ಫ್ಯಾಕ್ಸ್ / Fax : 080-25586321
ಈಮೇಲ್ / Email : ho@kspcb.gov.in
ವೆಬ್‌ಸೈಟ್ / Website : http://kspcb.gov.in

080-25581383, 25589112
080-25589113, 25589114

ಕರ್ನಾಟಕ ರಾಜ್ಯ ಮಾಲಿನ್ಯ ನಿಯಂತ್ರಣ ಮಂಡಳಿ
Karnataka State Pollution Control Board

"ಪರಿಸರ ಭವನ", 1 ರಿಂದ 5ನೇ ಮಹಡಿಗಳು, ನಂ. 49, ಚರ್ಚ್ ಸ್ಟ್ರೀಟ್, ಬೆಂಗಳೂರು - 560 001, ಕರ್ನಾಟಕ ರಾಜ್ಯ, ಭಾರತ
"Parisara Bhavan", 1st to 5th Floor, # 49, Church Street, Bangalore - 560 001, Karnataka State, India

NO. KSPCB/ CEO-2(NEIA-BNG) /CEPI /Map /2019-20/ 6282 **Date:** 02 MAR 2020

To,

The Member Secretary,
Central Pollution Control Board,
Parivesh Bhavan, East Arjun Nagar,
New Delhi-110032

Sir,

Sub: Submission of Action Plan as per Hon'ble NGT order in the matter of O.A.1038/2018 (CEPI matter)– reg.

Ref: CPCB/IPC-VII/CEPI/NGT Order/2019/12069, dated: 19.02.2020.

****

With reference to above Hon'ble NGT(PB) order and CPCB letter dated:19.02.2020, please find herewith enclosed the map of core area and 5 km impact area around the core area pertaining to Peenya, KIADB industrial Area, Jigani, Anekal Taluk, Bengaluru and Bidar CPA/SPA clusters of Karnataka.

This is for kind information

Yours faithfully,

Member Secretary

ACTION PLAN FOR SEVERELY POLLUTED PEENYA INDUSTRIAL AREA/ ESTATE, BENGALURU, KARNATAKA STATE PREPARED BY KSPCB.

PREAMBLE:

Ministry of Environment, Forest& Climate Change (MoEF&CC), Govt. of India (GOI) in association with Central Pollution Control Board (CPCB), Delhi and Indian Institute of Technology (IIT), New Delhi have carried out an environmental assessment of industrial clusters across the country based on Comprehensive Environmental Pollution Index (CEPI) with the aim of identifying polluted industrial clusters & prioritizing planning needs for intervention to improve the quality of environment in these industrial clusters and the nation as a whole. The assessment so carried out has been documented in the form of a report entitled 'Comprehensive Environmental Assessment of Industrial Clusters'. As part of this assessment, 88 industrial areas/ clusters were covered.

The industrial clusters/areas having aggregated CEPI scores of 70 and above should be considered as critically polluted clusters/areas and need further detailed investigations in terms of the extent of damage and formulation of appropriate remedial action plan.

As per Ministry of Environment, Forest& Climate Change, Govt. of India vide office Memorandum No.J-11013/5/2010-1A.II(I) dtd:13.01.2010 has declared Peenya Industrial Area as **Severely polluted area** with **CEPI score of 65.11.**

Meanwhile, the Central Pollution Control Board (CPCB) has issued directions to all the SPCBs to implement revised CEPI criteria and directed to comply the following vide letter No. B-29012/ESS(CPA)/2015-16/334 dated:26.04.2016.

1. Part A: Environmental quality monitoring in all CPAs.
2. Part B: Installation of Continuous Ambient Air Quality Monitoring Stations.
3. Part C: Installation of Continuous Water Quality Monitoring Stations.
4. Part D: Application of revised CEPI version 2016.
5. Part E: Action Plan and Monitoring.

In this context, the Board has entrusted the work of Assessment of Ground water condition and water quality around Peenya Industrial Development Areas Phase I & Phase II in Bengaluru to Council of Scientific and Industrial Research - National Geo Physical Research Institute (CSIR-NGRI) Hyderabad. The CSIR-NGRI has carried out the said work and submitted the final report to the Board.

Meanwhile, as per revised CEPI criteria, third party evaluation of Ground Water, Surface Water & Ambient Air Quality was carried out for pre & post monsoon period from M/s. Environmental Health & Safety Research & Development Centre (EHSRDC), Bengaluru. The said agency has submitted the final monitoring reports to the Karnataka State Pollution Control Board (KSPCB). Also, the KSPCB has submitted information on pollution sources status & health statistics for CEPI calculation in the prescribed format in Annexure-A & B.

As per the news Items published in **"The Asian Age"** regarding CPCB to rank industrial units on pollution levels in O.A. No. 1038/2018, the Hon'ble NGT passed following Order's, on 13.12.2018.

1. State Pollution Control Board (SPCB) to finalize the time bound action plans with regard to identified polluted industrial clusters in accordance with the revised norms laid down by the CPCB to restore environmental qualities within norms and to finalize the action plans within three months from the date of receipt of the orders.
2. Central Pollution Control Board (CPCB) may serve copy of this order on all the SPCBs which may furnish the same to concerned Chief Secretaries. MoEF & CC may take necessary steps on its part based on CPCB report for 100 areas mentioned above in accordance with Law. The report on the action taken by the CPCB and MoEF & CC in the matter may be furnished to the Tribunal by e-mail on or before 31.05.2019.
3. The action plan to be prepared in the States may be done by the Committee constituted by the Chief Secretary within one month from today as several departments may be involved in the exercise. The final preparation of the action plan including its execution may be overseen by the Chief Secretary of the concerned State along with other connected major environmental issues of the States. The next date of hearing is listed on 09.07.2019.

In this regard, the CPCB has sought time bound action plans from all the States in letter dated 21.12.2018.

In view of this, the Karnataka State Pollution Control Board in co-ordination with the Zonal Office, Bangalore of Central Pollution Control Board has prepared **Action Plan** for remedial measures to restore environmental qualities within norms and enhancement of pollution control measures to bring down the prevailing pollution loads.

1. INTRODUCTION

1.1. Area Details including Brief history (Background information)

Peenya Industrial Area/Estate in Bengaluru is considered to be one of the oldest and largest industrial areas in south-east Asia. Peenya industrial estate was established in late 1970s by the Karnataka Small Industries Development Corporation (KSSIDC) as Stage I, II and III. Karnataka Industrial Area Development Board (KIADB) developed I, II, III and IV Phase Industrial Areas and the total extent of the area is around 40 sq. km. The Peenya Industrial Area (PIA) is located on the North-western suburbs of Bengaluru city between 13º 1'42"N and 77º 30'45" E. It is the region's largest enclave of industrial units. The Peenya Industrial Estate (PIE) and Area has provided employment of around 5.0 lakhs people out of which 2.5 Lakh is women employees.

1.2. Location

I. Presently, the entire industrial area and estate are coming under the jurisdiction of Bruhat Bangalore Mahanagara Palike (BBMP). The entire area is also classified as industrial zone as per Comprehensive Development Plan (CDP) of Bengaluru as notified by Bangalore Development Authority (BDA) for the year upto 2015 and the same is still in force. The industries which are significant from Pollution point of view are, Surface treatment activities i.e. Galvanizing, Pickling, Phosphating, Anodization, Electroplating, Degreasing, Textile Dying, Garment Washing, Lead Processing, Spray painting, Powder coating with seven tank process and Pharmaceuticals Formulations etc.

II. The average rain fall in the area for last 50 years is 923 mm and the soil in the industrial area is in general witnessed by a red sandy soil. The soil cover extends up to 1 to 2 meters below the ground level. It is porous and non-sticky and non-clay. The soil is in unsaturated conditions since,

a. Highly porous (water holding capacity goes down).
b. Water table gone down due to excessive pumping (over exploitation of ground water) in the area.
b. Most of the area is asphalted, soil coverage is less (less percolation).
c. Topography is undulating and hence run off is high.

III. The hydraulic environment of the area is located at a moderately elevated ground predominantly sloping towards North–East. The main stratographical unit consists of sandy soil as top cover and,

- Weathered rock (clay) up to 30 mts
- Fractured /jointed rocks between 35 -80 mts
- Hard Gneissic rocks beyond 100 mts

IV. The stratography of the area is such that it has weathered upper mantle which transmits the surface water to the main aquifers with vertical movement and this water flows as ground water in the joints and factures (main aquifers) below the weathered zone. The lateral and down ward movement of ground water flow mainly controlled by geometry of these fractured rocks. There is no definite geometric pattern of these fractured hard rocks. These factures are a few centimetre in width to a few meters. **Ground water is found at 50 to 70mts.**The authorities responsible for developmental work are as follows;

SlNo.	Authority	Responsibility
1	Bruhath Bangaluru Mahangara Palike (BBMP)	Development of infrastructure like Road, Drainage facility & Solid Waste Management
2	Bengaluru Water Supply and Sewerage Board (BWSSB)	Providing water supply, UGD facility and treatment of sewage
3	Bangalore Developmental Authority (BDA)	Tanks maintenance and Rejuvenation of the Lakes.

V. Salient features of the area:

a. The industrial area/estate is located within the BBMP limits.
b. This industrial area/estate is surrounded by residential, commercial and heterogeneous industrial activities.
c. There is no buffer zone existing between Peenya Industrial Area/estate and residential area.
d. National Highway - 4 (Bengaluru -Mumbai) is passing through the industrial area.
e. Railway line is located at a distance of 1.5KM from the boundary of Peenya Industrial area I Phase.
f. Metro line is passing through industrial area.
g. Phase I, II, III (Part) & IV and Stage 1, 2 & 3 falls under Zone-I of Tippagondanahalli reservoir catchment area (Arkavathi river). This reservoir is one of the drinking water source for Bengaluru city, and part of III phase falls under Vrushabhavathi valley (ultimately joins Arkavathi river downstream of Tippagondanahalli reservoir) catchment area.

VI. STATUS OF UGD AND SEWAGE TREATMENT PLANT FACILITIES FOR THE INDUSTRIAL AREA/ESTATE:

a. All the three stages (1st, 2nd& 3rd) of Peenya Industrial estate are having UGD facility and the same is also provided for Phase –II, III & IV industrial areas except Phase-I.

b. The sewerage from Ist Stage, IIIrd Phase &IInd Phase of Peenya Industrial Area/Estate and Yeshwantpur Industrial Suburb is connected to Intermediate Sewage Pumping Station (ISPS) located at MK Halli (Rukmininagar) and the sewage from this ISPS is being pumped for further treatment & disposal in 20 Million Litres per day (MLD) capacity Sewage treatment plants (STPs) established and operated by BWSSB at Nagasandra Village.

c. The sewerage from IInd,IIIrd Stages& IV Phase industrial areas is connected to Intermediate Sewage Pumping Station (ISPS) located at Karihobanahalli and the sewage from this ISPS is being pumped for further treatment & disposal in another 20 MLD capacity Sewage Treatment Plant established & operated by BWSSB at Nagasandra. The treated sewage from the outlet of both the STPs is being disposed to Anchepalya Kere (tank) located near Nice Road and this Tank is maintained by M/s. Jindal Aluminium Ltd.

d. Part of the sewerage from III Phase& I Phase industrial areas along with sewerage from Nandini residential Layout is connected to STP located at Nayandanahalli.

e. Besides, the missing link sewerages from all these areas are leading to Shivapura, Karihobanahalli & Dasarahalli Tanks located in Peenya Industrial Area and into storm water drains leading to Vrishabhavathi Valley.

f. BBMP is established and operating 1.0 MLD STP on the North-East side of the Dasarahalli Tank to treat part of the missing link sewage entering into the tank from the rajakaluve (natural drain) in order to avoid direct discharge into the said Tank.

g. The frequent changes in ownership/activity of industries particularly in industrial estate have resulted in environmental issues.

h. Parks located in the study area are being maintained by BBMP, Peenya Industrial Association and the KSPCB is also maintaining Urban Eco Park in the said area.

VII. INFRASTRUCTURE DEVELOPMENT

Being a major industrial area it has well maintained network roads, important roads that link Peenya to other part of Bangalore are Ring Road, Tumkur Road, Kanteerava Studio main Road and the nearest railway station is Yeshwantpura Railway station.

Regular maintenance of road need to be done since, the road caters for heavy truck movement.

Existing Infrastructure Facility In The Area/Estate

Sl. No.	Facility	Remarks
1	1. Water Supply from BWSSB (agency for supply of water) 2. Water Supply from other sources.	Partly a) Captive ground water. b) Through outside tankers.
2	Sewerage system	• Provided for 1st, 2nd and 3rd the stages and II, III & IV Phases. • Not provided for I Phase. • Partly provided for Doddanna, Nadkerappa Private Industrial Areas & Karihobanahalli village.
3	Common Sewage treatment plant	There are no common sewage treatment plants in the study area. However, the sewage generating from the study area is being treated in the 20 MLD each STPs established and operating by BWSSB at Nagasandra Village, which is outside the study area. Besides, the BBMP is established and operating 1.0 MLD STP on the North-East side of the Dasarahalli Tank within the study area.
4	Common Effluent treatment Plant	At present there is no common effluent treatment plant in the study area. However, the industries are disposing the trade effluent to Private CETPs located outside the study area. The KSPCB is proposed to establish 0.2 MLD

		(200 KLD) Common Effluent Treatment Plant in Urban Eco Park to treat bio-degradable and non-biodegradable effluent generating from small/medium scale surface treatment, garment washing industries etc., the Detailed Project Report (DPR) is under preparation and the Government of Karnataka has allocated Rs. 10 crores in the 2018-19 budget for establishment of CETP in Peenya Industrial Area.
5	Hazardous waste disposal facility	Nil
6	Hazardous waste collection common facility	There is one hazardous waste collection centre being established and operated by M/s. Karnataka Oil Refineries Association at Yeshwanthpur Suburb for collection of used oil/waste oil and oil contaminated wastes.
7	Captive Incinerator	Nil
8	Common incinerator	Nil
9	Common Bio-Medical Waste Disposal Facility	Nil
10	Common Municipal Solid Waste Disposal Facility	There is one Common Solid Waste Disposal Facility at Doddabidarakallu which is coming under impact zone.
11	Common e-waste Collection & Disposal Facility	There is no e-waste collection centre. However, there are six e-waste dismantling & recycling industries.
12	a)Online Ambient Air Quality Monitoring Station b) Ambient Air Quality Monitoring Station	1—Maintained by CPCB 2—Maintained by KSPCB under National Air Monitoring Programme (NAMP).
13	Hospital facility	There are five hospitals in the study area.
14	Fire Station	Two
15	Parks	Many small parks located in the study area are being maintained by BBMP & Industrial Association and the KSPCB is maintaining Urban Eco Park.
16	Hotel with lodging facility	One

VIII. The study area is covered under the jurisdiction of the Regional Office - Peenya, Dasarahalli & Bengaluru City-West of the KSPCB. The total number of industries under operation is as follows;

Category	Industry classification & numbers			Total No. of Industries
	Large	Medium	Small	
Red	40	14	280	**334**
Orange	58	26	389	**473**
Green	100	79	1115	**1294**
Total	**198**	**119**	**1784**	**2101**

The above table reveals that there are 54 Large & Medium Red category industries and 84 Large & Medium Orange category industries in the study area and 280& 389 Small Red & Orange category industries respectively which are significant from pollution point of view. The major activities are engineering with surface treatment, spray painting, R & D on pharma, service station, electroplating, garment washing, dyeing, printing industries. There are no 17 category highly polluting & grossly polluting industries in the study area. The name & address 40 Large Red Category industries area as follows:

Sl No	Name & address of the Industries
1	ABB Ltd, No.4A, 5 & 6, II Phase, PIA, Bangalore- 560 058,
2	KDDL Ltd (formerly know as Kamala Dials & Devices), No.296 & 297 IV Phase, PIA, Bengaluru-560 058,
3	Advinus Therapeutics Private Ltd, Unit -1, Unit -1, No 21/ 22, II Phase, PIA, Bengaluru-560 058
4	Rewdale Precission Tools Pvt. Ltd., No.484 B & C, IV Phase, PIA, Bengaluru-560 058
5	Sami Labs Ltd, No.19/1 & 19/2, 1st Main, II Phase, PIA, Bangalore-560058
6	Ace Designers Ltd, No.7 & 8, II Phase, PIA, Bengaluru-560 058
7	Fouress Engineering India Ltd, N No.2, II Phase, PIA, Bengaluru-560 058
8	Glastronix LLP (Formerly known as Glastronix), No.21-E2, II Phase, PIA, Bengaluru-560 058
9	Beckman Coulter India Pvt. Ltd.,(Formerly known as Rea Matrix India Pvt Ltd), No.50 B, II Phase, PIA, Bangalore-560058,
10	Mag Engineering Pvt Ltd (A unit of Sandhar Technologies), No.46-A, 3rd Main road, Unit -2 , II Phase, PIA, Bengaluru-560 058,

