

I/5539/2024



**K.Hari Prasada Rao**  
**ZONAL MANAGER**

ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LTD  
(A Government of Andhra Pradesh Undertaking)

Atchutapuram, Anakapalli

District

Email: [zm.vizs.appic@nic.in](mailto:zm.vizs.appic@nic.in)

**Lr.No.ZM/APIIC/AKP/EMP/EC/Compliance/APSEZ**

**Date: -06-2024.**

**To**

**The Ministry of Environment, Forest and Climate Change,  
Integrated Regional Office, Vijayawada Green House,  
Gopal Reddy Nagar Road, Vijayawada, A.P-520 010.**

Sub:- APIIC - APSEZ - Atchutapuram - Visakhapatnam - Submission of Six Months EC – Compliance report from October 2023- March 2024 - Reg.

Ref:- F. No. 21-379/2007-IA.III dated 13th February, 2012 of the Director (IA-III) MoEF, New Delhi.

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With reference to the above subject cited, it is here with submitting the Six Months Environment Clearance Compliance report from October 2023 - March 2024 pertains to M/s.Andhra Pradesh Industrial Infrastructure Corporation Ltd., (APIIC) at Atchutapuram & Rambilli Mandals, Anakapalli District for your kind perusal.

Encl: October 2023 - March 2024 EC compliance Report

faithfully,

Yours

Manager

Zonal

Copy to

1. Ministry of Environment and Forest and Climate Change, New Delhi.
2. Zonal Office, Andhra Pradesh Pollution Control Board, Visakhapatnam
3. Regional Office, Andhra Pradesh, Pollution Control Board, Visakhapatnam

# ENVIRONMENTAL CLEARANCE COMPLIANCE REPORT

For

APSEZ, Atchutapuram

ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE  
CORPORATION LTD

AT ATCHUTAPURAM & RAMBILLI MANDALS  
VISAKHAPATANAM DISTRICT

Submitted by

ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LTD, (APSEZ)  
AT ATCHUTAPURAM & RAMBILLI MANDALS  
VISAKHAPATANAM DISTRICT

*Conducted During October 2023 to March 2024*

Prepared by

M/s KIWIS ECO LABORATORIES PVT LTD.,  
Plot No. 19, ALEAP Industrial Estate, Sy.No.342  
Near Pragathi Nagar, QuthbullapurMandal  
RangareddyDist, Hyderabad, Telangana – 500090

**ANDRAPRADESH SPECIAL ECONOMIC ZONE (APSEZ)**

**VISAKHAPATANAM, ANDHRA PRADESH**

**POST ENVIRONMENTAL CLEARANCE COMPLIANCE REPORT**

Name of the project : Development of Multiproduct APSEZ at  
Atchutapuram & Rambilli Mandals, Anakapalli  
District, Andhra Pradesh.

MoEF Clearance Letter No : F.No 21-379/2007-IA.III, Govt. of India Ministry of  
Environment & Forest, Date 13<sup>th</sup> February'2012.

Period of Compliance Report : October 2023 to March 2024

**Development of Multiproduct APSEZ at Atchuthapuram & Rambilli Mandals,  
Visakhapatnam Dist., Andhra Pradesh**

Sl. No		Condition	Compliance status
1	I	Consent for Establishment for the SEZ shall be obtained from Andhra Pradesh 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.	<b>Complied</b> Project authority obtained Consent for Establishment from APPCB vide Order N0.267/PCB/CFE/R0-VSP/HO/2012-3922 dated: 03.03.2012. The validity period of CFE extended up to 02.03.2026 vide Order No.267/PCB/CFE/RO.VSP/HO/2012, Dated:23.04.2019. <b>Copy of CFEs attached as ANNEXURE -I.</b>
2	II	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, crèche etc. The housing may be in the form of temporary structure to be removed after the completion of the project.	<b>Being Complied</b> During construction phase, workers from nearby villages are mostly engaged. Necessity for housing has not occurred. However, facilities like drinking water, toilets etc., are provided during construction phase.
3	III	First Aid Room will be provided in the project both during construction and operation of the project.	<b>Being Complied</b> Project authority and Individual industries are being provided First Aid facilities and Project authority also coordinating with all the industries to use these facilities to attend whenever any unexpected incident happens.
4	IV	All the topsoil which is excavated during construction activities should be stored for use in horticulture/landscape development within the project site	<b>Complied</b> Top soil is being utilized for the greenbelt development.
5	V	Disposal of Muck during construction phase should not	<b>Being Complied</b>

		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.	Adequate measures are taken to prevent adverse effect on the neighbouring communities during construction period. To the maximum extent usable materials are being reused/recycled.
6	VI	Soil & Groundwater samples will be tested to ascertain that there is no threat to groundwater quality by leaching of heavy metals and other toxic contaminants.	<b>Complied</b> Monitoring of Soil is being carried at 3 locations and Groundwater is being carried at three (03) locations through MoEF&CC/NABL accredited monitoring agency. All the parameters are within the stipulated standards. Monitoring reports for the period of October 2023 to March 2024 is enclosed as <b>ANNEXURE -II&amp;III</b> .
7	VII	Construction spoils including bituminous material and other hazardous materials must not be allowed to contaminate water resources and the dump sites for such material must be secured so that they should not leach into the ground water.	<b>Complied</b> Adequate measures are being implemented to control the pollution. All the hazardous wastes generated are properly collected and are properly disposed inline to Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 as amended.
8	VIII	Any Hazardous waste generated during construction phase, should be disposed off as per applicable rules and norms with necessary approvals of the APPCB	
9	IX	The diesel generator sets to be used during construction phase should be low sulphur diesel type and should conform to environment (Protection) Rules prescribed for air and noise emission.	<b>Complied</b> Diesel Generating Sets being used during construction phase are inline to CPCB guidelines with low sulphur diesel type. The air and noise emission conform to the standards prescribed.
10	X	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.	<b>Shall be Complied on requirement.</b> DG will be operated only during the emergency situations such as power failure, Consumption of diesel expected is very low and strong of large quantity of diesel is not envisaged.
11	XI	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 non-peak hours.	<b>Complied</b> During the construction period strictly adhered to deployment of vehicles which conform to emission norms of CPCB and have valid Pollution Under Control (PUC) certificates and very old vehicles (more than 15 years) are not been allowed for use at site. Traffic plan with operation of vehicles during nonpeak hours are being implemented.



12	XII	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 / APPCB	<b>Complied,</b> Project authority initiated the continuous monitoring and Monitoring reports of Ambient Air and Ambient Noise reports are attached as <b>Annexure – IV &amp; V</b> . The parameters are found to be within stipulated standards.
13	XIII	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).	<b>Being Complied,</b> Fly ash bricks are used for construction of walls in the buildings. Project authority also directed the industries to comply with using the fly ash bricks.
14	XIV	Ready mixed concrete must be used in building construction	<b>Complied</b> Only ready mixed concrete is being used during building construction activities.
15	XV	Storm water control and its re-use as per CGWB and BIS standards for various applications.	<b>Being Complied,</b> Storm Water Drainage Network plan is being implemented and a length of 80.63 Km drains were already completed.
16	XVI	Water demand during construction should be reduced by use of premixed concrete, curing agents and other best practices referred.	<b>Complied</b> during construction Ready mix concrete is being used and other best practices are being followed.
17	XVII	Permissions to draw ground water shall be obtained from the competent authority prior to construction /operation of the project.	<b>NA,</b> Groundwater not extracted for project purpose. Water is supplied by Project authority to all the units sourced from Yeleru Canal water supply network.
18	XVIII	Separation of gray and black water should be done by the use of dual plumbing line for separation of grey and black water.	<b>Being Complied,</b> Project authority directed the industries to comply with requirement of wastewater separation
19	XIX	Fixtures for showers, toilet flushing and drinking should be of low flow either by use of aerators or pressure reducing devices or sensor based control.	<b>Being Complied,</b> Pressure reducing devices are used in APIIC common facility centres & also insisting the industries to follow the same.
20	XX	Use of glass may be reduced by up to 40% to reduce the electricity consumption and load on air-Conditioning. If necessary, use high quality double glass with	<b>Complied,</b> Double glass with special reflectance coating windows used in Project authority administrative building.

		special reflectance coating in windows.	
21	XXI	Roof should meet prescriptive requirements as per energy conservation building code by using appropriate thermal insulation material to fulfil requirement.	<b>Being Complied,</b> Project authority implementing the Energy conservation measures in APSEZ area.
22	XXII	Opaque wall should meet prescriptive requirement as per Energy conservation building code which is proposed to be mandatory for all air-conditioned spaces by use of appropriate thermal insulation material to fulfil requirement.	<b>Being Complied,</b> Double glass windows are used to reduce energy consumption.
23	XXIII	The approval of the competent authority shall be obtained for structural safety to the building due to earthquake, adequacy of firefighting equipment's, etc. as per National Building Code including.	<b>Complied,</b> Building approval plans are obtained as Per GO: 168 of MA & UD Departments
24	XXIV	Regular supervision of the above and other measures for monitoring should be in place all through the construction phase, so as to avoid disturbances to the surroundings.	<b>Being Complied,</b> EMP cells is formed, and regular supervision of the monitoring activities are being followed and compliance reports re being submitted to authorities.
25	XXV	Under the provision 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.	<b>Noted and complied,</b> Project authority obtained EC vide No 21-379/2007-IA.III, Govt. of India Ministry of Environment & Forests Date 13 <sup>th</sup> February, 2012. Construction is started after obtaining Environmental Clearance.

### Specific Conditions at Operation Phase

26	I	The SEZ Project Proponent i.e., APIIC while issuing the allotment letter to individual member units shall specifically mention the allowable maximum quantity of water usage and effluent generated by each member unit.	<b>Being Complied,</b> Project authority directed the industries to comply with requirement of APPCB in line to their consent orders.
27	II	The member units shall provide above ground tanks for storage of effluent for monitoring the characteristics of effluent before taking into the CETP for further treatment.	<b>Being Complied,</b> Project authority directed the industries to comply with requirement of constructing ETP /CETP above ground tanks for storage of effluent for monitoring.
28	III	The environment monitoring and compliance mechanism as submitted to MoEF shall be complied. The same shall be	<b>Being Complied,</b> Project authority submitting the regular compliance reports to MoEF&CC and same conditions are also mentioned in the

		specifically mentioned in the allotment letter issued to individual member units by the project proponent	allotment letter issued to individual member units. <b>Allotment letter Copy attached as ANNEXURE - VI.</b>
29	IV	The Project Proponent (PP) shall establish Environmental Monitoring Cell with all the potential polluting units as members to review the environmental monitoring data and suggest for improvements.	<b>Complied,</b> Project authority established the environmental monitoring cell. Environmental monitoring committee also formed involving member units. Additionally Industrial Environment Improvement Drive (IEID) is also operational to address the environment issues.
30	V	The outfall location shall be 3.5k from the land fall point at 19m CD and regular monitoring of dispersion of the effluent shall be carried out to ensure no adverse impact to the neighbouring eco-sensitive environments.	<b>Complied,</b> Project authority laid pipeline of 3.5km length from land fall point to a depth of 19 meter and also laid onshore pipeline of 2.3km length. Regular monitoring being undertaken. <b>Photographs attached as ANNEXURE_VII.</b>
31	VI	There shall be no disturbance to the sand dunes. The pipeline shall laid using advanced method viz Horizontal Directional Drilling (HDD) so as to avoid disturbance to the sand dunes.	<b>Complied,</b> Project authority laid pipeline of 3.5km length from land fall point to a depth of 19 meter. While laying the pipeline it was ensured that least disturbance is sand dune area.
32	VII	Periodic monitoring of coastal water shall be carried out at outfall location	<b>Being Complied,</b> Project authority is regularly monitoring the coastal waters and being submitting the monitoring report to authority.
33	VIII	No construction work other than those permitted in Coastal Regulation Zone Notification shall be carried out in coastal regulation zone area.	Noted and shall be complied
34	IX	The installation of the ETP, 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 effluent emanating from ETP and STP shall be recycled / reused to the maximum extent possible. Treatment of 100% grey water by decentralized treatment should be done. Discharge of unused treated effluent shall conform to the norms and standards of the APPCB. Necessary measures should be made to mitigate the	<b>Being Complied,</b> Project authority has entered into an agreement with M/s Atchutapuram Effluent Treatment Limited for taking up the CETP. The 1.5 MLD CETP as Phase -1 is in operation.  <b>Photos are attached as ANNEXURE -VIII.</b>

		odour problems from ETP and STP.	
35	X	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	<b>Being Complied,</b> Wet garbage is converted in to compost and used for garden and other hazardous solid waste is being sent to TSDF site operated by RAMKY presently. APSEZ is planning to set up SWM facility for managing solid waste in future and it is in tender process.
36	XI	Diesel power generating sets proposed as sources of backup power for elevators and common area illumination during operation phase should be of enclosed type and conform to rules made under the environmental (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 within the consultation with in APPCB.	<b>Being Complied,</b> DG sets are installed and operated inline to CPCB guidelines as per statutory requirement.
37	XII	Noise should be controlled to ensure that it does not exceed the prescribed standards. During night time the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations.	<b>Being Complied,</b> Project authority monitoring Noise levels at six (06) monitoring locations and noise levels are within the acceptable limits. Six monthly monitoring reports to the ministry and regional office are regularly being submitted
38	XIII	The green belt of the adequate width and density preferably with local species along the periphery of the plot shall be raised so as to provide Protection against particulates and noise.	<b>Being Complied,</b> Project authority Planted 15,000 plants in Open spaces, along the roads and in the buffer area along the boundary of APSEZ and remain plantation (2.94 lakhs) is being commenced.
39	XIV	Weep holes in the compound walls shall be provided to ensure natural drainage of rainwater in the catchment area during the monsoon period.	<b>Complied,</b> Project authority ensured the natural drainage of rainwater in the catchment area by providing the Weep holes are in the Compound walls.
40	XV	Rainwater harvesting for roof run-off and surface run-off, as plan submitted should be implemented. Before recharging the surface run-off, pre-treatment 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.	<b>Being Complied,</b> Project authority maintaining the temporary waterways from the ponds, and ensuring that the water is being recharged. <b>Annexure -IX</b>

41	XVI	The ground water level and its quality should be monitored regularly in consultation with Central Ground Water Authority.	<b>Being Complied,</b> Groundwater level is 13.6 meters at Atchutapuram.
42	XVII	Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Parking should be fully internalized, and no public space should be utilized	<b>Complied,</b> Project authority rearranged the parking slots to reduce the traffic congestion in line to requirement.
43	XVIII	A report on the energy conservation measures confirming to energy conservation norms finalize by Bureau of Energy Efficiency should be prepared incorporating details about building materials & technology, R&U Factor's etc. and submit to the Ministry in three months' time.	<b>Being Complied,</b> Project authority implementing the Energy conservation measures in APSEZ area. Only LED lights are being used for streetlights to reduce the energy consumption. Planning for solar energy implementation as long term strategy on energy efficiency.
44	XIX	Energy conservation measures like installation of CFLs/TFLs for the lighting the areas outside the building 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 process plant and STP.	<b>Being Complied,</b> Project authority implementing the Energy conservation measures in APSEZ area. CFLs/TFLs lights are being installed for energy conservation measures. Used CFLs & TFLs management is being carried out inline to CPCB guidelines. Planning for solar energy implementation as long term strategy on energy efficiency.
45	XX	Adequate measures should be taken to prevent odour problem from solid waste processing plant and STP	<b>Being Complied,</b> Project authority shall implement the adequate mitigation measures for odour problem when TSDF facility and waste processing plants are installed.
46	XXI	The building should have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation.	<b>Complied,</b> Project authority adhering the G.O.MS No 168 rules 'The Andhra Pradesh Building Rules - 2012'. Building plans are approved by the consent Authority. All the buildings have adequate distance between them.
<b>General Conditions</b>			
47	I	The environmental safeguards contained in the EIA report should be implemented in letter and spirit	<b>Being Complied,</b> Project authority implementing the committed mitigations measures
48	II	Six monthly monitoring reports should be submitted to the ministry and its regional office, Bangalore.	<b>Being Complied,</b> Project authority periodically submitting the six-monthly monitoring reports to the ministry and regional office at Chennai/Vijayawada.



49	III	5% of the total project cost shall be earmarked towards the corporate social responsibility (CSR) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office implementation of such program shall be ensured accordingly in a time bound manner.	<b>Being Complied,</b> Project authority implementing the CSR activities 1. Dibbapalem R & R Colony <ul style="list-style-type: none"> <li>• APIIC Proposed Avenue plantation in the roads of 6 KM length (No of plants - 2400)</li> <li>• APIIC has constructed CC roads, BT roads and CC drains.</li> <li>• APIIC is constructing Bus Shelter, primary health centre, Rythu Bazaar, Veterinary Hospital, and also has taken up Development of playground and Development of burial ground.</li> </ul> 2. Veduruwada R & R Colony <ul style="list-style-type: none"> <li>• APIIC Proposed Coconut plantation in the open spaces in an area of Ac. 10.00 (No of plants - 5000).</li> <li>• APIIC has constructed CC roads, BT roads and CC drains.</li> <li>• APIIC constructing Bus Shelter, primary health centre, Rythu Bazaar, Veterinary Hospital, and taken up Development of playground and Development burial ground.</li> </ul> CSR plan
50	IV	Officials from the Regional Office of MoEF, Chennai 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	<b>Agreed and Complied,</b> Project authority extended full co-operation to officials from MoEF-Chennai for monitoring the implementation of environmental safeguards. Detailed data report submitted to MoEF-Chennai and forwarded to the CCF, Regional office.
51	V	In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this ministry	Noted and will be complied.
52	VI	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 provision of the Environmental (Protection) Act, 1972 etc. shall be obtained, as	Noted.

		applicable by project proponents from the respective competent authorities.	
53	VII	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.	Noted and compiled All statutory clearances obtained from competent authorities.
54	VIII	These stipulations would be enforced among others under the provisions of water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and control pollution) act 1981, the Environment (Protection) Act, 1986, the public liability (Insurance) Act, 1991 and EIA Notification, 2006	Noted.
55	IX	The project proponent should advertise in at least two local newspapers widely circulating 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 APPCB and may also be seen on the website <a href="http://www.moef.nic.in">www.moef.nic.in</a>	<b>Complied,</b> Project authority advertised the EC approval in regional newspapers on 25 <sup>th</sup> Feb. 2012  <b>Copy attached as ANNEXURE -X.</b>
56	X	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	Noted.
57	XI	A copy of the clearance letter shall be sent by the proponent to concerned panchayat, Zilla Parishad / Municipal Corporation, urban local body and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent	<b>Complied,</b> Project authority forwarded the Copy of clearance letter to Panchayats falling within the study area and to all other departments.

58	XII	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 officer of CPCB and the SPCB.	<b>Complied,</b> Project authority uploaded the EC letter on APIIC website.  <a href="http://www.apiic.in">www.apiic.in</a>
59	XIII	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) to the respective regional office of MoEF, the respective zonal office of CPCB and the SPCB.	Noted and are being compiled
60	XIV	The environmental statement for each financial year ending 31st march in form-V as is mandated to be submitted by the project proponent to the concerned state PCB as prescribed under the Environmental Protection Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective regional offices of MoEF by e-mail.	Noted and compiled.



## **Environmental Monitoring Results**

It is mandatory to submit six month compliance report to MoEF Regional Office by the proponent. For the purpose of obtaining six months compliance certificate the Environmental monitoring was carried out at site by M/s. Kiwis Eco Laboratories Private Limited during the period of October - 2023 to March-2024.

### **A. Ambient Air Quality Monitoring**

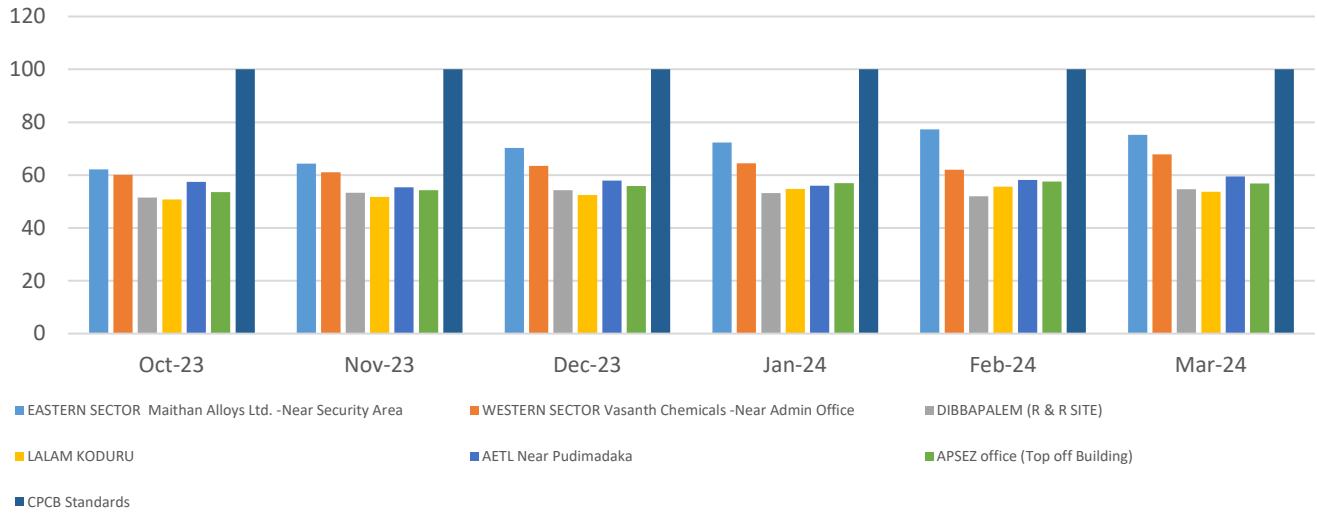
The ambient air quality parameters such as Suspended Particulate Matter (PM<sub>10</sub>), Respirable Particulate Matter (PM<sub>2.5</sub>), Sulphur dioxide, Oxides of Nitrogen (NO<sub>x</sub>) and Carbon Monoxide were monitored at 6 locations. The test results of ambient air quality are given in the following tables for the period of period of October - 2023 to March - 2024. The monitoring test results are observed that all the AAQ parameters are with in the standard limits only.

#### **1. Respirable Particulate Matter (PM<sub>10</sub>-Size less than or equal to 10µm):**

The present annual Environmental Monitoring the maximum 24 hours average value of PM<sub>10</sub> was observed to be 77.3 µg/m<sup>3</sup> at Eastern Sector of the site and the minimum value was found 50.8 µg/m<sup>3</sup> at Lalam Koduru. All the readings were below permissible limit of 100µg/m<sup>3</sup> for 24hr duration as per CPCB Standards.

<b>Particulate Matter (PM<sub>10</sub>-Size less than or equal to 10µm)</b>						
	<b>Oct-23</b>	<b>Nov-23</b>	<b>Dec-23</b>	<b>Jan-24</b>	<b>Feb-24</b>	<b>Mar-24</b>
<b>EASTERN SECTOR</b>	62.2	64.3	70.3	72.3	77.3	75.2
<b>WESTERN SECTOR</b>	60.1	61.1	63.5	64.5	62	67.8
<b>DIBBAPALEM</b>	51.5	53.3	54.3	53.2	52	54.6
<b>LALAM KODURU</b>	50.8	51.7	52.5	54.7	55.6	53.7
<b>PUDIMADAKA</b>	57.4	55.4	57.9	56	58.2	59.5
<b>BARC COLONY</b>	53.5	54.3	55.8	56.9	57.5	56.8
<b>CPCB Standards</b>	100	100	100	100	100	100

## PM10 ( $\mu\text{g}/\text{m}^3$ )

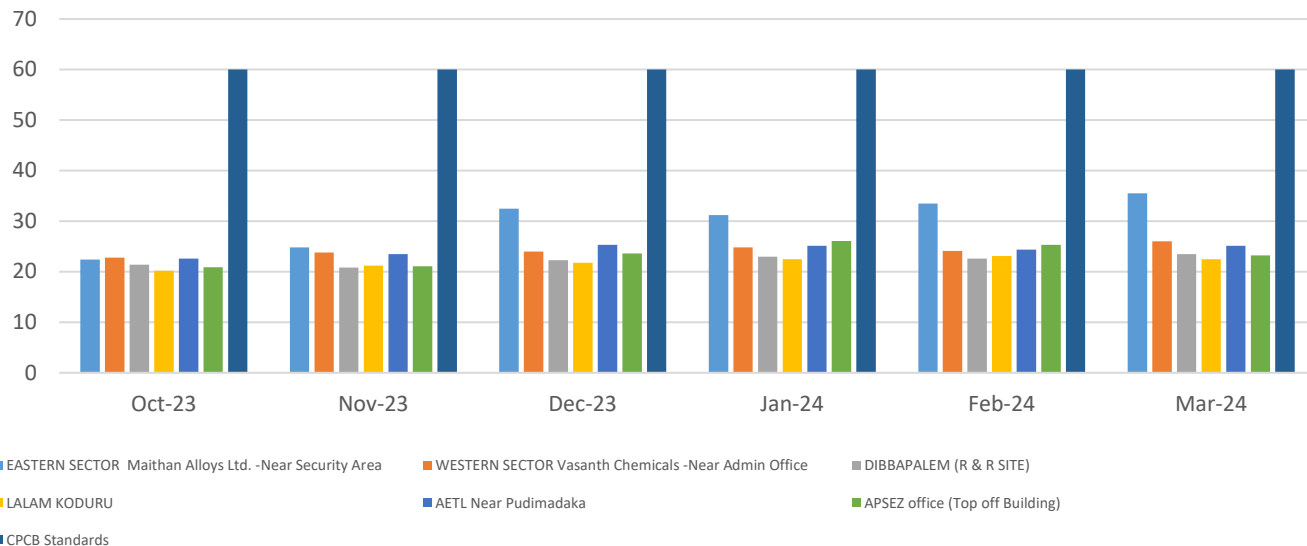


## 2. Fine Particulate Matter ( $\text{PM}_{2.5}$ -Size less than or equal to $2.5\mu\text{m}$ ):

The Present Annual Environmental Monitoring the maximum 24 hours average value of  $\text{PM}_{2.5}$  was observed to be  $35.5\mu\text{g}/\text{m}^3$  at Eastern Sector Maithan Alloys Ltd. -Near Security Area and the minimum value was found  $20.2\mu\text{g}/\text{m}^3$  at Lalamkoduru. All the readings were below permissible limit of  $60\mu\text{g}/\text{m}^3$  for 24hr duration as per CPCB Standards.

Particulate Matter ( $\text{PM}_{2.5}$ -Size less than or equal to $2.5\mu\text{m}$ )						
	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24
EASTERN SECTOR	22.4	24.8	32.5	31.2	33.5	35.5
WESTERN SECTOR	22.8	23.8	24	24.8	24.1	26
DIBBAPALEM	21.4	20.8	22.3	23	22.6	23.5
LALAM KODURU	20.2	21.2	21.8	22.5	23.1	22.5
PUDIMADAKA	22.6	23.5	25.3	25.1	24.4	25.1
BARC COLONY	20.9	21.1	23.6	26.1	25.3	23.2
CPCB Standards	60	60	60	60	60	60

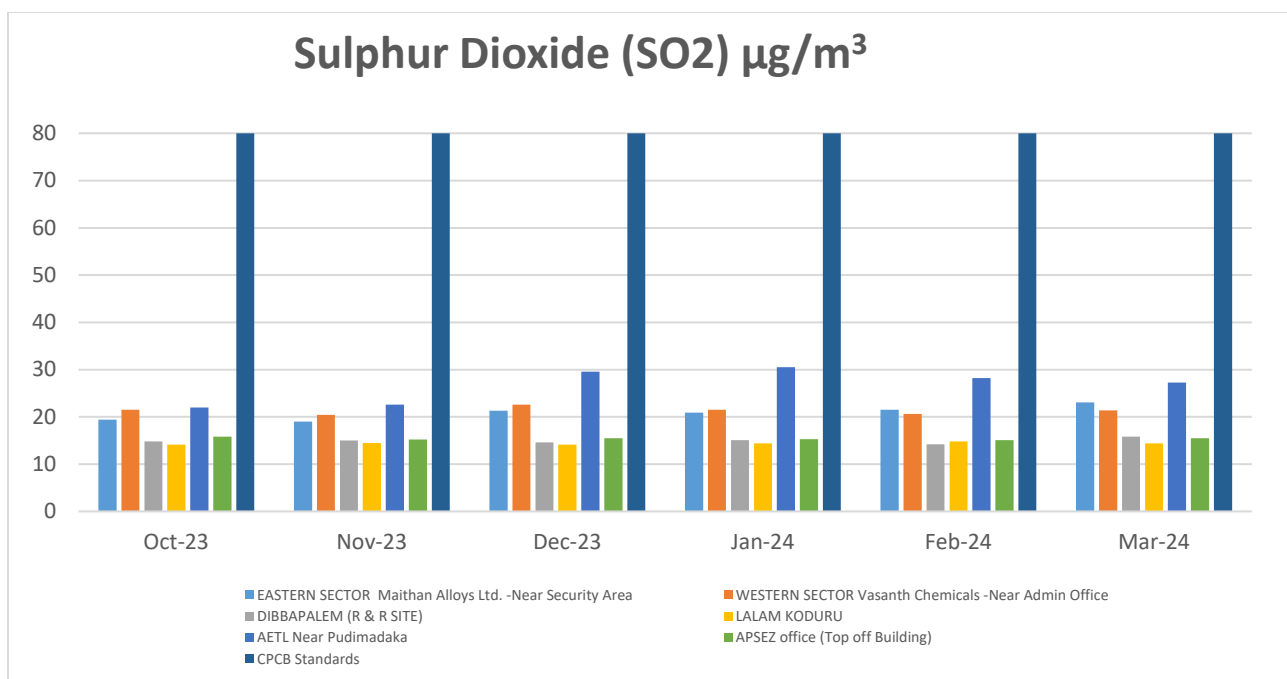
## PM2.5 (µg/m<sup>3</sup>)



### 3. Sulphur dioxide (SO<sub>2</sub>):

The Annual Environmental Monitoring the maximum 24 hours average value of SO<sub>2</sub> Maximum value was found 30.5 µg/m<sup>3</sup> at Pudimadaka of the site and minimum was 14.1 µg/m<sup>3</sup> at Lalam Koduru. All the readings were below the permissible limit of 80µg/m<sup>3</sup> for 24hr duration as per CPCB Standards.

Sulphur dioxide (SO <sub>2</sub> )						
	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24
EASTERN SECTOR	19.4	19	21.3	20.9	21.5	23.1
WESTERN SECTOR	21.5	20.4	22.6	21.5	20.6	21.4
DIBBAPALEM	14.8	15	14.6	15.1	14.2	15.8
LALAM KODURU	14.1	14.5	14.1	14.4	14.8	14.4
PUDIMADAKA	22	22.6	29.6	30.5	28.2	27.3
BARC COLONY	15.8	15.2	15.5	15.3	15.1	15.5
CPCB Standards	80	80	80	80	80	80

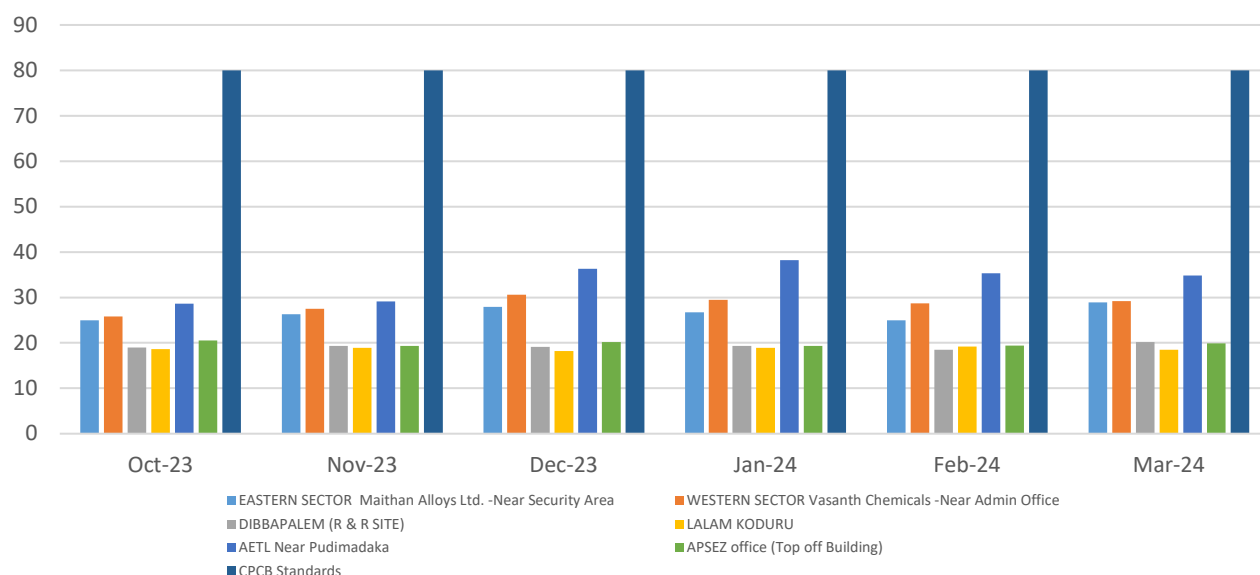


#### 4. Oxides of Nitrogen as NO<sub>2</sub> (NO<sub>x</sub>):

The Annual Environmental Monitoring the maximum 24 hours average value of NO<sub>2</sub> Maximum value was found 38.2 µg/m<sup>3</sup> at Pudimadaka and minimum was 18.2 µg/m<sup>3</sup> at Lalam Koduru. All the readings were below the permissible limit of 80µg/m<sup>3</sup> for 24hr duration as per CPCB Standards.

