36	IS 3025(Part - 24):1986	200	400
12	Fluoride	mg/l	BLQ(LOQ:0.2)	IS 3025 (Part - 60):1986	1.0	1.5
13	Nitrate as NO3	mg/l	6.39	IS 3025 (Part 34): 1988	45	No Relaxation
14	Iron as Fe	mg/l	0.37	IS 3025 (Part - 53):2003	1.0	No Relaxation
15	Boron as B	mg/l	BLQ(LOQ:0.1)	IS:3025 (Part - 57):2005	0.5	1.0
16	Zinc as Zn	mg/l	BLQ(LOQ 0.1)	USEPA Method 200.8:1994	5	15
17	Copper as Cu	mg/l	BLQ(LOQ 0.01)	USEPA Method 200.8:1994	0.05	-1.5
18	Manganese as Mn	mg/l	BLQ(LOQ:0.05)	USEPA Method 200.8:1994	0.1	0.3
19	Cadmium as Cd	mg/l	BLQ(LOQ 0.001)	USEPA Method 200.8:1994	0.003	No Relaxation
20	Lead as Pb	mg/l	BLQ(LOQ 0.005)	USEPA Method 200.8:1994	0.01	No Relaxation
21	Selenium as Se	mg/l	BLQ(LOQ 0.005)	USEPA Method 200.8:1994	0.01	No Relaxation



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TEST REPORT

Page: 2 of 2

Name of the Client

: M/s. SIPCOT

Report No. : **HECSL/WT/006/260823**

Address of the Client

: Thervoy Kandigai

Report Date : 31/08/2023

Sample Description

: WATER

Sample Mark Sample

: Project Area - Ground Water

Drawn By

: Hubert Enviro Care Systems (p) Ltd

Sampling/received Date

: 24/08/2023 -26/08/2023

Analysis Commenced On

: 26/08/2023

Completed On: 31/08/2023

C No	Parameters	Units	Results	Test Method	IS:105	00-2012
S.No.		Onits	Results			Permissible Limits
22	Arsenic as As	mg/l	BLQ(LOQ:0.00 5)	USEPA Method 200.8:1994	0.01	0.05
23	Mercury as Hg	mg/l	BLQ(LOQ 0.0005)	USEPA Method 200.8:1994	0.001	No Relaxation
24	Sodium as Na	mg/l	12.0	IS3025 (Part - 45):1993	NA	NA
25	Potassium as K	mg/l	2.0	IS3025 (Part - 45):1993	NA	NA
26	Phosphate as PO4	mg/l	0.073	IS 3025 (Part 31):1988	NA	NA
27	Total suspended solid	mg/l	6.0	IS 3025 (Part - 17):1984	NA	NA
28	Nickel	mg/l	BLQ(LOQ 0.01)	USEPA Method 200,8:1994	0.02	No Relaxation
29	Cyanide	mg/l	BLQ(LOQ:0.01)	IS 3025 (Part-27):1986	0.05	No Relaxation
30	Total Chromium	mg/l	BLQ(LOQ 0.01)	USEPA Method 200.8 : 1994	0.05	No Relaxation
31	BOD,3 days @27°C as O2	mg/l	BLQ(LOQ:1.0)	IS 3025 (Part - 44):1993	NA	NA
32	Chemical oxygen demand as	mg/l	BLQ(LOQ:4.0)	IS 3025 (Part - 58):2006	NA	NA
33	Dissolved oxygen	mg/l	6.3	IS 3025 (Part - 38):1989	NA	NA
34	Total Phosphorous as P	mg/l	0.049	IS 3025 (Pt 31): 1988	NA	NA
35	Carbonate	mg/l	BLQ(LOQ:1.0)	IS 3025 (Part - 23):1986	NA	NA
36	Bi Carbonate	mg/l	85.4	IS 3025 (Part - 23):1986	NA	NA
.37	Phenolic compounds as	mg/l	BLQ(LOQ:0.001AI	PHA 23rd edition (Method 5530C): 2017	0.001	0.002
38	Anionic Detergents as MBAS	mg/l	BLQ(LOQ:0.05	Annex K of IS 13428-2005	0.2	1
39	Percent Sodium as Na	%	21.39	IS 3025(Part -45) 1993	NA	NA
40	Barium as Ba	mg/l	BLQ(LOQ0.01)	USEPA Method 200.8:1994	0.7	No Relaxation
41	Chromium as Cr6+	mg/l	BLQ(LOQ:0.05	IS 3025 Part 52 : 2003	NA	NA
42	Residual Sodium Carbonate	mg/l	BLQ(LOQ:1.0)	IS 11624 - 1986	NA	NA
43	Free Ammonia	mg/l	BLQ(LOQ:0.02	IS 3025 Part (34) 1982	NA	NA
44	Sodium Absorption Ratio	-	0.55	IS 11624 - 1986	NA	NA

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, mg/l - Milligrams per liter.

End of Report

Chennai 600 083 0

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SIVAPRAKASAM. M

Lah Manager

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TEST REPORT

Page: 1 of 2

Name of the Client

: M/s. SIPCOT

Report No. : **HECSL/WT/007/260823**

Address of the Client

: Thervoy Kandigai

Report Date : 31/08/2023

Sample Description

: WATER

Sample Mark Sample

: Karadipudur - Ground Water

Drawn By

: Hubert Enviro Care Systems (p) Ltd

Sampling/received Date

-26/08/2023 : 24/08/2023

Analysis Commenced On

: 26/08/2023

Completed On: 31/08/2023

S.No.	Parameters	Units	Results	Test Method	IS:105	00-2012
S.NO.	Parameters	Omes	Resures	I est without	Acceptable Limits	Permissible Limits
1	pH (at 25 °C)	-	6.73	IS 3025 (Part - 11):1983	6.5 - 8.5	No relaxation
2	Total Alkalinity as CaCO3	mg/l	90.0	IS 3025 (Part - 23):1986	200	600
3	Electrical conductivity	μS/cm	551.0	IS 3025 (Part - 14):1983	NA	NA
4	Colour	Hazen Unit	BLQ(LOQ:1.0)	IS 3025(Part - 4):1983	5	15
5	Turbidity	NTU	0.5	IS 3025(Part - 10):1984	1	5
6	Total Hardness as CaCO3	mg/l	162.0	IS 3025 (Part - 21):1983	200	600
7	Calcium as Ca	mg/l	40.42	IS 3025 (Part - 40):1991	75	200
8	Chloride as Cl	mg/l	71.76	4500 Cl B APHA 23rd Edn: 2017	250	1000
9	Magnesium as Mg	mg/l	14.82	IS 3025 (Part - 46) 1994	30	100
10	Total Dissolved Solids	mg/l	309.0	IS 3025(Part -16):1984	500	2000
11	Sulphate as SO4	mg/l	25.69	IS 3025(Part - 24):1986	200	400
12	Fluoride	mg/l	0.42	IS 3025 (Part - 60):1986	1.0	1.5
13	Nitrate as NO3	mg/l	35.87	IS 3025 (Part 34): 1988	45	No Relaxation
14	Iron as Fe	mg/l	0.061	IS 3025 (Part - 53):2003	1.0	No Relaxation
15	Boron as B	mg/l	BLQ(LOQ:0.1)	IS:3025 (Part - 57):2005	0.5	1.0
16	Zinc as Zn	mg/l	BLQ(LOQ 0.1)	USEPA Method 200.8:1994	5	15
17	Copper as Cu	mg/l	BLQ(LOQ 0.01)	USEPA Method 200.8:1994	0.05	1.5
18	Manganese as Mn	mg/l	BLQ(LOQ:0.05)	USEPA Method 200.8:1994	0.1	0.3
19	Cadmium as Cd	mg/l	BLQ(LOQ 0.001)	USEPA Method 200.8:1994	0.003	No Relaxation
20	Lead as Pb	mg/l	BLQ(LOQ 0.005)	USEPA Method 200.8:1994	0.01	No Relaxation
21	Selenium as Se	mg/l	BLQ(LOQ 0.005)	USEPA Method 200.8:1994	0.01	No Relaxation