11	Mysore Thermo Electric Pvt Ltd, No.62, III Phase, PIA, Bengaluru-560 058,
12	Healthium Medtech Pvt Ltd (Formerly Sutures India Pvt Ltd, No.472/D, IV Phase, PIA, Bengaluru-560058
13	Merck Life Science Pvt Ltd., (Formerly known as Millipore (India) Pvt Ltd), No. 50-A/51, II Phase, PIA, Bengaluru-560 058,
14	Steer Engineering Pvt Ltd, No.290,4th Main, IV Phase, PIA, Bengaluru-560 058
15	Surhennings Pvt Ltd, No.1-B, II Phase, PIA, Bangalore-560058
16	Microtex Energy Pvt Ltd., No.42 & 43,2nd Main, II Phase, PIA, Bangalore-58
17	Eshwari Textile Processing Pvt Ltd., No.109, 6th Main, III Phase, PIA, Bangalore-560058
18	Bioneeds India Pvt. Ltd No.3,I Main Road, I Stage, PIE, Bengaluru-560 058,
19	ICT Services Management Solutions (I) Pvt ltdNo. 30A, Sy.No. 37 & 39, II Phase, PIA, Bengaluru-560 058,
20	TUV SUD South Asia No.A-151/152, 2nd C Main, II Stage, PIE, Bangalore-560058
21	Quenby Transfer (I) (P) Ltd., No.542, 14th Cross, IV Phase. PIA, Bengaluru-560 058
22	Armstrong Acmite India, No.41-B,II Phase, PIA, Bangalore-560058
23	Dynamatic Technologies Limited, No. 11, Dynamatic park, II Phase, PIA, Bengaluru-560 058
24	Healthium Med tech Pvt Ltd (Formerly Sutures India Pvt Ltd.), No.477C, Opp. to Bata Factory, BMTC Depot Main Road, IV Phase, PIA, Bengaluru-560 058
25	Gemini Dyeing & Printing Mills Limited, No.16, 1st Phase, Peenya Industrial Area, Bangalore
26	Hind High Vaccum Company (P) Ltd., No.17, 1st Phase, Peenya Industrial Area, Bangalore-560058
27	ITC Limited, 1st Phase, Peenya Industrial Area, Bangalore
28	John Crane Sealing System, 1st Phase, Peenya Industrial Area, Bangalore-560058
29	Kennametal Widia (I) Limited, (Widia (I) Limited,), 8/9th Mile, Tumkur Road, 16th Km, Bangalore
30	SurinAutomotives(Krishna Fabrications Limited), No.6a, 1st Phase, Peenya Industrial Area, Bangalore
31	Welcast Steels Limited, 1st Phase, Peenya Industrial Area, Bangalore
32	Wipro Infrastructure Engineering, No.9B-10A, 1st Phase, Peenya Industrial Area, Bangalore-560058
33	Rallis Research Centre 73/1C & 1D, ByregowdaIndl Estate, Srigandanagar, Hegganahalli, Bangalore
34	Avery Dennison India Pvt Ltd, Plot No 6B, Ist Main Road, KIADB, Phase I, Peenya Industrial Area, Bangalore 560058

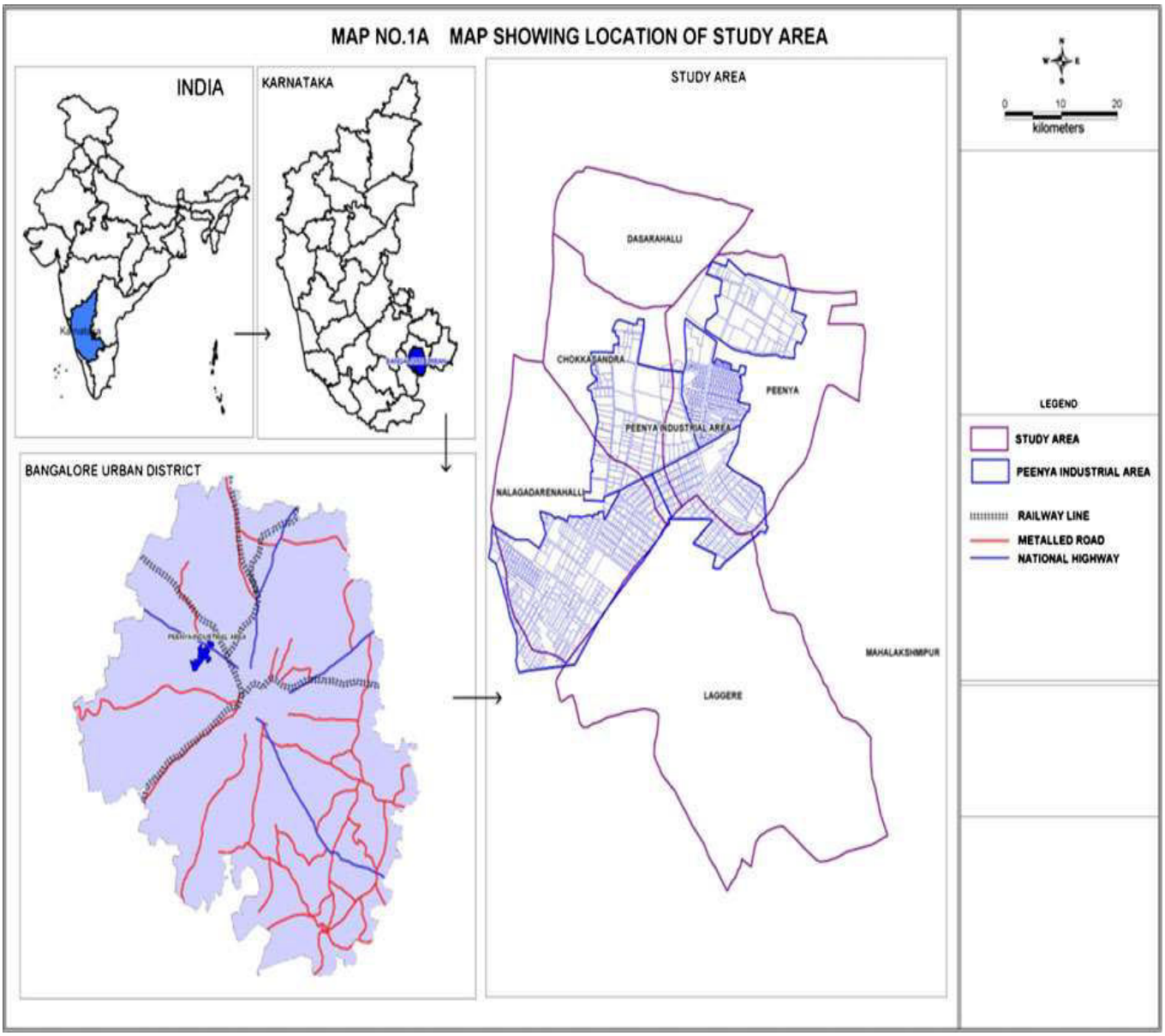
35	Cookson India Research Centre, No.89/1, Vaishnavi Bhavan, Industrial Suburb, 2nd Stage, Yeshwanthpura, Bangalore - 560 022.
36	Jubilant Biosys Ltd., No. 96, Industrial Suburb, Yeshwantpur Bangalore - 560 022
37	The Mysore Electrical Industries Ltd.,P.B. NO. 2221, Tumkur road, Industrial Suburb, Yeshwanthpura B'lore – 22
38	Danisco (India) Pvt. Ltd., (FMC India R & D Centre)No. 61/A, 1st Main Road, Indl Suburb, 2nd Stage, Yeshwanthapur, Bangalore-22.
39	Gardener Aerospace Bengaluru Pvt Ltd No 102,3rd cross,3rd main,2nd stage Industrial Subrub, Yeshwanthpur, Bengaluru 560 022
40	HMT Machine Tools Ltd., No.1, Common Service Division, HMT Post, Jalahalli, Bangalore.

1.3. Digitized Map with Demarcation of Geographical Boundaries and Impact Zones

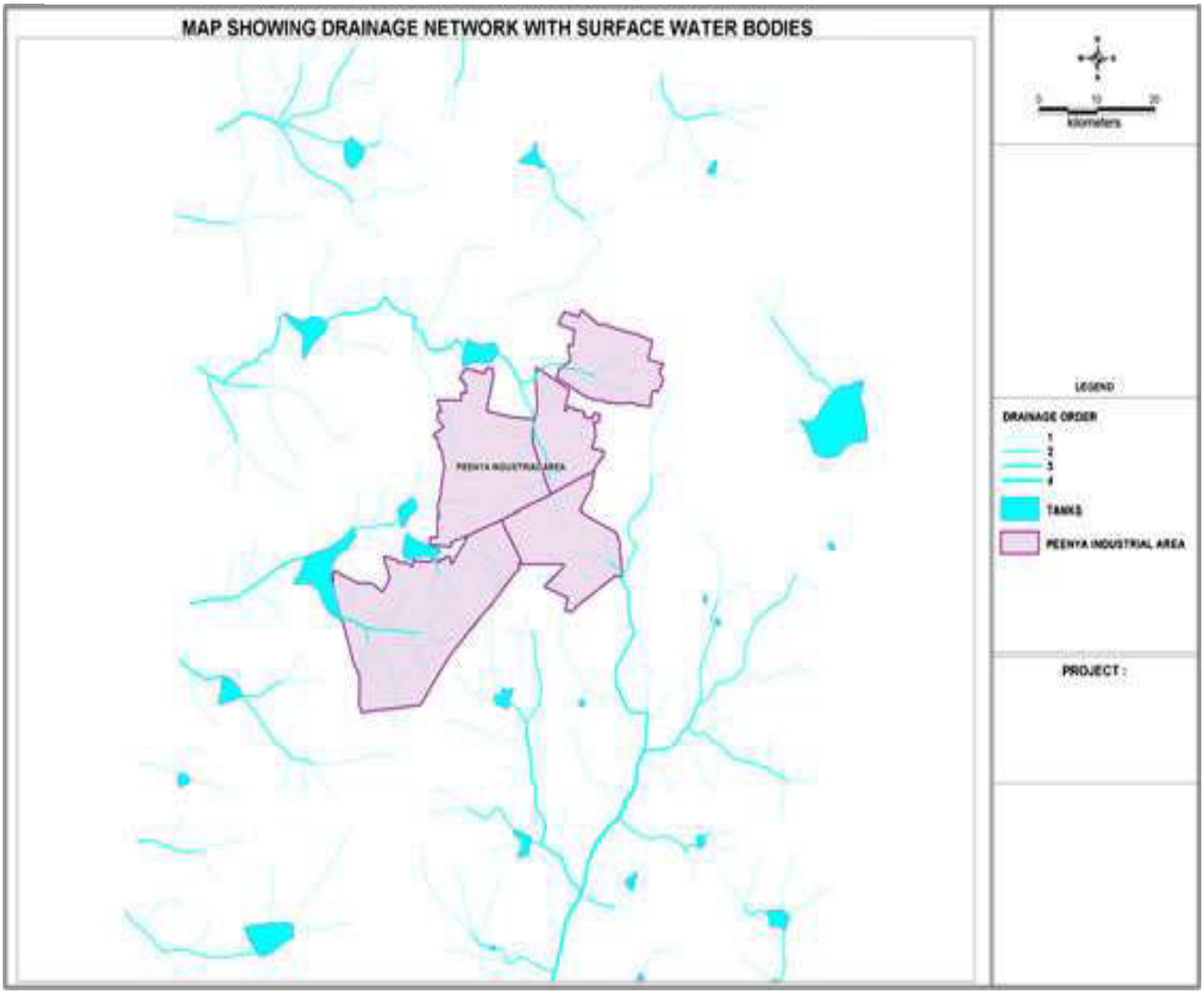
The maps showing the geographical boundaries of the industrial cluster identified and impact zone (10 Sq.kms), the Drainage pattern of the cluster and location of major industries in the cluster and the surrounding villages of the impact zone are presented in **Maps I to V.** Latitude & longitude of boundaries (East, West, North, South,) of Peenya Industrial cluster is as follows:

Direction	Latitude	Longitude
East	**13°01'22.77"**	**77°31'37.3"**
West	**13°02'15.8"**	**77°30'25.8"**
North	**13°02'39.98"**	**77°31'13.7"**
South	**13°00'45.4"**	**77°30'5.3"**