Oxides of Nitrogen as NO <sub>2</sub>						
	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24
<b>EASTERN SECTOR</b>	25	26.3	27.9	26.7	25	28.9
<b>WESTERN SECTOR</b>	25.8	27.5	30.6	29.5	28.7	29.2
<b>DIBBAPALEM</b>	19	19.3	19.1	19.3	18.5	20.2
<b>LALAM KODURU</b>	18.6	18.9	18.2	18.9	19.2	18.5
<b>PUDIMADAKA</b>	28.6	29.1	36.3	38.2	35.3	34.8
<b>BARC COLONY</b>	20.5	19.3	20.2	19.3	19.4	19.9
<b>CPCB Standards</b>	80	80	80	80	80	80

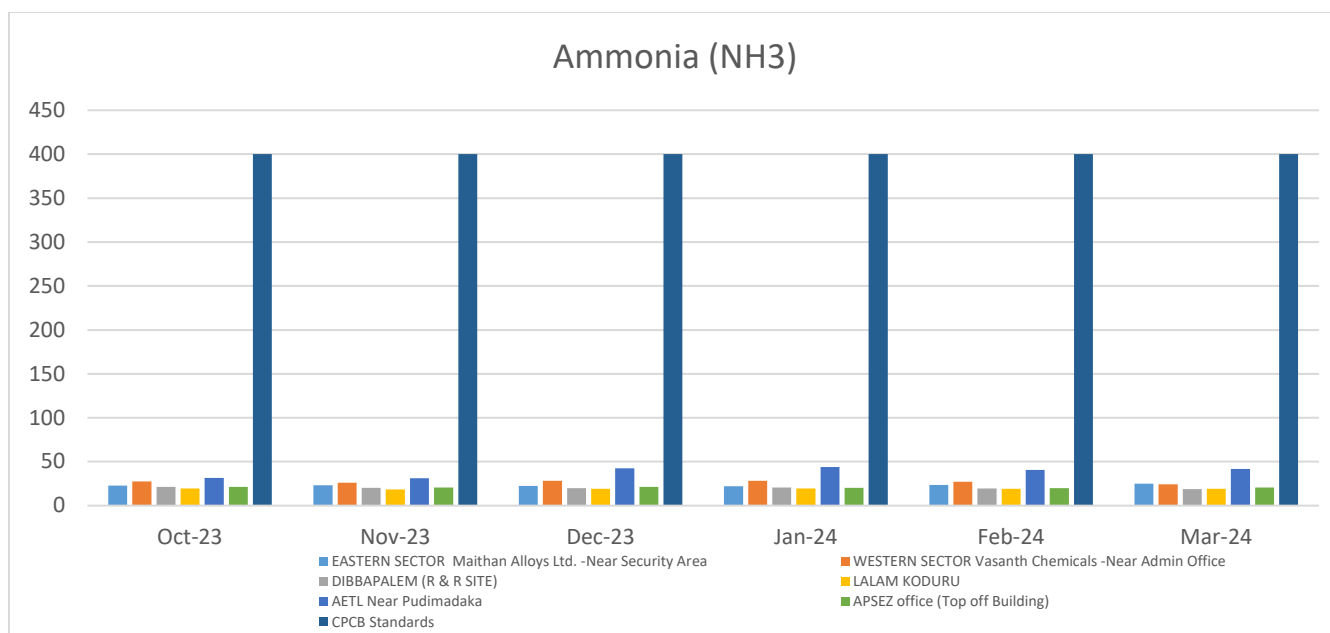
## Nitrogen Dioxide (NO<sub>2</sub>) µg/m<sup>3</sup>



### 5. Ammonia (NH<sub>3</sub>):

The maximum 24 hours average value of NH<sub>3</sub> Maximum value was found 44.1 µg/m<sup>3</sup> at AETL Near Pudimadaka and minimum was 18.6 µg/m<sup>3</sup> at Lalam Koduru. All the readings were below the permissible limit of 400µg/m<sup>3</sup> for 24hr duration as per CPCB Standards.

Ammonia (NH <sub>3</sub> ) µg/m <sup>3</sup>						
	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24
<b>EASTERN SECTOR</b>	22.7	23.1	22.6	22.1	23.6	25.1
<b>WESTERN SECTOR</b>	27.6	26.2	28.2	28.4	27.1	24.3
<b>DIBBAPALEM</b>	21.5	20.2	19.9	20.5	19.6	18.9
<b>LALAM KODURU</b>	19.4	18.6	19	19.6	19.1	19.3
<b>PUDIMADAKA</b>	31.5	31.3	42.3	44.1	40.7	41.8
<b>BARC COLONY</b>	21.3	20.8	21.3	20.2	19.9	20.7
<b>CPCB Standards</b>	<b>400</b>	<b>400</b>	<b>400</b>	<b>400</b>	<b>400</b>	<b>400</b>



### Carbon Monoxide (CO):

The maximum 24hours average value of CO was observed to be 0.4 µg/m<sup>3</sup> at **Eastern Sector** and the minimum value was found 0.1 µg/m<sup>3</sup> at **Barc Colony, pudimadaka, Lalamkiduru**. All the readings were below permissible limit of 02 µg/m<sup>3</sup> for 8hr duration as specified for Residential, Rural and other areas.

The Remaining Parameters like hydro carbons(HC) and Volatile Organic Compounds (VOC) Values observed to be at below detection Limit <0.1 PPM.

And it is concluded that, during construction phase particulate matter and gaseous emissions are likely to arise from the site due to soil excavation, movement of vehicles and operation of DG sets etc. The total test reports of ambient air quality for the period of October 2023 to March 2024 are enclosed as **Annexure-5**. It is concluded that The Ambient air quality has been monitored and it is observed that all the AAQ results were within the limits.

## **B. Ambient Noise level Monitoring**

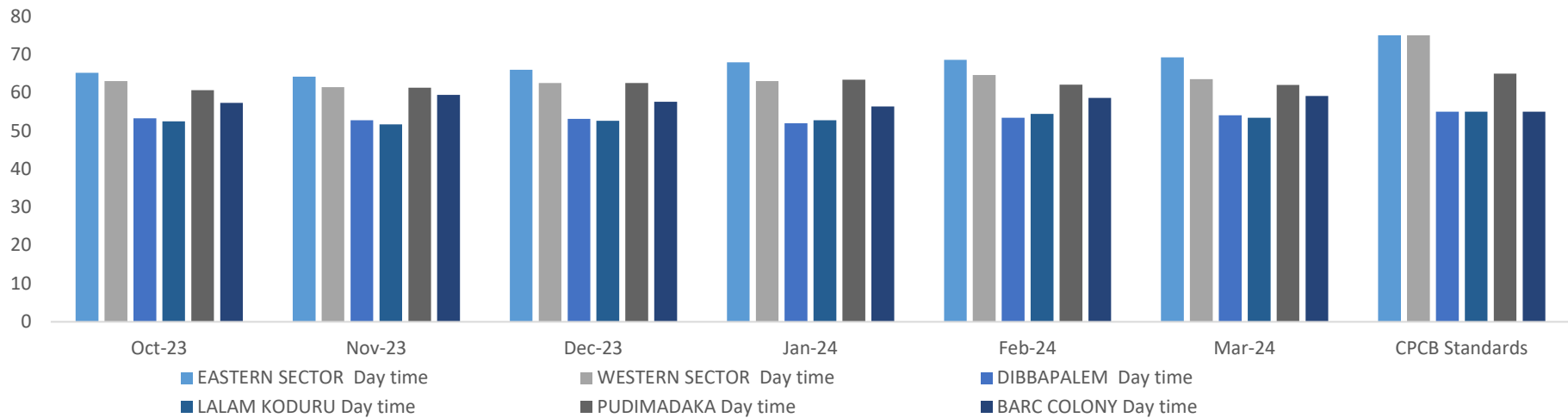
Total 6 locations were selected for monitoring the noise level. The reports of ambient noise recorded during the period October 2023 to March - 2024 is enclosed in **Annexure-4**. and Now in Annual Environmental Monitoring at Eastern Sector Maximum Leq Day, dB (A) was found 69.2 and Minimum Leq Day, dB (A) was found 51.7 at Dibbapalem and

	EASTERN SECTOR Maithan Alloys Ltd. -Near Security Area		WESTERN SECTOR Vasanth Chemicals - Near Admin Office		DIBBAPALEM (R & R SITE)		LALAM KODURU		AETL Near Pudimadaka		APSEZ office (Top off Building)	
	Day time	Night time	Day time	Night time	Day time	Night time	Day time	Night time	Day time	Night time	Day time	Night time
<b>Oct-23</b>	65.2	59.9	63	56.5	53.3	42.8	52.5	40.7	60.6	51.7	57.3	53.8
<b>Nov-23</b>	64.2	58.2	61.4	55.3	52.8	44.3	51.7	41.6	61.3	52.5	59.4	54.6
<b>Dec-23</b>	66	57.3	62.5	56	53.1	43.2	52.6	42.3	62.5	55.5	57.6	52.8
<b>Jan-24</b>	67.9	58.3	63	57.2	52	42.4	52.8	41.8	63.4	56.4	56.4	50.7
<b>Feb-24</b>	68.6	59.6	64.6	58.1	53.4	44	54.4	42.5	62.1	55	58.6	51.6
<b>Mar-24</b>	69.2	61.2	63.5	57.3	54.1	43.5	53.4	43.3	62	52.8	59.1	53.7
CPCB Standards	75	70	75	70	55	45	55	45	65	55	55	45

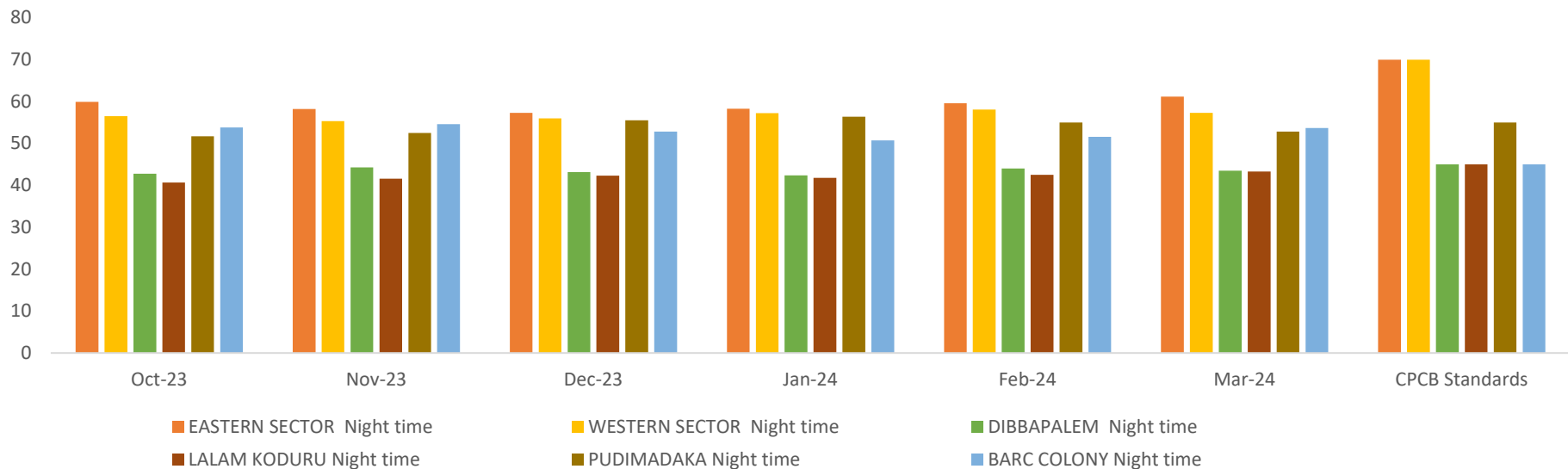
At the time of Annual Environmental Monitoring at Eastern Sector Maximum Leq Night, dB (A) was found 61.2 and Minimum Leq Night, dB (A) was found 40.7 at Lalamkoduru.

When the annual environmental monitoring results compare with baseline studies results, during construction phase the ambient noise level likely to be generated due to excavation, construction and movement of vehicles. And finally it is concluded that Noise levels are within prescribed limits.

## Noise Level Monitoring Results (dB(A)) Day Time



## Noise Level Monitoring Results (dB(A)) Night Time





### **C. Ground water quality monitoring**

The ground water was tested at 3 Locations for various water quality parameters including heavy metals.

During construction phase/ operational phase the ground water may get polluted due to infiltration of rainwater mixed with soil contaminants in the site. The test report of water quality for the two quarters that is December -2023 & March 2024 is given in the below tables and it is observed that there is no change in water quality parameters.

When the Annual Environment Monitoring Results at these three locations (APSEZ boundary, Pudimadaka and Dibbapalem (R & R site), the pH of the ground water was ranged from in annual monitoring the pH values of the water samples were found in the range 7.2 to 7.8 (Acceptable Limit: 6.5 to 8.5 & Permissible Limit: No Relaxation). Found to be within the limit.

Total Alkalinity as CaCO<sub>3</sub> in now minimum 251 mg/L maximum 434 mg/l. (Acceptable Limit: 200 mg/l Max & Permissible Limit: 600 mg/l Max). Found to be within the limit. Chlorides values now minimum 96 mg/l and maximum 430 mg/l. (Acceptable Limit: 250 mg/l Max & Permissible Limit: 1000 mg/l Max). Total Dissolved Solids values minimum 532 mg/l maximum 1456 mg/l. (Acceptable Limit: 500 mg/l Max & Permissible Limit: 2000 mg/l Max).

Fluoride as F: Min: <0.5 mg/l to Max: 1.0 mg/l. (Acceptable Limit: 1.0 mg/l Max & Permissible Limit: 1.5 mg/l Max). And It was observed that Concentration of Iron (Fe), Zinc (Zn), Cyanide (CN), Phenolic Compounds, Lead (Pb), Mercury (Hg), Manganese (Mn), Cadmium (Cd), Arsenic (As), Copper (Cu) and Chromium (Cr<sup>+6</sup>) are in Below Detection Limits (BDL). Finally there is no Total Coliform and E-Coli in the Ground Water Samples. Water quality results indicate parameters are within the permissible limit, prescribed by IS: 10500 respectively. The results revealed that all the samples have satisfactory Physico-chemical characteristics. The total test reports of Ground water collected and analyzed during the period of October 2023 & March 2024 is enclosed as **Annexure-3**. There is no change in water quality Parameters.

S.No	Parameter	Unit	December 2023 Result			Standards	
			Dibbapalem (R & R Site)	Pudimadaka	APSEZ Boundary	IS 10500 (AcceptableLimits)	IS 10500 (PermissibleLimits)
1	Color	Hazen	<5.0	<5.0	<5.0	5	15
2	Turbidity	NTU	<1.0	<1.0	<1.0	1	5
3	pH @ 25.1°C	-	7.7	7.2	7.5	6.5-8.5	No relaxation
4	Electrical Conductivity	µMho/cm	2245	2380	912	Not Specified	Not Specified
5	Total Dissolved solids	mg/L	1382	1456	535	500	2000
6	Total Solids	mg/L	1389	1462	540	Not Specified	Not Specified
7	Alkalinity as CaCO <sub>3</sub>	mg/L	392	427	251	200	600
8	Hardness as CaCO <sub>3</sub>	mg/L	697	737	338	200	600
9	Calcium as Ca	mg/L	150	134	69	75	200
10	Magnesium as Mg	mg/L	79	98	41	30	100
11	Chlorides as Cl <sup>-</sup>	mg/L	355	419	96	250	1000
12	Sulphates as SO <sub>4</sub>	mg/L	222	198	56	200	400
13	Nitrate as NO <sub>3</sub>	mg/L	12.2	13.6	4.6	45	No relaxation
14	Sodium as Na	mg/L	192	208	62	Not Specified	Not Specified
15	Potassium as K	mg/L	9.5	7.1	7.4	Not Specified	Not Specified
16	Fluoride as F	mg/L	<0.5	<0.5	<0.5	1	1.5
17	Iron as Fe	mg/L	<0.3	<0.3	<0.3	1.0	No relaxation
18	Zinc as Zn	mg/L	<0.2	< 0.2	<0.2	5	15
19	Odour	TON	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
20	Cyanide as CN <sup>-</sup>	mg/L	<0.05	<0.05	<0.05	0.05	No relaxation
21	Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH	mg/L	<0.001	<0.001	<0.001	0.001	0.002
22	Lead as Pb	mg/L	<0.01	<0.01	<0.01	0.01	No relaxation
23	Mercury as Hg	mg/L	<0.001	<0.001	<0.001	0.001	0.001
24	Manganese as Mn	mg/L	<0.1	<0.1	<0.1	0.1	0.3
25	Cadmium as Cd	mg/L	<0.003	<0.003	<0.003	0.003	No relaxation
26	Arsenic as As	mg/l	<0.01	<0.01	<0.01	0.01	0.05
27	Chromium as Cr <sup>+6</sup>	mg/L	<0.05	<0.05	<0.05	0.05	No relaxation
28	Copper as Cu	mg/L	<0.05	<0.05	<0.05	0.05	1.5
29	Total Coliform	MPN/ 100ml	<1.8	<1.8	<1.8	Shall not be detectable in any 100 ml sample	Shall not be detectable in any 100 ml sample
30	E-Coli	MPN/ 100ml	Absent	Absent	Absent	Shall not be detectable in any 100 ml sample	Shall not be detectable in any 100 ml sample

S.No	Parameter	Unit	March 2024 Result			Standards	
			Dibbapalem (R & R Site)	Pudimadaka	APSEZ Boundary	IS 10500 (AcceptableLimits)	IS 10500 (PermissibleLimits)
1	Color	Hazen	<5.0	<5.0	<5.0	5	15
2	Turbidity	NTU	<1.0	<1.0	<1.0	1	5
3	pH @ 25.1°C	-	7.8	7.3	7.6	6.5-8.5	No relaxation
4	Electrical Conductivity	µMho/cm	2342	2468	956	Not Specified	Not Specified
5	Total Dissolved solids	mg/L	1356	1447	564	500	2000
6	Total Solids	mg/L	1361	1452	568	Not Specified	Not Specified
7	Alkalinity as CaCO <sub>3</sub>	mg/L	399	434	263	200	600
8	Hardness as CaCO <sub>3</sub>	mg/L	714	755	347	200	600
9	Calcium as Ca	mg/L	151	139	70	75	200
10	Magnesium as Mg	mg/L	82	99	42	30	100
11	Chlorides as Cl <sup>-</sup>	mg/L	365	430	102	250	1000
12	Sulphates as SO <sub>4</sub>	mg/L	234	208	58	200	400
13	Nitrate as NO <sub>3</sub>	mg/L	12.5	14.2	4.5	45	No relaxation
14	Sodium as Na	mg/L	198	212	65	Not Specified	Not Specified
15	Potassium as K	mg/L	9.8	7.4	7.8	Not Specified	Not Specified
16	Fluoride as F	mg/L	< 0.5	< 0.5	< 0.5	1	1.5
17	Iron as Fe	mg/L	<0.3	<0.3	<0.3	1.0	No relaxation
18	Zinc as Zn	mg/L	< 0.2	< 0.2	<0.2	5	15
19	Odour	TON	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
20	Cyanide as CN <sup>-</sup>	mg/L	<0.05	<0.05	<0.05	0.05	No relaxation
21	Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH	mg/L	<0.001	<0.001	<0.001	0.001	0.002
22	Lead as Pb	mg/L	<0.01	<0.01	<0.01	0.01	No relaxation
23	Mercury as Hg	mg/L	<0.001	<0.001	<0.001	0.001	0.001
24	Manganese as Mn	mg/L	<0.1	<0.1	<0.1	0.1	0.3
25	Cadmium as Cd	mg/L	<0.003	<0.003	<0.003	0.003	No relaxation
26	Arsenic as As	mg/l	<0.01	<0.01	<0.01	0.01	0.05
27	Chromium as Cr <sup>+6</sup>	mg/L	<0.05	<0.05	<0.05	0.05	No relaxation
28	Copper as Cu	mg/L	<0.05	<0.05	<0.05	0.05	1.5
29	Total Coliform	MPN/ 100ml	<1.8	<1.8	<1.8	Shall not be detectable in any 100 ml sample	Shall not be detectable in any 100 ml sample
30	E-Coli	MPN/ 100ml	Absent	Absent	Absent	Shall not be detectable in any 100 ml sample	Shall not be detectable in any 100 ml sample

#### **D. Surface water monitoring**

The surface water pH was in range 8.6- 8.5 The Electrical conductivity of the samples were range was observed in 535 to 562  $\mu\text{S}/\text{cm}$ . The concentration of Total dissolved solids (TDS) was 310-326 mg/L. The concentration of chlorides was 42-45 mg/L. Other parameters like Iron, Chromium, Lead, COD and BOD were well below the surface water quality standards. And also the concentration of other parameters like Chromium (mg/l), Lead (mg/l) and copper (mg/l) were below the detection limit.

S.No	Parameter	Unit	Method	Annual Environmental December 2023 Result	Annual Environmental March 2024 Result
1	Color	Hazen	APHA 2120 C	8.6	8.5
2	Turbidity	NTU	APHA 2130 B	5.5	5.4
3	pH @ 25.8°C	-	APHA 4500H <sup>+</sup> B	7.6	7.5
4	Electrical Conductivity	$\mu\text{Mho}/\text{Cm}$	APHA 2510 - B	535	562
5	Total Dissolved solids	mg/L	APHA 2540 C	310	326
6	Total Solids	mg/L	APHA 2540 B	318	338
7	Alkalinity as $\text{CaCO}_3$	mg/L	APHA 2320 B	175	187
8	Hardness as $\text{CaCO}_3$	mg/L	APHA 2340 C	207	214
9	Calcium as Ca	mg/L	APHA 3500 Ca B	40	41
10	Magnesium as Mg	mg/L	APHA 3500-Mg B	26	27
11	Chlorides as $\text{Cl}^-$	mg/L	APHA 4500 $\text{Cl}^-$ B	42	45
12	Sulphates as $\text{SO}_4$	mg/L	APHA 4500 $\text{SO}_4$ D	34	36
13	Nitrate as $\text{NO}_3$	mg/L	APHA 4500 $\text{NO}_3$ B	2.1	2.3
14	Sodium as Na	mg/L	APHA 3500 Na B	28	29
15	Potassium as K	mg/L	APHA 3500 K B	5.5	5.6
16	Fluoride as F	mg/L	APHA 4500F <sup>-</sup> D	0.2	<0.5
17	Iron as Fe	mg/L	APHA 3500 Fe B	<0.3	<0.3
18	Chemical Oxygen Demand	mg/L	APHA 5220 B	16	18
19	Biochemical Oxygen Demand (3 Days at 27°C)	mg/L	IS : 3025 (P-44)	<4.0	<4.0
20	Dissolved Oxygen	mg/L	APHA 2005; 4500 O C	5.6	5.5
21	Zinc as Zn	mg/L	APHA 3111 B	<0.2	<0.2
22	Odour	TON	APHA 2150 B	Agreeable	Agreeable
23	Cyanide as $\text{CN}^-$	mg/L	APHA 4500 $\text{CN}^-$ C, E	<0.05	<0.05
24	Phenolic Compounds as $\text{C}_6\text{H}_5\text{OH}$	mg/L	APHA 5530 D	<0.001	<0.001
25	Lead as Pb	mg/L	APHA 3111 B	<0.01	<0.01
26	Mercury as Hg	mg/L	APHA-3112 Hg B	<0.001	<0.001
27	Manganese as Mn	mg/L	APHA 3111 B	<0.1	<0.1
28	Cadmium as Cd	mg/L	APHA 3111 B	<0.003	<0.003
29	Chromium as Cr	mg/L	APHA 3111 B	<0.05	<0.05
30	Copper as Cu	mg/L	APHA 3111 B	<0.05	<0.05
31	Total Coliform	MPN/	APHA 9221B	70	110
32	Fecal Coli forms	MPN/	APHA 9221 E	11	11

## **CONCLUSION**

### **A) Air Environment**

It is concluded that air quality data in and around the Project, is well within the permissible limit as specified by Central Pollution Control Board (CPCB) in study area.

### **B) Noise level (Ambient Noise Level)**

Ambient Noise levels shown are well within the limits both in day & night at all the stations in study area.

### **C) Water Quality Status**

Water quality results indicate parameters are within the permissible limit, prescribed by IS: 10500 respectively. The results revealed that all the samples have satisfactory Physico-chemical characteristics as well as surface water parameters are within the permissible limit, prescribed by CPCB water quality criteria and IS 2296-1992 Inland Surface Water Standards respectively.

**\*End of the Report\***

# ANNEXURE-I

CFE



**EXTENSION OF VALIDITY OF CONSENT ORDER FOR ESTABLISHMENT**

**Order No. 267 /APPCB/CFE/RO-VSP/HO/2012**

**Dt: 22.04.2017**

**Sub: APPCB – CFE – APIIC Ltd, APSEZ, Atchutapuram, Visakhapatnam -  
Extension of validity period of CFE order - Issued - Reg.**

**Ref:** 1. CFE order dt. 03.03.2012.  
2. Industry's request lr. dt. 21.02.2017.  
3. R.O. Visakhapatnam report dt. 21.03.2017.  
4. CFE Committee meeting held on 01.04.2017

The Board issued CFE order vide reference 1<sup>st</sup> cited, to APIIC Ltd., to establish multi product SEZ with basic infrastructure, environmental infrastructure and common infrastructure like roads, Power supply, Water treatment and supply, CETP, Solid waste collection, Storage and disposal facilities and Marine outfall etc., to cater the needs of different types of industries. It is valid for 5 years upto 02.03.2017. APIIC has obtained Amendment to condition no 19 under schedule B of CFE with certain conditions for the approval of CETP designs vide CFE amendment order dt. 30.10.2015.

The APIIC vide reference 2<sup>nd</sup> cited requested for the extension of the validity of the CFE order. It was informed to the APIIC that as per the Boards circular dt. 03.06.2016, the validity of the CFE issued is deemed to have extended for further period of 2 years. However, APIIC has requested again for the extension of CFE order.

This item was placed before the CFE Committee in its meeting held on 01.04.2017. The Committee has recommended to extend the validity of the CFE order as requested by the APIIC.

The Board, after careful scrutiny of the request of the APIIC, RO report and recommendation of the CFE Committee hereby issues **EXTENSION OF VALIDITY PERIOD OF CONSENT FOR ESTABLISHMENT** to the Multi Product SEZ Under Section 25 of Water (Prevention & Control of Pollution) Act 1974 and Section 21 of Air (Prevention & Control of Pollution) Act, 1981 and the rules made there under with the following conditions

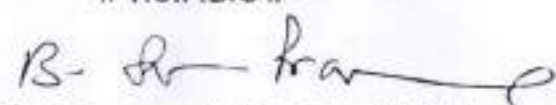
- The validity period of the CFE order is extended upto 02.03.2019.
- All other conditions stipulated in the CFE order shall remain the same.

Sd/-  
**MEMBER SECRETARY**

To

APIIC Ltd, APSEZ,  
Atchutapuram, Visakhapatnam.

-// T.C.F.B.O // -

  
Jt. Chief Environmental Engineer (UH-1)



**F.No.21-379/2007-IA.III**  
**Government of India**  
**Ministry of Environment & Forests**

**Paryavaran Bhawan,**  
**CGO Complex, Lodhi Road,**  
**New Delhi - 110 003.**

**Dated: 13<sup>th</sup> February, 2012**

✓ **To**  
**M/s Andhra Pradesh Industrial Infrastructure Corporation Ltd.**  
**Parisrama Bhavanam, 6<sup>th</sup> floor, 5-9-58-B,**  
**Fateh Maidan Road, Hyderabad - 500 004**  
**Andhra Pradesh**

**Subject: Environment Clearance for Multiproduct Andhra Pradesh SEZ at Achutapuram and Rambilli Mandals, Visakhapatnam District, Andhra Pradesh and CRZ Clearance for laying Marine disposal pipeline by M/s. Andhra Pradesh Industrial Infrastructure Corporation Ltd - Reg.**

Dear Sirs,

This has reference to your application No. 173/CGM(P)/Projects/EIA/06 dated 13.03.2007 and letter No. 8471/CZMA/2010 dated 30.07.2011 from the Special Chief Secretary, Environment Forests, Science and Technology Department, Government of Andhra Pradesh, seeking prior Environmental and CRZ Clearance for the above project under the EIA Notification, 2006 and Coastal Regulation Zone Notification, 2011. The proposal has been appraised as per prescribed procedure in the light of provisions under the EIA Notification, 2006 and the Coastal Regulation Zone Notification, 2011 on the basis of the mandatory documents enclosed with the application viz., the Questionnaire, EIA, EMP, recommendation of the State Coastal Zone Management Authority and the additional clarifications furnished in response to the observations of the Expert Committee constituted by the competent authority in its meetings held on 5<sup>th</sup>-6<sup>th</sup> April, 2011 and awarded "Silver" grading to the project.

2. It is, interalia, noted that the project involves the area is 5,683 acres (2300 hectares) and the land has been acquired completely for the project. The site coordinates are 17° 29' 23" N and 17° 32' 47.5" N and 80° 56' 58" E and 80° 00' 57" E and it is about 40 km south-west of Visakhapatnam City and 3.0 km south of Atchutapuram. The processing area in APSEZ occupies an area of 5479 acres and comprises of industrial plots, infrastructure facilities, logistics areas, common amenities and green/open areas etc. Entire processing area of APSEZ has been divided into five different Industrial Zones. The remaining 204 acres has been identified as non processing area and comprises of township and social infrastructure facilities such as educational and medical facilities.

In order to ensure adequate circulation within the SEZ, the internal roads with a Right of Way (RoW) of 55m, 50m, 45m, 40m, 30m and 15 m are





proposed. A dedicated rail corridor connecting the Logistics hub is also proposed. Water requirement for APSEZ is estimated at 100 MLD which will be sourced from Yeluru Left Main Canal and a 60 MLD desalination plant is being planned considering the ultimate demand of fully developed SEZ. Power requirement for APSEZ is 500 MW which will be sourced from APTRANSCO's 132 kV feeder line near Atchutapuram and captive power plant (500 MW) is proposed in APSEZ to facilitate uninterrupted power supply. A common effluent treatment plant (CETP) of 31 MLD and provision for guard pond is planned for the detention of treated wastewater for about 3.5 days. Based on mathematical model studies, a marine outfall system is proposed to discharge the treated wastewater from APSEZ at (-) 19 m CD in Bay of Bengal and point of discharge is located at a distance of about ~3.5 km from shore. Sewage Treatment Plant (STP) of 7.0 MLD capacity is proposed in Non-processing area and sewage generated in processing area shall be sent to CETP for treatment and disposal. Hazardous waste generated from APSEZ shall be sent to nearby Transport Storage Disposal Facility (TSDF). As a part of sustainable environmental management plan of APSEZ, it is proposed to maintain a dedicated TSDF in an area of 50 acres of land, which can be operated for a period of 30 years outside SEZ premises. Greenbelt/Green Areas proposed to be developed at SEZ level is 860 acres.

3. National Institute of Oceanography (NIO) demarcated HTL, LTL and CRZ area. As per the NIO report, SEZ site is located outside the CRZ area i.e. about one kilometer from the HTL of open sea and 100 m away from Pudimadaka creek. The land fall point is located at latitude 17°29' 57"N and longitude 83°0'30". The location of Marine outfall is at latitude 17°29'11"N and longitude 83°02'18". The Andhra Pradesh Coastal Zone Management Authority has recommended the laying of dedicated pipeline for discharge of treated effluent into sea near Pudimadaka village of Parawada Mandal in Visakhapatnam District vide letter no. 8471/CZMA/2010 dated 30.07.2011. Andhra Pradesh Pollution Control Board has granted Consent to Establishment of Marine outfall (NOC) vide letter No. PCB/CFE/RO-VSP/HO/2011/ 2455 dated 10.11.2011.

4. 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 Environment and CRZ Clearance for the project mentioned above. Accordingly, the Ministry hereby accord necessary Environment and CRZ Clearance for the above project as per the provisions of Environmental Impact Assessment Notification – 2006 and its subsequent amendments and Coastal Regulation Zone Notification, 2011, subject to strict compliance of the terms and conditions as follows:

## **PART A - SPECIFIC CONDITIONS**

### **I. Construction Phase**

- (i) "Consent for Establishment" for the SEZ shall be obtained from Andhra Pradesh 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) 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, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (iii) A First Aid Room will be provided in the project both during construction and operation of the project.
- (iv) All the topsoil excavated during construction activities should be stored for use in horticulture/landscape development within the project site.
- (v) Disposal of muck during construction 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.
- (vi) 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.
- (vii) 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.
- (viii) Any hazardous waste generated during construction phase, should be disposed off as per applicable rules and norms with necessary approvals of the Andhra Pradesh Pollution Control Board.
- (ix) The diesel generator sets to be used during construction phase should be low sulphur diesel type and should conform to Environment (Protection) Rules prescribed for air and noise emission standards.
- (x) 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.
- (xi) 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 non-peak hours.