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TEST REPORT

Page: 2 of 2

Name of the Client

: M/s. SIPCOT

Report No. : HECSL/WT/007/260823

Address of the Client

: Thervoy Kandigai

Report Date : 31/08/2023

Sample Description

: WATER

Sample Mark Sample

: Karadipudur - Ground Water

Drawn By

: Hubert Enviro Care Systems (p) Ltd

Sampling/received Date

: 24/08/2023 -26/08/2023

Analysis Commenced On

: 26/08/2023

Completed On: 31/08/2023

		Units	Results	Test Method	IS:105	00-2012
S.No.	Parameters	Citts		Test Method	Acceptable Limits	Permissible Limits
22	Arsenic as As	mg/l	BLQ(LOQ:0.00 5)	USEPA Method 200.8:1994	0.01	0.05
23	Mercury as Hg	mg/l	BLQ(LOQ 0.0005)	USEPA Method 200.8:1994	0.001	No Relaxation
24	Sodium as Na	mg/l	35.0	1S3025 (Part - 45):1993	NA	NA
25	Potassium as K	mg/l	3.0 -	1S3025 (Part - 45):1993	NA	NA
26	Phosphate as PO4	mg/l	0.061	IS 3025 (Part 31):1988	NA	NA
27	Total suspended solid	mg/l	2.0	IS 3025 (Part - 17):1984	NA	NA
28	Nickel	mg/l	BLQ(LOQ 0.01)	USEPA Method 200.8:1994	0.02	No Relaxation
29	Cyanide	mg/l	BLQ(LOQ:0.01)	IS 3025 (Part-27):1986	0.05	No Relaxation
30	Total Chromium	mg/l	BLQ(LOQ 0.01)	USEPA Method 200.8 : 1994	0.05	No Relaxation
31	BOD,3 days @27°C as O2	mg/l	BLQ(LOQ:1.0)	IS 3025 (Part - 44):1993	NA	NA
32	Chemical oxygen demand as	mg/l	BLQ(LOQ:4.0)	IS 3025 (Part - 58):2006	NA	NA
33	Dissolved oxygen	mg/l	6.9	IS 3025 (Part - 38):1989	NA	NA
34	Total Phosphorous as P	mg/l	BLQ(LOQ:0.02	IS 3025 (Pt 31): 1988	NA	NA
35	Carbonate	mg/l	BLQ(LOQ:1.0)	IS 3025 (Part - 23):1986	NA	NA
36	Bi Carbonate	mg/l	85.4	IS 3025 (Part - 23):1986	NA	NA
37	Phenolic compounds as	mg/l	BLQ(LOQ:0.001	APHA 23rd edition (Method 5530C): 2017	0.001	0.002
38	Anionic Detergents as MBAS	mg/l	BLQ(LOQ:0.05	Annex K of IS 13428-2005	0.2	1
39	Percent Sodium as Na	%	31.32	IS 3025(Part -45) 1993	NA	NA
40	Barium as Ba	mg/l	BLQ(LOQ0.01)	USEPA Method 200.8:1994	0.7	No Relaxation
41	Chromium as Cr6+	mg/l	BLQ(LOQ:0.0	IS 3025 Part 52 : 2003	NA	NA
42	Residual Sodium Carbonate	mg/l	BLQ(LOQ:1.0)	IS 11624 - 1986	NA	NA
43	Free Ammonia	mg/l	BLQ(LOQ:0.02	IS 3025 Part (34) 1982	NA	NA
44	Sodium Absorption Ratio		1.19	IS 11624 - 1986	NA	NA

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, mg/l - Milligrams per liter.

End of Report



Authorized Signatory

SIVAPRAKASAM. M

Lah Manager

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TEST REPORT

Page: 1 of 2

Name of the Client

: M/s. SIPCOT

Report No. : **HECSL/WT/008/260823**

Address of the Client

: Thervoy Kandigai

Report Date : 31/08/2023

Sample Description

: WATER

Sample Mark Sample

: Thervoy Village - Ground Water : Hubert Enviro Care Systems (p) Ltd

Drawn By

: 25/08/2023 -26/08/2023

Sampling/received Date
Analysis Commenced On

: 26/08/2023

Completed On: 31/08/2023

C M.	D	Units	Results	Test Method	IS:105	00-2012
S.No.	Parameters	Omis	Results	rest weened	Acceptable Limits	Permissible Limits
1	pH (at 25 °C)		7.58	IS 3025 (Part - 11):1983	6.5 - 8.5	No relaxation
2	Total Alkalinity as CaCO3	mg/l	100.0	IS 3025 (Part - 23):1986	200	600
3	Electrical conductivity	μS/cm	514.0	IS 3025 (Part - 14):1983	NA	NA
4	Colour	Hazen Unit	BLQ(LOQ:1.0)	IS 3025(Part - 4):1983	5	15
5	Turbidity	NTU	0.6	IS 3025(Part - 10):1984	1	5
6	Total Hardness as CaCO3	mg/l	143.0	IS 3025 (Part - 21):1983	200	600
7	Calcium as Ca	mg/l	43.29	IS 3025 (Part - 40):1991	75	200
8	Chloride as Cl	mg/l	71.26	4500 C1 B APHA 23rd Edn: 2017	250	1000
9	Magnesium as Mg	tng/l	8.51	1S 3025 (Part - 46) 1994	30	100
10	Total Dissolved Solids	mg/l	288.0	IS 3025(Part -16):1984	500	2000
11	Sulphate as SO4	mg/l	32.51	IS 3025(Part - 24):1986	200	400
12	Fluoride	ıng/l	0.48	IS 3025 (Part - 60):1986	1.0	1.5
13	Nitrate as NO3	mg/l	3.18	IS 3025 (Part 34): 1988	45	No Relaxation
14	Iron as Fe	mg/l	0.037	IS 3025 (Part - 53):2003	1.0	No Relaxation
15	Boron as B	mg/l	BLQ(LOQ:0.1)	IS:3025 (Part - 57):2005	0.5	1.0
16	Zinc as Zn	ıng/l	BLQ(LOQ 0.1)	USEPA Method 200.8:1994	5	15
17	Copper as Cu	mg/l	BLQ(LOQ 0.01)	USEPA Method 200.8:1994	0.05	1.5
18	Manganese as Mn	mg/l	BLQ(LOQ:0.05)	USEPA Method 200.8:1994	0.1	0.3
19	Cadmium as Cd	mg/l	BLQ(LOQ 0.001)	USEPA Method 200.8:1994	0.003	No Relaxation
20	Lead as Pb	mg/l	BLQ(LOQ 0.005)	USEPA Method 200.8:1994	0.01	No Relaxation
21	Selenium as Se	mg/l	BLQ(LOQ 0.005)	USEPA Method 200.8:1994	0.01	No Relaxation