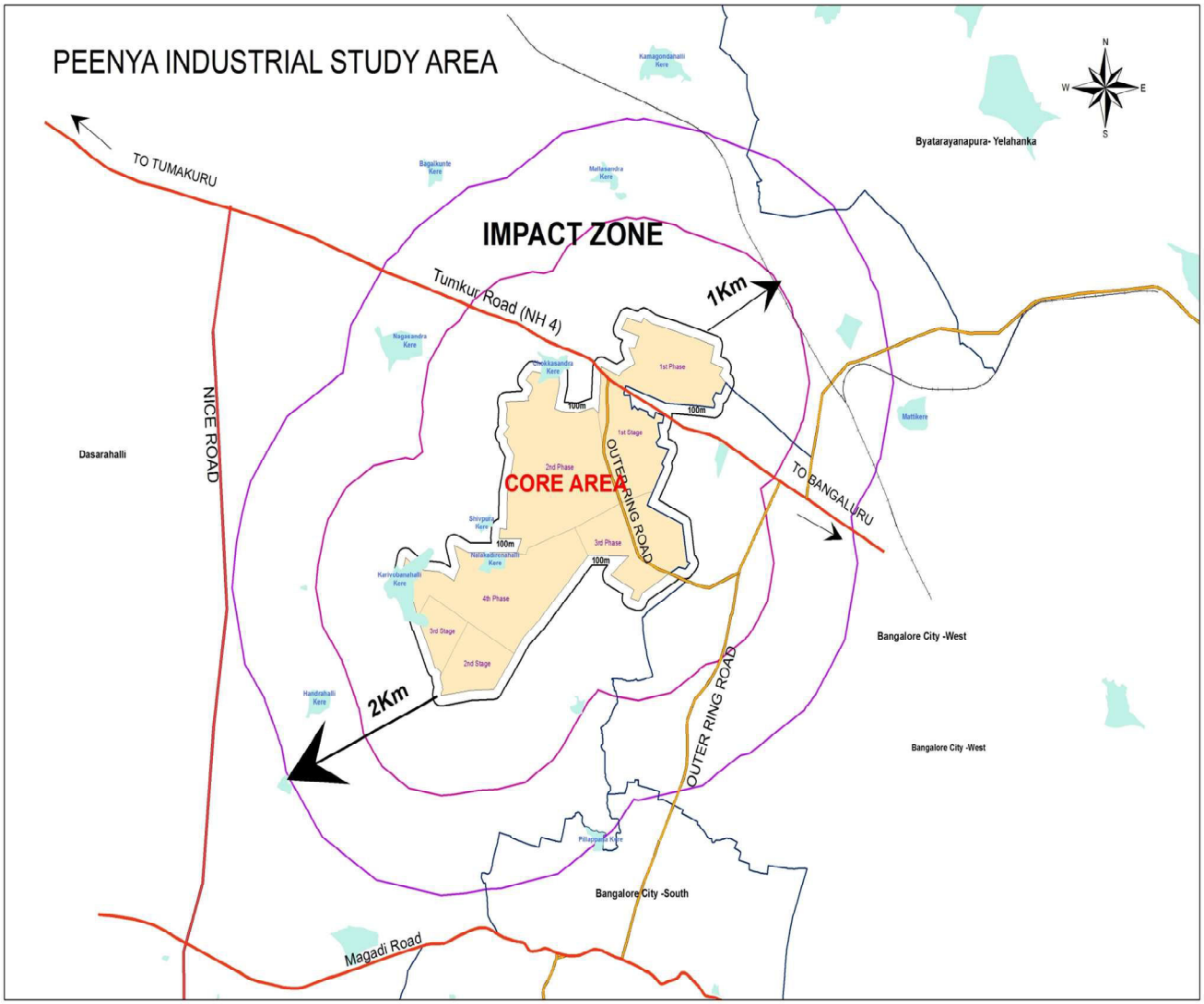
MAP-I – SHOWING LOCATION OF STUDY AREA



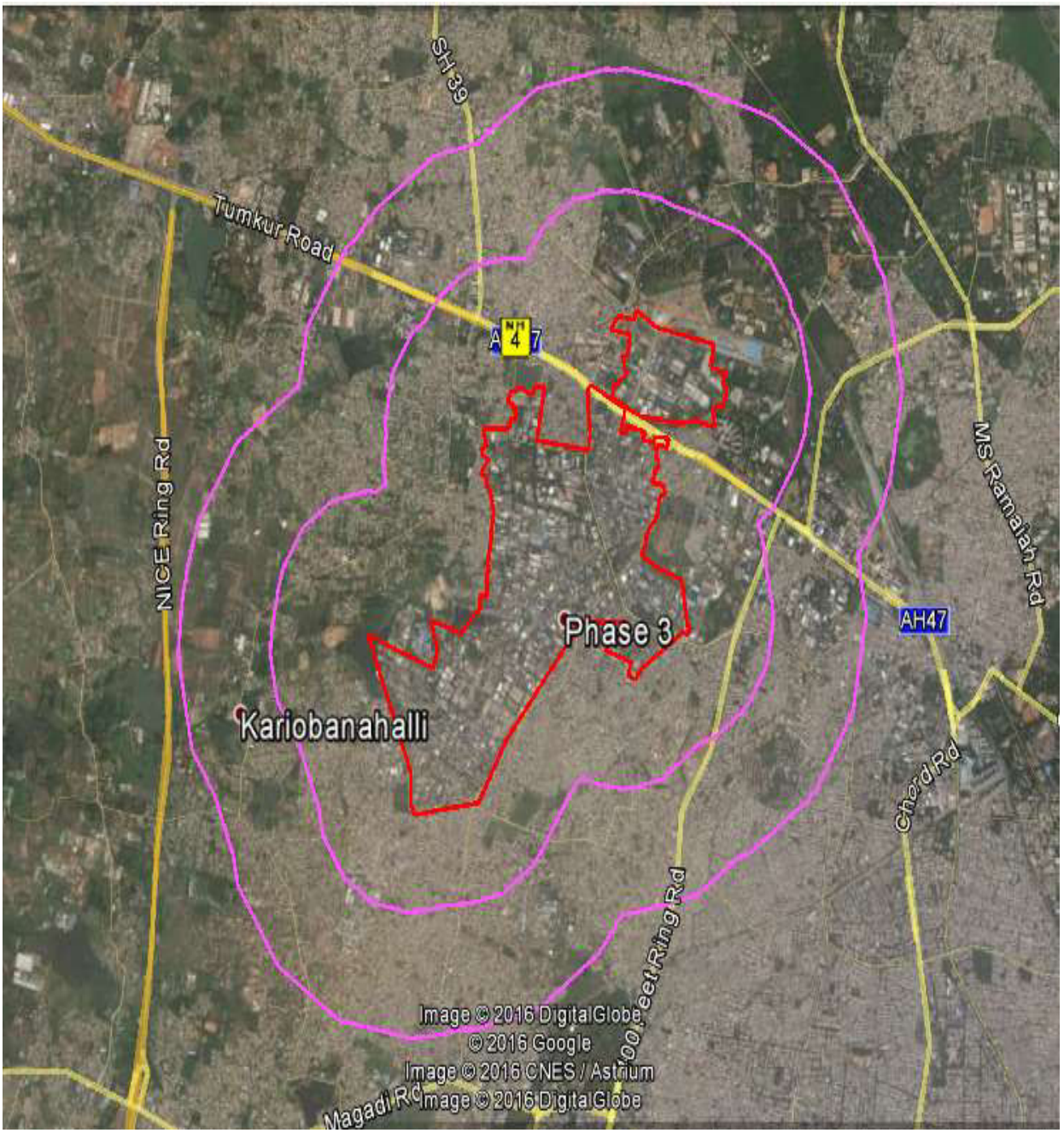
MAP-II – SHOWING DRAINAGE NETWORK WITH SURFACE WATER BODIES



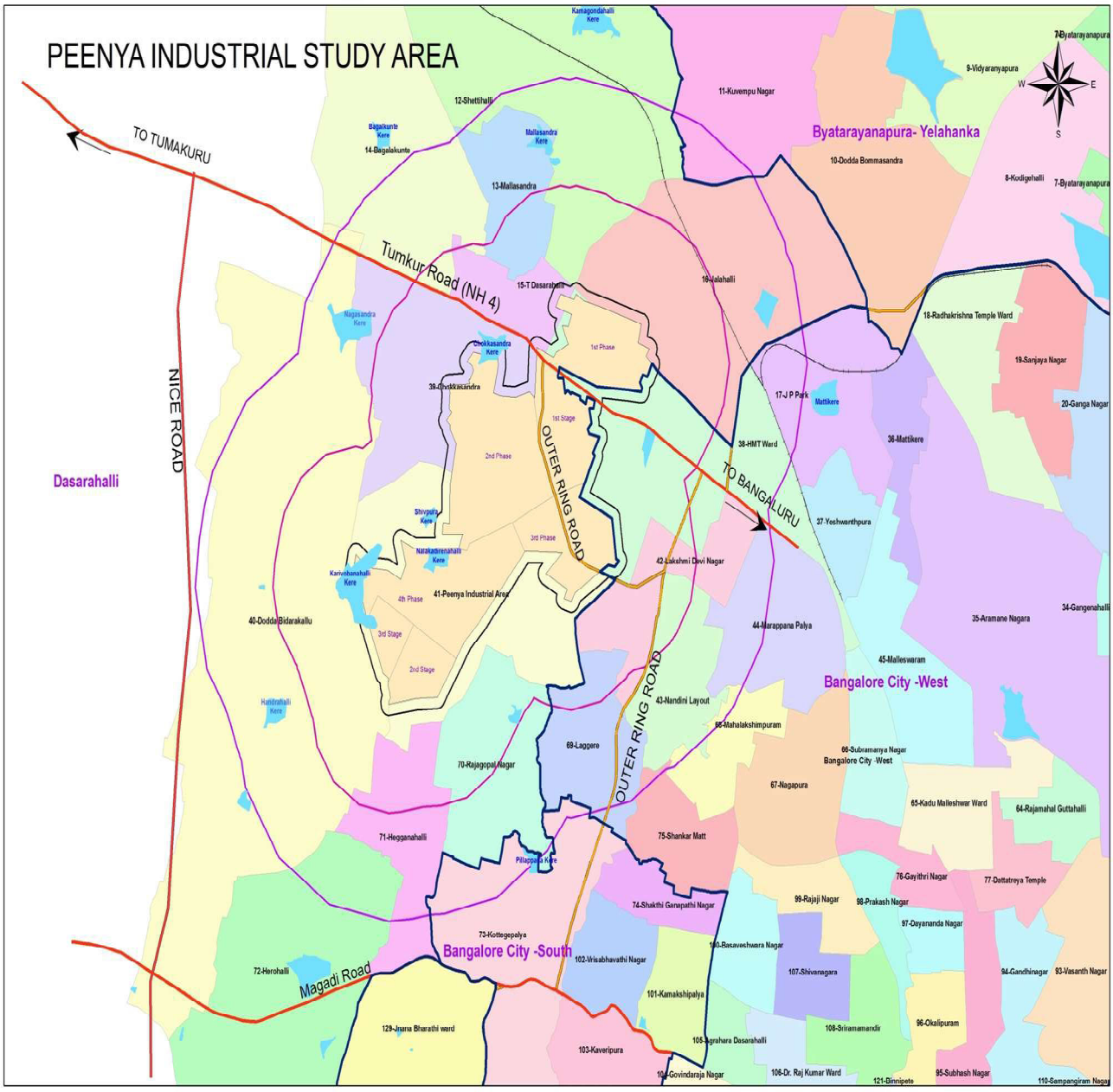
MAP-III – PEENYA INDUSTRIAL STUDY AREA



MAP-IV – GOOGLE IMAGE OF PEENYA INDUSTRIAL STUDY AREA



MAP-V – WARDWISE PEENYA INDUSTRIAL STUDY AREA



1.4. CEPI Score (Air, Water, Land and Total)

The Peenya Industrial Cluster is declared as severely polluted area and stands at 32nd position with a CEPI score of **65.11.** The sub index score of different environment is presented as follows:

Sl.No.	Industrial area/ cluster	Air	Water	Land	CEPI	
1	**Peenya Industrial Cluster, Bengaluru (Karnataka).**	**56.75**	**46.00**	**42.00**	**65.11**	**Ac_Ws_ Ls**
Note : Ac - Air Critical : Ws - Water Severe : Ls - Land Severe						

1.5. Total population and sensitive receptors (hospitals, educational institutions, residential area etc.,) residing in the area comprising of geographical area of the cluster and its impact zone (minimum 2km):

As per 2011 census, the Peenya Industrial Cluster (core zone) & its 10 Sq Km surrounding impact zone are having a total population of about 224893. The Bengaluru City is having a population of about 11178146(2011 census).There are no major hospitals within the impact zone of industrial cluster. However, there are small hospitals attached to the industrial establishments to cater to emergency situation. There are no other sensitive receptors other than residents within the impact zone.

The following BBMP wards of Dasarahalli zone are located outside the industrial area but adjoining to the industrial area/estate surrounding the impact zone with population.

Sl.No.	Place	Direction	Lat	Long	Elevation	Total
1	Nelagedaranahalli	N	77.508	13.035	896	27467
2	Chokkasandra	NE	77.515	13.039	897	30117
3	Peenya	SE	77.527	13.034	927	29764
4	Dasarahlli	NE	77.511	13.049	904	26050
5	Karihobanahalli	W	77.483	13.016	872	1054
6	Hegganhalli	W	77.513	13.000	899	30889
7	Rajagopalnagar	S	77.511	13.012	916	28604
8	Laggere	S	77.525	13.009	890	25370
9	Lakshmidevenagar	SE	77.526	13.014	891	25578
	Total					**224893**

There are five Hospitals and four educational institutions located within the core & impact zone.

1.6. Eco-geological features: Impact Zones (the area comprising of geographical area of the cluster and its impact zone (minimum 2 km)

There are no declared Eco-Geological features within the Study area.

1.6.1. Major Water Bodies (Rivers, Lakes, Ponds, etc.):

Sl No	Major Water Bodies	Remarks
1	River	-
2	Lakes	-
3.	Ponds/ Tanks	Five Tanks namely, Shivapura, Karihobanahalli, Dasarahalli, Andhrahalli & Doddabidarakallu Tanks.

1. SHIVAPURA/NALLAKADRANAHALLI TANK:

This is a fresh water tank located towards western side of the Peenya Industrial Area and surrounded by Shivapura & Nallakadranahalli Villages (BBMP Ward No 40 & 41) on upstream. The custodian of the Tank is BDA & this tank falls in the jurisdiction of BBMP, Dasarahalli Zone. The water spread area of this tank is about 7.75Acres and the catchment area is about 1 Sq. Km. The water source to the said tank is from rainfall, sewage & storm water drain. The tank is divided into two parts and the major inflow of water is from eastern side and the storm water from part of Rajgopalnagar, Shivpura village, II & IV Phase industrial area. The outfall from this tank is joining to Karihobanahalli tank. The tank water quality is monitored by KSPCB for every month. The analysis report reveals that the tank water is classified under below **E-Class (Not meeting A,B,C,D& E criteria**)as per Primary Water quality criteria laid down by CPCB for designated best use. The annual extract of the analysis report from Jan-2018 to Dec-2018 is highlighted in **ANNEXURE-I(a)Surface Water (SW-1).**

Photograph of Shivapura Tank

2. KARIHOBANHALLI TANK:

This is a fresh water tank located at Sy. No. 40 of Karihobanahalli, Sy. No. 89&90 Nelagadaranahalli, Sy. No. 24 of Doddabidarakallu villages. The II & III Stage Peenya Industrial Estate is located on the upstream and the Thigaralapalya Private Industrial Area is bounded towards Southern side. This tank falls in the jurisdiction of BBMP, Dasarahalli Zone. The water spread area of this tank is about 25 Hectares and the catchment area is about 4.2 Sq. Km. The main water source is outflow from Shivpura Tank, sewage & storm water. The tank water quality is monitored by KSPCB for every month. The analysis report reveals that the tank water is classified under below **E-Class (Not meeting A,B,C,D& E criteria**)as per Primary Water quality criteria laid down by CPCB for designated best use. The annual extract of the analysis report from Jan-2018 to Dec-2018 is highlighted in **ANNEXURE-I(b)**
(SW-2).

Photograph of Karihobanahalli Tank

3. DASARAHALLI TANK:

This is a fresh water tank located at Sy. No. 24 of Dasarahalli village & Sy. No. 5 of Chokkasandra village. The Ist stage industrial estate & II Phase industrial area is bounded towards western & eastern sides of the tank. This tank falls in the jurisdiction of BBMP, Dasarahalli Zone. The water spread area of this tank is about 27.33 Acres. The main water source is rainfall, sewage, storm water& treated sewage from 1.0 MLD STP located on upstream. The tank water quality is monitored by KSPCB for every month. The analysis report reveals that the tank water is classified under **Class-D(Propagation of Wild life, Fisheries)** as per Primary Water quality criteria laid down by CPCB for designated best use. The annual extract of the analysis report from Jan-2018 to Dec-2018 is highlighted in **ANNEXURE-I (c) (SW-3).**

Photograph of Dasarahalli Tank

3. ANDHRAHALLI TANK:

This is fresh water tank located at Sy.No.8 of Andhrahalli village, Bangalore North, Taluk. This tank falls in the jurisdiction of BDA. The water spread area of this tank is about 16.6 Acres and the catchment area is about 2.5 Sq. Km. The main water source is rainfall, storm water & sewage. The tank water quality is monitored by KSPCB for every month. The analysis report reveals that the tank water is classified under **Class-D (Propagation of Wild life, Fisheries)** as per Primary Water quality criteria laid down by CPCB for designated best use. The annual extract of the analysis report from Jan-2018 to Dec-2018 is highlighted in **ANNEXURE-I(d) (SW-4).**

Photograph of Andhrahalli Tank

5. DODDABIDARAKALLU TANK:

This tank is located at Sy.No.125, Doddabidarakallu village& Sy.No.6, Nagasandra village, Yeshwanthapura Hobli, Bangalore North Taluk. The tank is spread over an area of 18.40Acres. The lake is coming under the jurisdiction of BDA and maintained by BDA authorities. The main water source is rainfall, storm water & sewage. The tank water quality is monitored by KSPCB for every month. The analysis report reveals that the tank water is classified under E**-Class (Irrigation, Industrial cooling, Controlled waste disposal)** as per Primary Water quality criteria laid down by CPCB for designated best use. The annual extract of the analysis report from Jan-2018 to Dec-2018 is highlighted in **ANNEXURE-I(e) (SW-5).**

Photograph of DoddabidarakalluTank

1.6.2. Ecological parks, Sanctuaries, flora and fauna or any eco sensitive Zones:

There are no Ecological parks, Sanctuaries, flora and fauna or any eco sensitive zones in the core and impact zone of the study area.

1.6.3. Buildings or Monuments of Historical/archaeological/religious Importance.

There are no buildings, monuments of historical, archaeological & religious importance in the core & impact zone of the study area.

1.7.Industry classification and distribution (no. of industries per 10sq. km area or fraction):

1.7.1. Highly Polluting industries (17 categories)

There are no highly polluting industries (17 category industries) in the core & impact zone of the study area.