- (xii) 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/APPCB.
- (xiii) 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 27<sup>th</sup> August, 2003. (The above condition is applicable only if the project site is located within the 100 Km of Thermal Power Stations).
- (xiv) Ready mixed concrete must be used in building construction.
- (xv) Storm water control and its re-use as per CGWB and BIS standards for various applications.
- (xvi) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xvii) Permission to draw ground water shall be obtained from the competent Authority prior to construction/operation of the project.
- (xviii) Separation of grey and black water should be done by the use of dual plumbing line for separation of grey and black water.
- (xix) Fixtures for showers, toilet flushing and drinking should be of low flow either by use of aerators or pressure reducing devices or sensor based control.
- (xx) Use of glass may be reduced by upto 40% to reduce the electricity consumption and load on airconditioning. If necessary, use high quality double glass with special reflective coating in windows.
- (xxi) Roof should meet prescriptive requirement as per Energy Conservation Building Code by using appropriate thermal insulation material to fulfill requirement.
- (xxii) Opaque wall should meet prescriptive requirement as per Energy Conservation Building Code which is proposed to be mandatory for all airconditioned spaces while it is aspirational for non-airconditioned spaces by use of appropriate thermal insulation material to fulfill requirement.
- (xxiii) 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.

- (xxiv) Regular supervision of the above and other measures for monitoring should be in place all through the construction phase, so as to avoid disturbance to the surroundings.
- (xxv) 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 SEZ PP i.e. APIIC while issuing the allotment letter to individual member units shall specifically mention the allowable maximum quantity of water usage and effluent generated by each member unit.
- (ii) The member units shall provide above ground tanks for storage of effluent for monitoring the characteristics of effluent before taking into the CETP for further treatment.
- (iii) The environmental monitoring and compliance mechanism as submitted to MoEF shall be complied. The same shall be specifically mentioned in the allotment letter issued to individual member units by the Project proponent.
- (iv) The PP shall establish an environmental monitoring cell with all the potential polluting units as members to review the environmental monitoring data and suggest for improvements.
- (v) The outfall location shall be 3.5 km from the land fall point at 19 m CD and regular monitoring of dispersion of the effluent shall be carried out to ensure no adverse impact to the neighbouring eco-sensitive environments.
- (vi) There shall be no disturbance to the sand dunes. The pipeline shall laid using advanced method viz Horizontal Directional Drilling (HDD) so as to avoid disturbance to the sand dunes.
- (vii) Periodic monitoring of coastal water shall be carried out at outfall location.
- (viii) No construction work other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.
- (ix) The installation of the Effluent Treatment Plant (ETP) and 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 ETP and 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 Andhra Pradesh Pollution Control Board. Necessary measures should be made to mitigate the odour problem from ETP and STP.

- (x) 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.
- (xi) 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 Andhra Pradesh Pollution Control Board.
- (xii) Noise should be controlled to ensure that it does not exceed the prescribed standards. During night time the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations.
- (xiii) The green belt of the adequate width and density preferably with local species along the periphery of the plot shall be raised so as to provide protection against particulates and noise.
- (xiv) Weep holes in the compound walls shall be provided to ensure natural drainage of rain water in the catchment area during the monsoon period.
- (xv) Rain water harvesting for roof run- off and surface run- off, as plan submitted should be implemented. Before recharging the surface run off, pre-treatment must be done to remove suspended matter, oil and grease. The borewell for rainwater recharging should be kept at least 5 mts. above the highest ground water table.
- (xvi) The ground water level and its quality should be monitored regularly in consultation with Central Ground Water Authority.
- (xvii) Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Parking should be fully internalized and no public space should be utilized.
- (xviii) A Report on the energy conservation measures confirming to energy conservation norms finalise by Bureau of Energy Efficiency should be prepared incorporating details about building materials & technology, R & U Factors etc and submit to the Ministry in three months time.



- (xix) Energy conservation measures like installation of CFLs/TFLs for the lighting the areas outside the building 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.
- (xx) Adequate measures should be taken to prevent odour problem from solid waste processing plant and STP.
- (xxi) The building should have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation.

#### **PART - B. GENERAL CONDITIONS**

- i) The environmental safeguards contained in the EIA Report should be implemented in letter and spirit.
  - ii) Six monthly monitoring reports should be submitted to the Ministry and it's Regional Office, Bangaluru.
5. 5% of the total project cost shall be earmarked towards the corporate social responsibility (CSR and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office. Implementation of such program shall be ensured accordingly in a time bound manner.
6. Officials from the Regional Office of MOEF, Bangaluru 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, Bangaluru.
- 7 In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Ministry.
8. 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.
9. 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.





10. 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.

11. 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 Andhra Pradesh 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 Bangaluru.

12. 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.

13. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.

14. The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.

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

16. The environmental statement for each financial year ending 31<sup>st</sup> 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.

  
(Lalit Kapur)  
Director (IA-III)

Copy to:

- (1) The Secretary, Department of Environment, Government of Andhra Pradesh, Secretariat, Hyderabad.
- (2) The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 110 032.
- (3) The Member Secretary, Andhra Pradesh Pollution Control Board, Hyderabad.
- (4) The CCF, Regional Office, Ministry of Environment & Forests(SZ), Kendriya Sadan, IVth floor, E&F wings, 17<sup>th</sup> Main Road, Koramangala II Block, Bangaluru - 560 034.
- (5) IA - Division, Monitoring Cell, MOEF, New Delhi - 110003.
- (6) Guard file.

/

**(Lalit Kapur)**  
**Director (IA-III)**



**ANNEXURE-II**  
**Soil Reports**

**TEST REPORT**

Page 1 of 2

Report No: KIWIS/COM/S/2023/477/1

Name and address of the client

M/s APSLZ  
Special Project Zone,  
Achtutapuram, APIIC Limited,  
Visakhapatnam,  
Andhra Pradesh- 531011.

Date of report	: 07-07-2023	Sample Collected by	: Kiwis Eco Laboratories Pvt Ltd.,
Date of sampling	: 27-06-2023	Sample Collected in	: in Plastic Covers
Sample received on	: 30-06-2023	Sampling Procedure	: KIWIS/SOP/ Lab - 258
Analysis starting date	: 30-06-2023	Sample registration no/Code	: S/COM/06/23/815/1
Analysis completion date	: 07-07-2023	Sample description	: Soil Quality Monitoring
Sub Contract Testing	: NA	Name of the Location	: At Dibbapalem

## 1. S/COM/06/23/815/1 : At Dibbapalem

Samples are analyzed "as Received basis is"

S.No	Parameter	Unit	Method	Result
1	Texture			
	a) Sand	%	STIDA&CGI	25.0
	b) Silt	%	STIDA&CGI	43.0
	c) Clay	%	STIDA&CGI	32.0
2	Soil Type	---	IS 2720	Silty Clay
3	Color	---	---	Red
4	Electrical Conductivity	$\mu\text{Mho/cm}$	ISI-4767:2000	220.0
5	pH	---	IS 2720 (Part 26)-1987 (RA:2002)	7.3
6	Available Sodium (as Na)	mg/100gm	STIDA&CGI	45.0
7	Total kjeldahl Nitrogen	mg/100gm	IS 14684:1999	6.0
8	Available Potassium (as K)	mg/100gm	STIDA&CGI	35.0
9	Available Phosphorus (as P)	mg/100gm	STIDA&CGI	3.2
10	Sodium Absorption Ratio(SAR)	---	IS 2720	1.2
11	Bulk Density	Gm/cc	IS 2720: Part 28: 1974 (By Cylinder method)	1.1





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ISO 14001:2015 & OHSMS 45001:2018.

Plot No. 19, ALEAP Industrial Estate,  
SY. No's 342, Near Pragathi Nagar,  
Quthbullapur Mandal and Municipality,  
Ranga Reddy Dist. Telangana - 500 090.  
Email: kiwislabhyd@gmail.com  
Ph: 99666 61485 / 040-23816333

## TEST REPORT

Page 2 of 2

Report No: KIWIS/COM/S/2023/477/1

Samples are analyzed "as Received basis is"

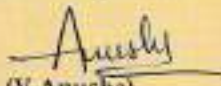
S.No	Parameter	Unit	Method	Result
12	Cation Exchange Capacity	Meq/100gm	IS 2720 (part XXIV)-1976	4.5
13	Alkali Metals(Na,K)	mg/kg	STIDA&CGI	250
14	Porosity	%	IS 2720	42.0
15	Cadmium as Cd	mg/kg	SW -846 3050B & 7130	<0.2
16	Chromium as Cr	mg/kg	SW -846 3050B & 7190	8.0
17	Copper as Cu	mg/kg	SW -846-3050B & 7210	<2.0
18	Manganese as Mn	mg/kg	SW 846 : 3050B,7460	12.0
19	Lead as Pb	mg/kg	SW -846-3050B & 7420	<2.0
20	Zinc as Zn	mg/kg	SW-846-3050B & 7950	10.0
21	Nickel as Ni	mg/kg	SW -846 3050B & 7520	<2.0

Opinion and interpretation: Nil

NA: Not Applicable

- Reports pertained only to the submitted sample
- Test reports shall not be reproduced except in full, without written approval of the laboratory  
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Agriculture Government of India

Checked By

  
(V. Anusha)  
Sr. Chemist

Authorized Signatory

  
(C. Sateesh)  
Manager Laboratory

\*End of the Report\*





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## TEST REPORT

Page 1 of 2

Report No: KIWIS/COM/S/2023/477/2

Name and address of the client

M/s APSEZ  
Special Project Zone,  
Atchutapuram, APIIC Limited,  
Visakhapatnam,  
Andhra Pradesh- 531011.

Date of report	: 07-07-2023	Sample Collected by	: Kiwis Eco Laboratories Pvt Ltd.,
Date of sampling	: 27-06-2023	Sample Collected in	: in Plastic Covers
Sample received on	: 30-06-2023	Sampling Procedure	: KIWIS/SOP/ Lab - 258
Analysis starting date	: 30-06-2023	Sample registration no/Code	: S/COM/06/23/815/2
Analysis completion date	: 07-07-2023	Sample description	: Soil Quality Monitoring
Sub Contract Testing	: NA	Name of the Location	: At Pudimadaka

### 1. S/COM/06/23/815/2 : At Pudimadaka

Samples are analyzed "as Received basis is"

S.No	Parameter	Unit	Method	Result
1	Texture			
	a) Sand	%	STIDA&CGI	42.0
	b) Silt	%	STIDA&CGI	35.0
	c) Clay	%	STIDA&CGI	23.0
2	Soil Type	----	IS 2720	Loamy Sand
3	Color	----	----	Brown
4	Electrical Conductivity	µMho/cm	IS14767-2000	240
5	pH	---	IS 2720 (Part 26)-1987 (RA:2002)	7.5
6	Available Sodium (as Na)	mg/100gm	STIDA&CGI	41.0
7	Total Kjeldahal Nitrogen	mg/100gm	IS 14684:1999	15.0
8	Available Potassium (as K)	mg/100gm	STIDA&CGI	22.0
9	Available Phosphorus (as P)	mg/100gm	STIDA&CGI	9.0
10	Sodium Absorption Ratio(SAR)	---	IS 2720	1.3
11	Bulk Density	Gm/cc	IS 2720:Part 28: 1974 (By Cylinder method)	1.2



**KIWIS**

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**TEST REPORT**

Page 2 of 2

Report No: KIWIS/COM/S/2023/477/2

Samples are analyzed "as Received basis is"

S.No	Parameter	Unit	Method	Result
12	Cation Exchange Capacity	Meq/100gm	IS 2720 (part XXIV)-1976	10.0
13	Alkali Metals(Na,K)	mg/kg	STIDA&CGI	360
14	Porosity	%	IS 2720	42.0
15	Cadmium as Cd	mg/kg	SW -846 3050B & 7130	<0.2
16	Chromium as Cr	mg/kg	SW -846 3050B & 7190	7.0
17	Copper as Cu	mg/kg	SW -846-3050B & 7210	<2.0
18	Manganese as Mn	mg/kg	SW 846 : 3050B,7460	25.0
19	Lead as Pb	mg/kg	SW -846-3050B & 7420	<2.0
20	Zinc as Zn	mg/kg	SW-846-3050B & 7950	13.0
21	Nickel as Ni	mg/kg	SW -846 3050B & 7520	<2.0

Opinion and interpretation: Nil

NA: Not Applicable

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Checked By

(V. Anusha)  
Sr. Chemist

Authorized Signatory

(C. Sateesh)  
Manager Laboratory

\*End of the Report\*





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## TEST REPORT

Page 1 of 2

Report No: KIWIS/COM/S/2023/477/3

Name and address of the client

**M/s APSEZ**  
**Special Project Zone,**  
**Atchutapuram, APHC Limited,**  
**Visakhapatnam,**  
**Andhra Pradesh- 531011.**

Date of report	: 07-07-2023	Sample Collected by	: Kiwis Eco Laboratories Pvt Ltd.,
Date of sampling	: 27-06-2023	Sample Collected in	: in Plastic Covers
Sample received on	: 30-06-2023	Sampling Procedure	: KIWIS/SOP/ Lab - 258
Analysis starting date	: 30-06-2023	Sample registration no/Code	: S/COM/06/23/815/3
Analysis completion date	: 07-07-2023	Sample description	: Soil Quality Monitoring
Sub Contract Testing	: NA	Name of the Location	: Near APSEZ Office

1. S/COM/06/2023/815/3 : Near APSEZ Office

Samples are analyzed "as Received basis is"

S.No	Parameter	Unit	Method	Result
1	Texture			
	a) Sand	%	STIDA&CGI	30.0
	b) Silt	%	STIDA&CGI	41.0
	c) Clay	%	STIDA&CGI	29.0
2	Soil Type	---	IS 2720	Loam
3	Color	---	---	Brown
4	Electrical Conductivity	µMho/cm	IS14767:2000	230
5	pH	---	IS 2720 (Part 26)-1987 (RA:2002)	7.7
6	Available Sodium (as Na)	mg/100gm	STIDA&CGI	42.0
7	Total kjeldahl Nitrogen	mg/100gm	IS 14684:1999	10.2
8	Available Potassium (as K)	mg/100gm	STIDA&CGI	26.0
9	Available Phosphorus (as P)	mg/100gm	STIDA&CGI	6.1
10	Sodium Absorption Ratio(SAR)	---	IS 2720	1.6
11	Bulk Density	Gm/cc	IS 2720:Part 28: 1974 (By Cylinder method)	1.1





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Page 2 of 2

## TEST REPORT

Report No: KIWIS/COM/S/2023/477/3

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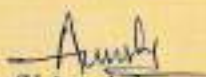
S.No	Parameter	Unit	Method	Result
12	Cation Exchange Capacity	Meq/100gm	IS 2720 (part XXIV)-1976	6.8
13	Alkali Metals(Na,K)	mg/kg	STIDA&CGI	240
14	Porosity	%	IS 2720	45.0
15	Cadmium as Cd	mg/kg	SW -846 3050B & 7130	<0.2
16	Chromium as Cr	mg/kg	SW -846 3050B & 7190	7.5
17	Copper as Cu	mg/kg	SW -846-3050B & 7210	<2.0
18	Manganese as Mn	mg/kg	SW 846 : 3050B,7460	15.0
19	Lead as Pb	mg/kg	SW -846-3050B & 7420	<2.0
20	Zinc as Zn	mg/kg	SW-846-3050B & 7950	9.0
21	Nickel as Ni	mg/kg	SW -846 3050B & 7520	<2.0

Opinion and interpretation: Nil

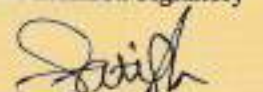
NA: Not Applicable

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STIDA&CGI: Soil Testing in India; Department of Agriculture & Cooperation Ministry of Agriculture Government of India

Checked By

  
(V. Anusha)  
Sr. Chemist

Authorized Signatory

  
(C. Sateesh)  
Manager Laboratory

\*End of the Report\*

**ANNEXURE-III**  
**Ground Water Reports**





# KIWIS

ECO LABORATORIES PVT. LTD  
Recognized by MoEF & CC, GOI, New Delhi,  
Certified by ISO 9001:2015,  
ISO 14001:2015 & OHSMS 45001:2018.

Plot No. 19, ALEAP Industrial Estate,  
SY. No's 342, Near Pragathi Nagar,  
Quthbullapur Mandal and Municipality,  
Ranga Reddy Dist. Telangana - 500 090.  
Email: kiwislabhyd@gmail.com  
Ph: 99666 61485 / 040-23816333

## TEST REPORT

Page 1 of 2

**Report No: KIWIS/W/COM/23/1533**

**Name and address of the client**

**M/s APSEZ**

Special Project Zone, Atchutapuram,  
APIIC Limited, Visakhapatnam,  
Andhra Pradesh- 531011.

Date of report	: 19-12-2023	Sample Collected by	: KIWIS Eco Laboratories Pvt Ltd.,
Date of sampling	: 07-12-2023	Sample Collected in	: in Plastic Cans
Sample received on	: 11-12-2023	Sampling Procedure	: KIWIS/SOP/Lab - 258
Analysis starting date	: 11-12-2023	Sample registration no/Code	: W/COM/12/23/2500
Analysis completion date	: 19-12-2023	Sample description	: Water Quality Monitoring
Sub Contract Testing	: NA	Name of the Location	: Near Project Site Boundary

Samples are analyzed "as Received basis"

S.No	Parameter	Unit	Method	Result	IS 10500 (Acceptable Limits)	IS 10500 (Permissible Limits)
1	Color	Hazen	APHA 2120 C	<5.0	5	15
2	Turbidity	NTU	APHA 2130 B	<1.0	1	5
3	pH @ 25.0°C	-	APHA 4500H+ B	7.5	6.5-8.5	No relaxation
4	Electrical Conductivity	µMho/Cm	APHA 2510 - B	912	Not Specified	Not Specified
5	Total Dissolved solids	mg/L	APHA 2540 C	535	500	2000
6	Total Solids	mg/L	APHA 2540 B	540	Not Specified	Not Specified
7	Alkalinity as CaCO <sub>3</sub>	mg/L	APHA 2320 B	251	200	600
8	Hardness as CaCO <sub>3</sub>	mg/L	APHA 2340 C	338	200	600
9	Calcium as Ca	mg/L	APHA 3500 Ca B	69	75	200
10	Magnesium as Mg	mg/L	APHA 3500-Mg B	41	30	100
11	Chlorides as Cl <sup>-</sup>	mg/L	APHA 4500 Cl-B	96	250	1000
12	Sulphates as SO <sub>4</sub>	mg/L	APHA 4500 SO <sub>4</sub> D	56	200	400
13	Nitrate as NO <sub>3</sub>	mg/L	APHA 4500 NO <sub>3</sub> B	4.6	45	No relaxation
14	Sodium as Na	mg/L	APHA 3500 Na B	62	Not Specified	Not Specified
15	Potassium as K	mg/L	APHA 3500 K B	7.4	Not Specified	Not Specified





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## TEST REPORT

Page 2 of 2

Report No: KIWIS/W/COM/23/1533

Samples are analyzed "as Received basis"

S.No	Parameter	Unit	Method	Result	IS 10500 (Acceptable Limits)	IS 10500 (Permissible Limits)
16	Fluoride as F	mg/L	APHA 4500F-D	< 0.5	1.0	1.5
17	Iron as Fe	mg/L	APHA 3500 Fe B	<0.3	1.0	No relaxation
18	Zinc as Zn	mg/L	APHA 3111 B	<0.2	5	15
19	Odour	TON	APHA 2150 B	Agreeable	Agreeable	Agreeable
20	Cyanide as CN <sup>-</sup>	mg/L	APHA 4500 CN <sup>-</sup> C, E	<0.05	0.05	No relaxation
21	Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH	mg/L	APHA 5530 D (Direct Photometric Method)	<0.001	0.001	0.002
22	Lead as Pb	mg/L	APHA 3111 B	<0.01	0.01	No relaxation
23	Mercury as Hg	mg/L	APHA-3112 Hg B	<0.001	0.001	0.001
24	Manganese as Mn	mg/L	APHA 3111 B	<0.1	0.1	0.3
25	Cadmium as Cd	mg/L	APHA 3111 B	<0.003	0.003	No relaxation
26	Chromium as Cr <sup>6+</sup>	mg/L	APHA 3500 Cr B	<0.05	0.05	No relaxation
27	Copper as Cu	mg/L	APHA 3111 B	<0.05	0.05	1.5
28	Total Coliform	MPN/ 100ml	APHA 9221B	<1.8	Shall not be detectable in any 100 ml sample	Shall not be detectable in any 100 ml sample
29	E-Coli	MPN/ 100ml	APHA 9221 G	Absent	Shall not be detectable in any 100 ml sample	Shall not be detectable in any 100 ml sample

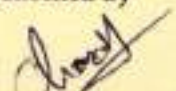
Methods follow: APHA 24<sup>th</sup> Edition

Opinion and interpretation: Nil

NA: Not Applicable

- Reports pertained only to the submitted sample
- Test reports shall not be reproduced except in full, without written approval of the laboratory

Checked By

  
(O. Chowdeswararao)  
Sr. Chemist

Authorized Signatory

  
(C. Sateesh)  
Manager Laboratory

\*End of the Report\*



**TEST REPORT**

Page 1 of 2

**Report No: KIWIS/W/COM/23/1534****Name and address of the client****M/s APSEZ**

Special Project Zone, Atchutapuram,  
APIIC Limited, Visakhapatnam,  
Andhra Pradesh- 531011.

Date of report	: 19-12-2023	Sample Collected by	: Kiwis Eco Laboratories Pvt Ltd.,
Date of sampling	: 07-12-2023	Sample Collected in	: in Plastic Cans
Sample received on	: 11-12-2023	Sampling Procedure	: KIWIS/SOP/Lab - 258
Analysis starting date	: 11-12-2023	Sample registration no/Code	: W/COM/12/23/2501
Analysis completion date	: 19-12-2023	Sample description	: Water Quality Monitoring
Sub Contract Testing	: NA	Name of the Location	: Dibbapalem (R&R Site)

Samples are analyzed "as Received basis "

S.No	Parameter	Unit	Method	Result	IS 10500 (Acceptable Limits)	IS 10500 (Permissible Limits)
1	Color	Hazen	APHA 2120 C	<5.0	5	15
2	Turbidity	NTU	APHA 2130 B	<1.0	1	5
3	pH @ 25.0°C	-	APHA 4500H+ B	7.7	6.5-8.5	No relaxation
4	Electrical Conductivity	µMho/Cm	APHA 2510 - B	2245	Not Specified	Not Specified
5	Total Dissolved solids	mg/L	APHA 2540 C	1382	500	2000
6	Total Solids	mg/L	APHA 2540 B	1389	Not Specified	Not Specified
7	Alkalinity as CaCO <sub>3</sub>	mg/L	APHA 2320 B	392	200	600
8	Hardness as CaCO <sub>3</sub>	mg/L	APHA 2340 C	697	200	600
9	Calcium as Ca	mg/L	APHA 3500 Ca B	150	75	200
10	Magnesium as Mg	mg/L	APHA 3500-Mg B	79	30	100
11	Chlorides as Cl <sup>-</sup>	mg/L	APHA 4500 Cl-B	355	250	1000
12	Sulphates as SO <sub>4</sub>	mg/L	APHA 4500 SO <sub>4</sub> D	222	200	400
13	Nitrate as NO <sub>3</sub>	mg/L	APHA 4500 NO <sub>3</sub> B	12.2	45	No relaxation
14	Sodium as Na	mg/L	APHA 3500 Na B	192	Not Specified	Not Specified
15	Potassium as K	mg/L	APHA 3500 K B	9.5	Not Specified	Not Specified





# KIWIS

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Ranga Reddy Dist. Telangana - 500 090.  
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Ph: 99666 61485 / 040-23816333

## TEST REPORT

Report No : KIWIS/W/COM/23/1534

Page 2 of 2

Samples are analyzed "as Received basis"

S.No	Parameter	Unit	Method	Result	IS 10500 (Acceptable Limits)	IS 10500 (Permissible Limits)
16	Fluoride as F	mg/L	APHA 4500F- D	< 0.5	1.0	1.5
17	Iron as Fe	mg/L	APHA 3500 Fe B	<0.3	1.0	No relaxation
18	Zinc as Zn	mg/L	APHA 3111 B	<0.2	5	15
19	Odour	TON	APHA 2150 B	Agreeable	Agreeable	Agreeable
20	Cyanide as CN <sup>-</sup>	mg/L	APHA 4500 CN- C, E	<0.05	0.05	No relaxation
21	Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH	mg/L	APHA 5530 D (Direct Photometric Method)	<0.001	0.001	0.002
22	Lead as Pb	mg/L	APHA 3111 B	<0.01	0.01	No relaxation
23	Mercury as Hg	mg/L	APHA-3112 Hg B	<0.001	0.001	0.001
24	Manganese as Mn	mg/L	APHA 3111 B	<0.1	0.1	0.3
25	Cadmium as Cd	mg/L	APHA 3111 B	<0.003	0.003	No relaxation
26	Chromium as Cr <sup>++</sup>	mg/L	APHA 3500 Cr B	<0.05	0.05	No relaxation
27	Copper as Cu	mg/L	APHA 3111 B	<0.05	0.05	1.5
28	Total Coliform	MPN/ 100ml	APHA 9221B	<1.8	Shall not be detectable in any 100 ml sample	Shall not be detectable in any 100 ml sample
29	E-Coli	MPN/ 100ml	APHA 9221 G	Absent	Shall not be detectable in any 100 ml sample	Shall not be detectable in any 100 ml sample

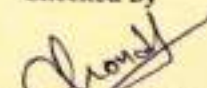
Methods follow: APHA 24<sup>th</sup> Edition

Opinion and interpretation: Nil

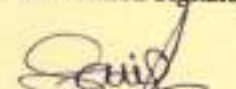
NA: Not Applicable

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Checked By

  
(O. Chowdeswararao)  
Sr. Chemist

Authorized Signatory

  
(C. Sateesh)  
Manager Laboratory

\*End of the Report\*



**TEST REPORT**

Page 1 of 2

**Report No: KIWIS/W/COM/23/1535****Name and address of the client****M/s APSEZ**

Special Project Zone, Atchutapuram,  
APIIC Limited, Visakhapatnam,  
Andhra Pradesh- 531011.

Date of report	: 19-12-2023	Sample Collected by	: Kwis Eco Laboratories Pvt Ltd.,
Date of sampling	: 07-12-2023	Sample Collected in	: in Plastic Cans
Sample received on	: 11-12-2023	Sampling Procedure	: KIWIS/SOP/ Lab - 258
Analysis starting date	: 11-12-2023	Sample registration no/Code	: W/COM/12/23/2502
Analysis completion date	: 19-12-2023	Sample description	: Water Quality Monitoring
Sub Contract Testing	: NA	Name of the Location	: At Pudi Madaka

Samples are analyzed "as Received basis"

S.No	Parameter	Unit	Method	Result	IS 10500 (Acceptable Limits)	IS 10500 (Permissible Limits)
1	Color	Hazen	APHA 2120 C	<5.0	5	15
2	Turbidity	NTU	APHA 2130 B	<1.0	1	5
3	pH @ 25.0°C	-	APHA 4500H+ B	7.2	6.5-8.5	No relaxation
4	Electrical Conductivity	µMho/Cm	APHA 2510 - B	2380	Not Specified	Not Specified
5	Total Dissolved solids	mg/L	APHA 2540 C	1456	500	2000
6	Total Solids	mg/L	APHA 2540 B	1462	Not Specified	Not Specified
7	Alkalinity as CaCO <sub>3</sub>	mg/L	APHA 2320 B	427	200	600
8	Hardness as CaCO <sub>3</sub>	mg/L	APHA 2340 C	737	200	600
9	Calcium as Ca	mg/L	APHA 3500 Ca B	134	75	200
10	Magnesium as Mg	mg/L	APHA 3500-Mg B	98	30	100
11	Chlorides as Cl <sup>-</sup>	mg/L	APHA 4500 Cl-B	419	250	1000
12	Sulphates as SO <sub>4</sub>	mg/L	APHA 4500 SO <sub>4</sub> D	198	200	400
13	Nitrate as NO <sub>3</sub>	mg/L	APHA 4500 NO <sub>3</sub> B	13.6	45	No relaxation
14	Sodium as Na	mg/L	APHA 3500 Na B	208	Not Specified	Not Specified
15	Potassium as K	mg/L	APHA 3500 K B	7.1	Not Specified	Not Specified





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Ranga Reddy Dist. Telangana - 500 090.  
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Ph: 99666 61485 / 040-23816333

## TEST REPORT

Page 2 of 2

Report No: KIWIS/W/COM/23/1535

Samples are analyzed "as Received basis"

S.No	Parameter	Unit	Method	Result	IS 10500 (Acceptable Limits)	IS 10500 (Permissible Limits)
16	Fluoride as F	mg/L	APHA 4500F- D	< 0.5	1.0	1.5
17	Iron as Fe	mg/L	APHA 3500 Fe B	<0.3	1.0	No relaxation
18	Zinc as Zn	mg/L	APHA 3111 B	<0.2	5	15
19	Odour	TON	APHA 2150 B	Agreeable	Agreeable	Agreeable
20	Cyanide as CN <sup>-</sup>	mg/L	APHA 4500 CN- C, E	<0.05	0.05	No relaxation
21	Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH	mg/L	APHA 5530 D (Direct Photometric Method)	<0.001	0.001	0.002
22	Lead as Pb	mg/L	APHA 3111 B	<0.01	0.01	No relaxation
23	Mercury as Hg	mg/L	APHA-3112 Hg B	<0.001	0.001	0.001
24	Manganese as Mn	mg/L	APHA 3111 B	<0.1	0.1	0.3
25	Cadmium as Cd	mg/L	APHA 3111 B	<0.003	0.003	No relaxation
26	Chromium as Cr <sup>+6</sup>	mg/L	APHA 3500 Cr B	<0.05	0.05	No relaxation
27	Copper as Cu	mg/L	APHA 3111 B	<0.05	0.05	1.5
28	Total Coliform	MPN/ 100ml	APHA 9221B	Absent	Shall not be detectable in any 100 ml sample	Shall not be detectable in any 100 ml sample
29	E-Coli	MPN/ 100ml	APHA 9221 G	Absent	Shall not be detectable in any 100 ml sample	Shall not be detectable in any 100 ml sample


Methods follow: APHA 24<sup>th</sup> Edition

Opinion and interpretation: Nil

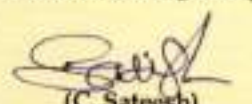
NA: Not Applicable

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Checked By

  
(O. Chowdeswararao)  
Sr. Chemist

Authorized Signatory

  
(C. Sateesh)  
Manager Laboratory

\*End of the Report\*





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Ph: 99666 61485 / 040-23816333

## TEST REPORT

**Report No:** KIWIS/W/COM/23/1536

Page 1 of 3

**Name and address of the client**

**M/s APSEZ**

Special Project Zone, Atchutapuram,  
APIIC Limited, Visakhapatnam,  
Andhra Pradesh- 531011.

<b>Date of report</b>	: 19-12-2023	<b>Sample Collected by</b>	: Kiwis Eco Laboratories Pvt Ltd.,
<b>Date of sampling</b>	: 07-12-2023	<b>Sample Collected in</b>	: in Plastic Cans
<b>Sample received on</b>	: 11-12-2023	<b>Sampling Procedure</b>	: KIWIS/SOP/ Lab - 258
<b>Analysis starting date</b>	: 11-12-2023	<b>Sample registration no/Code</b>	: W/COM/12/23/2503
<b>Analysis completion date</b>	: 19-12-2023	<b>Sample description</b>	: Water Quality Monitoring
<b>Sub Contract Testing</b>	: NA	<b>Name of the Location</b>	: Surface Water at Sarada River Water

Samples are analyzed "as Received basis"

S.No	Parameter	Unit	Method	Result
1	Color	Hazen	APHA 2120 C	8.6
2	Turbidity	NTU	APHA 2130 B	5.5
3	pH @ 25.0°C	-	APHA 4500H+ B	7.6
4	Electrical Conductivity	µMho/Cm	APHA 2510 - B	532
5	Total Dissolved solids	mg/L	APHA 2540 C	310
6	Total Solids	mg/L	APHA 2540 B	318
7	Alkalinity as CaCO <sub>3</sub>	mg/L	APHA 2320 B	175
8	Hardness as CaCO <sub>3</sub>	mg/L	APHA 2340 C	207
9	Calcium as Ca	mg/L	APHA 3500 Ca B	40
10	Magnesium as Mg	mg/L	APHA 3500-Mg B	26
11	Chlorides as Cl <sup>-</sup>	mg/L	APHA 4500 Cl-B	42
12	Sulphates as SO <sub>4</sub>	mg/L	APHA 4500 SO <sub>4</sub> D	34
13	Nitrate as NO <sub>3</sub>	mg/L	APHA 4500 NO <sub>3</sub> B	2.1
14	Sodium as Na	mg/L	APHA 3500 Na B	28
15	Potassium as K	mg/L	APHA 3500 K B	5.5



**KIWIS**

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Email: kiwislabhyd@gmail.com  
Ph: 99666 61485 / 040-23816333

**TEST REPORT**

Page 2 of 2

**Report No: KIWIS/W/COM/23/1536**

Samples are analyzed "as Received basis"

S.No	Parameter	Unit	Method	Result
16	Fluoride as F	mg/L	APHA 4500F-D	0.2
17	Iron as Fe	mg/L	APHA 3500 Fe B	<0.3
18	Chemical Oxygen Demand	mg/L	APHA 5220 B	16
19	Biochemical Oxygen Demand (3 Days at 27°C)	mg/L	IS : 3025 (P-44)	<4
20	Dissolved Oxygen	mg/L	APHA 2005; 4500 O C	5.6
21	Zinc as Zn	mg/L	APHA 3111 B	<0.2
22	Odour	TON	APHA 2150 B	Agreeable
23	Cyanide as CN <sup>-</sup>	mg/L	APHA 4500 CN- C, E	<0.05
24	Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH	mg/L	APHA 5530 D (Direct Photometric Method)	<0.001
25	Lead as Pb	mg/L	APHA 3111 B	<0.01
26	Mercury as Hg	mg/L	APHA-3112 Hg B	<0.001
27	Manganese as Mn	mg/L	APHA 3111 B	<0.1
28	Cadmium as Cd	mg/L	APHA 3111 B	<0.003
29	Chromium as Cr	mg/L	APHA 3111 B	<0.05
30	Copper as Cu	mg/L	APHA 3111 B	<0.05
31	Total Coliform	MPN/ 100ml	APHA 9221B	70
32	Fecal Coli forms	MPN/ 100ml	APHA 9221 E	11

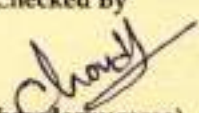
Methods follow: APHA 24<sup>th</sup> Edition

NA: Not Applicable


Opinion and interpretation: Nil

- Reports pertained only to the submitted sample
- Test reports shall not be reproduced except in full, without written approval of the laboratory

Checked By

  
(O. Chowdeswararao)  
Sr. Chemist

Authorized Signatory

  
(C. Sateesh)  
Manager Laboratory

**\*End of the Report\***



**TEST REPORT**

Page 1 of 2

**Report No: KIWIS/W/COM/24/322****Name and address of the client****M/s APSEZ**

Special Project Zone, Atchutapuram,  
APIIC Limited, Visakhapatnam,  
Andhra Pradesh- 531011.