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SIVAPRAKASAM. M

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TEST REPORT

Page: 2 of 2

Name of the Client

: M/s. SIPCOT

Report No. : HECSL/WT/008/260823

Address of the Client

: Thervoy Kandigai

Report Date : 31/08/2023

Sample Description

: WATER

Sample Mark Sample

: Thervoy Village - Ground Water

Drawn By

: Hubert Enviro Care Systems (p) Ltd : 25/08/2023 -26/08/2023

Sampling/received Date
Analysis Commenced On

: 26/08/2023

Completed On: 31/08/2023

	_	Units	Results	Test Method	IS:105	500-2012
S.No.	Parameters	Chits		rest wiethou	Acceptable Limits	Permissible Limits
22	Arsenic as As	mg/l	BLQ(LOQ:0.00 5)	USEPA Method 200.8:1994	0.01	0.05
23	Mercury as Hg	mg/l	BLQ(LOQ 0.0005)	USEPA Method 200.8:1994	0.001	No Relaxation
24	Sodium as Na	mg/l	37.0	IS3025 (Part - 45):1993	NA	NA
25	Potassium as K	mg/l	- 5.0	IS3025 (Part - 45):1993	NA	NA
26	Phosphate as PO4	mg/l	0.083	IS 3025 (Part 31):1988	NA	NA
27	Total suspended solid	mg/l	2.0	IS 3025 (Part - 17):1984	NA	NA
28	Nickel	mg/l	BLQ(LOQ 0.01)	USEPA Method 200.8:1994	0.02	No Relaxation
29	Cyanide	mg/l	BLQ(LOQ:0.01)	IS 3025 (Part-27):1986	0.05	No Relaxation
30	Total Chromium	mg/l	BLQ(LOQ 0.01)	USEPA Method 200.8 : 1994	0.05	No Relaxation
31	BOD,3 days @27°C as O2	mg/l	BLQ(LOQ:1.0)	IS 3025 (Part - 44):1993	NA	NA
32.	Chemical oxygen demand as	mg/l	BLQ(LOQ:4.0)	IS 3025 (Part - 58):2006	NA	NA
33	Dissolved oxygen	mg/l	6.9	IS 3025 (Part - 38):1989	NA	NA
34	Total Phosphorous as P	mg/l	0.058	IS 3025 (Pt 31): 1988	NA	NA
35	Carbonate	mg/l	BLQ(LOQ:1.0)	IS 3025 (Part - 23):1986	NA	NA
36	Bi Carbonate	mg/l	122	IS 3025 (Part - 23):1986	NA	NA
37	Phenolic compounds as	mg/l	BLQ(LOQ:0.001	APHA 23rd edition (Method 5530C): 2017	0.001	0.002
38	Anionic Detergents as MBAS	mg/l	BLQ(LOQ:0.05)	Annex K of IS 13428-2005	0.2	1
39	Percent Sodium as Na	%	34.90	IS 3025(Part 45) 1993	NA	NA
40	Barium as Ba	mg/l	BLQ(LOQ0.01)	USEPA Method 200.8:1994	0.7	No Relaxation
41	Chromium as Cr6+	mg/l	BLQ(LOQ:0.05	IS 3025 Part 52 : 2003	NA	NA
42	Residual Sodium Carbonate	mg/l	BLQ(LOQ:1.0)	IS 11624 - 1986	NA	NA
43	Free Ammonia	mg/l	BLQ(LOQ:0.02)	IS 3025 Part (34) 1982	NA	NA
44	Sodium Absorption Ratio	-	1.34	IS 11624 - 1986	NA	NA

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, mg/l - Milligrams per liter.



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TEST REPORT

Page: 1 of 2

: M/s. SIPCOT

Report No. : HECSL/WT/009/260823

Report Date: 31/08/2023

Address of the Client

Name of the Client

Sample Description

:WATER

Sample Mark

: Lake Near Palavakkam-Surface Water

Sample Drawn By

: Hubert Enviro Care Systems (p) Ltd : 24/08/2023 -26/08/2023

Sampling/received Date
Analysis Commenced On

: 24/08/2023 : 26/08/2023

: Thervoy Kandigai

Completed On: 31/08/2023

S.No.	Parameters	Units	Results	Test Method	Surface water Standard (IS 2296Class-A)
1	pH (at 25 °C)	-	8.23	IS 3025 (Part - 11):1983	6.5-8.5
2	Total Alkalinity as CaCO3	mg/l	25.0	IS 3025 (Part - 23):1986	NA
3 .	Electrical conductivity	μS/cm	213.0	IS 3025 (Part - 14):1983	NA
4	Colour	Hazen Unit	BLQ(LOQ:1,0)	IS 3025(Part - 4):1983	10
5	Turbidity	NTÚ	6.5	1S 3025(Part - 10):1984	1
6	Total Hardness as CaCO3	mg/l	42.0	IS 3025 (Part - 21):1983	200
7	Calcium as Ca	mg/l	11.22	IS 3025 (Part - 40):1991	NA
8	Chloride as Cl	mg/l	30.19	4500 Cl B APHA 23rd Edn: 2017	250
9	Magnesium as Mg	mg/l	3.65	IS 3025 (Part - 46) 1994	NA
10	Total Dissolved Solids	mg/l	120.0	IS 3025(Part -16):1984	500
11	Sulphate as SO4	mg/l	8.74	1S 3025(Part - 24):1986	400
12	Fluoride	mg/l	BLQ(LOQ:0.2)	IS 3025 (Part - 60):1986	1.5
13.	Nitrate as NO3	mg/l	5.72	IS 3025 (Part 34): 1988	20
14	Iron as Fe	mg/l	0.54	IS 3025 (Part - 53):2003	0.3
15	Boron as B	mg/l	BLQ(LOQ:0.1)	IS:3025 (Part - 57):2005	NA
16	Zinc as Zn	mg/l	BLQ(LOQ 0.1)	USEPA Method 200.8:1994	15
17	Copper as Cu	mg/l	BLQ(LOQ 0.01)	USEPA Method 200,8:1994	1.5
18	Manganese as Mn	mg/l	BLQ(LOQ:0.05)	USEPA Method 200.8:1994	0.5
19	Cadmium as Cd	mg/l	BLQ(LOQ 0.001)	USEPA Method 200.8:1994	0.001
20	Lead as Pb	mg/l	BLQ(LOQ 0.005)	USEPA Method 200.8:1994	0.1
21	Selenium as Se	mg/l	BLQ(LOQ 0.005)	USEPA Method 200.8:1994	0.01
22	Arsenic as As	mg/l	BLQ(LOQ 0.005)	USEPA Method 200.8:1994	0.05
23	Mercury as Hg	mg/l	BLQ(LOQ 0.0005)	USEPA Method 200.8:1994	0.001