1.7.2. Red category industries (84 categories as per CPCB revised classification)

There are**334**Red category industries (40-Large Red, 18-Medium Red & 280-Small Red)in the core & impact zones covered under the jurisdiction of Regional Office-Peenya, Dasarahalli& Bengaluru City-West of KSPCB. The major activities are engineering industries with surface treatment/Electroplating, Powder coating, Research & Analytical Laboratories, Lead Acid storage batteries, Hazardous waste reprocessing i.e. spent solvents, used oil and waste oil, e-waste dismantling & recycling, Textile dyeing & Chemical industries. The details of the same is as follows;

Sl. No.	Category No. as per CPCB Notification	Industry Sector	Industry classification			Total No. of Industries
			Large	Medium	Small	
1	R-1	Isolated storage of hazardous chemicals (as per schedule of manufacturing, storage of hazardous chemicals rules1989 as amended)	0	0	6	0

2	R-3	Industries engaged in recycling/reprocessing/ recovery/reuse of Hazardous Waste under schedule iv of Hazardous and Other Waste (Management and Trans boundary Movement) Rules	0	0	12	12
3	R-4	Manufacturing of lubricating oils ,grease and petroleum based products	0	0	2	2
4	R-6	Industrial carbon including electrodes and graphite blocks, activated carbon, carbon black	0	0	1	1
5	R-7	Lead acid battery manufacturing(excluding assembling and charging of lead-acid battery in micro scale)	2	0	13	15
6	R-9	Sheet metal enclosures with surface treatment	0	1	0	1
7	R-10	Industries engaged in recycling/reprocessing/ recovery/reuse of Hazardous Waste under schedule iv of Hazardous and Other Waste (Management and Transboundary Movement) Rules Itemsnamely-Spent catalyst containing nickel, cadmium, Zinc, copper, arsenic, vanadium and cobalt,	1	0	2	3
8	R-11	Processes involving chlorinated hydrocarbons	0	0	1	1
9	R-15	Dismantlers, Recycling Plants Components of waste electrical and electronic assembles comprising accumulators	0	0	5	5
10	R-21	Manufacturing of paints varnishes, pigments and intermediate (excluding blending/mixing)	0	1	2	3
11	R-22	Organic Chemicals manufacturing	0	1	7	8

12	R-25	Basic chemicals and electro chemicals and its derivatives including manufacturing of acid	0	0	3	3
13	R-33	Items namely -Integrated Recycling Plants –Components of waste electrical and electronic assembles comprising accumulators and other batteries included on list A, mercury-switches	0	0	1	1
14	R-38	Photographic film and its chemicals	0	0	1	1
15	R-40	Yarn / Textile processing involving any effluent/emission generating processes including bleaching, dyeing, printing and colouring	3	2	6	11
16	R-41	Jelly filled Copper cables, Zinc Dross-Hot dip Galvanizers SLAB,, Zinc Dross-Bottom Dross,, Zinc ash/Skimming arising from10 -- 10 20 -- 20 10 50 R-O Mainly air pollution. Page 29 of 60galvanizing and die casting operations, Zinc ash/Skimming/other zinc bearing wastes arising from smelting and refining,, Zinc ash and residues including zinc alloy residues in dispersible form	0	0	1	1
17	R-44	Industry or process involving metal surface treatment such as packing	20	5	200	225
18	R- 47	Synthetic fibers including rayon , tyre cord, polyester filament yarn	0	1	0	1
19	R-51	Copper Smelter	1	0	0	1
20	R-58	Pharmaceutical (Bulk drug &Active Pharmaceutical Ingredients (API)) &/or R & D in Pharma sector including Bio Technology activity.	4	2	6	12

21	R-66	Ferrous and Non- ferrous metal extraction involving different furnaces through melting, refining, re-processing, casting and alloy-making For lead, the normalized air pollution score will be = (100*25)/40= 62.5and is categorized as Red.	1	0	1	2
22	R-72	Solvent Recycling Acid recovery plant/Copper etchant/sludge (acid/ alkali etchant) recovery	0	0	2	2
23	R-74	Printed circuit board manufacturing units	0	0	1	1
24	R-75	Gold and Silver smithy (purification with acid, smelting operation and sulphuric acid polishing operation) (using More than 1 litre of Sulphuric Acid / Nitric Acid per month)	0	0	1	1
25	R-83	Research and Analytical laboratories involving use of chemicals listed in .MSIHC	8	0	6	14
26	R-84	Stand alone Production of Industrial inorganic gases namely:- A)Chemical gases: Acetylene, hydrogen, chlorine, fluorine, ammonia, sulphur dioxide, ethylene, hydrogen sulphide, phosphide &etc B) Hydrocarbon gases: Methane, ethane, propane & etc	0	1	0	1
Total			**40**	**14**	**280**	**334**

1.7.3. Orange and Green category industries

There are **473 Orange** Category industries &most of the industries are engaged in engineering & fabrication with spray painting, Garment washing, Pulverizing, Forging and Vehicle Servicing &**1294Green Category** industries, most of the industries are engaged in Computer Numerical Control (CNC) machining, engineering & fabrication (without painting), Garment Stitching, Plastic Product, plastic covers for integral packaging etc.,

1.7.4. Grossly polluting industries:

There are no grossly Polluting industries in core & impact zone of the study area.

2. WATERENVIRONMENT

2.1. Present Status of Water Environment

The major sources of water for the industries located in the core & impact zone of the study area are from, Bangalore water Supply & Sewerage Board **(BWSSB)**, Bore-well within the industrial premises and outside purchase through tankers. The quantity of water consumption and generation of sewage & trade effluent from **Large, Medium & Small Red Category** industries located in the core & impact zone of study area as per consent is presented below. The details of individual industries water consumption and generation of sewage & trade effluent in Kilo liter per day (KLD) is presented in **ANNEXURE-II,II(a)&II(b).**

Industry classification & category	Total No. of industries	Total Water consumption quantity in KLD		Total effluent generation quantity in KLD	
		Domestic Purpose	Industrial Purpose	Sewage effluent	Trade effluent
Large Red	**40**	**993**	**1073**	**851**	**774**
Medium Red	**14**	**55**	**81**	**44**	**63**
Small Red	**280**	**234**	**509**	**164**	**414**
Total	**334**	**1282**	**1663**	**1059**	**1251**

2.1.1. Water bodies/effluent receiving drains in the area important for water quality monitoring

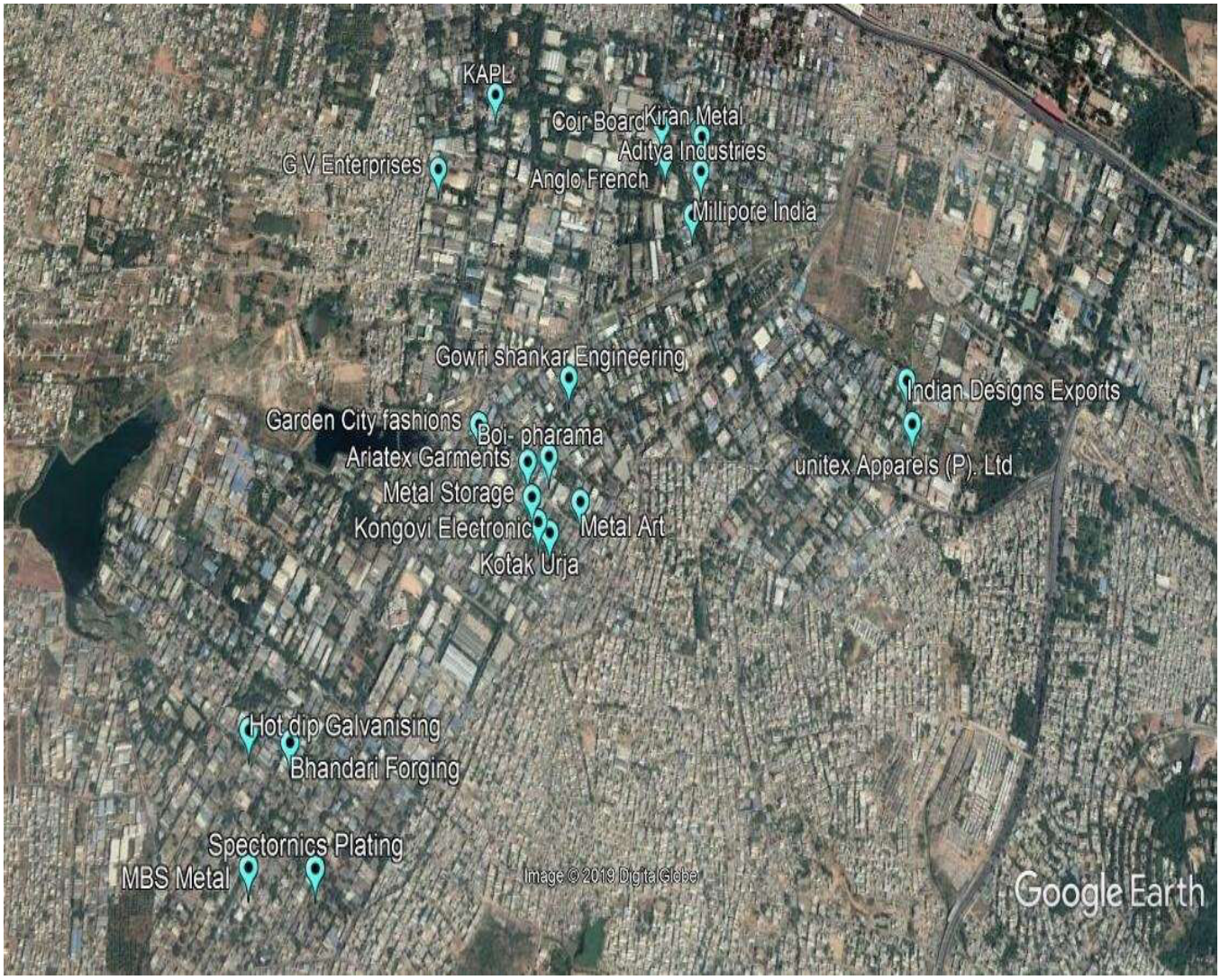
There are no industries discharging trade effluent into the water bodies/drains in the core & impact zone of the study area. However, the missing link sewage/sullage effluent generating from the industrial area/estate, nearby residential & non-residential activities are leading to the **Dasarahalli, Shivapura, Karihobanahalli, Andarahalli and Doddabidarakallu Tanks.** Accordingly, the KSPCB is monitoring the water quality in the said tanks under National Water Monitoring Programme**(NWMP).**

2.1.2. Present levels of pollutants in water bodies/effluent receiving drains/ground water (routine parameters, special parameters and water toxics relevant to the area in three categories-known carcinogens, probable carcinogens and other toxics):

As per revised CEPI criteria, third party evaluation of Ground Water, Surface Water & Ambient Air Quality was carried out for pre & post monsoon period for the year 2017-2018 from M/s. Environmental Health & Safety Research & Development Centre (EHSRDC), Bengaluru. The said agency has submitted the final monitoring reports to the Board. It reveals from the analysis reports that except Total Chromium and Hexavalent Chromium in ground water and Total Coliform count as well as Bio Chemical Oxygen Demand (BOD)& Dissolved Oxygen(DO) in surface water all other parameters are within the stipulated standards. The KSPCB is monitoring only parameters stipulated in the consent condition based on the industry specific standards notified under Environmental (Protection) Rules, 1986 and also on the basis of the chemicals handled, process & technology used and other technical inputs specific to the industry.

Subsequently, NGRI has also carried out ground water quality monitoring of **66 bore-wells** in the water shed covering Peenya Industrial Area during pre-monsoon and post-monsoon seasons respectively during the year 2016-17& 2017-18. The NGRI has submitted the report to the KSPCB that, out of 66 bore-wells studied in the area,**31 bore-wells** are contaminated with **Total Chromium and Hexavalent Chromium** content in the water which are exceeding the standards laid down for drinking and other aesthetic purpose. Accordingly, the NGRI has suggested to cap/seal the use of 31 chromium contaminated bore-wells located in and around the core & impact zone of the study area. Accordingly, the Board has taken steps to close down the operation of the contaminated bore-wells in order to avoid further contamination of water quality in the area in co-ordination with BWSSB, BBMP, KIADB, CPCB, Dept. of Mines & Geology and PIA. The KSPCB has also monitored the ground water quality in the core & impact zone of the study area for pre-monsoon & post monsoon seasons for the year 2017-18. The extract of the analysis reports is presented in **Annexure-III Ground Water (GW-1-37)** Graphical representation of the parameters like, Nickel, Nitrate, Total Chromium and Hexavalent Chromium concentrations are presented in **Annexure-III (38 to 41).**The location of ground water sampling points is also indicated& presented in **Map- VI.**

MAP-VI – LOCATION OF GROUND WATER SAMPLING POINTS



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2.2. Sources of water pollution

2.2.1 Industrial:

Most of the major industries generating considerable volume of waste water from the process, have adopted water conservation measures and maximized the recycling of treated waste water, other industries located within the industrial cluster are treating the waste water generated to a quality for usage in landscaping and other non-potable uses and rest of the industries generates less quantity but toxic effluent (such as process involving electroplating/other surface treatment activities) are disposing to Common Effluent Treatment Plant (CETP) after in-house primary treatment/neutralization. In case of constraints in utilizing treated effluent into on land for gardening, the industries area are allowed to transport the treated effluent into on land application through private parties by obtaining permission from the KSPCB.

2.2.2. Domestic:

At present, industries in the core & impact zone of the study area are disposing sewage effluent generated from domestic activity through BWSSB sewer and into septic tank and soak pit. A considerable volume of untreated sewage generated from the heterogeneous activities (industries located in non-industrial/residential areas) located in the core & impact zone of the study area joins Shivapura, Karihobanahalli, Dasarahalli, Andharahalli & Doddabidarakallu Tanks through storm water drains/raja canals etc.,

2.2.3 Others (Agricultural runoff, leachate from MSW dump, illegal dump site etc.,):

There is no non-point sources from any other activity in the locality as there is no agriculture fields but sewage/sullage effluent generated from human activitiesin the surrounding villages is also joining the above said Tanks located in the study area through BWSSB missing links and raja canals.

2.2.4. Impact on surrounding area (outside the CEPI area) on the water courses/ drainage system of the area under consideration.

There is no proper drainage system (storm water drains) for surface runoff within the study area. Since, the topography of the study area is sloping towards the Shivapura, Karihobanahalli, Dasarahalli, Andharahalli & Doddabidarakallu Tanks, the storm water/surface runoff flow towards the above said Tanks through nalas /other natural drains from the adjoining heterogeneous activities passes through the industrial clusters which carries mainly sewage and mixture of effluent containing heavy metals

discharged from un-recognized sector in the industrial area/estate. It is observed that the said effluent are not stagnated/accumulated inside the industrial area but carries all material into the above said Tanks and definitely having impact on the tank water quality. The analysis reports of the water samples collected from the main drains /raja canal passing in the study area is presented in **ANNEXURE-IV.**

2.3. Details of Water Polluting Industries in the area/cluster:

There are 40 Large Red category industries significant from water pollution point of view located in the core & impact zone of the study area and the details are as follows;

Sl No	Name and address of the Industries
1	ABB Ltd, No.4A, 5 & 6, II Phase, PIA, Bangalore- 560 058,
2	KDDL Ltd (formerly know as Kamala Dials & Devices), No.296 & 297 IV Phase, PIA, Bengaluru-560 058,
3	Advinus Therapeutics Private Ltd, Unit -1, Unit -1, No 21/ 22, II Phase, PIA, Bengaluru-560 058
4	Rewdale Precission Tools Pvt Ltd., No.484 B & C, IV Phase, PIA, Bengaluru-560 058
5	Sami Labs Ltd, No.19/1 & 19/2, 1st Main, II Phase, PIA, Bangalore-560058
6	Ace Designers Ltd, No.7 & 8, II Phase, PIA, Bengaluru-560 058
7	Fouress Engineering India Ltd, N No.2, II Phase, PIA, Bengaluru-560 058
8	Glastronix LLP (Formerly known as Glastronix), No.21-E2, II Phase, PIA, Bengaluru-560 058
9	Beckman Coulter India Pvt Ltd.,(Formerly known as Rea Matrix India Pvt Ltd), No.50 B, II Phase, PIA, Bangalore-560058,
10	Mag Engineering Pvt Ltd (A unit of Sandhar Technologies), No.46-A, 3rd Main road, Unit -2 , II Phase, PIA, Bengaluru-560 058,
11	Mysore Thermo Electric Pvt Ltd, No.62, III Phase, PIA, Bengaluru-560 058,
12	Healthium Med tech Pvt Ltd (Formerly Sutures India Pvt Ltd, No.472/D, IV Phase, PIA, Bengaluru-560058
13	Merck Life Science Pvt Ltd., (Formerly known as Millipore (India) Pvt Ltd), No. 50-A/51, II Phase, PIA, Bengaluru-560 058,
14	Steer Engineering Pvt Ltd, No.290,4th Main, IV Phase, PIA, Bengaluru-560 058
15	Surhennings Pvt Ltd, No.1-B, II Phase, PIA, Bangalore-560058
16	Microtex Energy Pvt Ltd., No.42 & 43,2nd Main, II Phase, PIA, Bangalore-560058,
17	Eshwari Textile Processing Pvt Ltd., No.109, 6th Main, III Phase, PIA, Bangalore-560058
18	Bioneeds India Pvt Ltd No.3,I Main Road, I Stage, PIE, Bengaluru-560 058,
19	ICT Services Management Solutions (I) Pvt. Ltd No. 30A, Sy. No. 37 & 39, II Phase, PIA, Bengaluru-560 058,
20	TUV SUD South Asia No.A-151/152, 2nd C Main, II Stage, PIE, Bangalore-560058

21	Quenby Transfer (I) (P) Ltd., No.542, 14th Cross, IV Phase. PIA, Bengaluru-560 058
22	Armstrong Acmite India, No.41-B,II Phase, PIA, Bangalore-560058
23	Dynamatic Technologies Limited, No. 11, Dynametic park, II Phase, PIA, Bengaluru-560 058
24	Healthium Medtech Pvt Ltd (Formerly Sutures India Pvt Ltd.), No.477C, Opp. to Bata Factory, BMTC Depot Main Road, IV Phase, PIA, Bengaluru-560 058
25	Gemini Dyeing & Printing Mills Limited, No.16, 1st Phase, Peenya Industrial Area, Bangalore
26	Hind High Vaccum Company (P) Ltd., No.17, 1st Phase, Peenya Industrial Area, Bangalore-560058
27	ITC Limited, 1st Phase, Peenya Industrial Area, Bangalore
28	John Crane Sealing System, 1st Phase, Peenya Industrial Area, Bangalore-560058
29	Kennametal Widia (I) Limited, (Widia (I) Limited,), 8/9th Mile, Tumkur Road, 16th Km, Bangalore
30	Surin Automotives (Krishna Fabrications Limited), No.6a, 1st Phase, Peenya Industrial Area, Bangalore
31	Welcast Steels Limited, 1st Phase, Peenya Industrial Area, Bangalore
32	Wipro Infrastructure Engineering, No.9B-10A, 1st Phase, Peenya Industrial Area, Bangalore-560058
33	Rallis Research Centre 73/1C & 1D, Byregowda Indl Estate, Srigandanagar, Hegganahalli, Bangalore
34	Avery Dennison India Pvt Ltd, Plot No 6B, Ist Main Road, KIADB, Phase I, Peenya Industrial Area, Bangalore 560058
35	Cookson India Research Centre, No.89/1, VaishnaviBhavan, Industrial Suburb, 2nd Stage, Yeshwanthpura, Bangalore - 560 022.
36	Jubilant Biosys Ltd., No.96, Industrial Suburb, Yeshwantpur Bangalore-560 022
37	The Mysore Electrical Industries Ltd., P.B. NO. 2221, Tumkur road, Industrial Suburb, YeshwanthpuraB'lore – 22
38	Danisco (India)Pvt. Ltd., (FMC India R & D Centre)No. 61/A, 1st Main Road, Indl Suburb, 2nd Stage, Yeshwanthapur, Bangalore-22.
39	Gardener Aerospace Bengaluru Pvt Ltd No 102,3rd cross,3rd main,2nd stage Industrial Subrub,Yeshwanthpur, Bengaluru 560 022
40	HMT Machine Tools Ltd., No:1, Common Service Division, Hmt Post, Jalahalli, Bangalore.