Date of report	: 25-03-2024	Sample Collected by	: Kwis Eco Laboratories Pvt Ltd.,
Date of sampling	: 15-03-2024	Sample Collected in	: in Plastic Cans
Sample received on	: 18-03-2024	Sampling Procedure	: KIWIS/SOP/ Lab - 258
Analysis starting date	: 18-03-2024	Sample registration no/Code	: W/COM/03/24/606
Analysis completion date	: 25-03-2024	Sample description	: Water Quality Monitoring
Sub Contract Testing	: NA	Name of the Location	: Near Project Site Boundary

Samples are analyzed "as Received basis"

S.No	Parameter	Unit	Method	Result	IS 10500 (Acceptable Limits)	IS 10500 (Permissible Limits)
1	Color	Hazen	APHA 2120 C	<5.0	5	15
2	Turbidity	NTU	APHA 2130 B	<1.0	1	5
3	pH @ 25.0°C	-	APHA 4500H+ B	7.6	6.5-8.5	No relaxation
4	Electrical Conductivity	µMho/Cm	APHA 2510 - B	956	Not Specified	Not Specified
5	Total Dissolved solids	mg/L	APHA 2540 C	564	500	2000
6	Total Solids	mg/L	APHA 2540 B	568	Not Specified	Not Specified
7	Alkalinity as CaCO <sub>3</sub>	mg/L	APHA 2320 B	263	200	600
8	Hardness as CaCO <sub>3</sub>	mg/L	APHA 2340 C	347	200	600
9	Calcium as Ca	mg/L	APHA 3500 Ca B	70	75	200
10	Magnesium as Mg	mg/L	APHA 3500-Mg B	42	30	100
11	Chlorides as Cl <sup>-</sup>	mg/L	APHA 4500 Cl-B	102	250	1000
12	Sulphates as SO <sub>4</sub>	mg/L	APHA 4500 SO <sub>4</sub> D	58	200	400
13	Nitrate as NO <sub>3</sub>	mg/L	APHA 4500 NO <sub>3</sub> B	4.5	45	No relaxation
14	Sodium as Na	mg/L	APHA 3500 Na B	65	Not Specified	Not Specified
15	Potassium as K	mg/L	APHA 3500 K B	7.8	Not Specified	Not Specified



**TEST REPORT**

Page 2 of 2

Report No: KIWIS/W/COM/24/322

Samples are analyzed "as Received basis"

S.No	Parameter	Unit	Method	Result	IS 10500 (Acceptable Limits)	IS 10500 (Permissible Limits)
16	Fluoride as F	mg/L	APHA 4500F D	< 0.5	1.0	1.5
17	Iron as Fe	mg/L	APHA 3500 Fe B	<0.3	1.0	No relaxation
18	Zinc as Zn	mg/L	APHA 3111 B	<0.2	5	15
19	Odour	-	APHA 2150 B	Agreeable	Agreeable	Agreeable
20	Cyanide as CN <sup>-</sup>	mg/L	APHA 4500 CN <sup>-</sup> C, E	<0.05	0.05	No relaxation
21	Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH	mg/L	APHA 5530 D (Direct Photometric Method)	<0.001	0.001	0.002
22	Lead as Pb	mg/L	APHA 3111 B	<0.01	0.01	No relaxation
23	Mercury as Hg	mg/L	APHA-3112 Hg B	<0.001	0.001	0.001
24	Manganese as Mn	mg/L	APHA 3111 B	<0.1	0.1	0.3
25	Cadmium as Cd	mg/L	APHA 3111 B	<0.003	0.003	No relaxation
26	Chromium as Cr <sup>++</sup>	mg/L	APHA 3500 Cr B	<0.05	0.05	No relaxation
27	Copper as Cu	mg/L	APHA 3111 B	<0.05	0.05	1.5
28	Total Coliform	MPN/ 100ml	APHA 9221B	<1.8	Shall not be detectable in any 100 ml sample	Shall not be detectable in any 100 ml sample
29	E-Coli	MPN/ 100ml	APHA 9221 G	Absent	Shall not be detectable in any 100 ml sample	Shall not be detectable in any 100 ml sample

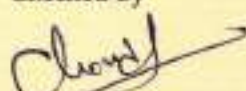
Methods follow: APHA 24<sup>th</sup> Edition

NA: Not Applicable

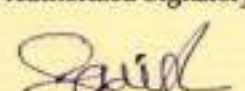
Opinion and interpretation: Nil

- Reports pertained only to the submitted sample
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Checked By

  
(O. Chowdeswararao)  
Sr. Chemist

Authorized Signatory

  
(C. Sateesh)  
Manager Laboratory

\*End of the Report\*



**TEST REPORT**

Page 1 of 2

**Report No: KIWIS/W/COM/24/323****Name and address of the client****M/s APSEZ**

Special Project Zone, Atchutapuram,  
APIIC Limited, Visakhapatnam,  
Andhra Pradesh- 531011.

Date of report	: 25-03-2024	Sample Collected by	: KIWIS Eco Laboratories Pvt Ltd.,
Date of sampling	: 15-03-2024	Sample Collected in	: in Plastic Cans
Sample received on	: 18-03-2024	Sampling Procedure	: KIWIS/SOP/Lab - 258
Analysis starting date	: 18-03-2024	Sample registration no/Code	: W/COM/03/24/607
Analysis completion date	: 25-03-2024	Sample description	: Water Quality Monitoring
Sub Contract Testing	: NA	Name of the Location	: Dibbapalem (R&R Site)

Samples are analyzed "as Received basis "

S.No	Parameter	Unit	Method	Result	IS 10500 (Acceptable Limits)	IS 10500 (Permissible Limits)
1	Color	Hazen	APHA 2120 C	<5.0	5	15
2	Turbidity	NTU	APHA 2130 B	<1.0	1	5
3	pH @ 25.0°C	-	APHA 4500H+ B	7.8	6.5-8.5	No relaxation
4	Electrical Conductivity	µMho/Cm	APHA 2510 - B	2342	Not Specified	Not Specified
5	Total Dissolved solids	mg/L	APHA 2540 C	1356	500	2000
6	Total Solids	mg/L	APHA 2540 B	1361	Not Specified	Not Specified
7	Alkalinity as CaCO <sub>3</sub>	mg/L	APHA 2320 B	399	200	600
8	Hardness as CaCO <sub>3</sub>	mg/L	APHA 2340 C	714	200	600
9	Calcium as Ca	mg/L	APHA 3500 Ca B	151	75	200
10	Magnesium as Mg	mg/L	APHA 3500-Mg B	82	30	100
11	Chlorides as Cl <sup>-</sup>	mg/L	APHA 4500 Cl-B	365	250	1000
12	Sulphates as SO <sub>4</sub>	mg/L	APHA 4500 SO <sub>4</sub> D	234	200	400
13	Nitrate as NO <sub>3</sub>	mg/L	APHA 4500 NO <sub>3</sub> B	12.5	45	No relaxation
14	Sodium as Na	mg/L	APHA 3500 Na B	198	Not Specified	Not Specified
15	Potassium as K	mg/L	APHA 3500 K B	9.8	Not Specified	Not Specified



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SY. No's 342, Near Pragathi Nagar,  
Quthbullapur Mandal and Municipality,  
Ranga Reddy Dist. Telangana - 500 090.  
Email: kiwislabhyd@gmail.com  
Ph: 99666 61485 / 040-23816333

**TEST REPORT**

Page 2 of 2

**Report No : KIWIS/W/COM/24/323**

Samples are analyzed "as Received basis "

S.No	Parameter	Unit	Method	Result	IS 10500 (Acceptable Limits)	IS 10500 (Permissible Limits)
16	Fluoride as F	mg/L	APHA 4500F- D	< 0.5	1.0	1.5
17	Iron as Fe	mg/L	APHA 3500 Fe B	<0.3	1.0	No relaxation
18	Zinc as Zn	mg/L	APHA 3111 B	<0.2	5	15
19	Odour	-	APHA 2150 B	Agreeable	Agreeable	Agreeable
20	Cyanide as CN <sup>-</sup>	mg/L	APHA 4500 CN- C, E	<0.05	0.05	No relaxation
21	Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH	mg/L	APHA 5530 D (Direct Photometric Method)	<0.001	0.001	0.002
22	Lead as Pb	mg/L	APHA 3111 B	<0.01	0.01	No relaxation
23	Mercury as Hg	mg/L	APHA-3112 Hg B	<0.001	0.001	0.001
24	Manganese as Mn	mg/L	APHA 3111 B	<0.1	0.1	0.3
25	Cadmium as Cd	mg/L	APHA 3111 B	<0.003	0.003	No relaxation
26	Chromium as Cr <sup>6+</sup>	mg/L	APHA 3500 Cr B	<0.05	0.05	No relaxation
27	Copper as Cu	mg/L	APHA 3111 B	<0.05	0.05	1.5
28	Total Coliform	MPN/ 100ml	APHA 9221B	<1.8	Shall not be detectable in any 100 ml sample	Shall not be detectable in any 100 ml sample
29	E-Coli	MPN/ 100ml	APHA 9221 G	Absent	Shall not be detectable in any 100 ml sample	Shall not be detectable in any 100 ml sample

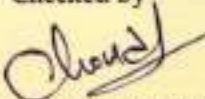
Methods follow: APHA 24<sup>th</sup> Edition

NA: Not Applicable

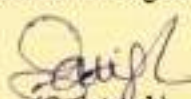
Opinion and interpretation: Nil

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Checked By

  
(O. Chowdeswararao)  
Sr. Chemist

Authorized Signatory

  
(C. Sateesh)  
Manager Laboratory

**\*End of the Report\***





Plot No. 19, ALEAP Industrial Estate,  
SY. No's 342, Near Pragathi Nagar,  
Quthbullapur Mandal and Municipality,  
Ranga Reddy Dist. Telangana - 500 090.  
Email: kiwislabhyd@gmail.com  
Ph: 99666 61485 / 040-23816333

**TEST REPORT**

Page 1 of 2

**Report No: KIWIS/W/COM/24/324****Name and address of the client****M/s APSEZ**

Special Project Zone, Atchutapuram,  
APIIC Limited, Visakhapatnam,  
Andhra Pradesh- 531011.

Date of report	: 25-03-2024	Sample Collected by	: KIWIS Eco Laboratories Pvt Ltd.,
Date of sampling	: 15-03-2024	Sample Collected in	: in Plastic Cans
Sample received on	: 18-03-2024	Sampling Procedure	: KIWIS/SOP/Lab - 258
Analysis starting date	: 18-03-2024	Sample registration no/Code	: W/COM/03/24/608
Analysis completion date	: 25-03-2024	Sample description	: Water Quality Monitoring
Sub Contract Testing	: NA	Name of the Location	: At Pudi Madaka

Samples are analyzed "as Received basis "

S.No	Parameter	Unit	Method	Result	IS 10500 (Acceptable Limits)	IS 10500 (Permissible Limits)
1	Color	Hazen	APHA 2120 C	<5.0	5	15
2	Turbidity	NTU	APHA 2130 B	<1.0	1	5
3	pH @ 25.0°C	-	APHA 4500H+ B	7.3	6.5-8.5	No relaxation
4	Electrical Conductivity	µMho/Cm	APHA 2510 - B	2468	Not Specified	Not Specified
5	Total Dissolved solids	mg/L	APHA 2540 C	1447	500	2000
6	Total Solids	mg/L	APHA 2540 B	1452	Not Specified	Not Specified
7	Alkalinity as CaCO <sub>3</sub>	mg/L	APHA 2320 B	434	200	600
8	Hardness as CaCO <sub>3</sub>	mg/L	APHA 2340 C	755	200	600
9	Calcium as Ca	mg/L	APHA 3500 Ca B	139	75	200
10	Magnesium as Mg	mg/L	APHA 3500-Mg B	99	30	100
11	Chlorides as Cl <sup>-</sup>	mg/L	APHA 4500 Cl-B	430	250	1000
12	Sulphates as SO <sub>4</sub>	mg/L	APHA 4500 SO <sub>4</sub> D	208	200	400
13	Nitrate as NO <sub>3</sub>	mg/L	APHA 4500 NO <sub>3</sub> B	14.2	45	No relaxation
14	Sodium as Na	mg/L	APHA 3500 Na B	212	Not Specified	Not Specified
15	Potassium as K	mg/L	APHA 3500 K B	7.4	Not Specified	Not Specified



**TEST REPORT**

Page 2 of 2

**Report No: KIWIS/W/COM/23/324**

Samples are analyzed "as Received basis"

S.No	Parameter	Unit	Method	Result	IS 10500 (Acceptable Limits)	IS 10500 (Permissible Limits)
03	Fluoride as F	mg/L	APHA 4500F- D	< 0.5	1.0	1.5
17	Iron as Fe	mg/L	APHA 3500 Fe B	<0.3	1.0	No relaxation
18	Zinc as Zn	mg/L	APHA 3111 B	<0.2	5	15
19	Odour	-	APHA 2150 B	Agreeable	Agreeable	Agreeable
20	Cyanide as CN <sup>-</sup>	mg/L	APHA 4500 CN- C, E	<0.05	0.05	No relaxation
21	Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH	mg/L	APHA 5530 D (Direct Photometric Method)	<0.001	0.001	0.002
22	Lead as Pb	mg/L	APHA 3111 B	<0.01	0.01	No relaxation
23	Mercury as Hg	mg/L	APHA-3112 Hg B	<0.001	0.001	0.001
24	Manganese as Mn	mg/L	APHA 3111 B	<0.1	0.1	0.3
25	Cadmium as Cd	mg/L	APHA 3111 B	<0.003	0.003	No relaxation
26	Chromium as Cr <sup>+6</sup>	mg/L	APHA 3500 Cr B	<0.05	0.05	No relaxation
27	Copper as Cu	mg/L	APHA 3111 B	<0.05	0.05	1.5
28	Total Coliform	MPN/ 100ml	APHA 9221B	Absent	Shall not be detectable in any 100 ml sample	Shall not be detectable in any 100 ml sample
29	E-Coli	MPN/ 100ml	APHA 9221 G	Absent	Shall not be detectable in any 100 ml sample	Shall not be detectable in any 100 ml sample

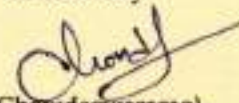
Methods follow: APHA 24<sup>th</sup> Edition

NA: Not Applicable

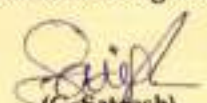
Opinion and interpretation: Nil

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Checked By

  
(O. Chowdeswararao)  
Sr. Chemist

Authorized Signatory

  
(C. Satish)  
Manager Laboratory
**\*End of the Report\***





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Quthbullapur Mandal and Municipality,  
Ranga Reddy Dist. Telangana - 500 090.  
Email: kiwislabhyd@gmail.com  
Ph: 99666 61485 / 040-23816333

## TEST REPORT

Page 1 of 3

**Report No:** KIWIS/W/COM/24/325

**Name and address of the client**

**M/s APSEZ**

Special Project Zone, Atchutapuram,  
APIIC Limited, Visakhapatnam,  
Andhra Pradesh- 531011.

<b>Date of report</b>	: 25-03-2024	<b>Sample Collected by</b>	: Kiwis Eco Laboratories Pvt Ltd.,
<b>Date of sampling</b>	: 15-03-2024	<b>Sample Collected in</b>	: in Plastic Cans
<b>Sample received on</b>	: 18-03-2024	<b>Sampling Procedure</b>	: KIWIS/SOP/ Lab - 258
<b>Analysis starting date</b>	: 18-03-2024	<b>Sample registration no/Code</b>	: W/COM/03/24/609
<b>Analysis completion date</b>	: 25-03-2024	<b>Sample description</b>	: Water Quality Monitoring
<b>Sub Contract Testing</b>	: NA	<b>Name of the Location</b>	: Surface Water at Sarada River Water

Samples are analyzed "as Received basis"

S.No	Parameter	Unit	Method	Result
1	Color	Hazen	APHA 2120 C	8.5
2	Turbidity	NTU	APHA 2130 B	5.4
3	pH @ 25°C	-	APHA 4500H+ B	7.5
4	Electrical Conductivity	µMho/Cm	APHA 2510 - B	562
5	Total Dissolved solids	mg/L	APHA 2540 C	326
6	Total Solids	mg/L	APHA 2540 B	338
7	Alkalinity as CaCO <sub>3</sub>	mg/L	APHA 2320 B	187
8	Hardness as CaCO <sub>3</sub>	mg/L	APHA 2340 C	214
9	Calcium as Ca	mg/L	APHA 3500 Ca B	41
10	Magnesium as Mg	mg/L	APHA 3500-Mg B	27
11	Chlorides as Cl <sup>-</sup>	mg/L	APHA 4500 Cl-B	45
12	Sulphates as SO <sub>4</sub>	mg/L	APHA 4500 SO <sub>4</sub> D	36
13	Nitrate as NO <sub>3</sub>	mg/L	APHA 4500 NO <sub>3</sub> B	2.3
14	Sodium as Na	mg/L	APHA 3500 Na B	29
15	Potassium as K	mg/L	APHA 3500 K B	5.6



**TEST REPORT**

Page 2 of 2

**Report No: KIWIS/W/COM/23/325**

Samples are analyzed "as Received basis"

S.No	Parameter	Unit	Method	Result
16	Fluoride as F	mg/L	APHA 4500F- D	<0.5
17	Iron as Fe	mg/L	APHA 3500 Fe B	<0.3
18	Chemical Oxygen Demand	mg/L	APHA 5220 B	18
19	Biochemical Oxygen Demand (3 Days at 27°C)	mg/L	IS : 3025 (P-44)	<4
20	Dissolved Oxygen	mg/L	APHA 2005; 4500 O C	5.7
21	Zinc as Zn	mg/L	APHA 3111 B	<0.2
22	Odour	-	APHA 2150 B	Agreeable
23	Cyanide as CN <sup>-</sup>	mg/L	APHA 4500 CN- C, E	<0.05
24	Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH	mg/L	APHA 5530 D (Direct Photometric Method)	<0.001
25	Lead as Pb	mg/L	APHA 3111 B	<0.01
26	Mercury as Hg	mg/L	APHA-3112 Hg B	<0.001
27	Manganese as Mn	mg/L	APHA 3111 B	<0.1
28	Cadmium as Cd	mg/L	APHA 3111 B	<0.003
29	Chromium as Cr	mg/L	APHA 3111 B	<0.05
30	Copper as Cu	mg/L	APHA 3111 B	<0.05
31	Total Coliform	MPN/ 100ml	APHA 9221B	110
32	Fecal Coli forms	MPN/ 100ml	APHA 9221 E	11

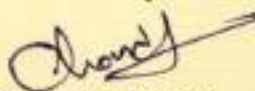
Methods follow: APHA 24<sup>th</sup> Edition

NA: Not Applicable

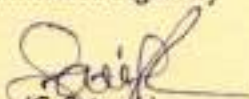
Opinion and interpretation: Nil

- Reports pertained only to the submitted sample
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Checked By

  
 (O. Chowdeswararao)  
 Sr. Chemist

Authorized Signatory

  
 (C. Sateesh)  
 Manager Laboratory

**\*End of the Report\***



# **ANNEXURE-III**

## **Surface Water Reports**



# KIWIS

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Quthbullapur Mandal and Municipality,  
Ranga Reddy Dist. Telangana - 500 090.  
Email: kiwislabhyd@gmail.com  
Ph: 99666 61485 / 040-23816333

## TEST REPORT

**Report No:** KIWIS/W/COM/23/1536

Page 1 of 3

**Name and address of the client**

**M/s APSEZ**

Special Project Zone, Atchutapuram,  
APIIC Limited, Visakhapatnam,  
Andhra Pradesh- 531011.

Date of report	: 19-12-2023	Sample Collected by	: Kiwis Eco Laboratories Pvt Ltd.,
Date of sampling	: 07-12-2023	Sample Collected in	: in Plastic Cans
Sample received on	: 11-12-2023	Sampling Procedure	: KIWIS/SOP/ Lab - 258
Analysis starting date	: 11-12-2023	Sample registration no/Code	: W/COM/12/23/2503
Analysis completion date	: 19-12-2023	Sample description	: Water Quality Monitoring
Sub Contract Testing	: NA	Name of the Location	: Surface Water at Sarada River Water

Samples are analyzed "as Received basis"

S.No	Parameter	Unit	Method	Result
1	Color	Hazen	APHA 2120 C	8.6
2	Turbidity	NTU	APHA 2130 B	5.5
3	pH @ 25.0°C	-	APHA 4500H+ B	7.6
4	Electrical Conductivity	µMho/Cm	APHA 2510 - B	532
5	Total Dissolved solids	mg/L	APHA 2540 C	310
6	Total Solids	mg/L	APHA 2540 B	318
7	Alkalinity as CaCO <sub>3</sub>	mg/L	APHA 2320 B	175
8	Hardness as CaCO <sub>3</sub>	mg/L	APHA 2340 C	207
9	Calcium as Ca	mg/L	APHA 3500 Ca B	40
10	Magnesium as Mg	mg/L	APHA 3500-Mg B	26
11	Chlorides as Cl <sup>-</sup>	mg/L	APHA 4500 Cl-B	42
12	Sulphates as SO <sub>4</sub>	mg/L	APHA 4500 SO <sub>4</sub> D	34
13	Nitrate as NO <sub>3</sub>	mg/L	APHA 4500 NO <sub>3</sub> B	2.1
14	Sodium as Na	mg/L	APHA 3500 Na B	28
15	Potassium as K	mg/L	APHA 3500 K B	5.5



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Ranga Reddy Dist. Telangana - 500 090.  
Email: kiwislabhyd@gmail.com  
Ph: 99666 61485 / 040-23816333

**TEST REPORT**

Page 2 of 2

**Report No: KIWIS/W/COM/23/1536**

Samples are analyzed "as Received basis"

S.No	Parameter	Unit	Method	Result
16	Fluoride as F	mg/L	APHA 4500F-D	0.2
17	Iron as Fe	mg/L	APHA 3500 Fe B	<0.3
18	Chemical Oxygen Demand	mg/L	APHA 5220 B	16
19	Biochemical Oxygen Demand (3 Days at 27°C)	mg/L	IS : 3025 (P-44)	<4
20	Dissolved Oxygen	mg/L	APHA 2005; 4500 O C	5.6
21	Zinc as Zn	mg/L	APHA 3111 B	<0.2
22	Odour	TON	APHA 2150 B	Agreeable
23	Cyanide as CN <sup>-</sup>	mg/L	APHA 4500 CN- C, E	<0.05
24	Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH	mg/L	APHA 5530 D (Direct Photometric Method)	<0.001
25	Lead as Pb	mg/L	APHA 3111 B	<0.01
26	Mercury as Hg	mg/L	APHA-3112 Hg B	<0.001
27	Manganese as Mn	mg/L	APHA 3111 B	<0.1
28	Cadmium as Cd	mg/L	APHA 3111 B	<0.003
29	Chromium as Cr	mg/L	APHA 3111 B	<0.05
30	Copper as Cu	mg/L	APHA 3111 B	<0.05
31	Total Coliform	MPN/ 100ml	APHA 9221B	70
32	Fecal Coli forms	MPN/ 100ml	APHA 9221 E	11

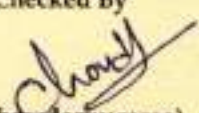
Methods follow: APHA 24<sup>th</sup> Edition

NA: Not Applicable

Opinion and interpretation: Nil

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Checked By

  
(O. Chowdeswararao)  
Sr. Chemist

Authorized Signatory

  
(C. Sateesh)  
Manager Laboratory

**\*End of the Report\***





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Ph: 99666 61485 / 040-23816333

## TEST REPORT

Page 1 of 3

**Report No:** KIWIS/W/COM/24/325

**Name and address of the client**

**M/s APSEZ**

Special Project Zone, Atchutapuram,  
APIIC Limited, Visakhapatnam,  
Andhra Pradesh- 531011.

<b>Date of report</b>	: 25-03-2024	<b>Sample Collected by</b>	: Kiwis Eco Laboratories Pvt Ltd.,
<b>Date of sampling</b>	: 15-03-2024	<b>Sample Collected in</b>	: in Plastic Cans
<b>Sample received on</b>	: 18-03-2024	<b>Sampling Procedure</b>	: KIWIS/SOP/ Lab - 258
<b>Analysis starting date</b>	: 18-03-2024	<b>Sample registration no/Code</b>	: W/COM/03/24/609
<b>Analysis completion date</b>	: 25-03-2024	<b>Sample description</b>	: Water Quality Monitoring
<b>Sub Contract Testing</b>	: NA	<b>Name of the Location</b>	: Surface Water at Sarada River Water

Samples are analyzed "as Received basis"

S.No	Parameter	Unit	Method	Result
1	Color	Hazen	APHA 2120 C	8.5
2	Turbidity	NTU	APHA 2130 B	5.4
3	pH @ 25°C	-	APHA 4500H+ B	7.5
4	Electrical Conductivity	µMho/Cm	APHA 2510 - B	562
5	Total Dissolved solids	mg/L	APHA 2540 C	326
6	Total Solids	mg/L	APHA 2540 B	338
7	Alkalinity as CaCO <sub>3</sub>	mg/L	APHA 2320 B	187
8	Hardness as CaCO <sub>3</sub>	mg/L	APHA 2340 C	214
9	Calcium as Ca	mg/L	APHA 3500 Ca B	41
10	Magnesium as Mg	mg/L	APHA 3500-Mg B	27
11	Chlorides as Cl <sup>-</sup>	mg/L	APHA 4500 Cl-B	45
12	Sulphates as SO <sub>4</sub>	mg/L	APHA 4500 SO <sub>4</sub> D	36
13	Nitrate as NO <sub>3</sub>	mg/L	APHA 4500 NO <sub>3</sub> B	2.3
14	Sodium as Na	mg/L	APHA 3500 Na B	29
15	Potassium as K	mg/L	APHA 3500 K B	5.6



**TEST REPORT**

Page 2 of 2

**Report No: KIWIS/W/COM/23/325**

Samples are analyzed "as Received basis"

S.No	Parameter	Unit	Method	Result
16	Fluoride as F	mg/L	APHA 4500F- D	<0.5
17	Iron as Fe	mg/L	APHA 3500 Fe B	<0.3
18	Chemical Oxygen Demand	mg/L	APHA 5220 B	18
19	Biochemical Oxygen Demand (3 Days at 27°C)	mg/L	IS : 3025 (P-44)	<4
20	Dissolved Oxygen	mg/L	APHA 2005; 4500 O C	5.7
21	Zinc as Zn	mg/L	APHA 3111 B	<0.2
22	Odour	-	APHA 2150 B	Agreeable
23	Cyanide as CN <sup>-</sup>	mg/L	APHA 4500 CN- C, E	<0.05
24	Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH	mg/L	APHA 5530 D (Direct Photometric Method)	<0.001
25	Lead as Pb	mg/L	APHA 3111 B	<0.01
26	Mercury as Hg	mg/L	APHA-3112 Hg B	<0.001
27	Manganese as Mn	mg/L	APHA 3111 B	<0.1
28	Cadmium as Cd	mg/L	APHA 3111 B	<0.003
29	Chromium as Cr	mg/L	APHA 3111 B	<0.05
30	Copper as Cu	mg/L	APHA 3111 B	<0.05
31	Total Coliform	MPN/ 100ml	APHA 9221B	110
32	Fecal Coli forms	MPN/ 100ml	APHA 9221 E	11

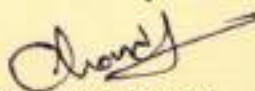
Methods follow: APHA 24<sup>th</sup> Edition

NA: Not Applicable

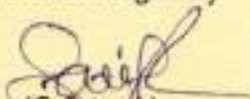
Opinion and interpretation: Nil

- Reports pertained only to the submitted sample
- Test reports shall not be reproduced except in full, without written approval of the laboratory

Checked By

  
 (O. Chowdeswararao)  
 Sr. Chemist

Authorized Signatory

  
 (C. Sateesh)  
 Manager Laboratory

**\*End of the Report\***



## **ANNEXURE-IV**

### **Ambient Noise Quality Reports**

**TEST REPORT**

Page 1 of 1

Report No: **KIWIS/NOISE/COM/23/991**

Name and address of the client:

**M/s APSEZ Special Project Zone**  
**Atchutapuram, APIIC Limited**  
**Visakhapatnam - 531011**  
**Andhra Pradesh.**

Date of report : 13-10-2023  
Date of sampling : 06-10-2023  
Sample registration no/Code : NOISE/COM/10/23/1700, 1701&1702  
Sample Collected by : Kiwis Eco Laboratories Private Limited  
Sample description : Ambient Noise Monitoring  
Sub Contract Testing : NA

**Locations:**

1. EASTERN SECTOR OF APSEZ : NOISE/COM/10/23/1700: APIIC/NOISE/ES/06/10/2023/01
2. WESTERN SECTOR OF APSEZ : NOISE/COM/10/23/1701: APIIC/NOISE/WS/06/10/2023/02
3. DIBBAPALEM (R & R SITE) : NOISE/COM/10/23/1702: APIIC/NOISE/DP/06/10/2023/03

**TEST RESULT**

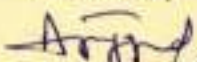
S.No	Location	Method	Day time dB(A)Leq	Night time dB(A)Leq	CPCB Standards(Leq)	
					Day dB (A)	Night dB (A)
1	Eastern Sector Of APSEZ (Maithan Alloys Ltd. -Near Security Area)	IS 9989:1981	65.2	59.9	75	70
2	Western Sector Of APSEZ (Vasanth Chemicals -Near Admin Office)	IS 9989:1981	63.7	56.5	75	70
3	Dibbapalem (R & R Site)	IS 9989:1981	53.3	42.8	55	45

Opinion and interpretation: Nil

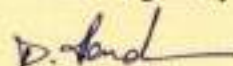
NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory  
Integrated Sound Level Meter, Make:LUTRON, ModelNo:SL- 4033 SD, Calibration valid up to:16-06-2024

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

**\*End of the Report\***



**TEST REPORT**

Page 1 of 1

Report No: **KIWIS/NOISE/COM/23/995**

Name and address of the client:

**M/s APSEZ Special Project Zone**  
**Atchutapuram, APIIC Limited**  
**Visakhapatnam - 531011**  
**Andhra Pradesh.**

Date of report : 13-10-2023  
Date of sampling : 07-10-2023  
Sample registration no/Code : NOISE/COM/10/23/1706, 1707&1708  
Sample Collected by : Kwis Eco Laboratories Private Limited  
Sample description : Ambient Noise Monitoring  
Sub Contract Testing : NA

**Locations:**

1. LALAM KODURU : NOISE/COM/10/23/1706: APIIC/NOISE/LK/07/10/2023/01
2. AETL (NEAR PUDIMADAKA) : NOISE/COM/10/23/1707: APIIC/NOISE/PM/07/10/2023/02
3. NEAR APSEZ OFFICE : NOISE/COM/10/23/1708: APIIC/NOISE/BC/07/10/2023/03

**TEST RESULT**

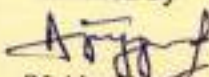
S.No	Location	Method	Day time dB(A)Leq	Night time dB(A)Leq	CPCB Standards(Leq)	
					Day dB (A)	Night dB (A)
1	Lalam Koduru	IS 9989:1981	52.5	40.7	55	45
2	AETL (Near Pudimadaka)	IS 9989:1981	60.6	51.7	75	70
3	Near APSEZ Office	IS 9989:1981	57.3	53.8	75	70

Opinion and interpretation: Nil

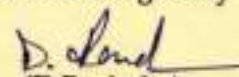
NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- Integrated Sound Level Meter, Make: LUTRON, Model No: SL- 4033 SD, Calibration valid up to: 16-06-2024

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

**\*End of the Report\***



**TEST REPORT**

Page 1 of 1

Report No: **KIWIS/NOISE/COM/23/1360**

Name and address of the client:

**M/s APSEZ Special Project Zone**  
**Atchutapuram, APIIC Limited**  
**Visakhapatnam - 531011**  
**Andhra Pradesh.**

Date of report : 13-11-2023  
Date of sampling : 03-11-2023  
Sample registration no/Code : NOISE/COM/11/23/2186, 2187&2188  
Sample Collected by : Kiwis Eco Laboratories Private Limited  
Sample description : Ambient Noise Monitoring  
Sub Contract Testing : NA