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TEST REPORT

Page: 2 of 2

: M/s. SIPCOT

Report No. : HECSL/WT/009/260823

Report Date: 31/08/2023

Sample Description

Name of the Client

Address of the Client

:WATER

Sample Mark

: Lake Near Palavakkam-Surface Water

Sample Drawn By

: Hubert Enviro Care Systems (p) Ltd

Sampling/received Date

: 24/08/2023 - -2

: Thervoy Kandigai

-26/08/2023

Analysis Commenced On

:26/08/2023

Completed On: 31/08/2023

S.No.	Parameters	Units	Results	Test Method	Surface water Standard (IS 2296Class-A)
24	Sodium as Na	mg/l	15.0	IS3025 (Part - 45):1993	NA
25	Potassium as K	mg/l	2.0	IS3025 (Part - 45):1993	NA
26	Phosphate as PO4	mg/l	0.078	IS 3025 (Part 31):1988	NA
27	Total suspended solid	mg/l	14.0	IS 3025 (Part - 17):1984	NA
.28	Nickel	mg/l	BLQ(LOQ 0.01)	USEPA Method 200.8:1994	NA
29	Cyanide	mg/l	BLQ(LOQ:0.01)	IS 3025 (Part-27):1986	0.05
30	Total Chromium	mg/l	BLQ(LOQ 0.01)	USEPA Method 200.8 : 1994	0.05
31	BOD,3 days @27°C as O2	mg/l	4.0	IS 3025 (Part - 44):1993	NA
32	Chemical oxygen demand as	mg/l	28.0	1S 3025 (Part - 58):2006	NA
33	Dissolved oxygen	mg/l	6.3	IS 3025 (Part - 38):1989	6
34	Total Phosphorous as P	mg/l	BLQ(LOQ:0.02)	IS 3025 (Pt 31): 1988	NA
35	Carbonate	mg/l	BLQ(LOQ:1.0)	IS 3025 (Part - 23):1986	NA
36	Bi Carbonate	mg/l	29.0	IS 3025 (Part - 23):1986	NA
37	Phenolic compounds as	mg/l	BLQ(LOQ:0.001)	APHA 23rd edition (Method 5530C): 2017	NA
38	Anionic Detergents as MBAS	mg/l	BLQ(LOQ:0.05)	Annex K of IS 13428-2005	NA
39	Percent Sodium as Na	%	41.58	IS 3025(Part -45) 1993	NA
40	Barium as Ba	mg/l	BLQ(LOQ0.01)	USEPA Method 200.8:1994	1
41	Chromium as Cr6+	mg/l	BLQ(LOQ:0.05)	IS 3025 Part 52 : 2003	NA
42	Residual Sodium Carbonate	mg/l	BLQ(LOQ:1.0)	IS 11624 - 1986	NA
43	Free Ammonia	mg/l	BLQ(LOQ:0.02)	IS 3025 Part (34) 1982	NA
44	Sodium Absorption Ratio		0.99	IS 11624 - 1986	NA

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, mg/l - Milligrams per liter.

End of Report



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TEST REPORT

Page: 1 of 2

Report No. : HECSL/WT/010/260823

Report Date: 31/08/2023

Name of the Client

Address of the Client

: M/s. SIPCOT

Sample Description

:WATER

Sample Mark

: Lake Near Thervoy Kandigai - Surface Water

: Thervoy Kandigai

Sample Drawn By

: Hubert Enviro Care Systems (p) Ltd -26/08/2023

Sampling/received Date

:24/08/2023

Analysis Commenced On :26/03/2023

Completed On: 31/08/2023

S.No.	Parameters	Units	Results	Test Method	Surface water Standard (IS 2296Class-A)
1	pH (at 25 °C)	-	7.46	IS 3025 (Part - 11):1983	6.5-8.5
2	Total Alkalinity as CaCO3	mg/l	30	IS 3025 (Part - 23):1986	NA
3	Electrical conductivity	μS/cm	222.0	IS 3025 (Part - 14):1983	NA
4	Colour	Hazen Unit	BLQ(LOQ:1.0)	IS 3025(Part - 4):1983	10
5	Turbidity	NTU	10.4	IS 3025(Part - 10):1984	1
6	Total Hardness as CaCO3	mg/l	54.0	IS 3025 (Part - 21):1983	200
. 7	Calcium as Ca	mg/l	12.83	IS 3025 (Part - 40):1991	NA
8	Chloride as Cl	mg/l	23.75	4500 Cl B APHA 23rd Edn: 2017	250
9	Magnesium as Mg	mg/l	5.35	IS 3025 (Part - 46) 1994	NA
10	Total Dissolved Solids	mg/l	124.0	IS 3025(Part -16):1984	500
11	Sulphate as SO4	mg/l	16.28	IS 3025(Part - 24):1986	400
12	Fluoride	mg/l	BLQ(LOQ:0.2)	IS 3025 (Part - 60):1986	1.5
13	Nitrate as NO3	mg/l	6.23	IS 3025 (Part 34): 1988	20
14	Iron as Fe	mg/l	0.69	IS 3025 (Part - 53):2003	0.3
15	Boron as B #	mg/l	BLQ(LOQ:0.1)	IS:3025 (Part - 57):2005	NA
16	Zinc as Zn	mg/l	BLQ(LOQ 0.1)	USEPA Method 200.8:1994	15
17	Copper as Cu	mg/l	BŁQ(LOQ 0.01)	USEPA Method 200.8:1994	1.5
18	Manganese as Mn	mg/l	BLQ(LOQ:0.05)	USEPA Method 200.8:1994	0.5
19	Cadmium as Cd	ıng/l	BLQ(LOQ 0.001)	USEPA Method 200.8:1994	0.001
20	Lead as Pb	mg/l	BLQ(LOQ 0.005)	USEPA Method 200.8:1994	0.1
21	Selenium as Se	mg/l	BLQ(LOQ 0.005)	USEPA Method 200.8:1994	0.01
22	Arsenic as As	mg/l	BLQ(LOQ 0.005)	USEPA Method 200.8:1994	0.05
23	Mercury as Hg	mg/l	BLQ(LOQ 0.0005)	USEPA Method 200.8:1994	0.001