2.4. Effluent Disposal Methods – Recipient water bodies etc.,

Details of the industries generating sewage effluent along with mode of disposal in the study area:

Total No. of industries generating sewage effluent	Total No. of industries along with mode of disposal of sewage effluent			
	Sewage Treatment Plant (STP)	BWSSB sewer	Septic Tank & Soak Pit (ST&SP)	BWSSB common STP
2101	98	999	1001	03

Details of the industries generating trade effluent along with mode of disposal in the study area:

Total No. of industries generating trade effluent	Total No. of industries along with mode of disposal of trade effluent	
	Effluent Treatment Plant (ETP)	Common ETP (CETP)
400	87	313

As per the above details, majority of industries in the study area are disposing sewage effluent generated from domestic activity through BWSSB sewer and into septic tank and soak pits. In most of the cases, the said facilities are not maintained properly which may likely to cause soil pollution and often end up with clearing through unrecognized septic tank cleaning agency and there is every possibility of dumping it to the main drains. If the entire area provided with sewerage system followed by sewage treatment plant, it will avoid above problems & also avoids transportation of sewage through tankers to STP which is very difficult to monitor.

The small scale industries particularly surface treatment units which are unable to provide Effluent Treatment Plant (ETP) due to fluctuation in generation of process effluent have made agreement with private Common Effluent Treatment Plants (CETPs) located outside the study area and off loaded pre-treated trade effluent for further treatment and disposal. The Hon'ble Supreme Court of India passed Judgment in the W.P (C).No. 375/2012 Dated: 22.02.2017 to take steps to provide primary effluent treatment plant of all concerned industries. Accordingly, the industries which have made agreement with private CETPs are off loading trade effluent to CETP after primary treatment/neutralization.

2.5. Quantification of wastewater pollution load and relative contribution by different sources viz., industrial/domestic:

The quantification of waste water pollution load is calculated for the industries consuming more quantity of water and quality of treated waste water discharged and the same is presented as follows;

Name and address of the industry	Category	Consumption of water in KLD	BOD load in Kgs/day	TDS load in Kgs/day
Kamalamm Handloom, No.266, IV Phase, PIA, Bangalore -58	SR	40	4.0	84
Swan Silks Pvt. Ltd., No.107/108, III Phase, PIA, Bangalore – 58.	SR	45	4.5	94.5
Eshwari Textile Processing Pvt. Ltd., No.109, III Phase, PIA, Bangalore -58	LR	34	90	2398
Gemini Dyeing & Printing Mills Limited, No.16, 1st Phase, Peenya Industrial Area, Bangalore	LR	483	52.164	366.984
ITC Limited, 1st Phase, Peenya Industrial Area, Bangalore	LR	46	0.736	21.152
John Crane Sealing System, 1st Phase, Peenya Industrial Area, Bangalore	LR	13.7	0.0959	7.966
Welcast Steels Limited, 1st Phase, Peenya Industrial Area, Bangalore	LR	26	2.652	--
Wipro Products Limited (Fluid Power Division), No.9B-10A, 1st Phase, Peenya Industrial Area, Bangalore	LR	89	0.89	10.96

2.6. Action Plan for compliance and control of pollution.

2.6.1.Existing infrastructure facilities-water quality monitoring network, ETPs, CETPs, Sewerage Treatment Plant of industry(STPs), surface drainage system, effluent conveyance channel/out falls etc.

In the core & impact zone of the study area as part of consent requirements industries are carrying out effluent quality monitoring at the waste water treatment level and water quality at the outfall of the treatment unit and there is no industries which are allowed to discharge effluent into any water body as receiving end in the study area. The KSPCB also monitors the effluent quality at the industry as well as water quality of tanks under different schemes. The parameters chosen for monitoring is very limited to understand the impact of discharges at the micro level without monitoring specific carcinogens and toxins. The performance of STPs and ETPs are monitored by the industry themselves and the details are being submitted to the Board. There is no proper surface drainage system and there is no systematic monitoring of storm water quality.

The KSPCB is conducting random check on the monitoring protocols once in a quarter and monitors the performance of ETP/STP in the industries to check the quality of treated effluent.

2.6.2. Pollution control measures installed by Industries.

The pollution control measures installed by the Red industries category industries in the core & impact zone of the study area is presented in **ANNEXURE-V& VI.**

a. Status of the surface treatment industries offloading trade effluent to the operator of CETP:

- There are **206** Surface treatment industries in the core & impact zone of the study area, out of which **16** industries (12-Large Red & 4-Small Red) have provided in-house effluent treatment plant and the remaining **190** industries are offloading trade effluent to Private CETP's.
- The KSPCB has prohibited establishment of new as well as expansion of the existing surface treatment industries in the study area during 2012-13.

- Presently, surface treatment industries (except 16 units provided in-house treatment facility) are off loading trade effluent to Common Effluent Treatment Plants (CETPs) located in different places from the area &details of the CETPs are follows;

M/s. Pai&Pai Chemicals Pvt. Ltd.,
M/s. Eco Green Solution Systems Pvt. Ltd.,
M/s. Lidkar Tanners Enviro Control Pvt. Ltd.,
M/s. Govind Solvents
M/s. Bangalore Eco Park

- The KSPCB insisting all the surface treatment industries to implement the following **6 Points criteria conditions** as a measure to check further contamination of soil/ground water.

1. Impervious flooring in the process area& effluent collection tank.
2. Above ground level process tanks and effluent collection tank.
3. Leak test for process tanks.
4. Scrubber installed with hood & duct system and its proper functioning
5. Records of water consumption, waste water generation and timely disposal
6. Primary treatment before handing over the trade effluent to CETP as per recent Supreme Court order in WP No.375/2013

- The status of implementation of 6 Points criteria conditions in206surface treatment industries in core & impact zone of the study area is presented in **ANNEXURE-VII.**
- The KSPCB has proposed to establish 0.2 MLD(200 KLD) Common Effluent Treatment Plant at Urban Eco-Park to provide collective treatment and disposal of trade effluent, particularly from small and medium scale industries in & around Peenya Industrial Area.
- The KSPCB in 215th Board meeting has approved the proposal to establish CETP at Urban Eco-Park. Accordingly, the Board has conducted interaction meetings with PIA. The preparation of DPR is in progress. The Board is focusing on zero liquid discharge concept, by reusing final treated effluent into industrial process instead of land application in view of ground water contamination is spread across the industrial area in pockets.

d. Pollution control measures installed by BWSSB in the area:

Bangalore Water Supply and Sewerage Board (BWSSB) have provided two sewage treatment plants of capacity 20 MLD each at Nagasandra Village near the Nagasandra Tank. Besides, the BBMP is having 1 MLD STP on the North-East side of the Dasarahalli Tank/Lake. The sewage generated from the part of the Zone at present is connected with piped network and is being treated at said Sewage Treatment Plants. However, the BWSSB is required to cover rest of the area which comprises of core and uncore area with underground drainage facility followed by sewage treatment plants. Intact Under Ground Drainage (UGD) network is to be provided by the BWSSB to avoid entering of sewage/sullage from missing links of UGD to nearby water bodies.

2.6.3. Technological Intervention

2.6.3.1.Inventorization of prominent industries with technological gaps:

Major industries generating considerable volume of waste water from the process have carried out water audit & they have prepared strategies to reduce fresh water consumption and maximized recycling of treated waste water into the process. Some of the industries have been indicated to install advanced waste water treatment technologies to produce better quality of treated waste water so as to enhance the quantity of reuse thereby leading to the reduction in waste water load to the receiving stream. However, detailed study will be undertaken to identify technological interventions required to ensure better compliance.

2.6.3.2. Identification of low cost and advanced cleaner technology for pollution control

Advanced cleaner technologies proposed/adopted by the individual industries are presented below;

- Varasiddi Induction., No.40-B/8, II Phase, PIA, Bangalore-58 having induction heat treatment process where in there is no generation of effluent/ emission into atmosphere as they use induction heating of component with immediate quenching to get the required hardness and other properties of the metal as per the customer requirement, this can replace the old Cyanide salt based heat treatment and even Gas carburizing Heat treatment, Nitriding heat treatment and Sealed Quench heat treatment methods.

- Super PVD Technologies, (P) Ltd., No.B-211 5th main, II Stage, Bangalore-58 are carrying out Physical Vapour Deposition of the metal on required surface, this spluttering technology can replace the conventional Electroplating activity where in activity generates huge quantity of the waste water containing heavy metal which is again a threat to the surrounding environment if it is not handled, treated and disposed properly and may result in Soil and even ground water pollution with heavy metals.
- Many industries which are carrying out powder coating activity are slowly switching over to dip the component in 3 in1 Solution (this will take care of Surface treatment activity by way of phosphating) and air drying the component before powder coating.

- Jeans Knit Pvt. Ltd.,(Fibres & Fabrics International), No.21-E & 20-A, II Phase, PIA, Bangalore-58, having 2 stage Reverse Osmosis (RO) system for 80%recovery which amounts to 1185 KL. Further, they have adopted E-Bubble spray technology in place of conventional stone wash, Rinsing dip which reduces the water requirement by 70 to 80%. Also, the industry has installed new ozone machine by replacing conventional bleaching process which reduced the water requirement for bleaching by 100%. Now, the industry is planning to install Multiple Effective Evaporator (MEE) for treatment of RO rejects and approach towards reduction of sludge generation due to stone wash.

a) Garment washing industries have taken steps to provide RO plant, Ultra filtration & water softening system to recycle treated effluent for garment washing purpose, thereby the consumption of fresh water and discharge of trade effluent is reduced. However, the KSPCB is mandating all the textile dying & garment washing industries to have tertiary treatment plant to recycle treated effluent in the process.

The detailed study will be undertaken for identification of new areas for adoption of cleaner technology within the core & impact zone of the study area.

2.6.4. Infrastructure renewal

2.6.4.1.Details of existing infrastructural facilities:

The KSPCB has established a NABL &MoEF Accredited Central Environment Laboratory at Nisarga Bhavan headed by a Chief Scientific Officer with supporting staff to carry out analysis of samples collected. This laboratory possesses all equipment in working conditions to analyze all the parameter with staff having updated knowledge. Recently, the KSPCB has established R& D Laboratory at Nisarga Bhavan headed by a Chief Scientific Officer.

The core & impact zone of the study area is covered under the jurisdiction of Regional Office-Peenya, Dasarhalli & Bengaluru City-West. These Regional Offices were headed by Environmental Officer with technical staffs (Deputy Environmental Officers, Assistant Environmental Officers & Filed Assistants) for inspection of industries, monitoring & collection of legal samples, issue of consents etc., In addition to that, two Regional Senior Environmental Officers of KSPCB is stationed at Peenya & Nisarga Bhavan to oversee the implementation of the pollution control measures.

The Peenya Industrial Cluster is having Peenya Industrial Association (PIA), which was formed during 1978 and this Association is co-coordinating with the industries as well as with KSPCB, MSME, NSIC, KSSIDC& BBMP to resolve the pollution related problems.

2.6.4.2. Need for up gradation of existing facilities:

- The industries in the study area have either changed the production or new industry has come up in its place over last few years. There is a necessity for continuous monitoring pertaining to the product and its production capacity. Hence manpower for the Regional Offices of KSPCB is to be strengthened and trained.
- The parameters chosen for computation of CEPI sub index for water environment include known carcinogens, probable carcinogens & other toxins. The monitoring of carcinogenic is to be carried out. The Board laboratory capacity shall be enhanced to handle the additional samples and parameters.
- BWSSB shall provide water supply to all the industries in order to avoid over exploitation of ground water and purchase from outside tankers.
- BWSSB shall provide intact UGD facility to the entire industrial area/estate in order to convey the sewage effluent into 2 nos. of 20 MLD capacity STPs at Nagasandra and also to take steps to avoid discharge of missing link sewage into storm water drains leading to the natural water bodies located in the study area.
- Adequate storm water drains are to be core & impact zone of the study area has to be repaired and maintained by BBMP.
- There is a necessity to make provision for vehicle parking facility in the study area by the BBMP.
- The municipal solid waste collection facility in the core & impact zone of the study area is to be undertaken regularly by BBMP in order to avoid pilling up of municipal garbage within the industrial area and on the road sides. The BBMP to maintain frequency and assured lifting to avoid waste dumping on the road side and shall provide proper solid waste management in the industrial cluster.
- There is necessity to provide fecal sludge handling facility in the study area by the BBMP.
- The study area around the Tanks stinks and encroached. The required steps & measures to be taken for preservation and restoration of Tanks from Lake Development Authority/BDA/BBMP.

2.6.4.3. De silting of water tanks, drains, etc.

In the study area there are drains which are not properly lined leading to siltation & requires regular maintenance and there are five tanks adjoining to industrial area and estate. The BBMP & BDA is required to take initiative for rejuvenation and maintenance of the Tanks.

2.6.4.4. Construction of lined drains/connections:

The drains within the study area are not properly connected and also not laid for the entire study area. Therefore there is a need to do the lining first & if required covering can be done at certain places. These drains have to be connected properly taking advantage of elevation so that the storm water reaches the tanks without any accumulation.

2.6.4.5. Treatment and management of contaminated surface water bodies:

As the main drains which are originated from the surrounding heterogeneous activity area are passing through the industrial area which carries sewage and mixture of effluent from un-recognized sector surrounding the industrial area/estate and ultimately reaches tanks adjoining to industrial area. Since the impact zone does not have proper UGD system there may be an issue of fecal contamination due to discharge of untreated sewage. The BWWSB is required to provide intact sewer system to the entire study area in order to avoid missing link sewage effluent discharge into storm water drain.

2.6.4.6. Rejuvenation/Management Plan for important eco-geological features:

There are no important ecological features in the study area.

2.6.4.7. Providing of CETP for surface treatment unit:

There are about **313**industries offloading trade effluent to the Private CETP's, which are located far away from the study area. There are likely environmental issues during transportation in addition to cost on the generator. Hence, there is a necessity to establish CETP within the study area. The KSPCB has proposed to establish 0.2 MLD(200 KLD) Common Effluent Treatment Plant at Urban Eco-Park for collective treatment and disposal of effluents, particularly from small and medium scale industries in & around Peenya Industrial Area. The preparation of DPR is under progress.

Impact on CEPI score after installation of full fledged water pollution control systems:
Justification:

- The presence of carcinogens is not critically high, as none of the industries in the cluster produce them as end-products and if present, are only as process intermediates (factor: A1).
- Post-implementation of Action Plan, the ambient pollution concentration will reduce as the pollutants have been reduced at their source (factor: B1) and consequently reduce the level of exposure (factor: C2).
- Suture India ltd., has already implemented water conservation by providing jet cleaning in place of manual cleaning this has resulted in substantial reduction the water consumption towards cleaning particularly in Catgut section.
- The industries have started induction heat treatment process which more eco friendly compared to the conventional heat treatment methods, which is without wash resulted in less waste water generation.
- The metal coating units switched over to PVD coating in place of conventional electroplating which do not generate waste water from plating section.
- The effluent collection tanks which are below ground level is gradually shifting to above ground level by surface treatment units, which in turn avoided contamination of soil/ ground water due to seepage/leakage of the underground tanks.
- M/s. Jeans Knit garment washing industry has installed 2 stage RO plant to reduce the fresh water consumption and also proposing to install MEE for treatment of RO rejects.
- Many industries have implemented rain water harvesting system and also rain water recharge structures which has resulted in increase in ground water table.
- As a result of the proposed installation of pollution control measures, such as ETPs, STPs and adopting new technologies for up-gradation of existing facilities, the Additional Risk Factor (factor: D) will thereby reduce.
- The ground water studies pertaining to contaminant movement to understand the pollution behaviours beneath the ground has been done by NGRI. This study will be the basis for remedial measures to be taken up for restoration of ground water quality in the study area.
- The rest of the factors that contribute to the CEPI sub-index score remain unchanged.