**Locations:**

1. EASTERN SECTOR OF APSEZ : NOISE/COM/11/23/2186: APIIC/NOISE/ES/03/11/2023/01
2. WESTERN SECTOR OF APSEZ : NOISE/COM/11/23/2187: APIIC/NOISE/WS/03/11/2023/02
3. DIBBAPALEM (R & R SITE) : NOISE/COM/11/23/2188: APIIC/NOISE/DP/03/11/2023/03

**TEST RESULT**

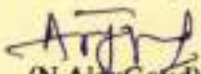
S.No	Location	Method	Day time dB(A)Leq	Night time dB(A)Leq	CPCB Standards(Leq)	
					Day dB (A)	Night dB (A)
1	Eastern Sector Of APSEZ (Maithan Alloys Ltd. -Near Security Area)	IS 9989:1981	64.2	58.2	75	70
2	Western Sector Of APSEZ (Vasanth Chemicals -Near Admin Office)	IS 9989:1981	61.4	55.3	75	70
3	Dibbapalem (R & R Site)	IS 9989:1981	52.8	44.3	55	45

Opinion and interpretation: Nil

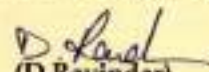
NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory  
Integrated Sound Level Meter, Make:LUTRON, ModelNo:SL- 4033 SD, Calibration valid up to:16-06-2024

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

**\*End of the Report\***



**TEST REPORT**

Page 1 of 1

Report No: **KIWIS/NOISE/COM/23/1364**

Name and address of the client:

**M/s APSEZ Special Project Zone**  
**Atchutapuram, APIIC Limited**  
**Visakhapatnam - 531011**  
**Andhra Pradesh.**

Date of report : 13-11-2023  
Date of sampling : 04-11-2023  
Sample registration no/Code : NOISE/COM/11/23/2192, 2193&2194  
Sample Collected by : Kiwis Eco Laboratories Private Limited  
Sample description : Ambient Noise Monitoring  
Sub Contract Testing : NA

**Locations:**

1. LALAM KODURU : NOISE/COM/11/23/2192: APIIC/NOISE/LK/04/11/2023/01
2. AETL (NEAR PUDIMADAKA) : NOISE/COM/11/23/2193: APIIC/NOISE/PM/04/11/2023/02
3. NEAR APSEZ OFFICE : NOISE/COM/11/23/2194: APIIC/NOISE/BC/04/11/2023/03

**TEST RESULT**

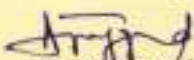
S.No	Location	Method	Day time dB(A)Leq	Night time dB(A)Leq	CPCB Standards(Leq)	
					Day dB (A)	Night dB (A)
1	Lalam Koduru	IS 9989:1981	51.7	41.6	55	45
2	AETL (Near Pudimadaka)	IS 9989:1981	61.3	52.5	75	70
3	Near APSEZ Office	IS 9989:1981	59.4	54.6	75	70

Opinion and interpretation: Nil

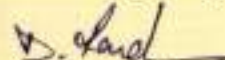
NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory  
Integrated Sound Level Meter, Make: LUTRON, Model No: SL- 4033 SD, Calibration valid up to: 16-06-2024

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

**\*End of the Report\***



**TEST REPORT**

Page 1 of 1

Report No: **KIWIS/NOISE/COM/23/1528**

Name and address of the client:

**M/s APSEZ Special Project Zone**  
**Atchutapuram, APIIC Limited**  
**Visakhapatnam - 531011**  
**Andhra Pradesh.**

Date of report : 19-12-2023  
Date of sampling : 06-12-2023  
Sample registration no/Code : NOISE/COM/12/23/2491, 2492&2493  
Sample Collected by : Kivis Eco Laboratories Private Limited  
Sample description : Ambient Noise Monitoring  
Sub Contract Testing : NA

**Locations:**

1. EASTERN SECTOR OF APSEZ : NOISE/COM/12/23/2491: APIIC/NOISE/ES/06/12/2023/01
2. WESTERN SECTOR OF APSEZ : NOISE/COM/12/23/2492: APIIC/NOISE/WS/06/12/2023/02
3. DIBBAPALEM (R & R SITE) : NOISE/COM/12/23/2493: APIIC/NOISE/DP/06/12/2023/03

**TEST RESULT**

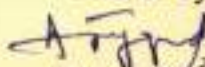
S.No	Location	Method	Day time dB(A)Leq	Night time dB(A)Leq	CPCB Standards(Leq)	
					Day dB (A)	Night dB (A)
1	Eastern Sector Of APSEZ (Maithan Alloys Ltd. -Near Security Area)	IS 9989:1981	66.0	57.3	75	70
2	Western Sector Of APSEZ ( Vasanth Chemicals -Near Admin Office)	IS 9989:1981	62.5	56.0	75	70
3	Dibbapalem (R & R Site)	IS 9989:1981	53.1	43.2	55	45

Opinion and interpretation: Nil


NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory  
Integrated Sound Level Meter, Make: LUTRON, ModelNo: SL- 4033 SD, Calibration valid up to: 16-06-2024

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

**\*End of the Report\***



**TEST REPORT**

Page 1 of 1

Report No: **KIWIS/NOISE/COM/23/1532**

Name and address of the client:

**M/s APSEZ Special Project Zone  
Atchutapuram, APIIC Limited  
Visakhapatnam - 531011  
Andhra Pradesh.**

Date of report : 19-12-2023  
Date of sampling : 07-12-2023  
Sample registration no/Code : NOISE/COM/12/23/2497, 2498&2499  
Sample Collected by : Kivis Eco Laboratories Private Limited  
Sample description : Ambient Noise Monitoring  
Sub Contract Testing : NA

**Locations:**

1. LALAM KODURU : NOISE/COM/12/23/2497: APIIC/NOISE/LK/07/12/2023/01
2. AETL (NEAR PUDIMADAKA) : NOISE/COM/12/23/2498: APIIC/NOISE/PM/07/12/2023/02
3. NEAR APSEZ OFFICE : NOISE/COM/12/23/2499: APIIC/NOISE/BC/07/12/2023/03

**TEST RESULT**

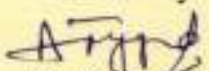
S.No	Location	Method	Day time dB(A)Leq	Night time dB(A)Leq	CPCB Standards(Leq)	
					Day dB (A)	Night dB (A)
1	Lalam Koduru	IS 9989:1981	52.6	42.3	55	45
2	AETL (Near Pudimadaka)	IS 9989:1981	62.5	55.5	75	70
3	Near APSEZ Office	IS 9989:1981	57.6	52.8	75	70

Opinion and interpretation: Nil


NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- Integrated Sound Level Meter, Make: LUTRON, Model No: SL- 4033 SD, Calibration valid up to: 16-06-2024

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

**\*End of the Report\***



**TEST REPORT**

Page 1 of 1

Report No: **KIWIS/NOISE/COM/24/07**

Name and address of the client:

**M/s APSEZ Special Project Zone**  
**Atchutapuram, APIIC Limited**  
**Visakhapatnam - 531011**  
**Andhra Pradesh.**

Date of report : 17-01-2024  
Date of sampling : 04-01-2024  
Sample registration no/Code : NOISE/COM/01/24/10, 11&12  
Sample Collected by : Kwis Eco Laboratories Private Limited  
Sample description : Ambient Noise Monitoring  
Sub Contract Testing : NA

**Locations:**

1. EASTERN SECTOR OF APSEZ : NOISE/COM/01/24/10: APIIC/NOISE/ES/04/01/2024/01
2. WESTERN SECTOR OF APSEZ : NOISE/COM/01/24/11: APIIC/NOISE/WS/04/01/2024/02
3. DIBBAPALEM (R & R SITE) : NOISE/COM/01/24/12: APIIC/NOISE/DP/04/01/2024/03

**TEST RESULT**

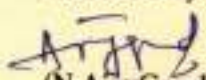
S.No	Location	Method	Day time dB(A)Leq	Night time dB(A)Leq	CPCB Standards(Leq)	
					Day dB (A)	Night dB (A)
1	Eastern Sector Of APSEZ (Maithan Alloys Ltd. -Near Security Area)	IS 9989:1981	67.9	58.3	75	70
2	Western Sector Of APSEZ (Vasanth Chemicals -Near Admin Office)	IS 9989:1981	63.0	57.2	75	70
3	Dibbapalem (R & R Site)	IS 9989:1981	52.0	42.4	55	45

Opinion and interpretation: Nil

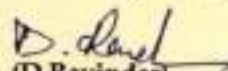
NA: Not Applicable

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- Integrated Sound Level Meter, Make: LUTRON, Model No: SL-4033 SD, Calibration valid up to: 16-06-2024

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

**\*End of the Report\***



**TEST REPORT**

Page 1 of 1

**Report No:KIWIS/NOISE/COM/24/11****Name and address of the client:**

**M/s APSEZ Special Project Zone**  
**Atchutapuram, APIIC Limited**  
**Visakhapatnam - 531011**  
**Andhra Pradesh.**

**Date of report** : 17-01-2024  
**Date of sampling** : 05-01-2024  
**Sample registration no/Code** : NOISE/COM/01/24/16, 17&18  
**Sample Collected by** : Kiwis Eco Laboratories Private Limited  
**Sample description** : Ambient Noise Monitoring  
**Sub Contract Testing** : NA

**Locations:**

1. LALAM KODURU : NOISE/COM/01/24/16: APIIC/NOISE/LK/05/01/2024/01
2. AETL (NEAR PUDIMADAKA) : NOISE/COM/01/24/17: APIIC/NOISE/PM/05/01/2024/02
3. NEAR APSEZ OFFICE : NOISE/COM/01/24/18: APIIC/NOISE/BC/05/01/2024/03

**TEST RESULT**

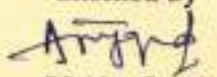
S.No	Location	Method	Day time dB(A)Leq	Night time dB(A)Leq	CPCB Standards(Leq)	
					Day dB (A)	Night dB (A)
1	Lalam Koduru	IS 9989:1981	52.8	41.8	55	45
2	AETL (Near Pudimadaka)	IS 9989:1981	63.4	56.4	75	70
3	Near APSEZ Office	IS 9989:1981	56.4	50.7	75	70

Opinion and interpretation: Nil

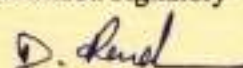
NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory  
Integrated Sound Level Meter, Make:LUTRON, ModelNo:SL- 4033 SD, Calibration valid up to:16-06-2024

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

**\*End of the Report\***



**TEST REPORT**

Page 1 of 1

Report No: **KIWIS/NOISE/COM/24/118**

Name and address of the client:

**M/s APSEZ Special Project Zone**  
**Atchutapuram, APIIC Limited**  
**Visakhapatnam - 531011**  
**Andhra Pradesh.**

Date of report : 08-02-2024  
Date of sampling : 01-02-2024  
Sample registration no/Code : NOISE/COM/02/24/224, 225&226  
Sample Collected by : Kwis Eco Laboratories Private Limited  
Sample description : Ambient Noise Monitoring  
Sub Contract Testing : NA

**Locations:**

1. EASTERN SECTOR OF APSEZ : NOISE/COM/02/24/224: APIIC/NOISE/ES/01/02/2024/01
2. WESTERN SECTOR OF APSEZ : NOISE/COM/02/24/225: APIIC/NOISE/WS/01/02/2024/02
3. DIBBAPALEM (R & R SITE) : NOISE/COM/02/24/226: APIIC/NOISE/DP/01/02/2024/03

**TEST RESULT**

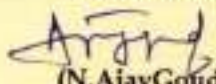
S.No	Location	Method	Day time dB(A)Leq	Night time dB(A)Leq	CPCB Standards(Leq)	
					Day dB (A)	Night dB (A)
1	Eastern Sector Of APSEZ (Maithan Alloys Ltd. -Near Security Area)	IS 9989:1981	68.6	59.6	75	70
2	Western Sector Of APSEZ (Vasanth Chemicals -Near Admin Office)	IS 9989:1981	64.6	58.1	75	70
3	Dibbapalem (R & R Site)	IS 9989:1981	53.4	44.0	55	45

Opinion and interpretation: Nil

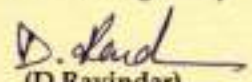
NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory  
Integrated Sound Level Meter, Make: LUTRON, ModelNo: SL- 4033 SD, Calibration valid up to: 16-06-2024

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

**\*End of the Report\***



**TEST REPORT**

Page 1 of 1

Report No: **KIWIS/NOISE/COM/24/122**

Name and address of the client:

**M/s APSEZ Special Project Zone**  
**Atchutapuram, APIIC Limited**  
**Visakhapatnam - 531011**  
**Andhra Pradesh.**

Date of report : 08-02-2024  
Date of sampling : 02-02-2024  
Sample registration no/Code : NOISE/COM/02/24/230, 231&232  
Sample Collected by : Kivis Eco Laboratories Private Limited  
Sample description : Ambient Noise Monitoring  
Sub Contract Testing : NA

**Locations:**

1. LALAM KODURU : NOISE/COM/02/24/230: APIIC/NOISE/LK/02/02/2024/01
2. AETL (NEAR PUDIMADAKA) : NOISE/COM/02/24/231: APIIC/NOISE/PM/02/02/2024/02
3. NEAR APSEZ OFFICE : NOISE/COM/02/24/232: APIIC/NOISE/BC/02/02/2024/03

**TEST RESULT**

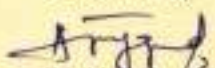
S.No	Location	Method	Day time dB(A)Leq	Night time dB(A)Leq	CPCB Standards(Leq)	
					Day dB (A)	Night dB (A)
1	Lalam Koduru	IS 9989:1981	54.4	42.5	55	45
2	AETL (Near Pudimadaka)	IS 9989:1981	62.1	55.0	75	70
3	Near APSEZ Office	IS 9989:1981	58.6	51.6	75	70

Opinion and interpretation: Nil


NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- Integrated Sound Level Meter, Make: LUTRON, Model No: SL- 4033 SD, Calibration valid up to: 16-06-2024

Checked By

  
(N. AjayGoud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

**\*End of the Report\***



**TEST REPORT**

Page 1 of 1

Report No: **KIWIS/NOISE/COM/24/317**

Name and address of the client:

**M/s APSEZ Special Project Zone**  
**Atchutapuram, APIIC Limited**  
**Visakhapatnam - 531011**  
**Andhra Pradesh.**

Date of report : 25-03-2024  
Date of sampling : 14-03-2024  
Sample registration no/Code : NOISE/COM/03/24/597, 598&599  
Sample Collected by : Kiwis Eco Laboratories Private Limited  
Sample description : Ambient Noise Monitoring  
Sub Contract Testing : NA

**Locations:**

1. EASTERN SECTOR OF APSEZ : NOISE/COM/03/24/597: APIIC/NOISE/ES/14/03/2024/01
2. WESTERN SECTOR OF APSEZ : NOISE/COM/03/24/598: APIIC/NOISE/WS/14/03/2024/02
3. DIBBAPALEM (R & R SITE) : NOISE/COM/03/24/599: APIIC/NOISE/DP/14/03/2024/03

**TEST RESULT**

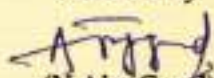
S.No	Location	Method	Day time dB(A)Leq	Night time dB(A)Leq	CPCB Standards(Leq)	
					Day dB (A)	Night dB (A)
1	Eastern Sector Of APSEZ (Maithan Alloys Ltd. -Near Security Area)	IS 9989:1981	69.2	61.2	75	70
2	Western Sector Of APSEZ (Vasanth Chemicals -Near Admin Office)	IS 9989:1981	63.5	57.3	75	70
3	Dibbapalem (R & R Site)	IS 9989:1981	54.1	43.5	55	45

Opinion and interpretation: Nil

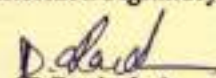
NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory  
Integrated Sound Level Meter, Make: LUTRON, ModelNo: SL- 4033 SD, Calibration valid up to: 16-06-2024

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)
**\*End of the Report\***



**TEST REPORT**

Page 1 of 1

Report No: **KIWIS/NOISE/COM/24/321**

Name and address of the client:

**M/s APSEZ Special Project Zone**  
**Atchutapuram, APIIC Limited**  
**Visakhapatnam - 531011**  
**Andhra Pradesh.**

Date of report : 25-03-2024  
Date of sampling : 15-03-2024  
Sample registration no/Code : NOISE/COM/03/24/603, 604&605  
Sample Collected by : Kwis Eco Laboratories Private Limited  
Sample description : Ambient Noise Monitoring  
Sub Contract Testing : NA

**Locations:**

1. LALAM KODURU : NOISE/COM/03/24/603: APIIC/NOISE/LK/15/03/2024/01
2. AETL (NEAR PUDIMADAKA) : NOISE/COM/03/24/604: APIIC/NOISE/PM/15/03/2024/02
3. NEAR APSEZ OFFICE : NOISE/COM/03/24/605: APIIC/NOISE/BC/15/03/2024/03

**TEST RESULT**

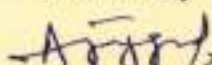
S.No	Location	Method	Day time dB(A)Leq	Night time dB(A)Leq	CPCB Standards(Leq)	
					Day dB (A)	Night dB (A)
1	Lalam Koduru	IS 9989:1981	53.4	43.3	55	45
2	AETL (Near Pudimadaka)	IS 9989:1981	62.0	52.8	75	70
3	Near APSEZ Office	IS 9989:1981	59.1	53.7	75	70

Opinion and interpretation: Nil

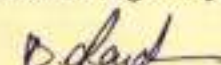
NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory  
Integrated Sound Level Meter, Make: LUTRON, Model No: SL- 4033 SD, Calibration valid up to: 16-06-2024

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

**\*End of the Report\***



## **ANNEXURE-V**

### **Ambient Air Quality Reports**

**TEST REPORT**

Page 1 of 1

Report No: **KIWIS/AAQ/COM/23/988**

Name and address of the client:

**M/s. Andhra Pradesh Industrial Infrastructure  
Corporation Ltd., (APIIC),  
APSEZ Atchutapuram, Visakhapatnam District,  
Andhra Pradesh.**

Date of report	: 13-10-2023	Sample Collected by	: Kiwis Eco Laboratories Private Limited
Sampling date	: 06-10-2023	Sample Collected in	: Samples received in self sealed covers and sample bottles
Sampling Duration	: 24 hrs	Sampling Procedure	: CPCB Guidelines (NAAQMS/36/2012-13)
Sample received on	: 09-10-2023	Weather Conditions	: Dry
Analysis starting date	: 09-10-2023	Sample registration no/Code	: AAQ/COM/10/23/1697
Analysis completion date	: 13-10-2023	Temperature & Humidity	: 29°C & 57%
Sub Contract Testing	: NA	Sample description	: Ambient Air Quality Monitoring

**Locations: GPS Co-Ordinates:** 17° 32' 51.5" N  
83° 00' 08.1" E

1. Eastern Sector of APSEZ(Maithan Alloys Ltd. -Near Security Area)  
: AAQ/COM/10/23/1697: APIIC/AAQ/ES/06/10/2023/01

**TEST RESULT**

Samples are analyzed "as Received basis"

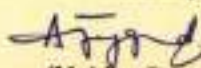
S. No	Parameter	Method	Units	Result	NAAQ Standards
1	PM <sub>10</sub>	IS 5182: Part 23 : 2006	µg/m <sup>3</sup>	62.2	100
2	PM <sub>2.5</sub>	KIWIS/SOP/AAQ/LAB-241	µg/m <sup>3</sup>	22.4	60
3	SO <sub>2</sub>	IS 5182: Part 2 : 2001 (RA :2023)	µg/m <sup>3</sup>	19.4	80
4	NO <sub>x</sub>	IS 5182:Part 6 :2006 (RA :2017)	µg/m <sup>3</sup>	25.0	80
5	Ammonia	KIWIS/SOP/AAQ/LAB-234	µg/m <sup>3</sup>	22.7	400
6	CO	CO Analyzer	mg/m <sup>3</sup>	0.4	02
7	HC	HC Analyzer	ppm	<1.0	-
8	VOC	VOC Analyzer	ppm	0.1	-

Opinion and interpretation: Nil


NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- PM<sub>10</sub> Instrument Model: Ecotech instruments AAS-217BL, Calibration valid up to: 31-12-2023
- PM<sub>2.5</sub> Instrument Mode: Ecotech instruments AAS-127Mini, Calibration valid up to: 31-12-2023

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

**\*End of the Report\***

Note : This report is subject to the terms and conditions mentioned overleaf



**TEST REPORT**

Page 1 of 1

Report No: **KIWIS/AAQ/COM/23/989**

Name and address of the client:

**M/s. Andhra Pradesh Industrial Infrastructure  
Corporation Ltd., (APIIC),  
APSEZ Atchutapuram, Visakhapatnam District,  
Andhra Pradesh.**

Date of report	: 13-10-2023	Sample Collected by	: Kiwis Eco Laboratories Private Limited
Sampling date	: 06-10-2023	Sample Collected in	: Samples received in self sealed covers and sample bottles
Sampling Duration	: 24 hrs	Sampling Procedure	: CPCB Guidelines (NAAQMS/36/2012-13)
Sample received on	: 09-10-2023	Weather Conditions	: Dry
Analysis starting date	: 09-10-2023	Sample registration no/Code	: AAQ/COM/10/23/1698
Analysis completion date	: 13-10-2023	Temperature & Humidity	: 29°C & 57%
Sub Contract Testing	: NA	Sample description	: Ambient Air Quality Monitoring

**Locations: GPS Co-Ordinates:** 17° 31' 06.2"N  
82°57'53.7"E

1. Western Sector of APSEZ( Vasanth Chemicals -Near Admin Office)

: AAQ/COM/10/23/1698: APIIC/AAQ/WS/06/10/2023/02

**TEST RESULT**

Samples are analyzed "as Received basis"

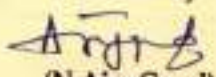
S. No	Parameter	Method	Units	Result	NAAQ Standards
1	PM <sub>10</sub>	IS 5182: Part 23 : 2006	µg/m <sup>3</sup>	60.1	100
2	PM <sub>2.5</sub>	KIWIS/SOP/ AAQ/LAB-241	µg/m <sup>3</sup>	22.8	60
3	SO <sub>2</sub>	IS 5182: Part 2 : 2001 (RA :2023)	µg/m <sup>3</sup>	21.5	80
4	NO <sub>x</sub>	IS 5182:Part 6 :2006 (RA :2017)	µg/m <sup>3</sup>	25.8	80
5	Ammonia	KIWIS/SOP/ AAQ/LAB-234	µg/m <sup>3</sup>	27.6	400
6	CO	CO Analyzer	mg/m <sup>3</sup>	<0.1	02
7	HC	HC Analyzer	ppm	<1.0	-
8	VOC	VOC Analyzer	ppm	0.3	-

Opinion and interpretation: Nil


NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- PM<sub>10</sub> Instrument Model: Ecotech instruments AAS-217BL, Calibration valid up to: 31-12-2023
- PM<sub>2.5</sub> Instrument Model: Ecotech instruments AAS-127Mini, Calibration valid up to: 31-12-2023

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

**\*End of the Report\***

Note : This report is subject to the terms and conditions mentioned overleaf



**TEST REPORT**

Page 1 of 1

Report No: **KIWIS/AAQ/COM/23/990**

Name and address of the client:

**M/s. Andhra Pradesh Industrial Infrastructure  
Corporation Ltd., (APIIC),  
APSEZ Atchutapuram, Visakhapatnam District,  
Andhra Pradesh.**

Date of report	: 13-10-2023	Sample Collected by	: Kivis Eco Laboratories Private Limited
Sampling date	: 06-10-2023	Sample Collected in	: Samples received in self sealed covers and sample bottles
Sampling Duration	: 24 hrs	Sampling Procedure	: CPCB Guidelines (NAAQMS/36/2012-13)
Sample received on	: 09-10-2023	Weather Conditions	: Dry
Analysis starting date	: 09-10-2023	Sample registration no/Code	: AAQ/COM/10/23/1699
Analysis completion date	: 13-10-2023	Temperature & Humidity	: 29°C & 55%
Sub Contract Testing	: NA	Sample description	: Ambient Air Quality Monitoring

**Locations: GPS Co-Ordinates:** 17° 31' 34.0"N  
82° 57' 06.6" E

1. Dibbapalem (R &amp; R SITE): AAQ/COM/10/23/1699: APIIC/AAQ/DP/06/10/2023/03

**TEST RESULT**

Samples are analyzed "as Received basis"

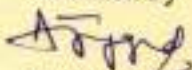
S. No	Parameter	Method	Units	Result	NAAQ Standards
1	PM <sub>10</sub>	IS 5182: Part 23 : 2006	µg/m <sup>3</sup>	51.5	100
2	PM <sub>2.5</sub>	KIWIS/SOP/ AAQ/ LAB-241	µg/m <sup>3</sup>	21.4	60
3	SO <sub>2</sub>	IS 5182: Part 2 : 2001 (RA :2023)	µg/m <sup>3</sup>	14.8	80
4	NO <sub>x</sub>	IS 5182:Part 6 :2006 (RA :2017)	µg/m <sup>3</sup>	19.0	80
5	Ammonia	KIWIS/SOP/ AAQ/ LAB-234	µg/m <sup>3</sup>	21.5	400
6	CO	CO Analyzer	mg/m <sup>3</sup>	<0.1	02
7	HC	HC Analyzer	ppm	<1.0	-
8	VOC	VOC Analyzer	ppm	<0.1	-

Opinion and interpretation: Nil

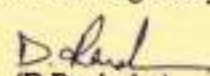
NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- PM<sub>10</sub> Instrument Model: Enviro instruments EI-142, Calibration valid up to: 31-12-2023  
PM<sub>2.5</sub> Instrument Model: Enviro instruments EI-133, Calibration valid up to: 31-12-2023

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

**\*End of the Report\***

Note : This report is subject to the terms and conditions mentioned overleaf



**TEST REPORT**

Page 1 of 1

Report No: **KIWIS/AAQ/COM/23/992**

Name and address of the client:

**M/s. Andhra Pradesh Industrial Infrastructure  
Corporation Ltd., (APIIC),  
APSEZ Atchutapuram, Visakhapatnam District,  
Andhra Pradesh.**

Date of report	: 13-10-2023	Sample Collected by	: Kiwis Eco Laboratories Private Limited
Sampling date	: 07-10-2023	Sample Collected in	: Samples received in self sealed covers and sample bottles
Sampling Duration	: 24 hrs	Sampling Procedure	: CPCB Guidelines (NAAQMS/36/2012-13)
Sample received on	: 09-10-2023	Weather Conditions	: Dry
Analysis starting date	: 09-10-2023	Sample registration no/Code	: AAQ/COM/10/23/1703
Analysis completion date	: 13-10-2023	Temperature & Humidity	: 29°C & 54%
Sub Contract Testing	: NA	Sample description	: Ambient Air Quality Monitoring

**Locations: GPS Co-Ordinates: 17°29' 34.0"N  
82° 57' 47.7"E**

1. LalamKoduru : AAQ/COM/10/23/1703: APIIC/AAQ/LK/07/10/2023/01

**TEST RESULT**

Samples are analyzed "as Received basis"

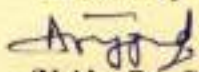
S. No	Parameter	Method	Units	Result	NAAQ Standards
1	PM <sub>10</sub>	IS 5182: Part 23 : 2006	µg/m <sup>3</sup>	50.8	100
2	PM <sub>2.5</sub>	KIWIS/SOP/AAQ/LAB-241	µg/m <sup>3</sup>	20.2	60
3	SO <sub>2</sub>	IS 5182: Part 2 : 2001 (RA :2023)	µg/m <sup>3</sup>	14.1	80
4	NO <sub>x</sub>	IS 5182:Part 6 :2006 (RA :2017)	µg/m <sup>3</sup>	18.6	80
5	Ammonia	KIWIS/SOP/AAQ/LAB-234	µg/m <sup>3</sup>	19.4	400
6	CO	CO Analyzer	mg/m <sup>3</sup>	<0.1	02
7	HC	HC Analyzer	ppm	<1.0	-
8	VOC	VOC Analyzer	ppm	<0.1	-

Opinion and interpretation: Nil

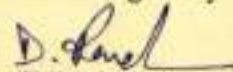
NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- PM<sub>10</sub> Instrument Model: Ecotech instruments AAS-217BL, Calibration valid up to: 31-12-2023  
PM<sub>2.5</sub> Instrument Mode: Ecotech instruments AAS-127Mini, Calibration valid up to: 31-12-2023

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

\*End of the Report\*



**TEST REPORT**

Page 1 of 1

Report No: **KIWIS/AAQ/COM/23/993**

Name and address of the client:

**M/s. Andhra Pradesh Industrial Infrastructure  
Corporation Ltd., (APIIC),  
APSEZ Atchutapuram, Visakhapatnam District,  
Andhra Pradesh.**

Date of report	: 13-10-2023	Sample Collected by	: Kiwis Eco Laboratories Private Limited
Sampling date	: 07-10-2023	Sample Collected in	: Samples received in self sealed covers and sample bottles
Sampling Duration	: 24 hrs	Sampling Procedure	: CPCB Guidelines (NAAQMS/36/2012-13)
Sample received on	: 09-10-2023	Weather Conditions	: Dry
Analysis starting date	: 09-10-2023	Sample registration no/Code	: AAQ/COM/10/23/1704
Analysis completion date	: 13-10-2023	Temperature & Humidity	: 29°C & 54%
Sub Contract Testing	: NA	Sample description	: Ambient Air Quality Monitoring

**Locations: GPS Co-Ordinates: 17°30' 43.2"N  
82° 59' 33.8"E**

1. At AETL Near Pudimadaka : AAQ/COM/10/23/1704:APIIC/AAQ/PM/07/10/2023/02

**TEST RESULT**

Samples are analyzed "as Received basis"

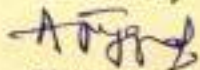
S. No	Parameter	Method	Units	Result	NAAQ Standards
1	PM <sub>10</sub>	IS 5182: Part 23 : 2006	µg/m <sup>3</sup>	57.4	100
2	PM <sub>2.5</sub>	KIWIS/SOP/ AAQ/ LAB-241	µg/m <sup>3</sup>	22.6	60
3	SO <sub>2</sub>	IS 5182: Part 2 : 2001 (RA :2023)	µg/m <sup>3</sup>	22.0	80
4	NO <sub>x</sub>	IS 5182:Part 6 :2006 (RA :2017)	µg/m <sup>3</sup>	28.6	80
5	Ammonia	KIWIS/SOP/ AAQ/ LAB-234	µg/m <sup>3</sup>	31.5	400
6	CO	CO Analyzer	mg/m <sup>3</sup>	0.1	02
7	HC	HC Analyzer	ppm	<1.0	-
8	VOC	VOC Analyzer	ppm	0.2	-

Opinion and interpretation: Nil


NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- PM<sub>10</sub> Instrument Model: Ecotech instruments AAS-217BL, Calibration valid up to: 31-12-2023
- PM<sub>2.5</sub> Instrument Model: Ecotech instruments AAS-127Mini, Calibration valid up to: 31-12-2023

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

**\*End of the Report\***



**TEST REPORT**

Page 1 of 1

Report No: **KIWIS/AAQ/COM/23/994**

Name and address of the client:

**M/s. Andhra Pradesh Industrial Infrastructure  
Corporation Ltd., (APIIC),  
APSEZ Atchutapuram, Visakhapatnam District,  
Andhra Pradesh.**

Date of report	: 13-10-2023	Sample Collected by	: Kivis Eco Laboratories Private Limited
Sampling date	: 07-10-2023	Sample Collected in	: Samples received in self sealed covers and sample bottles
Sampling Duration	: 24 hrs	Sampling Procedure	: CPCB Guidelines (NAAQMS/36/2012-13)
Sample received on	: 09-10-2023	Weather Conditions	: Dry
Analysis starting date	: 09-10-2023	Sample registration no/Code	: AAQ/COM/10/23/1705
Analysis completion date	: 13-10-2023	Temperature & Humidity	: 29°C & 53%
Sub Contract Testing	: NA	Sample description	: Ambient Air Quality Monitoring

**Locations: GPS Co-Ordinates: 17° 32' 5.5" N  
82° 59' 19.2" E**

1. At APSEZ office (Top off Building): AAQ/COM/10/23/1705: APIIC/AAQ/BC/07/10/2023/03

**TEST RESULT**

Samples are analyzed "as Received basis"

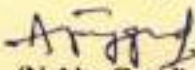
S. No	Parameter	Method	Units	Result	NAAQ Standards
1	PM <sub>10</sub>	IS 5182: Part 23 : 2006	µg/m <sup>3</sup>	53.5	100
2	PM <sub>2.5</sub>	KIWIS/SOP/ AAQ/LAB-241	µg/m <sup>3</sup>	20.9	60
3	SO <sub>2</sub>	IS 5182: Part 2 : 2001 (RA :2023)	µg/m <sup>3</sup>	15.8	80
4	NO <sub>x</sub>	IS 5182:Part 6 :2006 (RA :2017)	µg/m <sup>3</sup>	20.5	80
5	Ammonia	KIWIS/SOP/ AAQ/LAB-234	µg/m <sup>3</sup>	21.3	400
6	CO	CO Analyzer	mg/m <sup>3</sup>	0.1	02
7	HC	HC Analyzer	ppm	<1.0	-
8	VOC	VOC Analyzer	ppm	<0.1	-

Opinion and interpretation: Nil


NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- PM<sub>10</sub> Instrument Model: Enviro instruments EI-142, Calibration valid up to: 31-12-2023
- PM<sub>2.5</sub> Instrument Mode: Enviro instruments EI-133, Calibration valid up to: 31-12-2023

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

**\*End of the Report\***



**TEST REPORT**

Page 1 of 1

Report No: **KIWIS/AAQ/COM/23/1357**

Name and address of the client:

**M/s. Andhra Pradesh Industrial Infrastructure  
Corporation Ltd., (APIIC),  
APSEZ Atchutapuram, Visakhapatnam District,  
Andhra Pradesh.**

Date of report	: 13-11-2023	Sample Collected by	: Kiwis Eco Laboratories Private Limited
Sampling date	: 03-11-2023	Sample Collected in	: Samples received in self sealed covers and sample bottles
Sampling Duration	: 24 hrs	Sampling Procedure	: CPCB Guidelines (NAAQMS/36/2012-13)
Sample received on	: 06-11-2023	Weather Conditions	: Dry
Analysis starting date	: 06-11-2023	Sample registration no/Code	: AAQ/COM/11/23/2183
Analysis completion date	: 13-11-2023	Temperature & Humidity	: 28°C & 53%
Sub Contract Testing	: NA	Sample description	: Ambient Air Quality Monitoring

**Locations: GPS Co-Ordinates:** 17° 32' 51.5" N  
83° 00' 08.1" E

1. Eastern Sector of APSEZ(Maithan Alloys Ltd. -Near Security Area)  
: AAQ/COM/11/23/2183: APIIC/AAQ/ES/03/11/2023/01

**TEST RESULT**

Samples are analyzed "as Received basis"

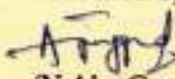
S. No	Parameter	Method	Units	Result	NAAQ Standards
1	PM <sub>10</sub>	IS 5182: Part 23 : 2006	µg/m <sup>3</sup>	64.3	100
2	PM <sub>2.5</sub>	KIWIS/SOP/AAQ/LAB-241	µg/m <sup>3</sup>	24.8	60
3	SO <sub>2</sub>	IS 5182: Part 2 : 2001 (RA :2023)	µg/m <sup>3</sup>	19.0	80
4	NO <sub>x</sub>	IS 5182:Part 6 :2006 (RA :2017)	µg/m <sup>3</sup>	26.3	80
5	Ammonia	KIWIS/SOP/AAQ/LAB-234	µg/m <sup>3</sup>	23.1	400
6	CO	CO Analyzer	mg/m <sup>3</sup>	0.3	02
7	HC	HC Analyzer	ppm	<1.0	-
8	VOC	VOC Analyzer	ppm	<0.1	-

Opinion and interpretation: Nil

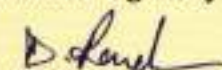
NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- PM<sub>10</sub> Instrument Model: Ecotech instruments AAS-217BL, Calibration valid up to: 31-12-2023
- PM<sub>2.5</sub> Instrument Model: Ecotech instruments AAS-127Mini, Calibration valid up to: 31-12-2023

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

**\*End of the Report\***

Note : This report is subject to the terms and conditions mentioned overleaf



Plot No. 19, ALEAP Industrial Estate,  
SY. No's 342, Near Pragathi Nagar,  
Quthbullapur Mandal and Municipality,  
Ranga Reddy Dist. Telangana - 500 090  
Email: kiwislabhyd@gmail.com  
Ph: 99666 61485 / 040-23816333

## Page 1 of 1

*Name and address of the client:*

M/s. Andhra Pradesh Industrial Infrastructure Corporation Ltd., (APIIC),  
APSEZ Atchutapuram, Visakhapatnam District,  
Andhra Pradesh.