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TEST REPORT

Page: 2 of 2

: M/s. SIPCOT

Report No. : HECSL/WT/010/260823

: Thervoy Kandigai

Report Date: 31/08/2023

Sample Description

Name of the Client

Address of the Client

:WATER

Sample Mark

: Lake Near Thervoy Kandigai - Surface Water

Sample Drawn By

: Hubert Enviro Care Systems (p) Ltd

Sampling/received Date

:24/08/2023 -26/08/2023

Analysis Commenced On :26/08/2023

Completed On: 31/08/2023

S.No.	Parameters	Units	Results	Test Method	Surface water Standard (IS 2296Class-A)
24	Sodium as Na	mg/l	12.0	1S3025 (Part - 45):1993	NA
25	Potassium as K	mg/l	2.0	IS3025 (Part - 45):1993	NA
26	Phosphate as PO4	mg/l	0.073	1S 3025 (Part 31):1988	NA
27	Total suspended solid	mg/l	24.0	IS 3025 (Part - 17):1984	NA
28	Nickel	mg/l	BLQ(LOQ 0.01)	USEPA Method 200.8:1994	NA
29	Cyanide	mg/l	BLQ(LOQ:0.01)	IS 3025 (Part-27):1986	0.05
30	Total Chromium	mg/l	BLQ(LOQ 0.01)	USEPA Method 200.8 : 1994	NA
31	BOD,3 days @27°C as O2	mg/l	4.0	IS 3025 (Part - 44):1993	NA
32	Chemical oxygen demand as	mg/l	24.0	IS 3025 (Part - 58):2006	NA
33	Dissolved oxygen	mg/l	5.8	IS 3025 (Part - 38):1989	6
34	Total Phosphorous as P	mg/l	0.062	IS 3025 (Pt 31): 1988	NA
35	Carbonate	mg/l	BLQ(LOQ:1.0)	IS 3025 (Part - 23):1986	NA
36	Bi Carbonate	mg/l	36.6	IS 3025 (Part - 23):1986	NA
37	Phenolic compounds as	mg/l	BLQ(LOQ:0.001)	APHA 23rd edition (Method 5530C): 2017	NA
38	Anionic Detergents as MBAS	mg/l	BLQ(LOQ:0.05)	Annex K of IS 13428-2005	NA
39	Percent Sodium as Na	%	31.43	IS 3025(Part -45) 1993	NA
40	Barium as Ba	mg/l	BLQ(LOQ0.01)	USEPA Method 200.8:1994	1
41	Chromium as Cr6+	mg/l	BLQ(LOQ:0.05)	IS 3025 Part 52 : 2003	NA
42	Residual Sodium Carbonate	mg/l	BLQ(LOQ:1.0)	IS 11624 - 1986	NA
43	Free Ammonia	mg/l	BLQ(LOQ:0.02)	IS 3025 Part (34) 1982	NA
44	Sodium Absorption Ratio	-	0.71	IS 11624 - 1986	NA

 $Note:-\ BLQ-\ Below\ the\ Limit\ of\ Quantification,\ LOQ-\ Limit\ of\ Quantification,\ mg/l-\ Milligrams\ per\ liter.$

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TEST REPORT

Page: 1 of 1

Name of the Client

: M/s. SIPCOT

Report No. : HECSL/SD/1/260823

Address of the Client

: Thervoy Kandigai

Report Date: 31/08/2023

Sample Description

: SOIL

Sample Mark

: Project Area

Sample Drawn By

: Hubert Enviro Care Systems (p) Ltd

Sampling/received Date

: 24/08/2023 -26/08/2023

Analysis Commenced On: 26/08/2023

Completed On: 31/08/2023

S.No.	Parameters	Units	Results	Test Method
1	Soil Texture	-	Clay Loam	ASTM D421/422
2	Organic Carbon		0.47	ASTM D421/422
3	Soil Texture i)Sand	%	26.12	ASTM D421/422
4	Soil Texture ii)Silt	%	43.22	ASTM D421/422
5	Soil Texture iii)Clay	%	30.66	ASTM D421/422
6	pH (at 25°C) @ 10% Solution		7.33	IS:2720 (Part-26):1987
7	Electrical Conductivity (at 25°C)	üS/cm	166.31	IS:14767:2000
8	Cation exchange capacity	meg/100g	3.12	IS 2720 (Part XXIV)Reaff:2010-1976
9	Organic Matter	%	0.77	IS:2720 (Part-22: 1972)
10	Nitrogen	mg/kg	121.45	IS 14684:1999 RA 2008
11	Phosphorus	mg/kg	0.82	IS 10158:1982
12	Potassium	mg/kg	33.12	US EPA Method 3050B
13	Boron	mg/kg	BLQ(LOQ 0.1)	US EPA Method 200.7
14	Cadmium	mg/kg	BLQ(LOQ 0.1)	US EPA 200.8 Method
15	Copper as Cu	mg/kg	7.21	US EPA 200.8 Method
16	Iron	mg/kg	5.22	US EPA 200.8 Method
17	Manganese	mg/kg	143.54	US EPA 200.8 Method
18	Zinc	mg/kg	23.21	US EPA 200.8 Method
19	Colour		Red	IS 3025(Part 4)
20	Infiltration Rate	cm/hr	6.21	ASTM D6391-11
21	Bulk density	gm/cc	4.43	ASTM D6683-14
22	Moisture Content	%	11.76	IS 2720 part 2 Reaff:2000
23	Water holding capacity	%	43.22	IS 14765
24	Calcium as Ca	mg/kg	123.22	EPA 3050 B/EPA 7140
25	Magnesium as Mg	mg/kg	53.12	EPA 3050 B/EPA 7450
26	Chromium	mg/kg	27.44	US EPA 200.8 Method

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, mg/kg- Milligrams per kilogram,

% - Percentage.

End of Report



Authorized Signatory

SIVAPRAKASAM, M Lab Manager

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Chennai - 600 083.

Ph: 42985555 Fax : 42985500 E-mail : labsales@hecs.in

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TEST REPORT

Page: 1 of 1

Name of the Client :