2.6.5. Managerial and Financial aspects.

2.6.5.1. Cost and time estimates

- The approximate cost to be incurred to improve the existing infrastructure, drinking water and sanitation facility are to be prepared by the BWSSB& BBMP.
- The KSPCB is proposing to establish CETP at a cost of Rs. 10 crores.
- Based on the NGRI, report restoration of contaminated ground water in the study area is to be under taken by inviting Expression of Interest in order to evaluate suitable Technology for which Technical &Financial assistance from CPCB is required only after evaluating suitable Technology, the cost & time estimates will be prepared.

2.6.5.2. Identified Private/Public sector potential investors and their contribution / obligation:

Appropriate agencies will be identified after finalization of action plan.

2.6.5.3. Government Budgetary support requirement:

Finalized action plan will be submitted to the Government seeking financial support wherever necessary.

2.6.5.4. Hierarchical and structured managerial system for efficient implementation:

KSPCB in association with CPCB will oversee the implementation of finalized action plan.

2.6.6. Self-monitoring system in industries (ETPs etc.)

KSPCB has prescribed conditions in the consent orders to the Large Red category industries to carryout self-monitoring by establishing Environmental Cell. This is being partly implemented, besides the industries are also carrying out monitoring through the MoEF& NABL Accredited private Laboratories. The Major industries in the study area are having ISO 14001 (EMS) Certification.

3. AIR ENVIRONMENT

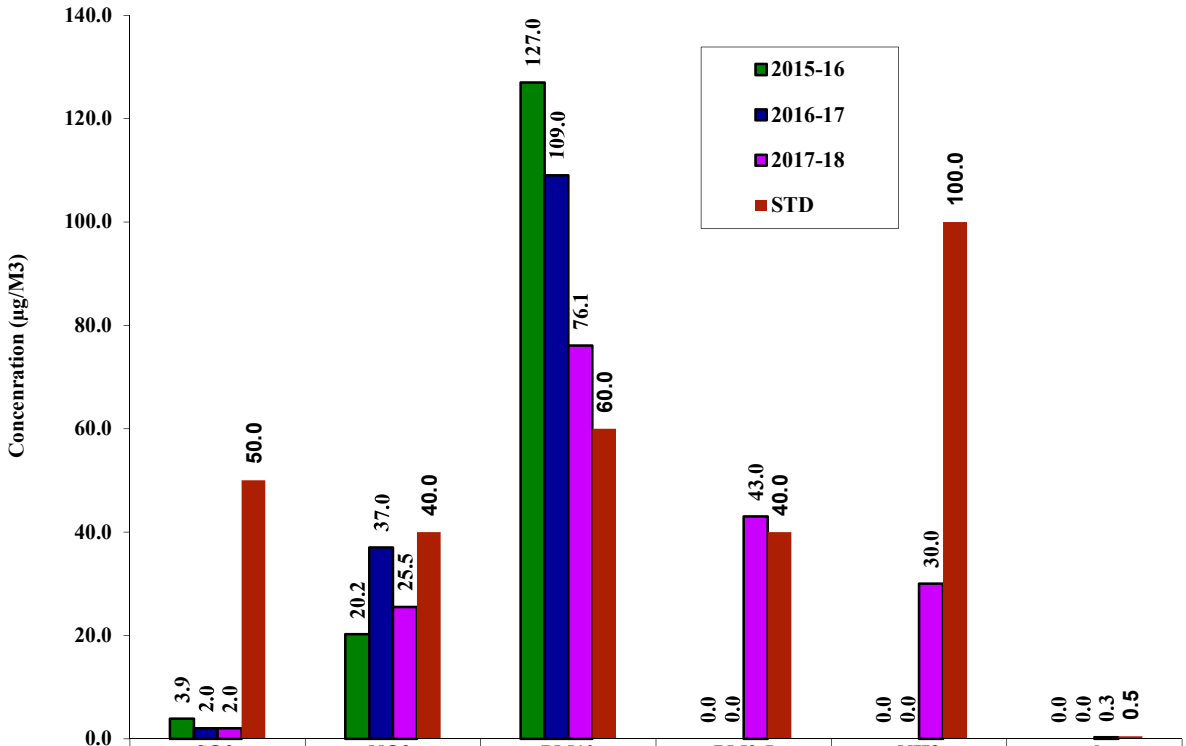
3.1. Present status of Air environment supported with minimum one year analytical data:

The major air pollutants monitored in the industrial cluster are Particulate Matter (PM_{10}), $PM_{2.5}$, Sulphur Dioxide (SO_2), Nitrogen Dioxide (NO_2), Ammonia (NH_3)& Lead (Pb) as per the norms specified for Ambient Air Quality. All the industries have provided required chimney height and other air pollution control measures to control the emissions at the source itself. Karnataka State Pollution Control Board (KSPCB) is monitoring Ambient Air Quality in the Peenya industrial area at "Urban Eco Park" 100 ft Road, III Phase, Industrial Area, Bengaluru-58 and at "Swan Silk Pvt. Ltd.," No. 107/108, 3rd Phase, Peenya India Area Bengaluru-560058 under National Air Monitoring Programme (NAMP). The Ambient Air Quality (AAQ) results for the year 2015-16, 2016-17 and 2017-18 are presented in the form of Bar chart shown below. Based on the data it can be observed that, the ambient air quality is well within the NAAQ standards Notified on 18.11.2009 from CPCB for Industrial, Residential, Rural and other areas except PM_{10}&$PM_{2.5}$.

Year	Annual Average Values of the Air pollutants in µg/m^3					
	SO_2	NO_2	PM_{10}	$PM_{2.5}$	NH_3	Pb
2015-16	3.9	20.2	127.0	NM	NM	NM
2016-17	2.0	37.0	109.0	NM	NM	NM
2017-18	2.0	25.5	76.1	43.0	30.0	0.3

NM-Not Monitored

Annual average values of air pollutants at Urbon Eco Park ,Peenya Industrial Area, during the years 2015-16 to 2017-18

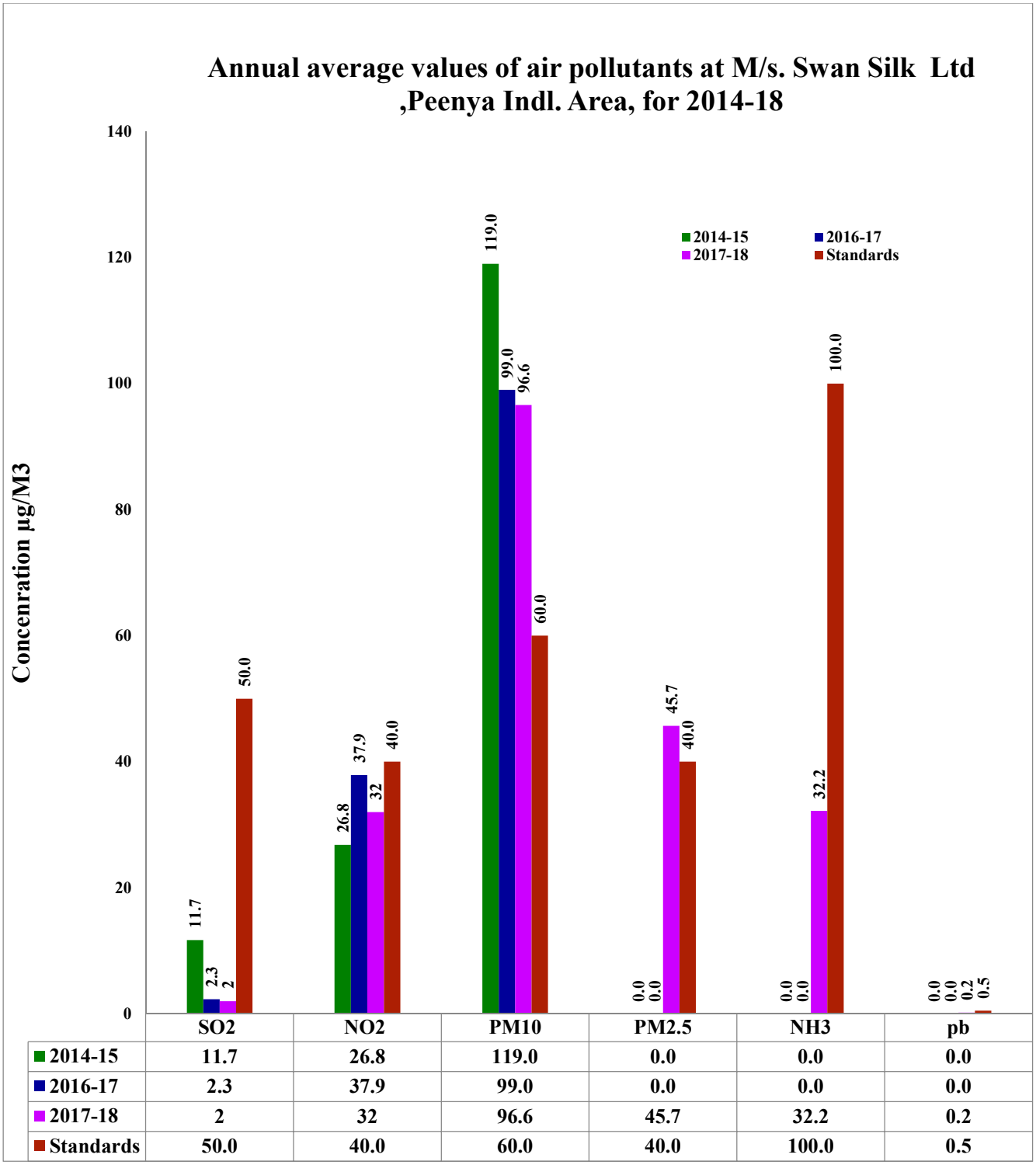


	SO2	NO2	PM10	PM2.5	NH3	pb
2015-16	3.9	20.2	127.0	0.0	0.0	0.0
2016-17	2.0	37.0	109.0	0.0	0.0	0.0
2017-18	2.0	25.5	76.1	43.0	30.0	0.3
STD	50.0	40.0	60.0	40.0	100.0	0.5

PM_{10} and $PM_{2.5}$ values are exceeded the NAAQ standards (60.0& 40.0 µg/m^3 respectively) in all the measured years due to the vehicular movement and road dust.Whereas, the other Pollutants are within the standards in all the measured years 2015-16 to 2017-18.

Year	Annual Average Values of the Air pollutants in µg/m^3					
	SO_2	NO_2	PM_{10}	$PM_{2.5}$	NH_3	Pb
2014-15	11.7	26.8	119.0	NM	NM	NM
2016-17	2.3	37.9	99.0	NM	NM	NM
2017-18	2.0	32	96.6	45.7	32.2	0.2

NM – Not Monitored



	SO2	NO2	PM10	PM2.5	NH3	pb
2014-15	11.7	26.8	119.0	0.0	0.0	0.0
2016-17	2.3	37.9	99.0	0.0	0.0	0.0
2017-18	2	32	96.6	45.7	32.2	0.2
Standards	50.0	40.0	60.0	40.0	100.0	0.5

PM_{10} and $PM_{2.5}$ values are exceeded the NAAQ standards (60.0& 40.0 µg/m^3 respectively) in all the measured years due to the vehicular movement and road dust. Whereas, the other Pollutants are within the standards in all the measured years 2014-15 to 2017-18.

3.1.1. Critical locations for air quality monitoring:

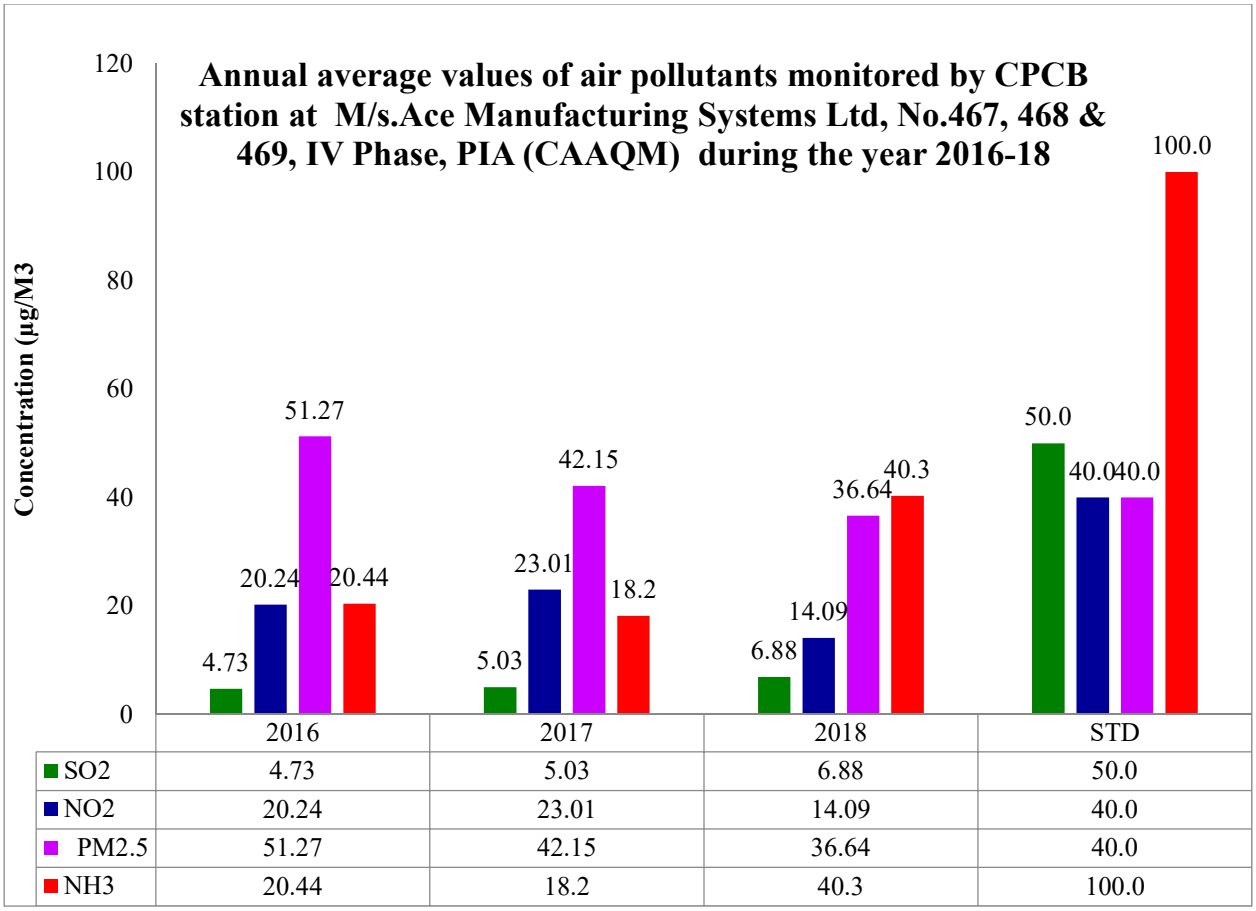
As per norms, the Ambient Air Quality Monitoring is being carried out within the industrial cluster. Based on the meteorology, the critical location for monitoring of ambient air lies within the Peenya Industrial Area. In addition to that, the air pollution from the industries, number of main/service roads passes through/touches the study area, heavy vehicular traffic in these roads also contributes to the air pollution. In this context to know the concentration of ambient air 8 stations have been identified in core & impact zone of the study area and ambient air quality is carried out through third party as per revised CEPI criteria. Accordingly, it is proposed to have two additional continuous ambient air quality monitoring stations in the impact zone.

3.1.2. Present levels of pollutants in air (routine parameters, special parameters and air toxics relevant to the area in three categories known carcinogens, probable carcinogens and other toxic):

The routine parameters as specified in NAAQ Standards are measured manually in the core zone of the study area and it indicates that, all the parameters meets the norms specified except PM_{10}& $PM_{2.5}$. However, the KSPCB has monitored all the air pollutants as per NAAQ Standards through third party and as per Analysis reports all the air pollutants are within the standards except PM_{10}& $PM_{2.5}$.Besides, the major air polluting industries are also monitoring the ambient air quality regularly and submitting the Analysis reports to KSPCB.

In addition to this, the **CPCB** has established Continuous Ambient Air Quality (CAAQM) monitoring station in Peenya Industrial Area at M/s.Ace Manufacturing Systems Ltd., No.467, 468 & 469, IV Phase, PIA, Bengaluru-58.

Year	Annual Average Values of the Air pollutants in µg/m^3			
	SO_2	NH_3	NO_2	$PM_{2.5}$
Jan-2016 to Dec-2016	4.73	20.44	20.24	51.27
Jan-2017 to Dec-2017	5.03	18.2	23.01	42.15
Jan-2018 to Dec-2018	6.88	40.3	14.09	36.64



	2016	2017	2018	STD
SO2	4.73	5.03	6.88	50.0
NO2	20.24	23.01	14.09	40.0
PM2.5	51.27	42.15	36.64	40.0
NH3	20.44	18.2	40.3	100.0

3.1.3. Predominant sources contributing to various pollutants:

Industrial sources, Vehicular movement, Main and internal Roads.