Date of report	: 13-11-2023	Sample Collected by	: Kiwis Eco Laboratories Private Limited
Sampling date	: 03-11-2023	Sample Collected in	: Samples received in self sealed covers and sample bottles
Sampling Duration	: 24 hrs	Sampling Procedure	: CPCB Guidelines (NAAQMS/36/2012-13)
Sample received on	: 06-11-2023	Weather Conditions	: Dry
Analysis starting date	: 06-11-2023	Sample registration no/Code	: AAQ/COM/11/23/2184
Analysis completion date	: 13-11-2023	Temperature & Humidity	: 28°C & 54%
Sub Contract Testing	: NA	Sample description	: Ambient Air Quality Monitoring

**Locations: GPS Co-Ordinates:** 17° 31' 06.2"N  
82° 57' 53.7"E

1. Western Sector of APSEZ( Vasanth Chemicals -Near Admin Office)  
: AAQ/COM/11/23/2184: APIIC/AAQ/WS/03/11/2023/02

### TEST RESULT

Samples are analyzed "as Received basis"

S. No	Parameter	Method	Units	Result	NAAQ Standards
1	PM <sub>10</sub>	IS 5182: Part 23 : 2006	µg/m <sup>3</sup>	61.1	100
2	PM <sub>2.5</sub>	KIWIS/SOP/AAQ/LAB-241	µg/m <sup>3</sup>	23.8	60
3	SO <sub>2</sub>	IS 5182: Part 2 : 2001 (RA :2023)	µg/m <sup>3</sup>	20.4	80
4	NO <sub>x</sub>	IS 5182:Part 6 :2006 (RA :2017)	µg/m <sup>3</sup>	27.5	80
5	Ammonia	KIWIS/SOP/AAQ/LAB-234	µg/m <sup>3</sup>	26.2	400
6	CO	CO Analyzer	mg/m <sup>3</sup>	<0.1	02
7	HC	HC Analyzer	ppm	<1.0	-
8	VOC	VOC Analyzer	ppm	0.2	-

Opinion and interpretation: Nil

NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- PM<sub>10</sub> Instrument Model: Ecotech instruments AAS-217BL, Calibration valid up to: 31-12-2023  
 PM<sub>2.5</sub> Instrument Model: Ecotech instruments AAS-127Mini, Calibration valid up to: 31-12-2023

Checked By

(N.AjayGoud)  
(Sr.Chemist)

**Authorized Signatory**

(D.Ravindar)  
(Sr.Chemist)

**\*End of the Report\***

Note : This report is subject to the terms and conditions mentioned overleaf



**TEST REPORT**

Page 1 of 1

Report No: **KIWIS/AAQ/COM/23/1359**

Name and address of the client:

**M/s. Andhra Pradesh Industrial Infrastructure  
Corporation Ltd., (APIIC),  
APSEZ Atchutapuram, Visakhapatnam District,  
Andhra Pradesh.**

Date of report	: 13-11-2023	Sample Collected by	: Kiwis Eco Laboratories Private Limited
Sampling date	: 03-11-2023	Sample Collected in	: Samples received in self sealed covers and sample bottles
Sampling Duration	: 24 hrs	Sampling Procedure	: CPCB Guidelines (NAAQMS/36/2012-13)
Sample received on	: 06-11-2023	Weather Conditions	: Dry
Analysis starting date	: 06-11-2023	Sample registration no/Code	: AAQ/COM/11/23/2185
Analysis completion date	: 13-11-2023	Temperature & Humidity	: 28°C & 50%
Sub Contract Testing	: NA	Sample description	: Ambient Air Quality Monitoring

**Locations: GPS Co-Ordinates:** 17° 31' 34.0"N  
82° 57' 06.6" E

**I. Dibbapalem (R & R SITE): AAQ/COM/11/23/2185: APIIC/AAQ/DP/03/11/2023/03**

**TEST RESULT**

Samples are analyzed "as Received basis"

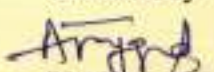
S. No	Parameter	Method	Units	Result	NAAQ Standards
1	PM <sub>10</sub>	IS 5182: Part 23 : 2006	µg/m <sup>3</sup>	53.3	100
2	PM <sub>2.5</sub>	KIWIS/SOP/AAQ/LAB-241	µg/m <sup>3</sup>	20.8	60
3	SO <sub>2</sub>	IS 5182: Part 2 : 2001 (RA :2023)	µg/m <sup>3</sup>	15.0	80
4	NO <sub>x</sub>	IS 5182:Part 6 :2006 (RA :2017)	µg/m <sup>3</sup>	19.3	80
5	Ammonia	KIWIS/SOP/AAQ/LAB-234	µg/m <sup>3</sup>	20.2	400
6	CO	CO Analyzer	mg/m <sup>3</sup>	<0.1	02
7	HC	HC Analyzer	ppm	<1.0	-
8	VOC	VOC Analyzer	ppm	<0.1	-

Opinion and interpretation: Nil


NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- PM<sub>10</sub> Instrument Model: Enviro instruments EI-142, Calibration valid up to: 31-12-2023
- PM<sub>2.5</sub> Instrument Mode: Enviro instruments EI-133, Calibration valid up to: 31-12-2023

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

**\*End of the Report\***



## TEST REPORT

Page 1 of 1

Report No: KIWIS/AAQ/COM/23/1361

*Name and address of the client:*

**M/s. Andhra Pradesh Industrial Infrastructure Corporation Ltd., (APIIC),  
APSEZ Atchutapuram, Visakhapatnam District,  
Andhra Pradesh.**

Date of report	: 13-11-2023	Sample Collected by	: Kivis Eco Laboratories Private Limited
Sampling date	: 04-11-2023	Sample Collected in	: Samples received in self sealed covers and sample bottles
Sampling Duration	: 24 hrs	Sampling Procedure	: CPCB Guidelines (NAAQMS/36/2012-13)
Sample received on	: 06-11-2023	Weather Conditions	: Dry
Analysis starting date	: 06-11-2023	Sample registration no/Code	: AAQ/COM/11/23/2189
Analysis completion date	: 13-11-2023	Temperature & Humidity	: 28°C & 51%
Sub Contract Testing	: NA	Sample description	: Ambient Air Quality Monitoring

**Locations: GPS Co-Ordinates:** 17°29' 34.0"N  
82° 57' 47.7"E

1. *LalamKoduru* : AAQ/COM/11/23/2189: APIIC/AAO/LK/04/11/2023/01

### TEST RESULT

Samples are analyzed "as Received basis"

S. No	Parameter	Method	Units	Result	NAAQ Standards
1	PM <sub>10</sub>	IS 5182: Part 23 : 2006	µg/m³	51.7	100
2	PM <sub>2.5</sub>	KIWIS/SOP/ AAQ/LAB-241	µg/m³	21.2	60
3	SO <sub>2</sub>	IS 5182: Part 2 : 2001 (RA :2023)	µg/m³	14.5	80
4	NO <sub>x</sub>	IS 5182:Part 6 :2006 (RA :2017)	µg/m³	18.9	80
5	Ammonia	KIWIS/SOP/ AAQ/LAB-234	µg/m³	18.6	400
6	CO	CO Analyzer	mg/m³	<0.1	02
7	HC	HC Analyzer	ppm	<1.0	-
8	VOC	VOC Analyzer	ppm	<0.1	-

Opinion and interpretation: Nil

NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- PM<sub>10</sub> Instrument Model: Ecotech instruments AAS-217BL, Calibration valid up to: 31-12-2023  
 PM<sub>2.5</sub> Instrument Model: Ecotech instruments AAS-127Mini, Calibration valid up to: 31-12-2023

Checked By

(N.Ajay Goud)  
(Sr.Chemist)

**Authorized Signatory**

*D. Ravindar*  
(D.Ravindar)  
(Sr.Chemist)

### "End of the Report"



**TEST REPORT**

Page 1 of 1

Report No: KIWIS/AAQ/COM/23/1362

Name and address of the client:

**M/s. Andhra Pradesh Industrial Infrastructure  
Corporation Ltd., (APIIC),  
APSEZ Atchutapuram, Visakhapatnam District,  
Andhra Pradesh.**

Date of report	: 13-11-2023	Sample Collected by	: Kwis Eco Laboratories Private Limited
Sampling date	: 04-11-2023	Sample Collected in	: Samples received in self sealed covers and sample bottles
Sampling Duration	: 24 hrs	Sampling Procedure	: CPCB Guidelines (NAAQMS/36/2012-13)
Sample received on	: 06-11-2023	Weather Conditions	: Dry
Analysis starting date	: 06-11-2023	Sample registration no/Code	: AAQ/COM/11/23/2190
Analysis completion date	: 13-11-2023	Temperature & Humidity	: 28°C & 50%
Sub Contract Testing	: NA	Sample description	: Ambient Air Quality Monitoring

**Locations: GPS Co-Ordinates:** 17°30' 43.2"N  
82° 59' 33.8"E

1. At AETL Near Pudimadaka : AAQ/COM/11/23/2190:APIIC/AAQ/PM/04/11/2023/02

**TEST RESULT**

Samples are analyzed "as Received basis"

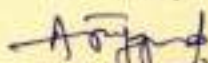
S. No	Parameter	Method	Units	Result	NAAQ Standards
1	PM <sub>10</sub>	IS 5182: Part 23 : 2006	µg/m <sup>3</sup>	55.4	100
2	PM <sub>2.5</sub>	KIWIS/SOP/AAQ/LAB-241	µg/m <sup>3</sup>	23.5	60
3	SO <sub>2</sub>	IS 5182: Part 2 : 2001 (RA :2023)	µg/m <sup>3</sup>	22.6	80
4	NO <sub>x</sub>	IS 5182:Part 6 :2006 (RA :2017)	µg/m <sup>3</sup>	29.1	80
5	Ammonia	KIWIS/SOP/AAQ/LAB-234	µg/m <sup>3</sup>	31.3	400
6	CO	CO Analyzer	mg/m <sup>3</sup>	<0.1	02
7	HC	HC Analyzer	ppm	<1.0	-
8	VOC	VOC Analyzer	ppm	0.2	-

Opinion and interpretation: Nil


NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- PM<sub>10</sub> Instrument Model: Ecotech instruments AAS-217BL, Calibration valid up to: 31-12-2023
- PM<sub>2.5</sub> Instrument Mode: Ecotech instruments AAS-127Mini, Calibration valid up to: 31-12-2023

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

\*End of the Report\*



**TEST REPORT**

Page 1 of 1

Report No: **KIWIS/AAQ/COM/23/1363**

Name and address of the client:

**M/s. Andhra Pradesh Industrial Infrastructure  
Corporation Ltd., (APIIC),  
APSEZ Atchutapuram, Visakhapatnam District,  
Andhra Pradesh.**

Date of report	: 13-11-2023	Sample Collected by	: Kiwis Eco Laboratories Private Limited
Sampling date	: 04-11-2023	Sample Collected in	: Samples received in self sealed covers and sample bottles
Sampling Duration	: 24 hrs	Sampling Procedure	: CPCB Guidelines (NAAQMS/36/2012-13)
Sample received on	: 06-11-2023	Weather Conditions	: Dry
Analysis starting date	: 06-11-2023	Sample registration no/Code	: AAQ/COM/11/23/2191
Analysis completion date	: 13-11-2023	Temperature & Humidity	: 28°C & 51%
Sub Contract Testing	: NA	Sample description	: Ambient Air Quality Monitoring

**Locations: GPS Co-Ordinates:** 17° 32' 5.5" N  
82° 59' 19.2" E

1. At APSEZ office (Top off Building): AAQ/COM/11/23/2191: APIIC/AAQ/BC/04/11/2023/03

**TEST RESULT**

Samples are analyzed "as Received basis"

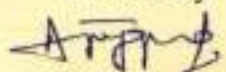
S. No	Parameter	Method	Units	Result	NAAQ Standards
1	PM <sub>10</sub>	IS 5182: Part 23 : 2006	µg/m <sup>3</sup>	54.3	100
2	PM <sub>2.5</sub>	KIWIS/SOP/AAQ/LAB-241	µg/m <sup>3</sup>	21.1	60
3	SO <sub>2</sub>	IS 5182: Part 2 : 2001 (RA :2023)	µg/m <sup>3</sup>	15.2	80
4	NO <sub>x</sub>	IS 5182:Part 6 :2006 (RA :2017)	µg/m <sup>3</sup>	19.3	80
5	Ammonia	KIWIS/SOP/AAQ/LAB-234	µg/m <sup>3</sup>	20.8	400
6	CO	CO Analyzer	mg/m <sup>3</sup>	0.1	02
7	HC	HC Analyzer	ppm	<1.0	-
8	VOC	VOC Analyzer	ppm	<0.1	-

Opinion and interpretation: Nil

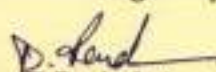
NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- PM<sub>10</sub> Instrument Model: Enviro instruments EI-142, Calibration valid up to: 31-12-2023  
PM<sub>2.5</sub> Instrument Model: Enviro instruments EI-133, Calibration valid up to: 31-12-2023

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

**\*End of the Report\***



**TEST REPORT**

Page 1 of 1

Report No: **KIWIS/AAQ/COM/23/1525**

Name and address of the client:

**M/s. Andhra Pradesh Industrial Infrastructure  
Corporation Ltd., (APIIC),  
APSEZ Atchutapuram, Visakhapatnam District,  
Andhra Pradesh.**

Date of report	: 19-12-2023	Sample Collected by	: Kiwis Eco Laboratories Private Limited
Sampling date	: 06-12-2023	Sample Collected in	: Samples received in self sealed covers and sample bottles
Sampling Duration	: 24 hrs	Sampling Procedure	: CPCB Guidelines (NAAQMS/36/2012-13)
Sample received on	: 11-12-2023	Weather Conditions	: Dry
Analysis starting date	: 11-12-2023	Sample registration no/Code	: AAQ/COM/12/23/2488
Analysis completion date	: 19-12-2023	Temperature & Humidity	: 28°C & 53%
Sub Contract Testing	: NA	Sample description	: Ambient Air Quality Monitoring

**Locations: GPS Co-Ordinates:** 17° 32' 51.5" N  
83° 00' 08.1" E

1. Eastern Sector of APSEZ (Maithan Alloys Ltd. -Near Security Area)  
: AAQ/COM/12/23/2488: APIIC/AAQ/ES/06/12/2023/01

**TEST RESULT**

Samples are analyzed "as Received basis"


S. No	Parameter	Method	Units	Result	NAAQ Standards
1	PM <sub>10</sub>	IS 5182: Part 23 : 2006	µg/m <sup>3</sup>	70.3	100
2	PM <sub>2.5</sub>	KIWIS/SOP/AAQ/LAB-241	µg/m <sup>3</sup>	32.5	60
3	SO <sub>2</sub>	IS 5182: Part 2 : 2001 (RA :2023)	µg/m <sup>3</sup>	21.3	80
4	NO <sub>x</sub>	IS 5182: Part 6 :2006 (RA :2017)	µg/m <sup>3</sup>	27.9	80
5	Ammonia	KIWIS/SOP/AAQ/LAB-234	µg/m <sup>3</sup>	22.6	400
6	CO	CO Analyzer	mg/m <sup>3</sup>	0.3	02
7	HC	HC Analyzer	ppm	<1.0	-
8	VOC	VOC Analyzer	ppm	0.1	-

Opinion and interpretation: Nil

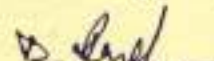
NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- PM<sub>10</sub> Instrument Model: Ecotech instruments AAS-217BL, Calibration valid up to: 30-03-2024
- PM<sub>2.5</sub> Instrument Model: Ecotech instruments AAS-127Mini, Calibration valid up to: 30-03-2024

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

**\*End of the Report\***

Note : This report is subject to the terms and conditions mentioned overleaf



## TEST REPORT

Page 1 of 1

Report No: KTWIS/AAQ/COM/23/1526

Name and address of the client:

**M/s. Andhra Pradesh Industrial Infrastructure Corporation Ltd., (APIIC),  
APSEZ Atchutapuram, Visakhapatnam District,  
Andhra Pradesh.**

Date of report	: 19-12-2023	Sample Collected by	: Kiwis Eco Laboratories Private Limited
Sampling date	: 06-12-2023	Sample Collected in	: Samples received in self sealed covers and sample bottles
Sampling Duration	: 24 hrs	Sampling Procedure	: CPCB Guidelines (NAAQMS/36/2012-13)
Sample received on	: 11-12-2023	Weather Conditions	: Dry
Analysis starting date	: 11-12-2023	Sample registration no/Code	: AAQ/COM/12/23/2489
Analysis completion date	: 19-12-2023	Temperature & Humidity	: 28°C & 54%
Sub Contract Testing	: NA	Sample description	: Ambient Air Quality Monitoring

**Locations: GPS Co-Ordinates:** 17° 31' 06.2"N  
82° 57' 53.7"E

1. *Western Sector of APSEZ( Vasanth Chemicals -Near Admin Office)*

: AAQ/COM/12/23/2489: APIIC/AAQ/WS/06/12/2023/02

### TEST RESULT

Samples are analyzed "as Received basis"

S. No	Parameter	Method	Units	Result	NAAQ Standards
1	PM <sub>10</sub>	IS 5182: Part 23 : 2006	µg/m³	63.5	100
2	PM <sub>2.5</sub>	KIWIS/SOP/AAQ/LAB-241	µg/m³	24.0	60
3	SO <sub>2</sub>	IS 5182: Part 2 : 2001 (RA :2023)	µg/m³	22.6	80
4	NO <sub>x</sub>	IS 5182:Part 6 :2006 (RA :2017)	µg/m³	30.6	80
5	Ammonia	KIWIS/SOP/AAQ/LAB-234	µg/m³	28.2	400
6	CO	CO Analyzer	mg/m³	0.1	02
7	HC	HC Analyzer	ppm	<1.0	-
8	VOC	VOC Analyzer	ppm	0.3	-

Opinion and interpretation: Nil


NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- PM<sub>10</sub> Instrument Model: Ecotech instruments AAS-217BL, Calibration valid up to: 30-03-2024  
 PM<sub>2.5</sub> Instrument Model: Ecotech instruments AAS-127Mini, Calibration valid up to: 30-03-2024

Checked By

(N.AjayGoud)  
(Sr.Chemist)

**Authorized Signatory**

  
(D.Ravindar)  
(Sr.Chemist)

**\*End of the Report\***



**TEST REPORT**

Page 1 of 1

Report No: **KIWIS/AAQ/COM/23/1527**

Name and address of the client:

**M/s. Andhra Pradesh Industrial Infrastructure  
Corporation Ltd., (APIIC),  
APSEZ Atchutapuram, Visakhapatnam District,  
Andhra Pradesh.**

Date of report	: 19-12-2023	Sample Collected by	: Kiwis Eco Laboratories Private Limited
Sampling date	: 06-12-2023	Sample Collected in	: Samples received in self sealed covers and sample bottles
Sampling Duration	: 24 hrs	Sampling Procedure	: CPCB Guidelines (NAAQMS/36/2012-13)
Sample received on	: 11-12-2023	Weather Conditions	: Dry
Analysis starting date	: 11-12-2023	Sample registration no/Code	: AAQ/COM/12/23/2490
Analysis completion date	: 19-12-2023	Temperature & Humidity	: 28°C & 50%
Sub Contract Testing	: NA	Sample description	: Ambient Air Quality Monitoring

**Locations: GPS Co-Ordinates:** 17° 31' 34.0"N  
82° 57' 06.6" E

1. Dibbapalem (R &amp; R SITE): AAQ/COM/12/23/2490: APIIC/AAQ/DP/06/12/2023/03

**TEST RESULT**

Samples are analyzed "as Received basis"

S. No	Parameter	Method	Units	Result	NAAQ Standards
1	PM <sub>10</sub>	IS 5182: Part 23 : 2006	µg/m <sup>3</sup>	54.3	100
2	PM <sub>2.5</sub>	KIWIS/SOP/AAQ/LAB-241	µg/m <sup>3</sup>	22.3	60
3	SO <sub>2</sub>	IS 5182: Part 2 : 2001 (RA :2023)	µg/m <sup>3</sup>	14.6	80
4	NO <sub>x</sub>	IS 5182:Part 6 :2006 (RA :2017)	µg/m <sup>3</sup>	19.1	80
5	Ammonia	KIWIS/SOP/AAQ/LAB-234	µg/m <sup>3</sup>	19.9	400
6	CO	CO Analyzer	mg/m <sup>3</sup>	<0.1	02
7	HC	HC Analyzer	ppm	<1.0	-
8	VOC	VOC Analyzer	ppm	<0.1	-

Opinion and interpretation: Nil

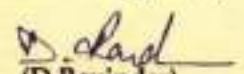
NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- PM<sub>10</sub> Instrument Model: Enviro instruments EI-142, Calibration valid up to: 30-03-2024
- PM<sub>2.5</sub> Instrument Mode: Enviro instruments EI-133, Calibration valid up to: 30-03-2024

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

**\*End of the Report\***



**TEST REPORT**

Page 1 of 1

Report No: **KIWIS/AAQ/COM/23/1529**

Name and address of the client:

**M/s. Andhra Pradesh Industrial Infrastructure  
Corporation Ltd., (APIIC),  
APSEZ Atchutapuram, Visakhapatnam District,  
Andhra Pradesh.**

Date of report	: 19-12-2023	Sample Collected by	: Kwis Eco Laboratories Private Limited
Sampling date	: 07-12-2023	Sample Collected in	: Samples received in self sealed covers and sample bottles
Sampling Duration	: 24 hrs	Sampling Procedure	: CPCB Guidelines (NAAQMS/36/2012-13)
Sample received on	: 11-12-2023	Weather Conditions	: Dry
Analysis starting date	: 11-12-2023	Sample registration no/Code	: AAQ/COM/12/23/2494
Analysis completion date	: 19-12-2023	Temperature & Humidity	: 28°C & 51%
Sub Contract Testing	: NA	Sample description	: Ambient Air Quality Monitoring

**Locations: GPS Co-Ordinates:** 17°29' 34.0"N  
82° 57' 47.7"E

1. LalamKoduru : AAQ/COM/12/23/2494: APIIC/AAQ/LK/07/12/2023/01

**TEST RESULT**

Samples are analyzed "as Received basis"

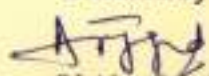
S. No	Parameter	Method	Units	Result	NAAQ Standards
1	PM <sub>10</sub>	IS 5182: Part 23 : 2006	µg/m <sup>3</sup>	52.5	100
2	PM <sub>2.5</sub>	KIWIS/SOP/AAQ/LAB-241	µg/m <sup>3</sup>	21.8	60
3	SO <sub>2</sub>	IS 5182: Part 2 : 2001 (RA :2023)	µg/m <sup>3</sup>	14.1	80
4	NO <sub>x</sub>	IS 5182:Part 6 :2006 (RA :2017)	µg/m <sup>3</sup>	18.2	80
5	Ammonia	KIWIS/SOP/AAQ/LAB-234	µg/m <sup>3</sup>	19.0	400
6	CO	CO Analyzer	mg/m <sup>3</sup>	<0.1	02
7	HC	HC Analyzer	ppm	<1.0	-
8	VOC	VOC Analyzer	ppm	<0.1	-

Opinion and interpretation: Nil


NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- PM<sub>10</sub> Instrument Model: Ecotech instruments AAS-217BL, Calibration valid up to: 30-03-2024
- PM<sub>2.5</sub> Instrument Mode: Ecotech instruments AAS-127Mini, Calibration valid up to: 30-03-2024

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

\*End of the Report\*



**TEST REPORT**

Page 1 of 1

Report No: KIWIS/AAQ/COM/23/1530

Name and address of the client:

**M/s. Andhra Pradesh Industrial Infrastructure  
Corporation Ltd., (APIIC),  
APSEZ Atchutapuram, Visakhapatnam District,  
Andhra Pradesh.**

Date of report	: 19-12-2023	Sample Collected by	: Kiwis Eco Laboratories Private Limited
Sampling date	: 07-12-2023	Sample Collected in	: Samples received in self sealed covers and sample bottles
Sampling Duration	: 24 hrs	Sampling Procedure	: CPCB Guidelines (NAAQMS/36/2012-13)
Sample received on	: 11-12-2023	Weather Conditions	: Dry
Analysis starting date	: 11-12-2023	Sample registration no/Code	: AAQ/COM/12/23/2495
Analysis completion date	: 19-12-2023	Temperature & Humidity	: 28°C & 50%
Sub Contract Testing	: NA	Sample description	: Ambient Air Quality Monitoring

**Locations: GPS Co-Ordinates:** 17°30' 43.2"N  
82° 59' 33.8"E

1. At AETL Near Pudimadaka : AAQ/COM/12/23/2495:APIIC/AAQ/PM/07/12/2023/02

**TEST RESULT**

Samples are analyzed "as Received basis"

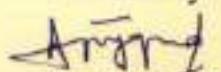
S. No	Parameter	Method	Units	Result	NAAQ Standards
1	PM <sub>10</sub>	IS 5182: Part 23 : 2006	µg/m <sup>3</sup>	57.9	100
2	PM <sub>2.5</sub>	KIWIS/SOP/AAQ/LAB-241	µg/m <sup>3</sup>	25.3	60
3	SO <sub>2</sub>	IS 5182: Part 2 : 2001 (RA :2023)	µg/m <sup>3</sup>	29.6	80
4	NO <sub>x</sub>	IS 5182:Part 6 :2006 (RA :2017)	µg/m <sup>3</sup>	36.3	80
5	Ammonia	KIWIS/SOP/AAQ/LAB-234	µg/m <sup>3</sup>	42.3	400
6	CO	CO Analyzer	mg/m <sup>3</sup>	<0.1	02
7	HC	HC Analyzer	ppm	<1.0	-
8	VOC	VOC Analyzer	ppm	0.2	-

Opinion and interpretation: Nil

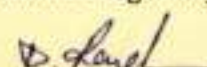
NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- PM<sub>10</sub> Instrument Model: Ecotech instruments AAS-217BL, Calibration valid up to: 30-03-2024  
PM<sub>2.5</sub> Instrument Mode: Ecotech instruments AAS-127Mini, Calibration valid up to: 30-03-2024

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

**\*End of the Report\***



**TEST REPORT**

Page 1 of 1

Report No: **KIWIS/AAQ/COM/23/1531**

Name and address of the client:

**M/s. Andhra Pradesh Industrial Infrastructure  
Corporation Ltd., (APIIC),  
APSEZ Atchutapuram, Visakhapatnam District,  
Andhra Pradesh.**

Date of report	: 19-12-2023	Sample Collected by	: Kiwis Eco Laboratories Private Limited
Sampling date	: 07-12-2023	Sample Collected in	: Samples received in self sealed covers and sample bottles
Sampling Duration	: 24 hrs	Sampling Procedure	: CPCB Guidelines (NAAQMS/36/2012-13)
Sample received on	: 11-12-2023	Weather Conditions	: Dry
Analysis starting date	: 11-12-2023	Sample registration no/Code	: AAQ/COM/12/23/2496
Analysis completion date	: 19-12-2023	Temperature & Humidity	: 28°C & 51%
Sub Contract Testing	: NA	Sample description	: Ambient Air Quality Monitoring

**Locations: GPS Co-Ordinates:** 17° 32' 5.5" N  
82° 59' 19.2" E

1. At APSEZ office (Top off Building): AAQ/COM/12/23/2496: APIIC/AAQ/BC/07/12/2023/03

**TEST RESULT**

Samples are analyzed "as Received basis"

S. No	Parameter	Method	Units	Result	NAAQ Standards
1	PM <sub>10</sub>	IS 5182: Part 23 : 2006	µg/m <sup>3</sup>	55.8	100
2	PM <sub>2.5</sub>	KIWIS/SOP/AAQ/LAB-241	µg/m <sup>3</sup>	23.6	60
3	SO <sub>2</sub>	IS 5182: Part 2 : 2001 (RA :2023)	µg/m <sup>3</sup>	15.5	80
4	NO <sub>x</sub>	IS 5182:Part 6 :2006 (RA :2017)	µg/m <sup>3</sup>	20.2	80
5	Ammonia	KIWIS/SOP/AAQ/LAB-234	µg/m <sup>3</sup>	21.3	400
6	CO	CO Analyzer	mg/m <sup>3</sup>	<0.1	02
7	HC	HC Analyzer	ppm	<1.0	-
8	VOC	VOC Analyzer	ppm	<0.1	-

Opinion and interpretation: Nil


NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- PM<sub>10</sub> Instrument Model: Enviro instruments EI-142, Calibration valid up to: 30-03-2024  
PM<sub>2.5</sub> Instrument Mode: Enviro instruments EI-133, Calibration valid up to: 30-03-2024

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

\*End of the Report\*



**TEST REPORT**

Page 1 of 1

Report No: **KIWIS/AAQ/COM/24/04**

Name and address of the client:

**M/s. Andhra Pradesh Industrial Infrastructure  
Corporation Ltd., (APIIC),  
APSEZ Atchutapuram, Visakhapatnam District,  
Andhra Pradesh.**

Date of report	: 17-01-2024	Sample Collected by	: Kiwis Eco Laboratories Private Limited
Sampling date	: 04-01-2024	Sample Collected in	: Samples received in self sealed covers and sample bottles
Sampling Duration	: 24 hrs	Sampling Procedure	: CPCB Guidelines (NAAQMS/36/2012-13)
Sample received on	: 08-01-2024	Weather Conditions	: Dry
Analysis starting date	: 08-01-2024	Sample registration no/Code	: AAQ/COM/01/24/07
Analysis completion date	: 17-01-2024	Temperature & Humidity	: 28°C & 54%
Sub Contract Testing	: NA	Sample description	: Ambient Air Quality Monitoring

**Locations: GPS Co-Ordinates:** 17° 32' 51.5" N  
83° 00' 08.1" E

1. Eastern Sector of APSEZ(Maithan Alloys Ltd. -Near Security Area)  
: AAQ/COM/01/24/07: APIIC/AAQ/ES/04/01/2024/01

**TEST RESULT**

Samples are analyzed "as Received basis"

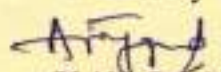
S. No	Parameter	Method	Units	Result	NAAQ Standards
1	PM <sub>10</sub>	IS 5182: Part 23 : 2006	µg/m <sup>3</sup>	72.3	100
2	PM <sub>2.5</sub>	KIWIS/SOP/AAQ/LAB-241	µg/m <sup>3</sup>	31.2	60
3	SO <sub>2</sub>	IS 5182: Part 2 : 2001 (RA :2023)	µg/m <sup>3</sup>	20.9	80
4	NO <sub>x</sub>	IS 5182:Part 6 :2006 (RA :2017)	µg/m <sup>3</sup>	26.7	80
5	Ammonia	KIWIS/SOP/AAQ/LAB-234	µg/m <sup>3</sup>	22.1	400
6	CO	CO Analyzer	mg/m <sup>3</sup>	0.4	02
7	HC	HC Analyzer	ppm	<1.0	-
8	VOC	VOC Analyzer	ppm	<0.1	-

Opinion and interpretation: Nil

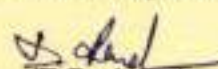
NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- PM<sub>10</sub> Instrument Model: Ecotech instruments AAS-217BL, Calibration valid up to: 30-03-2024
- PM<sub>2.5</sub> Instrument Mode: Ecotech instruments AAS-127Mini, Calibration valid up to: 30-03-2024

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

**\*End of the Report\***

Note : This report is subject to the terms and conditions mentioned overleaf



**TEST REPORT**

Page 1 of 1

Report No: KIWIS/AAQ/COM/24/05

Name and address of the client:

M/s. Andhra Pradesh Industrial Infrastructure  
Corporation Ltd., (APIIC),  
APSEZ Atchutapuram, Visakhapatnam District,  
Andhra Pradesh.