: M/s. SIPCOT

Report No. : HECSL/SD/2/260823

Address of the Client

: Thervoy Kandigai

Report Date: 31/08/2023

Sample Description

: SOIL

Sample Mark

: Karadipudur

Sample Drawn By

: Hubert Enviro Care Systems (p) Ltd

Sampling/received Date

: 24/08/2023 -26/08/2023

Analysis Commenced On: 26/08/2023

Completed On: 31/08/2023

S.No.	Parameters	Units	Results	Test Method
1	Soil Texture	-	Clay Loam	ASTM D421/422
2	Organic Carbon		0.58	ASTM D421/422
3	Soil Texture i)Sand	%	27.24	ASTM D421/422
4	Soil Texture ii)Silt	0/0	34.11	ASTM D421/422
5	Soil Texture iii)Clay	%	38.65	ASTM D421/422
6	pH (at 25°C) @ 10% Solution	-	7.47	1S:2720 (Part-26):1987
7	Electrical Conductivity (at 25°C)	μS/cm	643.31	IS:14767:2000
8	Cation exchange capacity	meq/100g	3.88	IS 2720 (Part XXIV)Reaff:2010-1976
9	Organic Matter	%	0.71	IS:2720 (Part-22: 1972)
10	Nitrogen	mg/kg	432.11	IS 14684:1999 RA 2008
11	Phosphorus	mg/kg	0.85	IS 10158:1982
12	Potassium	mg/kg	42.12	US EPA Method 3050B
13	Boron	mg/kg	BLQ(LOQ 0.1)	US EPA Method 200.7
14	Cadmium	mg/kg	BLQ(LOQ 0.1)	US EPA 200.8 Method
15	Copper as Cu	mg/kg	6.32	US EPA 200.8 Method
16	Iron	mg/kg	BLQ(LOQ 0.02)	US EPA 200.8 Method
17	Manganese	mg/kg	132.12	US EPA 200.8 Method
18	Zinc	mg/kg	32.12	US EPA 200.8 Method
19	Colour	-	Brown	IS 3025(Part 4)
20	Infiltration Rate	cm/hr	18.12	ASTM D6391-11
21	Bulk density	gm/cc	5.12	ASTM D6683-14
22	Moisture Content	%	9.24	IS 2720 part 2 Reaff:2000
23	Water holding capacity	%	26.12	IS 14765
24	Calcium as Ca	mg/kg	126.32	EPA 3050 B/EPA 7140
25	Magnesium as Mg	mg/kg	101.32	EPA 3050 B/EPA 7450
26	Chromium	mg/kg	51.23	US EPA 200.8 Method

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, mg/kg- Milligrams per kilogram,

% - Percentage.

End of Report



Authorized Signatory
SIVAPRAKASAM. M
Lab Manager

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TEST REPORT

Page: 1 of 1

: M/s, SIPCOT Report No. : HECSL/SD/3/260823

Report Date: 31/08/2023

Sample Description

Name of the Client

Address of the Client

: soil

Sample Mark

: Kollanur

: Thervoy Kandigai

Sample Drawn By

: Hubert Enviro Care Systems (p) Ltd

Sampling/received Date

: 25/08/2023 -26/08/2023

Analysis Commenced On: 26/08/2023

Completed On: 31/08/2023

S.No.	Parameters	Units	Results	Test Method
1	Soil Texture		Clay Loam	ASTM D421/422
2	Organic Carbon		0.67	ASTM D421/422
3	Soil Texture i)Sand	%	27.71	ASTM D421/422
4	Soil Texture ii)Silt	%	42.36	ASTM D421/422
5	Soil Texture iii)Clay	%	29.93	ASTM D421/422
6	pH (at 25°C) @ 10% Solution	-	7.85	IS:2720 (Part-26):1987
7	Electrical Conductivity (at 25°C)	μS/cm	112.14	IS:14767:2000
8	Cation exchange capacity	meq/100g	8.21	IS 2720 (Part XXIV)Reaff:2010-1976
9	Organic Matter	%	0.76	IS:2720 (Part-22: 1972)
10	Nitrogen	mg/kg	93.32	IS 14684:1999 RA 2008
11	Phosphorus	mg/kg	4.21	IS 10158:1982
12	Potassium	mg/kg	37.22	US EPA Method 3050B
13	Boron	mg/kg	BLQ(LOQ 0.1)	US EPA Method 200.7
14	Cadmium	mg/kg	BLQ(LOQ 0.1)	US EPA 200.8 Method
15	Copper as Cu	mg/kg	4.32	US EPA 200.8 Method
16	Iron	mg/kg	BLQ(LOQ 0.02)	US EPA 200.8 Method
17	Manganese	mg/kg	71.88	US EPA 200.8 Method
18	Zinc	mg/kg	23.63	US EPA 200.8 Method
19	Colour	-	Black	IS 3025(Part 4)
20	Infiltration Rate	cm/hr	5.76	ASTM D6391-11
21	Bulk density	gm/cc	3.16	ASTM D6683-14
22	Moisture Content	%	6.31	IS 2720 part 2 Reaff:2000
23	Water holding capacity	%	28.65	IS 14765
24	Calcium as Ca	mg/kg	143.12	EPA 3050 B/EPA 7140
25	Magnesium as Mg	mg/kg	71.23	EPA 3050 B/EPA 7450
26	Chromium	mg/kg	29.32	US EPA 200.8 Method

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, mg/kg- Milligrams per kilogram,

% - Percentage.

End of Report



Authorized Signatory
SIVAPRAKASAM. 111
Lab Manager

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TEST REPORT

Page: 1 of 1

: M/s. SIPCOT Report No. : HECSL/SD/4/260823

Report Date: 31/08/2023

Address of the Client

Name of the Client

: soil

Sample Mark

: Chinnapuliyur

: Thervoy Kandigai

Sample Drawn By

Sample Description

: Hubert Enviro Care Systems (p) Ltd

Sampling/received Date

: 25/08/2023 -26/08/2023

Analysis Commenced On: 26/08/2023

Completed On: 31/08/2023

S.No.	Parameters	Units	Results	Test Method
1	Soil Texture	-	Clay Loam	ASTM D421/422
2	Organic Carbon		0.57	ASTM D421/422
3	Soil Texture i)Sand	%	33.12	ASTM D421/422
4	Soil Texture ii)Silt	%	36.43	ASTM D421/422
5	Soil Texture iii)Clay	%	30.45	ASTM D421/422
6	pH (at 25°C) @ 10% Solution	-	7.35	IS:2720 (Part-26):1987
7	Electrical Conductivity (at 25°C)	μS/cm	376.65	IS:14767:2000
8	Cation exchange capacity	meq/100g	4.32	IS 2720 (Part XXIV)Reaff:2010-1976
9	Organic Matter	0/0	0.43	IS:2720 (Part-22: 1972)
10	Nitrogen	mg/kg	110.76	IS 14684:1999 RA 2008
11	Phosphorus	mg/kg	8.32	IS 10158:1982
12	Potassium	mg/kg	41.66	US EPA Method 3050B
13	Boron	mg/kg	BLQ(LOQ 0.1)	US EPA Method 200.7
14	Cadmium	mg/kg	BLQ(LOQ 0.1)	US EPA 200.8 Method
15-	Copper as Cu	mg/kg	7.12	US EPA 200.8 Method
16	Iron	mg/kg	BLQ(LOQ 0.02)	US EPA 200.8 Method
17	Manganese	mg/kg	732.11	US EPA 200.8 Method
18	Zinc	mg/kg	39.61	US EPA 200.8 Method
19	Colour	•	Black	IS 3025(Part 4)
20	Infiltration Rate	cm/hr	6.43	ASTM D6391-11
21	Bulk density	gm/cc	4.23	ASTM D6683-14
22	Moisture Content	%	7.38	IS 2720 part 2 Reaff:2000
23	Water holding capacity	%	31.98	IS 14765
24	Calcium as Ca	mg/kg	132.77	EPA 3050 B/EPA 7140
25	Magnesium as Mg	mg/kg	158.11	EPA 3050 B/EPA 7450
26	Chromium	mg/kg	63.71	US EPA 200.8 Method

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, mg/kg- Milligrams per kilogram,

% - Percentage.