3.2. Sources of air pollution viz. industrial, domestic (Coal and Biomass burning), natural and Transport & Heavy Earth Movers.

There is no coal & biomass based power plants leading to transportation with Heavy Earth Movers in the core & impact zone of the study area.

3.3. Air Polluting Industries in the area/cluster:

The details of air polluting industries in the core & impact zone of the study area is presented in **ANNEXURE-VIII.**

3.4. Impact of activities of nearby area on the CEPI Area:

The adjacent areas are generally surrounded by residential, commercial and heterogeneous industrial activity and hence these activities are having impact on CEPI score of industrial cluster since, no buffer zone existing between Peenya Industrial Area/estate and adjoining heterogeneous activity area.

3.5. Action Plan for compliance and control of pollution:

3.5.1. Existing infrastructure facilities-Ambient air quality monitoring network.

The KSPCB is monitoring the parameters at two stations as per the National Ambient Air Quality standards.

KSPCB has established a Central Laboratory at Bangalore headed by a Chief Scientific Officer with supporting staff to assist the Board for analysis of samples collected. The laboratory is having facility to analyze the general parameters as specified in the consent conditions.

The core & impact zone of the study area is covered under the jurisdiction of Regional Office- Peenya, Dasarhalli& Bengaluru City-West. These Regional Offices were headed by Environmental Officer with technical staffs (Deputy Environmental Officers, Assistant Environmental Officers & Filed Assistants) for inspection of industries, monitoring & collection of legal samples, issue of consents etc., In addition to that, two Regional Senior Environmental Officers of KSPCB is stationed at Peenya & Nisarga Bhavan to oversee the implementation of the pollution control measures.

The Peenya Industrial Cluster is having Peenya Industrial Association (PIA), which was formed during 1978 and this Association is co-ordinating with the industries as well as with KSPCB, MSME, NSIC, KSSIDC& BBMP to resolve the pollution related problems.

3.5.2. Pollution control measures installed to the individual sources of pollution:

The details of air pollution control measures installed by the Large Red category industries is presented in **ANNEXURE-IX.**

3.5.3. Technological intervention

3.5.3.1. Inventorization of prominent industries with technological gaps:

Major industries in the cluster have prepared strategies to prevent the generation of air pollutants and have proposed plans to install advanced controlled technique. However, detailed study will be undertaken to identify technological interventions needed to ensure better compliance.

3.5.3.2. Identification of advanced cleaner technology for air pollution control:

The Following industries have proposed to install advanced technology to control air pollution;

- Instead of the solvent based paint many spray painting industries in peenya industrial area switched over to **water based paint** which has reduced the solvent vapours in the study area.
- The industries have started **induction heat treatment process** which is more eco-friendly compared to the conventional heat treatment methods, which has resulted in less air pollution.
- The metal coating units switched over to **Physical Vapour Deposition (PVD) coating in place of conventional electroplating** which do not generate air emissions.
- Surface treatment industries have installed scrubber with recirculation facility which has resulted in reduction of acid emissions.
- Most of the industries have installed exhaust system in the process/manufacturing area to reduce odor emissions.

3.5.3.3. Introduction and switch over to cleaner fuel:

The industries have already switched over to low Sulphur& low Ash content fuels. However, in the case of medium & small scale industries, which uses cheaper biomass & other fuels, the KSPCB would identify possibilities and pursue such industries to switchover to cleaner fuel. The Gas Authority of India Limited (GAIL) has provided Liquefied Petroleum Gas (LPG) pipeline to the industries and most of the industries are switching over to LPG from High Speed Diesel (HSD).

3.5.4. Need of infrastructure Renovation:

As of now, there is no Ambient Air Quality Monitoring stations in impact zone, hence it is proposed to establish two additional manual and CAAQM stations in order to know the impact of vehicular movement contribution to air pollution.

3.5.4.1. Development of roads:

Roads are to be maintained in good conditions. Asphalting of Roads in some portion of industrial cluster is needed and will be taken up with the concerned authorities.

Diversion of Traffic:

Road connecting Internal Ring Road with Jalahalli circle (NH-4) runs through the industrial area carrying heavy traffic. This traffic needs to be diverted since this is the major source of Air pollution.

All efforts shall be made to encourage the employees to use mass transport system instead of individually commuting to the area by giving incentives from the entrepreneurs. Due to introduction of green Metro to this area, the individual commuting is reduced.

Impact due to Traffic:

National highway-4 passes through the cluster, enormous number of vehicles carrying raw materials & products of industries move within the cluster. The systematic survey will only indicate the contribution of air pollution from the above activities. Moreover this activity is highly dynamic & unpredictable.

3.5.5. Impact of CEPI score after installation/commissioning of full fledged air pollution control systems:

By implementation of the proposed action plan, the Board CEPI score is expected to come down substantially.

3.6. Managerial and Financial aspects –Cost and time estimates

3.6.1. Cost and time estimates:

The KSPCB in addition to existing two manual AAQM stations, proposed to have additional two manual AAQM stations in impact zone and also to have one CAAQM station in the impact zone for which the required equipments are to be procured. Approximate cost for infrastructure, monitoring equipments, strengthen the AAQM, the total amount required is Rs. 2.10 Crores.

3.6.2. Identified Private/Public sector potential investors and their contribution/ obligation:

Appropriate agencies will be identified after finalization of action plan.

3.6.3. Government Budgetary support requirement:

Finalized action plan will be submitted to the Government seeking financial support wherever necessary.

3.6.4. Hierarchical and structured managerial system for efficient implementation:

The KSPCB in consultation with CPCB will oversee the implementation of finalized action plan.

3.7. Self-monitoring system in industries (Stacks, APCDs):

KSPCB has prescribed conditions in the consent orders to the Large Red category industries to carryout self-monitoring by establishing Environmental Cell. This is being partly implemented, besides the industries are also carrying out stack and ambient air quality monitoring through the MoEF& NABL Accredited private Laboratories. The Major industries in the study area are having ISO 14001 (EMS) Certification.

3.8. Data linkages to SPCB/CPCB (of monitoring devices)

At present industries are submitting the reports of analysis regularly at prescribed intervals both in soft/hard copy form. The data available with KSPCB is shared with CPCB as & when required.

4. LAND ENVIRONEMNT (Soil and Ground Water):

4.1. Soil contamination:

Soil contamination is observed in the core area parts of the study area.

4.1.1. Present status of land environment supported with minimum one year analytical data:

The industries are not disposing any untreated effluent and Hazardous waste on land within the cluster. There are no dump sites within the cluster but there are stretches of contaminated zones within the cluster area &surrounding ground water contaminated with Chrome. However, soil analysis data done by KSPCB in the industry premises are having Iron and Chromium content.

Ground water contamination indicates sub surface soil pollution. The analysis reports of the soil samples are presented in **ANNEXURE-X.**

4.1.2. Critical locations for land/soil pollution assessment and ground water monitoring:

Since the groundwater table is varied from one place to another within the industrial cluster and more number of ground water quality in the industrial area/estate indicating Chromium contamination as per NGRI study, industries have been directed not to store any leachable waste below ground level tank and to provide impervious flooring with above ground level tanks for collection.

The Board is carrying out ground water monitoring and monitored the contaminated borewells.

4.1.3. Present levels of pollutants in land/soil and ground water (routine parameters, special parameters and water toxins relevant to are in three categories known carcinogens, probable carcinogens and other toxics):

The NGRI has carried out water quality monitoring of 66 bore-wells in the water shed covering Peenya Industrial Area during pre-monsoon and post-monsoon seasons respectively during the year 2016-17. NGRI submitted the report to the Board that, out of 66 bore-wells studied in the area, 31 bore-wells are contaminated with Total Chromium and Hexavalent Chromium content in the water which are exceeding the standards laid down for drinking and other aesthetic purpose. Accordingly, the NGRI

has suggested the KSPCB cap/seal the use of 31 chromium contaminated bore-wells located in and around Peenya Industrial Area. In this regard the Board has taken steps to close down the operation of the contaminated bore-wells.

4.1.4. Predominant sources contributing to or posing danger of pollution of land and ground water such as hazardous/toxic wastes or chemicals dumps/storage etc.

Most of the major industries are having proper storage facility for hazardous & other wastes in proper containers or with proper lining of the ground to prevent the leachate reaching the aquifer. But due to unscientific practice carried by the small scale industries since from inception particularly from Electroplating industries ground water in some pockets of the industrial area is contaminated with Chromium/heavy metals.

4.1.5. Sources of Soil Contamination:

There may be issues with electroplating/surface treatment activities carried out in small & medium scale industries from past few years, where proper storage & handling of hazardous waste& process waste water may not be in scientific manner, which resulted in contamination of ground water with chromium/heavy metals scattered across the industrial Area and Estate indicates sub surface soil contamination. There are frequent changes in activities/ownerships/shifting & relocating the industries particularly in Industrial estate resulted in damage of environment quality in study area.

4.1.6. Types of existing pollution:

As detailed in 4.1.3.

4.1.7. Remedies for abatement, treatment and restoration of normal soil quality:

Since ground water contamination noticed in pockets of the industrial area indicates sub surface soil contamination. KSPCB taken up the issue on priority and entrusted the project entitled ‘Assessment of Ground water conditions & water quality in & around Peenya Industrial Area’ to the NGRI, Hyderabad. NGRI has submitted the detailed report with remediation measures which is under implementation by the KSPCB.

4.2. Ground water contamination:

4.2.1. Present status/quality of groundwater:

The NGRI has carried out water quality monitoring of 66 bore-wells in the water shed covering Peenya Industrial Area during pre-monsoon and post-monsoon seasons respectively during the year 2016-17. NGRI submitted the report to the Board that, out of 66 bore-wells studied in the area, 31 bore-wells are contaminated with Total Chromium and Hexavalent Chromium content in the water which are exceeding the standards laid down for drinking and other aesthetic purpose. Accordingly, the NGRI has suggested the KSPCB cap/seal the use of 31 chromium contaminated bore-wells located in and around Peenya Industrial Area. In this regard the Board has taken steps to close down the operation of the contaminated bore-wells.

4.2.2. Source Identification (Existing sources of Ground water Pollution):

Since ground water contamination noticed in the many part of the industrial area, KSPCB taken up the issue on priority and entrusted the project entitled 'Assessment of Ground water conditions & water quality in & around Peenya Industrial Area' to the NGRI, Hyderabad. NGRI has submitted the detailed report with remediation measures, which is under implementation by the KSPCB.

4.2.3. Ground water quality monitoring program:

The ground water quality in the study area is assessed by NGRI and the KSPCB is continuing the monitoring of water quality in the identified bore-wells during pre-monsoon and post-monsoon seasons. As per revised CEPI criteria, the thiry party evaluation of ground water monitoring is also carried out.

4.2.4.Action Plan for control of pollution including cost/time aspects:

"Groundwater flow and Geophysical Investigation of Watershed covering Peenya Industrial Area (Phase I & Phase II), Bengaluru was carried out by M/s. CSIR-NGRI, Uppal Road, Hyderabad and suggested the following remedial measures;

a. The industrial area should have a common effluent treatment plant (CETP) to process the liquid/solid effluent generated from different industries and it is recommended to set up a CETP in the industrial area for effluent treatment.

b. Most of the wells in the industrial area need to be protected from surface water contamination during rainy season through diversion of storm water run-off.
c. Stagnation of storm water should be avoided in the industrial area otherwise it may drive nascent elevated concentrations to the downstream areas.
d. The wells which are containing total chromium, hexavalent chromium and other heavy metals in the industrial area may be well protected and should not allow for further use.
e. No effluents should be allowing through open stream, which are ultimately joining to the surface water bodies like Dasarahalli Tank and Karihobanahalli Tank.
f. Industries should take proper precautions not to throw or dump any solid waste in the open area.
g. Periodical monitoring of ground water quality for compliance and detection of contamination migration if any in the industrial area is suggested.
h. It is imperative to order closing of unused open wells containing hexavalent chromium in the industrial area by individual industries so as to prevent the industries for using them in disposal of industrial wastewater.

The KSPCB in collaboration with Peenya Industries Association has proposed to provide 0.2 MLD(200 KLD)CETP with Reverse Osmosis System & Multiple Effect Evaporator, to cater service for treatment of trade effluent generated from small & medium scale industries, and earmarked the area at Urban Eco Park, Peenya for construction of CETP and the same is in the process of implementation, the same shall be promoted by providing the required financial assistance to implement the same immediately. The new CETP cost is estimates approximately Rs. 10 crores.

4.2.5. Treatment and management of contaminated ground water bodies etc.:

Ground water contamination noticed in the many parts of the industrial cluster/area by the study carried out by NGRI. The remedial measures will be taken up by the KSPCB.

a. Remediation of chromium contaminated ground water by pumping contaminated ground water & providing further treatment by adopting advanced treatment technology & disposal facility will be taken up by identifying skilled professionals in this filed and the same will be implemented within the time frame of 31.12.2021. The approximate cost for the said project will be prepared by the KSPCB in consultation with concerned authorities.
b. Based on the NGRI, report restoration of contaminated ground water in the study area is to be under taken by inviting Expression of Interest in order to evaluate

suitable Technology for which Technical & Financial assistance from CPCB is required only after evaluating suitable Technology, the cost & time estimates will be prepared.

4.2.6. Impact on CEPI score after abatement of land pollution:

Although at present no groundwater/land contamination is noticed in the impact zone, the industries within the cluster are in the progress of initiating proactive measures to store hazardous &non-hazardous wastes in proper manner to prevent any contamination. Hence the CEPI score will come down on implementation of action plan.

Justification:

- As a result of recycling and scientific disposal of hazardous & solid wastes, the ambient pollutant concentration (factor: B1) will undergo reduction, consequently reducing the impact on people and eco-geological features (factor: B2&B3) and level of exposure of the local population (factor: C2).
- The region around the industrial cluster is sparsely populated, with only a few villages falling within the impact zone thereby reducing potentially affected population (factor: C1).
- The hazardous wastes, like spent oil, generated from the utilities of all the industries are collected and sent to Recyclers and landfill able Hazardous waste is sent to TSDF.
- The bio-medical waste generated in the cluster is handed over to the common bio-medical waste treatment facility located in Dobbaspet (Semba Ramky) for safe disposal.
- The up gradation of infrastructure will result in better handling of solid waste generated within the region, thus reducing the additional risk element (factor D).
- The remaining factors that contribute to the CEPI sub-index score are unchanged.

4.3. Solid waste Generation and management

4.3.1. Waste classification and quantification:

The KSPCB has classified wastes according to the Rules and Notifications and quantified each category. However, the work of inventorization of different types of non-hazardous waste generated in the core & impact zone of the study area will be carried within the time frame of 31.12.2020.

Around, 20-30 Tons/day solid waste is generated in the study area. The BBMP has the responsibility of disposing the solid waste scientifically. But, the solid waste collection in the area is poor and the PIA is pursuing the matter with BBMP to have proper solid waste collection mechanism. The industrial non-hazardous solid waste is disposed to respective recyclers.

4.3.1.1. Hazardous waste:

There are **478** industries generating Hazardous waste in core & impact zone of the study area. The estimated quantity of Hazardous waste generation as per Authorization is calculated as **Landfillable – 1607 Tons/Annum, Incinerable – 1581 Tons/Annum and Reprocessable – 5148 Tons/Annum.**The landfillable Hazardous waste are disposed off into two operators of TSDF facility located outside the study area. The incinerable Hazardous waste are disposed off into operators of Common Incineration facility and Co-processing facility. The reprocessable Hazardous waste are disposed off into the operators of registered Recyclers of the KSPCB. The steps have been taken by the KSPCB to ensure industries should have proper temporary storage facility and to dispose the Hazardous waste by maintain hazardous waste manifest in Form-10.

4.3.1.2. Bio-medical waste:

There are no major hospitals located in the core & impact zone of the study area. The bio-medical waste generated from the hospitals in the study area is handed over to the common bio medical waste treatment facility located outside the study area by maintaining records. The estimated quantity of bio-medical waste generation is around 1.5 Tons/day.

4.3.1.3. Electronic waste:

The e-waste generation from the bulk consumers is very minimum in the core & impact zone of the study area since, there are no producers and manufacturers of electronic items listed in Schedule-I of e-waste Rules, 2016. However, the generation of e-waste is around 2-3 tons/day and the same is disposed to e-waste Recyclers. There are 06e-waste dismantling & recycling industries engaged in procurement of e-waste generating within and outside the study area.

4.3.1.4. Municipal solid Waste/Domestic Waste/Sludge from ETPs/CETPs/STPs and other industrial sources.

There is no Municipal Solid Waste disposal facility within the study area except in Doddabidarakallu. The solid waste is not quantified by BBMP and also there is no proper segregation, collection and disposal mechanism of the solid waste from the BBMP. The issue is being pursued by PIA with BBMP.