Date of report	: 17-01-2024	Sample Collected by	: KIWIS Eco Laboratories Private Limited
Sampling date	: 04-01-2024	Sample Collected in	: Samples received in self sealed covers and sample bottles
Sampling Duration	: 24 hrs	Sampling Procedure	: CPCB Guidelines (NAAQMS/36/2012-13)
Sample received on	: 08-01-2024	Weather Conditions	: Dry
Analysis starting date	: 08-01-2024	Sample registration no/Code	: AAQ/COM/01/24/08
Analysis completion date	: 17-01-2024	Temperature & Humidity	: 28°C & 55%
Sub Contract Testing	: NA	Sample description	: Ambient Air Quality Monitoring

Locations: GPS Co-Ordinates:

17° 31' 06.2"N  
82° 57' 53.7"E

1. Western Sector of APSEZ( Vasanth Chemicals -Near Admin Office)

: AAQ/COM/01/24/08: APIIC/AAQ/WS/04/01/2024/02

**TEST RESULT**

Samples are analyzed "as Received basis"

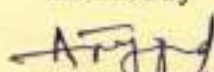
S. No	Parameter	Method	Units	Result	NAAQ Standards
1	PM <sub>10</sub>	IS 5182: Part 23 : 2006	µg/m <sup>3</sup>	64.5	100
2	PM <sub>2.5</sub>	KIWIS/SOP/AAQ/LAB-241	µg/m <sup>3</sup>	24.8	60
3	SO <sub>2</sub>	IS 5182: Part 2 : 2001 (RA :2023)	µg/m <sup>3</sup>	21.5	80
4	NO <sub>x</sub>	IS 5182:Part 6 :2006 (RA :2017)	µg/m <sup>3</sup>	29.5	80
5	Ammonia	KIWIS/SOP/AAQ/LAB-234	µg/m <sup>3</sup>	28.4	400
6	CO	CO Analyzer	mg/m <sup>3</sup>	0.2	02
7	HC	HC Analyzer	ppm	<1.0	-
8	VOC	VOC Analyzer	ppm	0.3	-

Opinion and interpretation: Nil

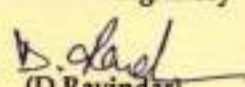
NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- PM<sub>10</sub> Instrument Model: Ecotech instruments AAS-217BL, Calibration valid up to: 30-03-2024
- PM<sub>2.5</sub> Instrument Mode: Ecotech instruments AAS-127Mini, Calibration valid up to: 30-03-2024

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

\*End of the Report\*

Note : This report is subject to the terms and conditions mentioned overleaf



**TEST REPORT**

Page 1 of 1

Report No: **KIWIS/AAQ/COM/24/06**

Name and address of the client:

**M/s. Andhra Pradesh Industrial Infrastructure  
Corporation Ltd., (APIIC),  
APSEZ Atchutapuram, Visakhapatnam District,  
Andhra Pradesh.**

Date of report	: 17-01-2024	Sample Collected by	: Kwis Eco Laboratories Private Limited
Sampling date	: 04-01-2024	Sample Collected in	: Samples received in self sealed covers and sample bottles
Sampling Duration	: 24 hrs	Sampling Procedure	: CPCB Guidelines (NAAQMS/36/2012-13)
Sample received on	: 08-01-2024	Weather Conditions	: Dry
Analysis starting date	: 08-01-2024	Sample registration no/Code	: AAQ/COM/01/24/09
Analysis completion date	: 17-01-2024	Temperature & Humidity	: 28°C & 52%
Sub Contract Testing	: NA	Sample description	: Ambient Air Quality Monitoring

**Locations: GPS Co-Ordinates:** 17° 31' 34.0"N  
82° 57' 06.6" E

1. Dibbapalem (R &amp; R SITE): AAQ/COM/01/24/09: APIIC/AAQ/DP/04/01/2024/03

**TEST RESULT**

Samples are analyzed "as Received basis"

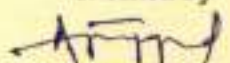
S. No	Parameter	Method	Units	Result	NAAQ Standards
1	PM <sub>10</sub>	IS 5182: Part 23 : 2006	µg/m <sup>3</sup>	53.2	100
2	PM <sub>2.5</sub>	KIWIS/SOP/AAQ/LAB-241	µg/m <sup>3</sup>	23.0	60
3	SO <sub>2</sub>	IS 5182: Part 2 : 2001 (RA :2023)	µg/m <sup>3</sup>	15.1	80
4	NO <sub>x</sub>	IS 5182:Part 6 :2006 (RA :2017)	µg/m <sup>3</sup>	19.3	80
5	Ammonia	KIWIS/SOP/AAQ/LAB-234	µg/m <sup>3</sup>	20.5	400
6	CO	CO Analyzer	mg/m <sup>3</sup>	<0.1	02
7	HC	HC Analyzer	ppm	<1.0	-
8	VOC	VOC Analyzer	ppm	<0.1	-

Opinion and interpretation: Nil

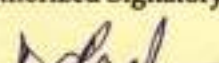
NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- PM<sub>10</sub> Instrument Model: Enviro instruments EI-142, Calibration valid up to: 30-03-2024  
PM<sub>2.5</sub> Instrument Model: Enviro instruments EI-133, Calibration valid up to: 30-03-2024

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

**\*End of the Report\***



**TEST REPORT**

Page 1 of 1

Report No: KIWIS/AAQ/COM/24/08

Name and address of the client:

M/s. Andhra Pradesh Industrial Infrastructure  
Corporation Ltd., (APIIC),  
APSEZ Atchutapuram, Visakhapatnam District,  
Andhra Pradesh.

Date of report	: 17-01-2024	Sample Collected by	: KIWIS Eco Laboratories Private Limited
Sampling date	: 05-01-2024	Sample Collected in	: Samples received in self sealed covers and sample bottles
Sampling Duration	: 24 hrs	Sampling Procedure	: CPCB Guidelines (NAAQMS/36/2012-13)
Sample received on	: 08-01-2024	Weather Conditions	: Dry
Analysis starting date	: 08-01-2024	Sample registration no/Code	: AAQ/COM/01/24/13
Analysis completion date	: 17-01-2024	Temperature & Humidity	: 28°C & 52%
Sub Contract Testing	: NA	Sample description	: Ambient Air Quality Monitoring

Locations: GPS Co-Ordinates: 17°29' 34.0"N  
82° 57' 47.7"E

1. LalamKoduru : AAQ/COM/01/24/13: APIIC/AAQ/LK/05/01/2024/01

**TEST RESULT**

Samples are analyzed "as Received basis"

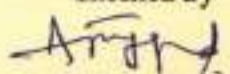
S. No	Parameter	Method	Units	Result	NAAQ Standards
1	PM <sub>10</sub>	IS 5182: Part 23 : 2006	µg/m <sup>3</sup>	54.7	100
2	PM <sub>2.5</sub>	KIWIS/SOP/AAQ/LAB-241	µg/m <sup>3</sup>	22.5	60
3	SO <sub>2</sub>	IS 5182: Part 2 : 2001 (RA :2023)	µg/m <sup>3</sup>	14.4	80
4	NO <sub>x</sub>	IS 5182:Part 6 :2006 (RA :2017)	µg/m <sup>3</sup>	18.9	80
5	Ammonia	KIWIS/SOP/AAQ/LAB-234	µg/m <sup>3</sup>	19.6	400
6	CO	CO Analyzer	mg/m <sup>3</sup>	<0.1	02
7	HC	HC Analyzer	ppm	<1.0	-
8	VOC	VOC Analyzer	ppm	<0.1	-

Opinion and interpretation: Nil

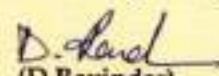
NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- PM<sub>10</sub> Instrument Model: Ecotech instruments AAS-217BL, Calibration valid up to: 30-03-2024
- PM<sub>2.5</sub> Instrument Mode: Ecotech instruments AAS-127Mini, Calibration valid up to: 30-03-2024

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

\*End of the Report\*



**TEST REPORT**

Page 1 of 1

Report No: **KIWIS/AAQ/COM/24/09**

Name and address of the client:

**M/s. Andhra Pradesh Industrial Infrastructure  
Corporation Ltd., (APIIC),  
APSEZ Atchutapuram, Visakhapatnam District,  
Andhra Pradesh.**

Date of report	: 17-01-2024	Sample Collected by	: Kivis Eco Laboratories Private Limited
Sampling date	: 05-01-2024	Sample Collected in	: Samples received in self sealed covers and sample bottles
Sampling Duration	: 24 hrs	Sampling Procedure	: CPCB Guidelines (NAAQMS/36/2012-13)
Sample received on	: 08-01-2024	Weather Conditions	: Dry
Analysis starting date	: 08-01-2024	Sample registration no/Code	: AAQ/COM/01/24/14
Analysis completion date	: 17-01-2024	Temperature & Humidity	: 28°C & 54%
Sub Contract Testing	: NA	Sample description	: Ambient Air Quality Monitoring

**Locations: GPS Co-Ordinates: 17°30' 43.2"N  
82° 59' 33.8"E**

1. At AETL Near Pudimadaka : AAQ/COM/01/24/14:APIIC/AAQ/PM/05/01/2024/02

**TEST RESULT**

Samples are analyzed "as Received basis"

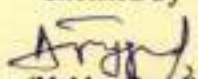
S. No	Parameter	Method	Units	Result	NAAQ Standards
1	PM <sub>10</sub>	IS 5182: Part 23 : 2006	µg/m <sup>3</sup>	56.0	100
2	PM <sub>2.5</sub>	KIWIS/SOP/AAQ/LAB-241	µg/m <sup>3</sup>	25.1	60
3	SO <sub>2</sub>	IS 5182: Part 2 : 2001 (RA :2023)	µg/m <sup>3</sup>	30.5	80
4	NO <sub>x</sub>	IS 5182:Part 6 :2006 (RA :2017)	µg/m <sup>3</sup>	38.2	80
5	Ammonia	KIWIS/SOP/AAQ/LAB-234	µg/m <sup>3</sup>	44.1	400
6	CO	CO Analyzer	mg/m <sup>3</sup>	0.1	02
7	HC	HC Analyzer	ppm	<1.0	-
8	VOC	VOC Analyzer	ppm	0.2	-

Opinion and interpretation: Nil


NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- PM<sub>10</sub> Instrument Model: Ecotech instruments AAS-217BL, Calibration valid up to: 30-03-2024
- PM<sub>2.5</sub> Instrument Mode: Ecotech instruments AAS-127Mini, Calibration valid up to: 30-03-2024

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

**\*End of the Report\***



**TEST REPORT**

Page 1 of 1

Report No: KIWIS/AAQ/COM/24/10

Name and address of the client:

M/s. Andhra Pradesh Industrial Infrastructure  
Corporation Ltd., (APIIC),  
APSEZ Atchutapuram, Visakhapatnam District,  
Andhra Pradesh.

Date of report	: 17-01-2024	Sample Collected by	: Kiwis Eco Laboratories Private Limited
Sampling date	: 05-01-2024	Sample Collected in	: Samples received in self sealed covers and sample bottles
Sampling Duration	: 24 hrs	Sampling Procedure	: CPCB Guidelines (NAAQMS/36/2012-13)
Sample received on	: 08-01-2024	Weather Conditions	: Dry
Analysis starting date	: 08-01-2024	Sample registration no/Code	: AAQ/COM/01/24/15
Analysis completion date	: 17-01-2024	Temperature & Humidity	: 28°C & 53%
Sub Contract Testing	: NA	Sample description	: Ambient Air Quality Monitoring

Locations: GPS Co-Ordinates: 17° 32' 5.5" N  
82° 59' 19.2" E

1. At APSEZ office (Top off Building): AAQ/COM/01/24/15: APIIC/AAQ/BC/05/01/2024/03

**TEST RESULT**

Samples are analyzed "as Received basis"

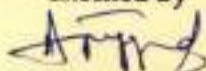
S. No	Parameter	Method	Units	Result	NAAQ Standards
1	PM <sub>10</sub>	IS 5182: Part 23 : 2006	µg/m <sup>3</sup>	56.9	100
2	PM <sub>2.5</sub>	KIWIS/SOP/AAQ/LAB-241	µg/m <sup>3</sup>	26.1	60
3	SO <sub>2</sub>	IS 5182: Part 2 : 2001 (RA :2023)	µg/m <sup>3</sup>	15.3	80
4	NO <sub>x</sub>	IS 5182:Part 6 :2006 (RA :2017)	µg/m <sup>3</sup>	19.3	80
5	Ammonia	KIWIS/SOP/AAQ/LAB-234	µg/m <sup>3</sup>	20.2	400
6	CO	CO Analyzer	mg/m <sup>3</sup>	<0.1	02
7	HC	HC Analyzer	ppm	<1.0	-
8	VOC	VOC Analyzer	ppm	<0.1	-

Opinion and interpretation: Nil

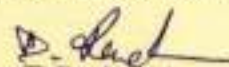
NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- PM<sub>10</sub> Instrument Model: Enviro instruments EI-142, Calibration valid up to: 30-03-2024  
PM<sub>2.5</sub> Instrument Mode: Enviro instruments EI-133, Calibration valid up to: 30-03-2024

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

\*End of the Report\*



**TEST REPORT**

Page 1 of 1

Report No: **KIWIS/AAQ/COM/24/115**

Name and address of the client:

**M/s. Andhra Pradesh Industrial Infrastructure  
Corporation Ltd., (APIIC),  
APSEZ Atchutapuram, Visakhapatnam District,  
Andhra Pradesh.**

Date of report	: 08-02-2024	Sample Collected by	: Kiwis Eco Laboratories Private Limited
Sampling date	: 01-02-2024	Sample Collected in	: Samples received in self sealed covers and sample bottles
Sampling Duration	: 24 hrs	Sampling Procedure	: CPCB Guidelines (NAAQMS/36/2012-13)
Sample received on	: 05-02-2024	Weather Conditions	: Dry
Analysis starting date	: 05-02-2024	Sample registration no/Code	: AAQ/COM/02/24/221
Analysis completion date	: 08-02-2024	Temperature & Humidity	: 29°C & 55%
Sub Contract Testing	: NA	Sample description	: Ambient Air Quality Monitoring

**Locations: GPS Co-Ordinates:** 17° 32' 51.5" N  
83° 00' 08.1" E

1. Eastern Sector of APSEZ(Maithan Alloys Ltd. -Near Security Area)  
: AAQ/COM/02/24/221: APIIC/AAQ/ES/01/02/2024/01

**TEST RESULT**

Samples are analyzed "as Received basis"

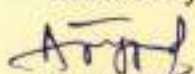
S. No	Parameter	Method	Units	Result	NAAQ Standards
1	PM <sub>10</sub>	IS 5182: Part 23 : 2006	µg/m <sup>3</sup>	77.3	100
2	PM <sub>2.5</sub>	KIWIS/SOP/AAQ/LAB-241	µg/m <sup>3</sup>	33.5	60
3	SO <sub>2</sub>	IS 5182: Part 2 : 2001 (RA :2023)	µg/m <sup>3</sup>	21.5	80
4	NO <sub>x</sub>	IS 5182:Part 6 :2006 (RA :2017)	µg/m <sup>3</sup>	25.0	80
5	Ammonia	KIWIS/SOP/AAQ/LAB-234	µg/m <sup>3</sup>	23.6	400
6	CO	CO Analyzer	mg/m <sup>3</sup>	0.3	02
7	HC	HC Analyzer	ppm	<1.0	-
8	VOC	VOC Analyzer	ppm	<0.1	-

Opinion and interpretation: Nil

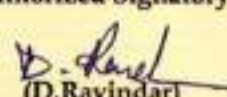
NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- PM<sub>10</sub> Instrument Model: Ecotech instruments AAS-217BL, Calibration valid up to: 30-03-2024
- PM<sub>2.5</sub> Instrument Mode: Ecotech instruments AAS-127Mini, Calibration valid up to: 30-03-2024

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

**\*End of the Report\***

Note : This report is subject to the terms and conditions mentioned overleaf



**TEST REPORT**

Page 1 of 1

Report No: **KIWIS/AAQ/COM/24/116**

Name and address of the client:

**M/s. Andhra Pradesh Industrial Infrastructure  
Corporation Ltd., (APIIC),  
APSEZ Atchutapuram, Visakhapatnam District,  
Andhra Pradesh.**

Date of report	: 08-02-2024	Sample Collected by	: Kiwis Eco Laboratories Private Limited
Sampling date	: 01-02-2024	Sample Collected in	: Samples received in self sealed covers and sample bottles
Sampling Duration	: 24 hrs	Sampling Procedure	: CPCB Guidelines (NAAQMS/36/2012-13)
Sample received on	: 05-02-2024	Weather Conditions	: Dry
Analysis starting date	: 05-02-2024	Sample registration no/Code	: AAQ/COM/02/24/222
Analysis completion date	: 08-02-2024	Temperature & Humidity	: 29°C & 56%
Sub Contract Testing	: NA	Sample description	: Ambient Air Quality Monitoring

Locations: GPS Co-Ordinates:

17° 31' 06.2"N  
82°57'53.7"E

1. Western Sector of APSEZ( Vasanth Chemicals -Near Admin Office)  
: AAQ/COM/02/24/222: APIIC/AAQ/WS/01/02/2024/02

**TEST RESULT**

Samples are analyzed "as Received basis"

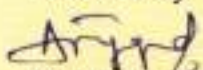
S. No	Parameter	Method	Units	Result	NAAQ Standards
1	PM <sub>10</sub>	IS 5182: Part 23 : 2006	µg/m <sup>3</sup>	62.0	100
2	PM <sub>2.5</sub>	KIWIS/SOP/AAQ/LAB-241	µg/m <sup>3</sup>	24.1	60
3	SO <sub>2</sub>	IS 5182: Part 2 : 2001 (RA :2023)	µg/m <sup>3</sup>	20.6	80
4	NO <sub>x</sub>	IS 5182:Part 6 :2006 (RA :2017)	µg/m <sup>3</sup>	28.7	80
5	Ammonia	KIWIS/SOP/AAQ/LAB-234	µg/m <sup>3</sup>	27.1	400
6	CO	CO Analyzer	mg/m <sup>3</sup>	0.1	02
7	HC	HC Analyzer	ppm	<1.0	-
8	VOC	VOC Analyzer	ppm	0.3	-

Opinion and interpretation: Nil

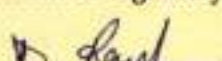
NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- PM<sub>10</sub> Instrument Model: Ecotech instruments AAS-217BL, Calibration valid up to: 30-03-2024
- PM<sub>2.5</sub> Instrument Mode: Ecotech instruments AAS-127Mini, Calibration valid up to: 30-03-2024

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

**\*End of the Report\***

Note : This report is subject to the terms and conditions mentioned overleaf





# KIWIS

ECO LABORATORIES PVT. LTD  
Recognized by MoEF & CC, GOI, New Delhi,  
Certified by ISO 9001:2015,  
ISO 14001:2015 & OHSMS 45001:2018.

Plot No. 19, ALEAP Industrial Estate,  
SY. No's 342, Near Pragathi Nagar,  
Quthbullapur Mandal and Municipality,  
Ranga Reddy Dist. Telangana - 500 090.  
Email: kiwislabhyd@gmail.com  
Ph: 99666 61485 / 040-23816333

## TEST REPORT

Page 1 of 1

Report No: **KIWIS/AAQ/COM/24/117**

Name and address of the client:

**M/s. Andhra Pradesh Industrial Infrastructure  
Corporation Ltd., (APIIC),  
APSEZ Atchutapuram, Visakhapatnam District,  
Andhra Pradesh.**

Date of report	: 08-02-2024	Sample Collected by	: Kiwis Eco Laboratories Private Limited
Sampling date	: 01-02-2024	Sample Collected in	: Samples received in self sealed covers and sample bottles
Sampling Duration	: 24 hrs	Sampling Procedure	: CPCB Guidelines (NAAQMS/36/2012-13)
Sample received on	: 05-02-2024	Weather Conditions	: Dry
Analysis starting date	: 05-02-2024	Sample registration no/Code	: AAQ/COM/02/24/223
Analysis completion date	: 08-02-2024	Temperature & Humidity	: 29°C & 54%
Sub Contract Testing	: NA	Sample description	: Ambient Air Quality Monitoring

**Locations: GPS Co-Ordinates:** 17° 31' 34.0"N  
82° 57' 06.6" E

**1. Dibbapalem (R & R SITE): AAQ/COM/02/24/223: APIIC/AAQ/DP/01/02/2024/03**

## TEST RESULT

Samples are analyzed "as Received basis"

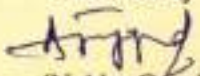
S. No	Parameter	Method	Units	Result	NAAQ Standards
1	PM <sub>10</sub>	IS 5182: Part 23 : 2006	µg/m <sup>3</sup>	52.0	100
2	PM <sub>2.5</sub>	KIWIS/SOP/AAQ/LAB-241	µg/m <sup>3</sup>	22.6	60
3	SO <sub>2</sub>	IS 5182: Part 2 : 2001 (RA :2023)	µg/m <sup>3</sup>	14.2	80
4	NO <sub>x</sub>	IS 5182:Part 6 :2006 (RA :2017)	µg/m <sup>3</sup>	18.5	80
5	Ammonia	KIWIS/SOP/AAQ/LAB-234	µg/m <sup>3</sup>	19.6	400
6	CO	CO Analyzer	mg/m <sup>3</sup>	<0.1	02
7	HC	HC Analyzer	ppm	<1.0	-
8	VOC	VOC Analyzer	ppm	<0.1	-

Opinion and interpretation: Nil

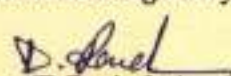
NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- PM<sub>10</sub> Instrument Model: Enviro instruments EI-142, Calibration valid up to: 30-03-2024
- PM<sub>2.5</sub> Instrument Mode: Enviro instruments EI-133, Calibration valid up to: 30-03-2024

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

**\*End of the Report\***



**TEST REPORT**

Page 1 of 1

Report No: **KIWIS/AAQ/COM/24/119**

Name and address of the client:

**M/s. Andhra Pradesh Industrial Infrastructure  
Corporation Ltd., (APIIC),  
APSEZ Atchutapuram, Visakhapatnam District,  
Andhra Pradesh.**

Date of report	: 08-02-2024	Sample Collected by	: Kiwis Eco Laboratories Private Limited
Sampling date	: 02-02-2024	Sample Collected in	: Samples received in self sealed covers and sample bottles
Sampling Duration	: 24 hrs	Sampling Procedure	: CPCB Guidelines (NAAQMS/36/2012-13)
Sample received on	: 05-02-2024	Weather Conditions	: Dry
Analysis starting date	: 05-02-2024	Sample registration no/Code	: AAQ/COM/02/24/227
Analysis completion date	: 08-02-2024	Temperature & Humidity	: 29°C & 55%
Sub Contract Testing	: NA	Sample description	: Ambient Air Quality Monitoring

**Locations: GPS Co-Ordinates: 17°29' 34.0"N  
82° 57' 47.7"E**

1. LalamKoduru : AAQ/COM/02/24/227: APIIC/AAQ/LK/02/02/2024/01

**TEST RESULT**

Samples are analyzed "as Received basis"

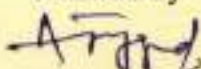
S. No	Parameter	Method	Units	Result	NAAQ Standards
1	PM <sub>10</sub>	IS 5182: Part 23 : 2006	µg/m <sup>3</sup>	55.6	100
2	PM <sub>2.5</sub>	KIWIS/SOP/AAQ/LAB-241	µg/m <sup>3</sup>	23.1	60
3	SO <sub>2</sub>	IS 5182: Part 2 : 2001 (RA :2023)	µg/m <sup>3</sup>	14.8	80
4	NO <sub>x</sub>	IS 5182:Part 6 :2006 (RA :2017)	µg/m <sup>3</sup>	19.2	80
5	Ammonia	KIWIS/SOP/AAQ/LAB-234	µg/m <sup>3</sup>	19.1	400
6	CO	CO Analyzer	mg/m <sup>3</sup>	<0.1	02
7	HC	HC Analyzer	ppm	<1.0	-
8	VOC	VOC Analyzer	ppm	<0.1	-

Opinion and interpretation: Nil


NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- PM<sub>10</sub> Instrument Model: Ecotech instruments AAS-217BL, Calibration valid up to: 30-03-2024
- PM<sub>2.5</sub> Instrument Mode: Ecotech instruments AAS-127Mini, Calibration valid up to: 30-03-2024

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

**\*End of the Report\***



**TEST REPORT**

Page 1 of 1

Report No: **KIWIS/AAQ/COM/24/120**

Name and address of the client:

**M/s. Andhra Pradesh Industrial Infrastructure  
Corporation Ltd., (APIIC),  
APSEZ Atchutapuram, Visakhapatnam District,  
Andhra Pradesh.**

Date of report	: 08-02-2024	Sample Collected by	: Kwis Eco Laboratories Private Limited
Sampling date	: 02-02-2024	Sample Collected in	: Samples received in self sealed covers and sample bottles
Sampling Duration	: 24 hrs	Sampling Procedure	: CPCB Guidelines (NAAQMS/36/2012-13)
Sample received on	: 05-02-2024	Weather Conditions	: Dry
Analysis starting date	: 05-02-2024	Sample registration no/Code	: AAQ/COM/02/24/228
Analysis completion date	: 08-02-2024	Temperature & Humidity	: 29°C & 56%
Sub Contract Testing	: NA	Sample description	: Ambient Air Quality Monitoring

**Locations: GPS Co-Ordinates:** 17°30' 43.2"N  
82° 59' 33.8"E

1. At AETL Near Pudimadaka : AAQ/COM/02/24/228:APIIC/AAQ/PM/02/02/2024/02

**TEST RESULT**

Samples are analyzed "as Received basis"

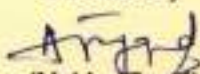
S. No	Parameter	Method	Units	Result	NAAQ Standards
1	PM <sub>10</sub>	IS 5182: Part 23 : 2006	µg/m <sup>3</sup>	58.2	100
2	PM <sub>2.5</sub>	KIWIS/SOP/AAQ/LAB-241	µg/m <sup>3</sup>	24.4	60
3	SO <sub>2</sub>	IS 5182: Part 2 : 2001 (RA :2023)	µg/m <sup>3</sup>	28.2	80
4	NO <sub>x</sub>	IS 5182:Part 6 :2006 (RA :2017)	µg/m <sup>3</sup>	35.3	80
5	Ammonia	KIWIS/SOP/AAQ/LAB-234	µg/m <sup>3</sup>	40.7	400
6	CO	CO Analyzer	mg/m <sup>3</sup>	0.1	02
7	HC	HC Analyzer	ppm	<1.0	-
8	VOC	VOC Analyzer	ppm	0.2	-

Opinion and interpretation: Nil


NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- PM<sub>10</sub> Instrument Model: Ecotech instruments AAS-217BL, Calibration valid up to: 30-03-2024  
PM<sub>2.5</sub> Instrument Mode: Ecotech instruments AAS-127Mini, Calibration valid up to: 30-03-2024

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

**\*End of the Report\***



**TEST REPORT**

Page 1 of 1

Report No: **KIWIS/AAQ/COM/24/121**

Name and address of the client:

**M/s. Andhra Pradesh Industrial Infrastructure  
Corporation Ltd., (APIIC),  
APSEZ Atchutapuram, Visakhapatnam District,  
Andhra Pradesh.**

Date of report	: 08-02-2024	Sample Collected by	: Kiwis Eco Laboratories Private Limited
Sampling date	: 02-02-2024	Sample Collected in	: Samples received in self sealed covers and sample bottles
Sampling Duration	: 24 hrs	Sampling Procedure	: CPCB Guidelines (NAAQMS/36/2012-13)
Sample received on	: 05-02-2024	Weather Conditions	: Dry
Analysis starting date	: 05-02-2024	Sample registration no/Code	: AAQ/COM/02/24/229
Analysis completion date	: 08-02-2024	Temperature & Humidity	: 29°C & 54%
Sub Contract Testing	: NA	Sample description	: Ambient Air Quality Monitoring

**Locations: GPS Co-Ordinates:** 17° 32' 5.5" N  
82° 59' 19.2" E

1. At APSEZ office (Top off Building): AAQ/COM/02/24/229: APIIC/AAQ/BC/02/02/2024/03

**TEST RESULT**

Samples are analyzed "as Received basis"


S. No	Parameter	Method	Units	Result	NAAQ Standards
1	PM <sub>10</sub>	IS 5182: Part 23 : 2006	µg/m <sup>3</sup>	57.5	100
2	PM <sub>2.5</sub>	KIWIS/SOP/AAQ/LAB-241	µg/m <sup>3</sup>	25.3	60
3	SO <sub>2</sub>	IS 5182: Part 2 : 2001 (RA :2023)	µg/m <sup>3</sup>	15.1	80
4	NO <sub>x</sub>	IS 5182:Part 6 :2006 (RA :2017)	µg/m <sup>3</sup>	19.4	80
5	Ammonia	KIWIS/SOP/AAQ/LAB-234	µg/m <sup>3</sup>	19.9	400
6	CO	CO Analyzer	mg/m <sup>3</sup>	<0.1	02
7	HC	HC Analyzer	ppm	<1.0	-
8	VOC	VOC Analyzer	ppm	<0.1	-

Opinion and interpretation: Nil

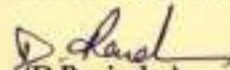
NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- PM<sub>10</sub> Instrument Model: Enviro instruments EI-142, Calibration valid up to: 30-03-2024
- PM<sub>2.5</sub> Instrument Mode: Enviro instruments EI-133, Calibration valid up to: 30-03-2024

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

**\*End of the Report\***



**TEST REPORT**

Page 1 of 1

Report No: **KIWIS/AAQ/COM/24/314**

Name and address of the client:

**M/s. Andhra Pradesh Industrial Infrastructure  
Corporation Ltd., (APIIC),  
APSEZ Atchutapuram, Visakhapatnam District,  
Andhra Pradesh.**

Date of report	: 25-03-2024	Sample Collected by	: Kiwis Eco Laboratories Private Limited
Sampling date	: 14-03-2024	Sample Collected in	: Samples received in self sealed covers and sample bottles
Sampling Duration	: 24 hrs	Sampling Procedure	: CPCB Guidelines (NAAQMS/36/2012-13)
Sample received on	: 18-03-2024	Weather Conditions	: Dry
Analysis starting date	: 18-03-2024	Sample registration no/Code	: AAQ/COM/03/24/594
Analysis completion date	: 25-03-2024	Temperature & Humidity	: 32°C & 64%
Sub Contract Testing	: NA	Sample description	: Ambient Air Quality Monitoring

**Locations: GPS Co-Ordinates:** 17° 32' 51.5" N  
83° 00' 08.1" E

1. Eastern Sector of APSEZ (Maithan Alloys Ltd. -Near Security Area)  
: AAQ/COM/03/24/594: APIIC/AAQ/ES/14/03/2024/01

**TEST RESULT**

Samples are analyzed "as Received basis"

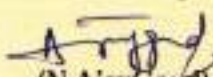
S. No	Parameter	Method	Units	Result	NAAQ Standards
1	PM <sub>10</sub>	IS 5182: Part 23 : 2006	µg/m <sup>3</sup>	75.2	100
2	PM <sub>2.5</sub>	KIWIS/SOP/AAQ/LAB-241	µg/m <sup>3</sup>	35.5	60
3	SO <sub>2</sub>	IS 5182: Part 2 : 2001 (RA :2023)	µg/m <sup>3</sup>	23.1	80
4	NO <sub>x</sub>	IS 5182:Part 6 :2006 (RA :2017)	µg/m <sup>3</sup>	28.9	80
5	Ammonia	KIWIS/SOP/AAQ/LAB-234	µg/m <sup>3</sup>	25.1	400
6	CO	CO Analyzer	mg/m <sup>3</sup>	0.2	02
7	HC	HC Analyzer	ppm	<1.0	-
8	VOC	VOC Analyzer	ppm	<0.1	-

Opinion and interpretation: Nil

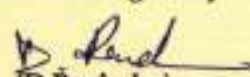
NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- PM<sub>10</sub> Instrument Model: Ecotech instruments AAS-217BL, Calibration valid up to: 30-03-2024
- PM<sub>2.5</sub> Instrument Mode: Ecotech instruments AAS-127Mini, Calibration valid up to: 30-03-2024

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

**\*End of the Report\***

Note : This report is subject to the terms and conditions mentioned overleaf



## TEST REPORT

Page 1 of 1

Report No: KIWIS/AAQ/COM/24/315

*Name and address of the client:*

M/s. Andhra Pradesh Industrial Infrastructure Corporation Ltd., (APIIC),  
APSEZ Atchutapuram, Visakhapatnam District,  
Andhra Pradesh.