End of Report



Authorized Signatory

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TEST REPORT

Page: 1 of 1

Name of the Client

: M/s. SIPCOT

Report No. : HECSL/SD/5/260823

Address of the Client

: Thervoy Kandigai

Report Date: 31/08/2023

Sample Description

: SOIL

Sample Mark

: Thervoy Village

Sample Drawn By

: Hubert Enviro Care Systems (p) Ltd

Sampling/received Date

: 25/08/2023 -26/08/2023

Analysis Commenced On: 26/08/2023

Completed On: 31/08/2023

S.No.	Parameters	Units	Results	Test Method
1	Soil Texture		Silty Clay	ASTM D421/422
2	Organic Carbon		0.52	ASTM D421/422
3	Soil Texture i)Sand	%	14.41	ASTM D421/422
4	Soil Texture ii)Silt	%	44.22	ASTM D421/422
5	Soil Texture iii)Clay	%	41.37	ASTM D421/422
6	pH (at 25°C) @ 10% Solution		7.86	IS:2720 (Part-26):1987
7	Electrical Conductivity (at 25°C)	иS/cm	312.43	IS:14767:2000
8	Cation exchange capacity	meq/100g	7.20	IS 2720 (Part XXIV)Reaff:2010-1976
9	Organic Matter	%	0.65	IS:2720 (Part-22: 1972)
10	Nitrogen	mg/kg	143.21	IS 14684:1999 RA 2008
11	Phosphorus	mg/kg	4.33	IS 10158:1982
12	Potassium	mg/kg	11.67	US EPA Method 3050B
13	Boron	mg/kg	BLQ(LOQ 0.1)	US EPA Method 200.7
14	Cadmium	mg/kg	BLQ(LOQ 0.1)	US EPA 200.8 Method
15	Copper as Cu	mg/kg	7.71	US EPA 200.8 Method
16	Iron	mg/kg	BLQ(LOQ 0.02)	US EPA 200.8 Method
17	Manganese	mg/kg	131.32	US EPA 200.8 Method
18	Zinc	mg/kg	32.76	US EPA 200.8 Method
19	Colour	•	Red	IS 3025(Part 4)
20	Infiltration Rate	cm/hr	7.21	ASTM D6391-11
21	Bulk density	gm/cc	5.32	ASTM D6683-14
22	Moisture Content	%	- 3.22	IS 2720 part 2 Reaff:2000
23	Water holding capacity	%	38.18	IS 14765
24	Calcium as Ca	mg/kg	118.32	EPA 3050 B/EPA 7140
25	Magnesium as Mg	mg/kg	72.12	EPA 3050 B/EPA 7450
26	Chromium	mg/kg	26.77	US EPA 200.8 Method

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, mg/kg- Milligrams per kilogram,

% - Percentage.

End of Report

Authorized Signatory

SIVAPRAKASAM. M Lab Manager

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TEST REPORT

Page: 1 of 1

: M/s. SIPCOT

Report No. : HECSL/AN/001-005/260823

Report Date: 31/08/2023

Address of the Client

Name of the Client

: Noise Monitoring

: Thervoy Kandigai

Sample Description
Sample Drawn By

: Hubert Enviro Care Systems (p) Ltd

Sampling/received Date

: 24/08/2023 -26/08/2023

S.No	Sampling Location	Day Noise level in dB (A)	Night Noise level in dB (A)
1	Project Site	61.7	50.2
2	Karadipudur	49.2	45.1
3	Kollanur	48.2	45.2
4	Chinnapuliyur	58.4	49.5
5	Thervoy Village	55.3	49.3

Noise Standards - CPCB:

í. Industrial Area *Day Time-75 dB (A); Night Time-70 dB (A). ii. Commercial Area : Day Time-65 dB (A); Night Time-55 dB (A). iii. Residential Area : Day Time-55 dB (A); Night Time-45 dB (A). iv. Silence Zone : Day Time-50 dB (A); Night Time-40 dB (A).

Note:

1. Day Time shall mean from 6.00 am to 10.00 pm.

2. Night Time shall mean from 10.00 pm to 6.00 am.

Remarks:- The noise level meets the requirement of CPCB Limits.

End of Report



Authorized Signatory

Lab Manager

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Green Belt Photograph









Rainwater Harvesting Photographs





Weep Hole Photograph



Storm water drainage Photograph



Parking and LED Light Photograph











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SIPCOT Industrial Park Thervoykandigai, Thiruvallur District

Environmental Clearance has been obtained for the proposed SIPCOT Industrial Park at Thervoykandigai, Thiruvallur District from Ministry of Environment & Forests, New Delhi, vide their letter No. 21-41/2009-IA. III, dated 09.08.2010

The contents of the letter can be viewed in SIPCOT website: www.sipcot.com and also in the MoEF website: www.envfor.nic.in. Further, the copies of the Environmental Clearance could be obtained from the Head Office of Tamil Nadu Pollution Control Board (TNPCB).

Principal Secretary / Chairman & Managing Director, SIPCOT, Visit us ut : www.tn.gov.in 19-A, Rukmani Lakshmipathy Road, Egmore,

DIPR/1082/Display/2010

Chennai - 600 008.