Date of report	: 25-03-2024	Sample Collected by	: Kiwis Eco Laboratories Private Limited
Sampling date	: 14-03-2024	Sample Collected in	: Samples received in self sealed covers and sample bottles
Sampling Duration	: 24 hrs	Sampling Procedure	: CPCB Guidelines (NAAQMS/36/2012-13)
Sample received on	: 18-03-2024	Weather Conditions	: Dry
Analysis starting date	: 18-03-2024	Sample registration no/Code	: AAQ/COM/03/24/595
Analysis completion date	: 25-03-2024	Temperature & Humidity	: 32°C & 62%
Sub Contract Testing	: NA	Sample description	: Ambient Air Quality Monitoring

**Locations: GPS Co-Ordinates:** 17° 31' 06.2"N  
82° 57' 53.7"E

1. Western Sector of APSEZ (Vasanth Chemicals -Near Admin Office)  
: AAQ/COM/03/24/595: APIIC/AAQ/WS/14/03/2024/02

### TEST RESULT

Samples are analyzed "as Received basis"

S. No	Parameter	Method	Units	Result	NAAQ Standards
1	PM <sub>10</sub>	IS 5182: Part 23 : 2006	µg/m³	67.8	100
2	PM <sub>2.5</sub>	KIWIS/SOP/AAQ/LAB-241	µg/m³	26.0	60
3	SO <sub>2</sub>	IS 5182: Part 2 : 2001 (RA :2023)	µg/m³	21.4	80
4	NO <sub>x</sub>	IS 5182:Part 6 :2006 (RA :2017)	µg/m³	29.2	80
5	Ammonia	KIWIS/SOP/AAQ/LAB-234	µg/m³	24.3	400
6	CO	CO Analyzer	mg/m³	0.1	02
7	HC	HC Analyzer	ppm	<1.0	-
8	VOC	VOC Analyzer	ppm	0.2	-

Opinion and interpretation: Nil

NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- PM<sub>10</sub> Instrument Model: Ecotech instruments AAS-217BL, Calibration valid up to: 30-03-2024  
 PM<sub>2.5</sub> Instrument Model: Ecotech instruments AAS-127Mini, Calibration valid up to: 30-03-2024

Checked By

(N.AjayGoud)  
(Sr.Chemist)

**Authorized Signatory**

*D. Ravindar*  
(D.Ravindar)  
(Sr.Chemist)

**\*End of the Report\***

Note : This report is subject to the terms and conditions mentioned overleaf



**TEST REPORT**

Page 1 of 1

Report No: **KIWIS/AAQ/COM/24/316**

Name and address of the client:

**M/s. Andhra Pradesh Industrial Infrastructure  
Corporation Ltd., (APIIC),  
APSEZ Atchutapuram, Visakhapatnam District,  
Andhra Pradesh.**

Date of report	: 25-03-2024	Sample Collected by	: Kiwis Eco Laboratories Private Limited
Sampling date	: 14-03-2024	Sample Collected in	: Samples received in self sealed covers and sample bottles
Sampling Duration	: 24 hrs	Sampling Procedure	: CPCB Guidelines (NAAQMS/36/2012-13)
Sample received on	: 18-03-2024	Weather Conditions	: Dry
Analysis starting date	: 18-03-2024	Sample registration no/Code	: AAQ/COM/03/24/596
Analysis completion date	: 25-03-2024	Temperature & Humidity	: 31°C & 58%
Sub Contract Testing	: NA	Sample description	: Ambient Air Quality Monitoring

**Locations: GPS Co-Ordinates:** 17° 31' 34.0"N  
82° 57' 06.6" E

1. Dibhapalem (R &amp; R SITE): AAQ/COM/03/24/596: APIIC/AAQ/DP/14/03/2024/03

**TEST RESULT**

Samples are analyzed "as Received basis"

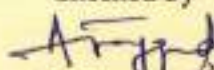
S. No	Parameter	Method	Units	Result	NAAQ Standards
1	PM <sub>10</sub>	IS 5182: Part 23 : 2006	µg/m <sup>3</sup>	54.6	100
2	PM <sub>2.5</sub>	KIWIS/SOP/AAQ/LAB-241	µg/m <sup>3</sup>	23.5	60
3	SO <sub>2</sub>	IS 5182: Part 2 : 2001 (RA :2023)	µg/m <sup>3</sup>	15.8	80
4	NO <sub>x</sub>	IS 5182:Part 6 :2006 (RA :2017)	µg/m <sup>3</sup>	20.2	80
5	Ammonia	KIWIS/SOP/AAQ/LAB-234	µg/m <sup>3</sup>	18.9	400
6	CO	CO Analyzer	mg/m <sup>3</sup>	<0.1	02
7	HC	HC Analyzer	ppm	<1.0	-
8	VOC	VOC Analyzer	ppm	<0.1	-

Opinion and interpretation: Nil

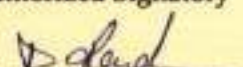
NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- PM<sub>10</sub> Instrument Model: Enviro instruments EI-142, Calibration valid up to: 30-03-2024
- PM<sub>2.5</sub> Instrument Mode: Enviro instruments EI-133, Calibration valid up to: 30-03-2024

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

**\*End of the Report\***



**TEST REPORT**

Page 1 of 1

Report No: **KIWIS/AAQ/COM/24/318**

Name and address of the client:

**M/s. Andhra Pradesh Industrial Infrastructure  
Corporation Ltd., (APIIC),  
APSEZ Atchutapuram, Visakhapatnam District,  
Andhra Pradesh.**

Date of report	: 25-03-2024	Sample Collected by	: Kiwis Eco Laboratories Private Limited
Sampling date	: 15-03-2024	Sample Collected in	: Samples received in self sealed covers and sample bottles
Sampling Duration	: 24 hrs	Sampling Procedure	: CPCB Guidelines (NAAQMS/36/2012-13)
Sample received on	: 18-03-2024	Weather Conditions	: Dry
Analysis starting date	: 18-03-2024	Sample registration no/Code	: AAQ/COM/03/24/600
Analysis completion date	: 25-03-2024	Temperature & Humidity	: 31°C & 58%
Sub Contract Testing	: NA	Sample description	: Ambient Air Quality Monitoring

**Locations: GPS Co-Ordinates:** 17°29' 34.0"N  
82° 57' 47.7"E

1. LalamKoduru : AAQ/COM/03/24/600: APIIC/AAQ/LK/15/03/2024/01

**TEST RESULT**

Samples are analyzed "as Received basis"

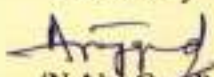
S. No	Parameter	Method	Units	Result	NAAQ Standards
1	PM <sub>10</sub>	IS 5182: Part 23 : 2006	µg/m <sup>3</sup>	53.7	100
2	PM <sub>2.5</sub>	KIWIS/SOP/AAQ/LAB-241	µg/m <sup>3</sup>	22.5	60
3	SO <sub>2</sub>	IS 5182: Part 2 : 2001 (RA :2023)	µg/m <sup>3</sup>	14.4	80
4	NO <sub>x</sub>	IS 5182:Part 6 :2006 (RA :2017)	µg/m <sup>3</sup>	18.5	80
5	Ammonia	KIWIS/SOP/AAQ/LAB-234	µg/m <sup>3</sup>	19.3	400
6	CO	CO Analyzer	mg/m <sup>3</sup>	<0.1	02
7	HC	HC Analyzer	ppm	<1.0	-
8	VOC	VOC Analyzer	ppm	<0.1	-

Opinion and interpretation: Nil

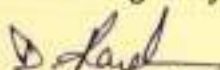
NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- PM<sub>10</sub> Instrument Model: Ecotech instruments AAS-217BL, Calibration valid up to: 30-03-2024
- PM<sub>2.5</sub> Instrument Mode: Ecotech instruments AAS-127Mini, Calibration valid up to: 30-03-2024

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

**\*End of the Report\***



**TEST REPORT**

Page 1 of 1

Report No: **KIWIS/AAQ/COM/24/319**

Name and address of the client:

**M/s. Andhra Pradesh Industrial Infrastructure  
Corporation Ltd., (APIIC),  
APSEZ Atchutapuram, Visakhapatnam District,  
Andhra Pradesh.**

Date of report	: 25-03-2024	Sample Collected by	: Kiwis Eco Laboratories Private Limited
Sampling date	: 15-03-2024	Sample Collected in	: Samples received in self sealed covers and sample bottles
Sampling Duration	: 24 hrs	Sampling Procedure	: CPCB Guidelines (NAAQMS/36/2012-13)
Sample received on	: 18-03-2024	Weather Conditions	: Dry
Analysis starting date	: 18-03-2024	Sample registration no/Code	: AAQ/COM/03/24/601
Analysis completion date	: 25-03-2024	Temperature & Humidity	: 31°C & 62%
Sub Contract Testing	: NA	Sample description	: Ambient Air Quality Monitoring

**Locations: GPS Co-Ordinates: 17°30' 43.2"N  
82° 59' 33.8"E**

1. At AETL Near Pudimadaka : AAQ/COM/03/24/601:APIIC/AAQ/PM/15/03/2024/02

**TEST RESULT**

Samples are analyzed "as Received basis"


S. No	Parameter	Method	Units	Result	NAAQ Standards
1	PM <sub>10</sub>	IS 5182: Part 23 : 2006	µg/m <sup>3</sup>	59.5	100
2	PM <sub>2.5</sub>	KIWIS/SOP/AAQ/LAB-241	µg/m <sup>3</sup>	25.1	60
3	SO <sub>2</sub>	IS 5182: Part 2 : 2001 (RA :2023)	µg/m <sup>3</sup>	27.3	80
4	NO <sub>x</sub>	IS 5182:Part 6 :2006 (RA :2017)	µg/m <sup>3</sup>	34.8	80
5	Ammonia	KIWIS/SOP/AAQ/LAB-234	µg/m <sup>3</sup>	41.8	400
6	CO	CO Analyzer	mg/m <sup>3</sup>	<0.1	02
7	HC	HC Analyzer	ppm	<1.0	-
8	VOC	VOC Analyzer	ppm	0.3	-

Opinion and interpretation: Nil


NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- PM<sub>10</sub> Instrument Model: Ecotech instruments AAS-217BL, Calibration valid up to: 30-03-2024
- PM<sub>2.5</sub> Instrument Mode: Ecotech instruments AAS-127Mini, Calibration valid up to: 30-03-2024

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

**\*End of the Report\***



**TEST REPORT**

Page 1 of 1

Report No: **KIWIS/AAQ/COM/24/320**

Name and address of the client:

**M/s. Andhra Pradesh Industrial Infrastructure  
Corporation Ltd., (APIIC),  
APSEZ Atchutapuram, Visakhapatnam District,  
Andhra Pradesh.**

Date of report	: 25-03-2024	Sample Collected by	: Kiwis Eco Laboratories Private Limited
Sampling date	: 15-03-2024	Sample Collected in	: Samples received in self sealed covers and sample bottles
Sampling Duration	: 24 hrs	Sampling Procedure	: CPCB Guidelines (NAAQMS/36/2012-13)
Sample received on	: 18-03-2024	Weather Conditions	: Dry
Analysis starting date	: 18-03-2024	Sample registration no/Code	: AAQ/COM/03/24/602
Analysis completion date	: 25-03-2024	Temperature & Humidity	: 31°C & 59%
Sub Contract Testing	: NA	Sample description	: Ambient Air Quality Monitoring

**Locations: GPS Co-Ordinates:** 17° 32' 5.5" N  
82° 59' 19.2" E

1. At APSEZ office (Top off Building): AAQ/COM/03/24/602: APIIC/AAQ/BC/15/03/2024/03

**TEST RESULT**

Samples are analyzed "as Received basis"

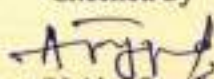
S. No	Parameter	Method	Units	Result	NAAQ Standards
1	PM <sub>10</sub>	IS 5182: Part 23 : 2006	µg/m <sup>3</sup>	56.8	100
2	PM <sub>2.5</sub>	KIWIS/SOP/AAQ/LAB-241	µg/m <sup>3</sup>	23.2	60
3	SO <sub>2</sub>	IS 5182: Part 2 : 2001 (RA :2023)	µg/m <sup>3</sup>	15.5	80
4	NO <sub>x</sub>	IS 5182:Part 6 :2006 (RA :2017)	µg/m <sup>3</sup>	19.9	80
5	Ammonia	KIWIS/SOP/AAQ/LAB-234	µg/m <sup>3</sup>	20.7	400
6	CO	CO Analyzer	mg/m <sup>3</sup>	<0.1	02
7	HC	HC Analyzer	ppm	<1.0	-
8	VOC	VOC Analyzer	ppm	<0.1	-

Opinion and interpretation: Nil

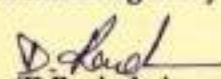
NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
- PM<sub>10</sub> Instrument Model: Enviro instruments EI-142, Calibration valid up to: 30-03-2024
- PM<sub>2.5</sub> Instrument Model: Enviro instruments EI-133, Calibration valid up to: 30-03-2024

Checked By

  
(N. Ajay Goud)  
(Sr. Chemist)

Authorized Signatory

  
(D. Ravindar)  
(Sr. Chemist)

**\*End of the Report\***

**ANNEXURE-VI**  
**Allotment Letter Copy**



**//BY REGISTERED POST WITH ACK DUE//**



**ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED**  
(An undertaking of Government of Andhra Pradesh)

C.YATHI RAJU  
Zonal Manager

Special Projects Zone  
One stop service centre  
Atchutapuram 531011  
Visakhapatnam DIST.

Lr.No.2901/TS/APSEZ/SPZ/APIIC/VSP/2012/861

Dt. 10.01.2013

To

M/s. LAURUS LABS PVT.LIMITED,  
Door No. : 8-2-334  
Road No.7  
Banjara Hills,  
SHAIKPET(M)  
Hyderabad - 500034  
Sir,

Sub: APIIC Limited - Special Project Zone - Allotment of Land to M/s.  
LAURUS LABS PVT LIMITED measuring 45.00 Acres in part of plot  
Nos. 19,20,21 in APSEZ, ATCHUTAPURAM, - Provisional  
Allotment Orders - Issued - Reg

Ref: 1.Your Application Dt. 2.11.2012 filed ONLINE

2.IOMNO.446/APIIC/PROJECTS/LAURUS/LABS/APSEZ-VSP/2012  
DT. 07-01-2012 ✓

<<>>>

With reference to your application cited, you are hereby allotted land admeasuring to an extent of Ac 45.00 (FORTY FIVE Acres) as part of Plot Nos 19,20,21 the Western sector of APSEZ at Atchutapuram Mandal of Visakhapatnam District on "AS IS WHERE IS BASIS" for setting up of Industrial unit for the manufacturing of "MANUFACTURING OF API AND INTERMEDIATES" on lease basis for a period of 33 (thirty three) years, subject to the following terms & other terms & conditions of lease deed.

12

:: 2 ::

1. The "LEASE PREMIUM" for the land is fixed at Rs. 35,81,595/- PER ACRE (ie., Rs 885 per Sq.Mt). The said rate excludes the cost of Effluents Conveyance, CETP, Marine out fall, Sewerage etc. The total "LEASE PREMIUM" for 45.00 Acres works out to Rs. 16,11,71,775/- (Rupees SIXTEEN CRORES ELEVEN LAKHS SEVENTY ONE THOUSAND SEVEN HUNDRED AND SEVENTY FIVE only).
2. You should pay the total "LEASE PREMIUM" of Rs. 16,11,71,775/- (Rupees SIXTEEN CRORES ELEVEN LAKHS SEVENTY ONE THOUSAND SEVEN HUNDRED AND SEVENTY FIVE only) with in 90 days from the date of receipt of this letter less EMD already paid at our Head office, APIIC i.e., 1,80,94,267 (ONE CRORES EIGHTY LAKHS AND NINETY FOUR THOUSAND TWO HUNDRED AND SIXTY SEVEN ONLY). Now Rs. 14,30,77,508/- (RUPEES FOURTEEN CRORES THIRTY LAKHS SEVENTY SEVEN THOUSAND FIVE HUNDRED AND EIGHT ONLY has to be paid still.
3. You should file the necessary documents such as Project Report, Memorandum and Articles of Association, Incorporation Certificate, Board Resolution, IEM Registration Certificate, Certificated stating Present Directors and Share Holders and their percentage of Share Holding duly certified by the Chartered Accountant etc. before execution of lease deed
4. a) You should pay annual lease rentals @ 2% on the total lease premium which works out to Rs 32,23,436/- per annum (Rupees THIRTY TWO LAKHS TWENTY THREE THOUSAND FOUR HUNDRED AND THIRTY SIX ONE) (i.e., @ Rs. 35,81,595/- PER ACRE) for the land allotted in your favour commencing from the date of taking possession of the land. The Annual Lease Rent will be enhanced by 5% every year on the 2% of the Annual Lease Rentals on cumulative basis.
  - b) The annual lease rentals shall be paid in advance i.e., on or before by 15<sup>th</sup> of April of every year. If not paid interest will be charged @ 16% p.a. The "LEASE PREMIUM" and "ANNUAL LEASE RENTALS" will be charged based on the actual measurements of the area taken possession.
  - c) The Development Charges for WATER requirement up to 10 KL per day per acre is included in the above charges. For Additional Water requirement over and above 10 KL per day/per Acre, you have to pay **Additional Development Charges @ Rs. 15,000.00** for each Additional One (1) KL per day. However, water connection charges, including Security Deposits, Water Meter cost and Road Cutting Charges etc., and subsequent Monthly Water Consumption Charges shall be borne by you. d) APIIC will provide 33/11 KV Power line upto the site. If more power is required, the allottee shall bear the **Development Cost of power supply including Line Charges / Power Corridor Area / Sub-Station** etc., The present cost of water is Rs40/- per 1KL.



5. The land shall be utilized for the purpose for which it is allotted, but not for any other activity. You shall fulfill the Export obligations envisaged in the LETTER OF APPROVAL (LOP) accorded by the Development Commissioner of SEZ. Failure on your part in this regard will entail cancellation of allotment and resumption of the Plots/Land allotted to you.
6. On request of the allottee, the Lease can be extended for a further period of 33 Years on payment of Yearly Rent and charges as may be determined by APIIC (developer).
7. On payment of "LEASE PREMIUM" you shall enter in to a LEASE DEED on appropriate stamp duty as per the Stamps & Registration Act within one month period from the date of payment of total lease premium and take possession of the land allotted immediately.
8. You should start construction activity within three (3) months of handing over possession of land duly obtaining necessary statutory approvals/permissions building plans approval etc., clearance from APIIC IALA, Fire services, Airport, APPCB and from any other competent authorities by paying necessary fee as per applicable norms from time to time to the concerned statutory bodies and commence the production/manufacturing activity within two (2) years.
9. Property tax or any other statutory payments/charges when demanded by the respective Statutory Bodies shall be paid by you from the date of handing over possession of land.
10. Power is supplied to the units by the Distribution Authority concerned at their terms and conditions and APIIC (Developer of SEZ ) is not responsible in case of any power failure/outages.
11. You should obtain water connection to your unit from the APIIC Limited at approved terms and conditions and to pay the consumption charges accordingly.
12. You should make all arrangements for proper disposal of Garbage/Waste at regular intervals and keep the premises inside and outside clean and hygienic.
13. You shall pay Land Use Conversion Charges, Layout Approval Charges to the concerned Local Bodies, as the case may be, and any and all charges to respective departments that may arise before, during and after the development of the SEZ facility in the land allotted.
14. You should maintain Greenery/Avenue plantation as required under the provisions of MoEF, GoI / State Pollution control board.

....4.... with applicable

shall aware of any

15. Cancellation of **Letter of Permission (LOP)** by the Development Commissioner of SEZ for any reason whatsoever will entail automatic cancellation of **Letter of Allotment (LoA)** or premises and vice versa.
16. You shall at your own risk, account and cost, apply for and obtain approval for your unit from the designated authorities as laid down in this regard by the Government of India / State Government / Local Bodies.
17. You should not Transfer, Assign, Underlet, Sub-Let, Mortgage, Sub-Lease or give on license or otherwise deal with or part with possession of the allotted land or any part thereof during the tenure of lease.
18. This allotment and occupancy of the land is subject to adherence to the directives issued by the State Board for Prevention and Control of Water and Air Pollution.
19. Please note that the EMD amount paid by the allottee, if any, will be forfeited as per APIIC rules in vogue if the terms and conditions stipulated in the allotment letter are not complied with.
20. APIIC reserves the right to appropriate the money paid by the Company or standing to its credit towards any outstanding dues payable by it on any account whatsoever. \*Payments made by the company shall be **adjusted first towards (penal) interest and balance, if any towards principle outstanding on any accounts.**
21. Any environmental clearances required shall have to be obtained by the allottee at their own cost.
22. You should provide employment in your industry for the eligible land losers, which are effected by APSEZ Project.
23. This allotment of land is subject to compliance of all rules, regulations, terms and conditions of allotment of APIIC imposed from time to time, terms and conditions of lease deed all other terms and conditions of SEZ Act 2005, Rules of 10<sup>th</sup> Feb. 2006 and AP State SEZ Act (which is under assent of President of India).
24. The allottee shall obtain **Consent for Establishment (CFE), Consent for Operation (CFO)** from **Andhra Pradesh Pollution Control Board (APPCB)** under the Air (Prevention and Control of Pollution) Act, 1981 as well as Water (Prevention & Control of Pollution) Act, 1974.

....5....

/



25. Allottee shall comply all the time with applicable environmental standards stipulated by statutory authorities and shall aware of any new modifications in the standards/notifications etc., In case of non-compliance, APIIC shall have the right to close the operations of the industries Allottee shall document all environmental activities with proper attestation all the time.
26. Allottee shall keep copies of all the environmental regulations, EIA report, EC clearance MOEF/PCB investigation reports and all other relevant Environmental documents in place all the time for inspection by APIIC at any time.
27. Allottee shall abide by the Country Fly Ash utilization regulations. Possibilities of utilization of Fly Ash for bricks and other uses during the construction stages shall be explored. Ready mixed concrete must be used in the building construction.
28. Allottee shall provide copies of environmental compliance reports submitted to APPCB and/or MOEF to the APIIC as well.
29. The Ground Water shall not be drawn at any stage in the Industrial Parks/Special Economic Zones (SEZs) if water is made available by APIIC.
30. Allottee shall adopt water re-use and water re-cycling methods for water conservation. Fixtures for showers, toilet flushing and drinking should be of low flow either by use of aerators or pressure reducing devices of sensor based control.
31. For storm water collection, the allottee shall provide drainage system with in their premises. It is mandatory for industries to provide rain water harvesting pits within the industry premises for harvesting rain water. Before reaching the roof/surface run off to the pit, pre-treatment must be done to remove the suspended matter, oil and grease. The excess storm water should be discharged into the common storm water drainage of the Industrial Park/Special Economic Zone (SEZ).
32. Allottee shall minimize waste generation by adopting suitable techniques and the details of such measures are to be provided to the APIIC from time to time.
33. Allottee shall adopt energy conservation measures and use renewable energy in all possible ways and such application of techniques shall be provided to the APIIC from time to time.
34. Allottee should make all arrangements for proper disposal of garbage/waste at regular intervals and keep the premises inside and outside of the unit as clean and hygienic.

35. The allottee shall provide proper Fire, Safety and Hazard Management facility within their premises. A First Aid room shall be provided in the project both during construction and operation of the project.
36. Construction spoils including bituminous material and other hazardous materials must not be allowed to contaminate water courses and the dump sites for such material must be secured so that they should not leach into the ground water.
37. The allottee shall have arrangements for effective hazardous and non hazardous waste collection, segregation, storage and management system. The allottee shall have a temporary storage facility for 30 days detention and hazardous wastes shall be periodically disposed off to near by approved treatment, storage and disposal facility (TSDF). Industries having hazardous waste shall obtain necessary authorization from Andhra Pradesh Pollution Control Board (APPCB) for handling/storage/treatment/disposal.
38. APIIC authorities have the right to enter into unit premises for checking and inspection of unit at any time. The allottee shall not withhold any information pertaining to Environmental Management of their units. In case of non compliance or not submitting the desired information to APIIC, necessary action for cancellation of allotments or closure of unit, as deemed fit, would be initiated.
39. The allottee shall not take up any activities, due to which the property of APIIC such as roads, green belt, drainages, street lights etc., may be damaged. In case of non compliance, APIIC may revoke the allotment orders or collect the fine from the allottee as deemed fit.
40. Allottee shall adhere to 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 including amendments and rules made thereafter.
41. Allottee shall provide on site parking for trucks within their premises. No trucks shall be parked on the internal roads of Industrial Park/Special Economic Zones (SEZs).
42. Allottee shall monitor the emissions, effluents wastes, stack emissions and their ambient air quality and water quality within their premises periodically after commissioning of project.
43. 10% of the capital cost should be earmarked for environmental protection measures and kept in separate account and should not be deviated for other purposes by the allottee.



44. All top soil excavated during construction activities should be stored for use in horticulture/landscape development within the project site.
45. Use of glass should not be more than 40% of building envelope to reduce the electricity consumption and load on air conditioning. If necessary, use high quality double glass with special reflective coating in window.
46. Roof should meet perspective requirement as per Energy Conservation Building Code by using appropriate thermal insulation to fulfill requirement.
47. The green belt design along the periphery of the plot shall achieve attenuation factor conforming to the day and night noise standards prescribed for residential land use. The open spaces inside the plot should be suitably landscaped and covered with vegetation of indigenous variety.
48. The D.G. Sets shall be provided with adequate stack height as per norms.
49. Allottee has to spent 2% of his Revenue on Corporate Social Responsibility (CSR).
50. Allottee has to provide employment to the land ousters/locals to the maximum extent based on their qualification/skills subject to minimum 20% of total requirement.
51. Allottee has to establish their own Effluent Treatment Plant (ETP) in their premises to treat the effluent to the on land discharge standards strictly as per the guidelines of APPCB, in case the CETP is not established by APIIC. Guard pond with five compartments for 5 days storage capacity shall be constructed by the allottee so as to Test The Treated Waste Water before utilizing the same for flushing, washing, gardening etc., Quality of treated effluent reaching the guard pond shall be continuously monitored and in case the treatment is not adequate there shall be arrangement to recycle the effluent from the guard pond through the CETP. In case the CETP is established at park level by APIIC/Co-developer,, pre-treatment has to be done by the allottee himself to meet the inlet standards of CETP.
52. Allottee has to make their own arrangements to manage/treat the domestic sewage by constructing septic tank or sewage treatment plant (STP) in their premises as per norms, the quality of sewage, in case no sewage disposal system is provided by APIIC at park level. No waste water shall be discharged outside the premises.

53. There will be no re-charge of ground water by industrial effluent.

Yours faithfully,

*[Signature]*  
ZONAL MANAGER  
*[Signature]* 10/1/13  
*[Signature]* 10/1/13

Copy submitted to Development Commissioner, APSEZ, 9<sup>TH</sup> Floor, VUDA Buildings, Siripuram, Visakhapatnam, for kind information.

Copy submitted to the Executive Director (s), APIIC, Hyderabad for favour of kind Information.

Copy to Deputy Zonal Manager (E), Special Projects Zone, Visakhapatnam with a request to furnish the site plan as part of plot Nos. 19,20,21 indicating the Survey Numbers covered together with boundaries at the earliest

DESPATCHED ON  
ON 12/1/2013  
BRN 852141796 *[Signature]*  
12/1/13



## **ANNEXURE-VII**

### **Photographs of CD**

# ANNEXURE - VII

## Pipeline Photo Graphs





## **ANNEXURE-VIII**

### **Photographs of CETP**

## ANNEXURE - VIII CETP PHOTOS



















# **ANNEXURE-IX**

**Form Ponds**



# ANNEXURE – IX

## Rain water harvesting Pits



## **ANNEXURE-X**

### **Ground water Level**





# KIWIS

ECO LABORATORIES PVT. LTD  
Recognized by MoEF & CC, GOI, New Delhi,  
Certified by ISO 9001:2015,  
ISO 14001:2015 & OHSMS 45001:2018.

Plot No. 19, ALEAP Industrial Estate,  
SY. No's 342, Near Pragathi Nagar,  
Quthbullapur Mandal and Municipality,  
Ranga Reddy Dist. Telangana - 500 090,  
Email: kiwislabhyd@gmail.com  
Ph: 99666 61485 / 040-23816333

## TEST REPORT

### Name and address of the client

M/s APSEZ  
Special Project Zone,  
Atchutapuram,  
APIIC Limited,  
Visakhapatnam,  
Andhra Pradesh- 531011.

Date of report : 19-12-2023

Date of sampling : 07-12-2023

S.No	Location	Parameter	Unit	Result
1	Dibbapalem Colony	Water available depth from the ground	Meters	11.8
2	Near M/s.Uniports India Pvt.Ltd.	Water available depth from the ground	Meters	10.6
3	Pudimadaka	Water available depth from the ground	Meters	9.7

Checked By

(V. Anusha)  
Sr.Chemist

Authorized Signatory

(C. Sateesh)  
Manager Laboratory



**TEST REPORT**

*Name and address of the client*

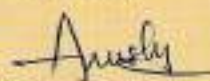
**M/s APSEZ  
 Special Project Zone,  
 Atchutapuram,  
 APIIC Limited,  
 Visakhapatnam,  
 Andhra Pradesh- 531011.**

*Date of report* : 25-03-2024

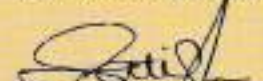
*Date of sampling* : 15-03-2024

S.No	Location	Parameter	Unit	Result
1	Dibbapalem Colony	Water available depth from the ground	Meters	14.3
2	Near M/s.Uniports India Pvt.Ltd.	Water available depth from the ground	Meters	13.5
3	Pudimadaka	Water available depth from the ground	Meters	12.4

Checked By

  
 (V. Anusha)  
 Sr. Chemist

Authorized Signatory

  
 (C. Sateesh)  
 Manager Laboratory



# **ANNEXURE-XI**

**News Paper Add**

శనివారం 25 ఫిబ్రవరి 2012

328



ఆంధ్రప్రదేశ్ ఇండస్ట్రియల్ ఇన్‌ఫ్రాస్ట్రక్చర్ కార్పొరేషన్ లిమిటెడ్

(ఆంధ్రప్రదేశ్ ప్రభుత్వ యాజమాన్య సంస్థ)

పరిశ్రమ భవనం, 6వ అంతస్తు, బివీర్బాగ్, హైదరాబాద్-500 004

వెబ్ సైట్: [www.apiic.in](http://www.apiic.in) ఫోన్: 23237622 - Ext: 412

## బహిరంగ ప్రకటన

ఇందుమూలముగా తెలియజేయునది ఏమనగా APIIC లిమిటెడ్ ఆచ్యుతాపురం & రామ్ బిల్లి మండలాలు, విశాఖపట్నం వద్ద APSEZ పేరిట మల్టి ప్రాడక్ట్ స్పెషల్ ఎకనమిక్ జోన్ గా అభివృద్ధి పరచబడుచున్నది మరియు EIA నోటిఫికేషన్ 2006 మరియు దాని అందలి తదుపరి సవరణలు మరియు CRZ నోటిఫికేషన్ 2011 మేరకు 13 ఫిబ్రవరి 2012వ తేదీనాటి F.No. 21-379/2007-IA.III ద్వారా పర్యావరణ మరియు అటవీ మంత్రిత్వ శాఖ (MOEF), న్యూఢిల్లీ ఈ APSEZ, విశాఖ పట్నం కొరకు మెట్రెన్ డిస్పోజిట్స్ యొక్క లేయింగ్ నిమిత్తం పర్యావరణ అనుమతి (EC) మరియు CRZ అనుమతిని ఇచ్చినది. పర్యావరణ అనుమతి వివరాలు APIIC వెబ్ సైట్ లో లభిస్తాయి.

హైదరాబాద్  
తేదీ: 21-2-2012

సం/-

ఎగ్జిక్యూటివ్ డైరెక్టర్ (S)

CA (17)  
12/3/12

DGR (S)  
10/6  
20/3/12

Manu/Resur  
12/3/12

CE-1 fd Department



Saturday 25 February 2012



**ANDHRA PRADESH INDUSTRIAL  
INFRASTRUCTURE CORPORATION CENTRE**

(A Govt. of Andhra Pradesh Undertaking)  
Parishram Bhavan, 6th Floor, Basheerbagh, Hyderabad - 500004  
Website: [www.apiic.in](http://www.apiic.in) Phone : 23237622 - Fax: 412

**PUBLIC NOTICE**

It is hereby informed that APIIC Ltd., is being developed Special Economic Zone as a Multiproduct Product Special Economic zone at Atchutapuram & Rambilli (M) in Visakhapatnam District, Ministry of Environment and Forest (MoEF) has been accorded Environmental Clearance(EC) and CRZ Clearance for this Special Economic zone, vide File No. 21-379/2007-IA.III, in terms of EIA notification 2006 and CRZ Notification 2011 and their subsequent amendments thereof. The details of Environmental Clearance are available in APIIC website: [www.apiic.in](http://www.apiic.in).

Hyderabad  
Date: 21-2-2012

Sd/-  
Executive Director (S)

Copy  
to  
File

ACKD  
by  
21/2/12

The Hon'ble

Minister  
for  
Industries

CE-1 2d 24-2-2012

## **ANNEXURE-XII**

**Acknowledgment Letter for Form V**