க்கு நடிகுகள் கொழுந் முற்கு முற்று மூற்று கொழ

COUNTRY COLOROW

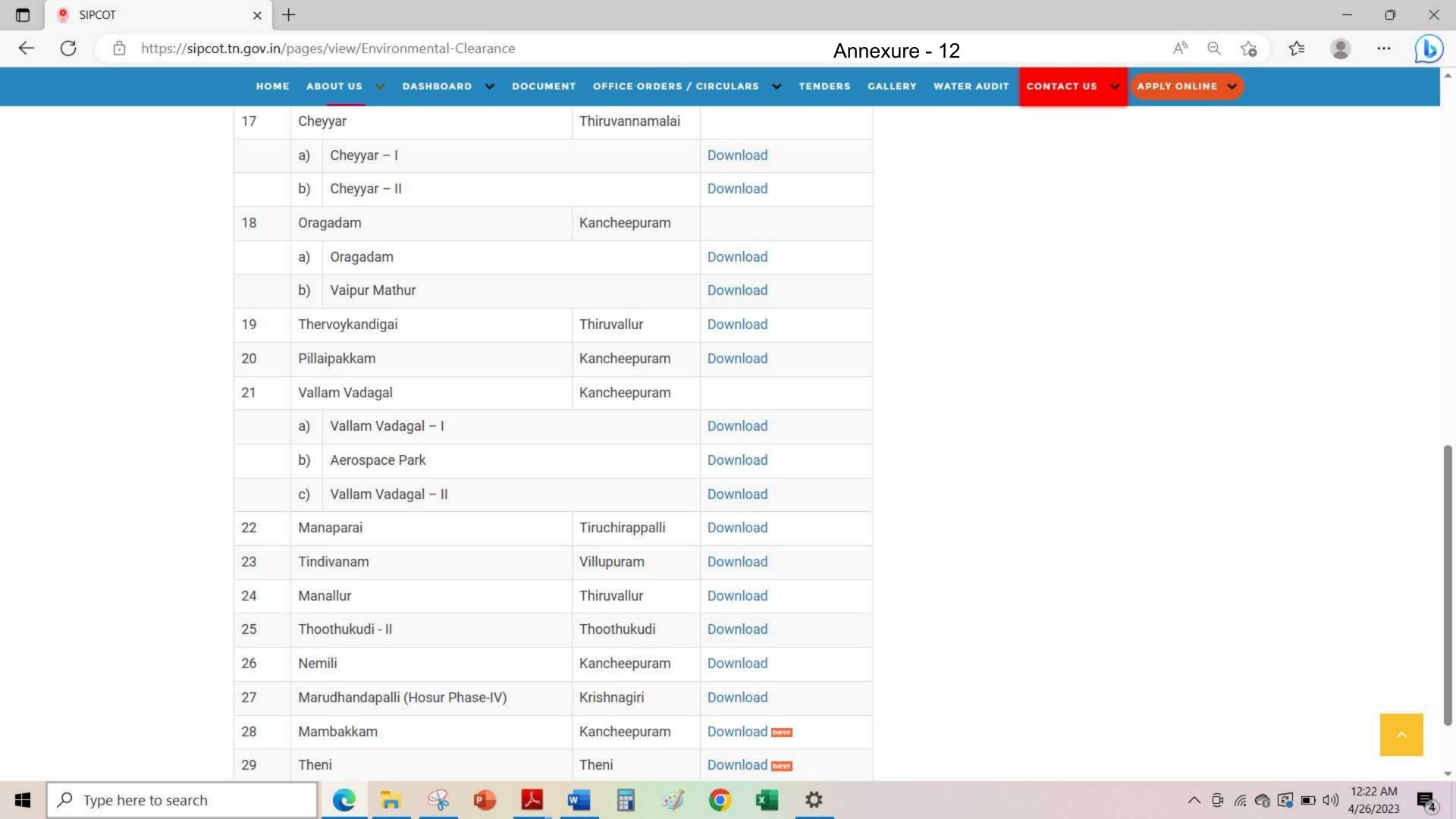
சிப்காட தொழிற்பூங்கா தேர்வாய் கண்டிகை. தீருவள்ளூர் மாவட்டம்

மத்திய சுற்றுச்சூழல் மற்றும் வனத்துறை அமைச்சகம், கடிதம் எண். 21-41/2009-IA.III தேதி 09.08.2010 வழியாக திருவள்ளூர் மாவட்டம் தேர்வாய் கண்டிகையில் உத்தேசிக்கப்பட்டுள்ள தொழிற் புங்காவிற்கு சுற்றுச்சூழல் இசைவாணை வழங்கியுள்ளது. அவ்விசைவாணையின் முழு விவரத்தை சிப்காட் இணையதளமான www.sipcot.com மற்றும் மத்திய சுற்றுச்சூழல் மற்றும் வனத்துறை அமைச்சகத்தின் இணையதளமான www.envfor.nic.in ஆகியவற்றில் காணமைம். மேலும் இசைவாணையின் நகலினை கமிழ்நாடு மாசு கட்டுப்பாட்டு வாரியத் தணைமை அலுவகைத்தில் பெறலாம்.

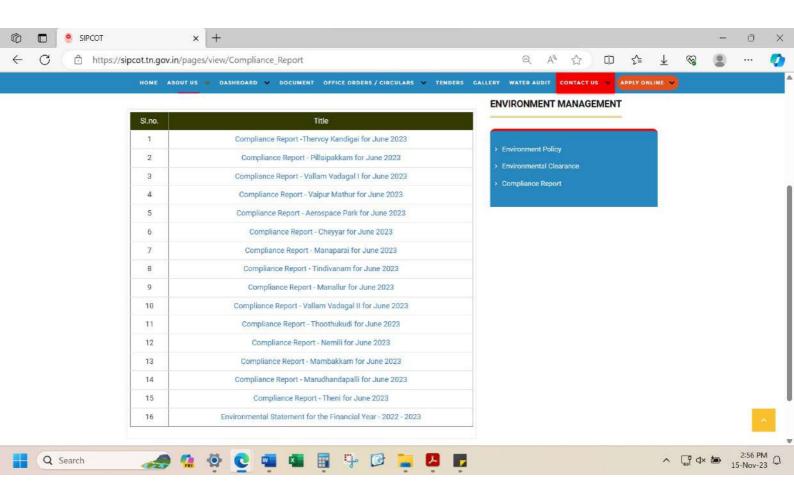
முதன்மை செயலர் /

தலைவர் மற்றும் மேலாண்மை இயக்குனர். சிப்காட்,

isit us ut : www.tn.gov.in 19-A. உருக்குமணி கூடகமிபத் சாலை, ம.தொ.கி./ 1082 /வரைக்கை/2010 சென்னை-600 008.



Annexure - 13





P-III/EC/I/27207/2023/TK

To, The Member Secretary, Tamil Nadu Pollution Control Board, No.76, Mount Salai, Guindy, Chennai – 600 032. /RPADI

Date: 25.09.2023

Sir,

Sub: SIPCOT Industrial Park, Thervoykandigai - Environmental Statement for the

Financial Year ending 31st March 2023 - Submitted - Reg.

Ref: MoEF&CC EC Letter No. 21-41/2009-IA.III dated 09.08.2010.

With reference to the above, we hereby submit the Environmental Statement in Form-V as prescribed under the Environmental (Protection) Rules, 1986 and its subsequent amendment in respect of SIPCOT Industrial Park at Thervoykandigai Village, Thiruvallur District, Tamil Nadu for financial year ending 31st March 2023.

Yours faithfully, Sd/-MANAGING DIRECTOR

Encl: As above.

/Forwarded by Order/

ASSISTANT GENERAL MANAGER (P-III)



State Industries Promotion Corporation of Tamil Nadu Limited

(A Government of Tamil Nadu Undertaking)
CIN: U74999TN1971SGC005967

Regd. Office: 19-A, Rukmani Lakshmipathy Road, Post Box No.7223, Egmore, Chennai - 600 008.

Phone: 45261777, Fax: 45261796 Website: www.sipcot.tn.gov.in

SIPCOT – THERVOI KANDIGAI MONITORING PHOTOS AMBIENT AIR QUALITY MONITORING PHOTOS:



Project site



Karadipudur



Chinnapuliyur



Thervoy village



Kollanur

Ground water sampling photos





Project area

Karadipudur



Thervoy Village

Surface water sampling photograph



Lake near Palavakkam



Lake near Thervoy kandigai

Soil sampling photograph





Project area

Karadiputhur





Chinnapuliyur

Thervoy Village



Kollanur

Noise monitoring photograph





Project area

Karadipudur





Thervoy village

Chinnapuliyur



Kollanur