With respect to industrial non-hazardous solid waste, the same is disposed to end users and the sludge from the ETP is handed over to operator of TSDF and the STP sludge is used as manure. There is no CETP in the study area.

4.3.1.5. Plastic waste:

The plastic waste being generated in the study area is disposed to register Recyclers. The quantification of Plastic waste generation in the study area is carried out within time frame of 31.12.2020. There are 10 Plastic Recycling industries Registered by the KSPCB and these industries are recycling around 100 Tons/Annum of Plastic waste.

4.3.1.6. Quantification of wastes and relative contribution from different sources.

Except Hazardous & biomedical waste, other types of wastes are not quantified. KSPCB will initiate studies to quantify the different types of non - hazardous solid waste generated in the study area within the time frame of 31.12.2020.

4.3.2. Identification of waste minimization and waste exchange options:

Steps will be taken to set up Waste minimization circles.

4.3.3. Reduction/Reuse/Recovery/Recycle options in the co-processing of wastes:

There are no industries in the study area.

4.3.4. Infrastructure facilities

4.3.4.1. Existing TSDF/Incineration facilities including capacities:

There are no TSDF and incineration facility in the study area. Accordingly, the industries are ensured to dispose the Hazardous waste to two nos. of TSDF facility and common incineration facility located outside the study area.

4.3.4.2. Present status/performance and need of up-gradation of existing facilities including enhancement of capacities:

Establishment of Common solid waste disposal facility particularly for bio-degradable waste within the industrial area/estate for final disposal of non-hazardous solid waste in scientific manner is required.

4.3.4.3. Treatment and management of contaminated waste disposal sites, etc.

Ground water contamination scattered/spread across the industrial area/estate are identified, which has happened due to indiscriminate disposal of the waste water from surface treatment units and un-recognized small scale sectors for many years and it is difficult identify the point of contamination as new industries has come up in its place over last few years. Hence, the Karnataka State Pollution Control Board decided to take up source identification study and based on the report further course of action will be initiated for remediation of such contaminated zone.

4.3.4.4. Impact on CEPI score after proper management of Solid Wastes.

After implementing scientific solid waste management measures CEPI score will come down substantially.

5. PPP Model

5.1. Identification of project proposals (for both the options i.e. technology intervention and infrastructure renewal) for implementation under the PPP mode under the Action Plan.

Based on the NGRI, report restoration of contaminated ground water in the study area is to be under taken by inviting Expression of Interest in order to evaluate suitable Technology for which Technical & Financial assistance from CPCB is required only after evaluating suitable Technology, the cost & time estimates will be prepared.

5.2. Identification of stakeholders/agencies to be involved and to evolve financial and managerial mechanisms for implementation of PPP projects.

After finalization of action plan private participation will be explored.

6. Other infrastructural Renewal measures:

6.1. Green Belts

There are few parks existing in the study area. Very few industries are maintaining greenery particularly in II phase and IV Phase industrial area where plot size are big and there is little scope for the development of greenery and moreover, this is theold industrial area majority of road already covered with avenue plantation. The green belt along the existing roads can be developed.

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6.2. A) Development of Industrial Estate(s):

Not contemplated.

6.2. B) Improvement of environmental quality of existing Peenya industrial Area/Estate:

The BBMP has proposed to take up-gradation of existing roads and storm water drains in the area in association with Department of industries and commerce. Also, Peenya Industrial Association along with BBMP, KIADB, KSPCB and DIC initiated programme on avenue tree plantation and to continue the same, in the industrial area during forthcoming monsoon season.

6.3. Development/shifting of industries located in the non-industrial areas to the existing/new industrial estates:

The proposal is already before the State government to establish the cluster for surface treatment units. Accordingly, the existing industries are moving to Dobaspet Industrial Area, Nelamangala Taluk.

7. Specific Schemes:

7.1. GIS-GPS system for pollution sources monitoring:

At present there is no such system for pollution sources monitoring. The possibility will be explored.

7.2. Hydro-geological fracturing for water bodies rejuvenation:

As there is ground water contamination zones identified within the study area by NGRI and the remedial measures are to be explored at the earliest.

Further there are five water bodies in the study area and rejuvenation work of Dasarahalli & Shivapura Tanks are completed and other three tanks Andrahalli, Doddabidarakallu & Karihobanahalli are to be undertaken by BDA& BBMP.

7.3. In-situ remediation of sewage:

No such proposal.

7.4. Utilization of MSW inert by gas based brick kilns:

No such facility in the study area is proposed.

7.5. Co-processing of wastes in cement industries:

KSPCB is informing the co-incineration units to establish the common pooling centre as the generation of waste is in small scale in the study area.

8. Public awareness and training Programmes:

The KSPCB is conducting both public awareness & training programmes in the field of environment management for the stakeholders in co-ordination with industries, NGOs, educational Institutes & other Government departments.

9. Overall Impact of installation/commissioning of pollution control equipment's/measures on the CEPI score:

The main pollution problems attributed in the study area is contamination of ground water quality with Chromium and Iron content as per NGRI report. Unless and until implementation of eco-restoration of contaminated bore-wells and establishment of CETP in the study area, there will no improvement in the CEPI score. However, the steps have already been taken by the KSPCB to ensure implementation of 6 point criteria conditions laid down for surface treatment industries in order to avoid further contamination of ground water quality from the existing operating industries in the study area and also establishment of CETP is in progress, which may slightly bring down CEPI score.

10. Assessment of Techno-economical feasibility of pollution control systems in clusters of small/medium scale industries.

Study of techno-economical feasibility of pollution control systems in clusters of small/medium scale industries will be carried out.

11. Efforts shall be made to encourage use of Bio-compost and Bio-fertilizer along with the chemical fertilizer in the state to minimize the unutilized chemical fertilizer run-off into the natural water resources from agriculture fields (through Govt. policy)

There is no scope for this in the study area.

12. Summary of proposed action points:

12.1 Short Term Action Points (upto 1 year, including continuous Activities)

Sl. No	Action Points (including source & mitigation measures)	Responsible Stake Holders	Time limit	Cost in Rupees	Remarks
1	Water Auditing in the Large industries of the study area	Large Industries	31.03.2020	--	KSPCB has directed all large water based industries to conduct water auditing for water conservation.

2	Energy Auditing and utilization of solar energy in the roof area	Large Industries & PIA	31.03.2020	--	KSPCB has directed LR industries to conduct energy auditing in co-ordination with PIA.
3	Adopting latest technology, alternative use of Eco friendly chemicals in plating/powder coating and surface treatment industries and Best practices.	Industries	31.03.2020	---	All the industries have been insisted to adopt cleaner technologies/best practices within time frame.
4	Establishment of two new manual AAQM stations in impact zone, in addition to two existing manual AAQM stations in core zone	KSPCB	31.03.2020	10 Lakhs	Two new manual AAQM stations will be established.
5	Establishment of one new continuous AAQM station in impact zone, in addition to one existing CPCB-CAAQM station in core zone	KSPCB	31.03.2020	200 Lakhs	New CAAQM station will be established.
6	Promoting green belt within the study area	Bruhat Bengaluru Mahanagara Palike (BBMP)& PIA	31.03.2020	---	BBMP & PIA have initiated action and work under progress.
7	Providing fecal sludge treatment & disposal facilities	Bengaluru Water Supply &Sewerage Board (BWSSB)	--	---	BWSSB is collecting fecal sludge from unsewered areas and treated in existing STPs.

12.1 Long Term Action Points (more than 1 year)

Sl. No	Action Points (include source & mitigation measures)	Responsible Stake Holders	Time limit	Cost in Rupees	Remarks
1	Establishment of CETP at Urban Eco Park	KSPCB & PIA	31.12.2021	1000 Lakhs	KSPCB will finalize the suitable Technology after completion & evaluation of Detailed Project Report (DPR).
2	Preparation of feasibility study for eco-restoration for remediation of ground water contamination in the study area in consultation with CPCB, identifying suitable Technology and experts along with Expression of Interest (EOI)	KSPCB, CPCB & PIA	31.12.2021	---	Cost estimation is being finalized.
3	Strengthening of existing storm water drains, rajakaluves in the study area	BBMP	---	---	BBMP has initiated action for strengthening the storm water drains.
4	Implementation of solid waste management plan for the study area	BBMP	--	--	BBMP has initiated steps for implementation of solid waste management.
5	Strengthening of existing UGD network & new UGD facility to avoid discharge of missing link sewage through storm water drains into natural water bodies in the study area	BWSSB	31.03.2021	29600	BWSSB has initiated steps to provide UGD network for Doddabidarakallu, Karihobanahalli and Andhrahalli villages.

6	Rejuvenation of Karihobanahalli, Doddabidarakallu, Andhrahalli&Shivpura Tanks in the study Area	Bengaluru Development Authority (BDA)/BBMP	---	---	BBMP/BDA has initiated steps for rejuvenation.
7	Improvement of existing roads, providing infrastructure facilities for parking of vehicles in the study area	BBMP/ Bengaluru city Traffic Police (BTP)	---	---	Work under progress.

##*#*#*

ANNEXURE -1 a (SW-1)

Analysis report extract of Water quality monitoring in Shivapura Tank from January 2018 to December 2018

Sl No	Parameters	Units	Monthly results of the Analysis reports											
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	pH	pH units	7.4	7.4	7.7	NM	NM	7.1	7.5	7.5	7.5	7.5	7.9	7.3
2	Dissolved Oxygen (DO)	mg/l	NIL	NIL	NIL	NM	NM	2.5	2.4	2.5	1.8	1.8	0.6	3.1
3	Bio chemical Oxygen Demand (BOD)	mg/l	38	48	41	NM	NM	48	28	25	26	37	30	24
4	Conductivity	µs/cm	3570	4930	3810	NM	NM	2280	3550	3660	3400	2120	3010	2500
5	Nitrate	mg/l	2	9.4	3	NM	NM	7.5	2.2	3.6	5.5	6	1.8	16.8
6	Ammonical Nitrogen	mg/l	22	16	16	NM	NM	NA	NA	NA	NA	NA	NA	NA
7	Total Coliform Bacteria	MPN/100ml	$221X10^4$	$172X10^3$	$172X10^3$	NM	NM	$920X10^4$	3500	5400	350X103	$920X10^4$	3500	5400
8	Fecal Coliform Bacteria	MPN/100ml	$26.X10^4$	$46X10^3$	$22X10^3$	NM	NM	$170X10^4$	310	790	21X103	$94X10^4$	470	630
9	Chemical Oxygen Demand (COD)	mg/l	233	380	249	NM	NM	262	323	266	NA	205	278	269
INFERENCE : (As per Primary Water Quality Criteria for best designated use by CPCB class A,B,C,D & E)			**Below E**	**Below E**	**Below E**	**-**	**-**	**Below E**	**Below E**	**Below E**	**Below E**	**Below E**	**Below E**	**Below E**
Water quality index (WQI)			**Unsatisfactory**											

NM- Not Monitored

NA- Not Analysed

Designated Best Use	Class of Water
Drinking water source wihout conventional treatment but after disinfection	A
Outdoor bathing (Organized)	B
Drinking water source after conventional treatment and disinfection	C
Propagation of Wild Life, Fisheries	D
Irrigation, Industrial cooling, Controlled Waste Disposal	E
Not Meeting A,B,C,D & E Criteria	Below-E

ANNEXURE -I b (SW-2)

Analysis report extract of Water quality monitoring in Karihobanahalli Tank from January 2018 to December 2018

Sl No	Parametrs	Units	Monthly results of the Analysis reprots											
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	pH	pH units	7.6	7.4	7.3	NM	NM	7.7	7.7	7.5	7.5	7.4	7.2	7.86
2	Dissolved Oxygen (DO	mg/l	NIL	0.8	2	NM	NM	3.8	3.4	2.5	2.1	4.8	3.4	2.5
3	Bio chemical Oxygen Demand (BOD)	mg/l	45	37	28	NM	NM	81	18	20	23	18	24	19
4	Conductivity	µs/cm	4690	3500	7.3	NM	NM	2470	2340	2550	2460	1680	2200	2500
5	Nitrate	mg/l	3	5.3	4	NM	NM	7.9	1.5	3.5	4	22	1.4	12.3
6	Ammonical Nitrogen	mg/l	23	10.6	12	NM	NM	NA	NA	NA	NA	NA	NA	NA
7	Total Coliform Bacteria	MPN/100ml	$348X10^{2}$	$109X10^{4}$	$348X10^{4}$	NM	NM	$540X10^{4}$	$920X10^{3}$	$920X10^{3}$	$540X10^{3}$	$1600X10^{4}$	$1600X10^{3}$	$920X10^{3}$
8	Fecal Coliform Bacteria	MPN/100ml	$49x10^{2}$	$33X10^{4}$	$49X10^{4}$	NM	NM	$220X10^{4}$	$84X10^{3}$	$170X10^{3}$	$47X10^{3}$	$110X10^{4}$	$220X10^{3}$	$58X10^{3}$
9	Chemical Oxygen Demand (COD)	mg/l	254	263	236	NM	NM	328	242	220	NA	154	247	213
INFERENCE : (As per Primary Water Quality Criteria for best designated use by CPCB class A,B,C,D & E)			**Below E**	**Below E**	**Below E**	**-**	**-**	**Below E**	**Below E**	**Below E**	**Below E**	**Below E**	**Below E**	**Below E**
Water quality index (WQI)			**Unsatisfactory**											

NM- Not Monitored

NA- Not Analysed

ANNEXURE -I c (SW-3)

Analysis report extract of Water quality monitoring in Dasarahalli Tank from January 2018 to December 2018

Sl No	Parametrs	Units	Monthly results of the Analysis reprots											
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	pH	pH units	8.4	7.63	8.3	9.2	7	6.8	8.5	8.7	9	6.6	7.7	NM
2	Dissolved Oxygen (DO)	mg/l	7	1.8	0.5	4.6	3.5	4.4	4.4	1.2	4	7.2	6.4	NM
3	Bio chemical Oxygen Demand (BOD)	mg/l	9	23	60	17	8	11	11	18	10	4	3	NM
4	Conductivity	µs/cm	496	715	771	1190	802	1262	630	657	683	600	534	NM
5	Nitrate	mg/l	1.49	1.7	1.15	0.42	2.6	1.1	1.8	1	1.2	1.1	0.9	NM
6	Ammonical Nitrogen	mg/l	0.3	0.1	10.52	0.642	NA	NA	NA	NA	NA	1.6	NA	NM
7	Total Coliform Bacteria	MPN/100ml	1720	10900	7900	350	1100	5400	9200	5400	84000	92000	9200	NM
8	Fecal Coliform Bacteria	MPN/100ml	330	3300	2200	240	9200	1100	940	940	3300	8400	1100	NM
9	Chemical Oxygen Demand (COD)	mg/l	97	167	210	126	136	NM	168	224	NM	63	77	NM
INFERENCE : (As per Primary Water Quality Criteria for best designated use by CPCB class A,B,C,D & E)			**Class D**	**Below E**	**Below E**	**Class D**	**Below E**	**Class D**	**Class D**	**Below E**	**Class D**	**Class D**	**Class D**	**-**
Water quality index (WQI)			**Unsatisfactory**											

NA- Not Analysed
NM- Not Monitored

ANNEXURE -I d (SW-4)

Analysis report extract of Water quality monitoring in Andrahalli Tank from January 2018 to December 2018

Sl No	Parametrs	Units	Monthly results of the Analysis reprots											
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	pH	pH units	7	7.4	6.6	7.7	5.7	7.1	6.9	7.1	8	6.8	6.5	NM
2	Dissolved Oxygen (DO)	mg/l	7.8	4.5	5.9	1.2	0.5	4.3	0.8	4.8	5.2	5.5	5.8	NM
3	Bio chemical Oxygen Demand (BOD)	mg/l	3	5	6	27	700	7	8	10	4	4	6	NM
4	Conductivity	µs/cm	390	411	921	4150	1844	673	1460	1586	1168	818	549	NM
5	Nitrate	mg/l	2.75	5.36	15	19	2	0.4	1.6	1	1.6	3	2	NM
6	Ammonical Nitrogen	mg/l	NA	NA	NA	34	95.2	NA	NA	NA	NA	3.4	NA	NM
7	Total Coliform Bacteria	MPN/100ml	1090000	10900	172000	16000	1600	1600	540	92000	35000	5400	35000	NM
8	Fecal Coliform Bacteria	MPN/100ml	NA	NA	NA	NA	NA	220	31	17000	3300	630	4800	NM
9	Chemical Oxygen Demand (COD)	mg/l	36	54	78	279	1998	111	150	144	NA	61	77	NM
INFERENCE : (As per Primary Water Quality Criteria for best designated use by CPCB class A,B,C,D & E)			**Class D**	**Class D**	**Class D**	**Below E**	**Below E**	**Class D**	**Below E**	**Class D**	**Class D**	**Class D**	**Class D**	**-**
Water quality index (WQI)			**Unsatisfactory**											

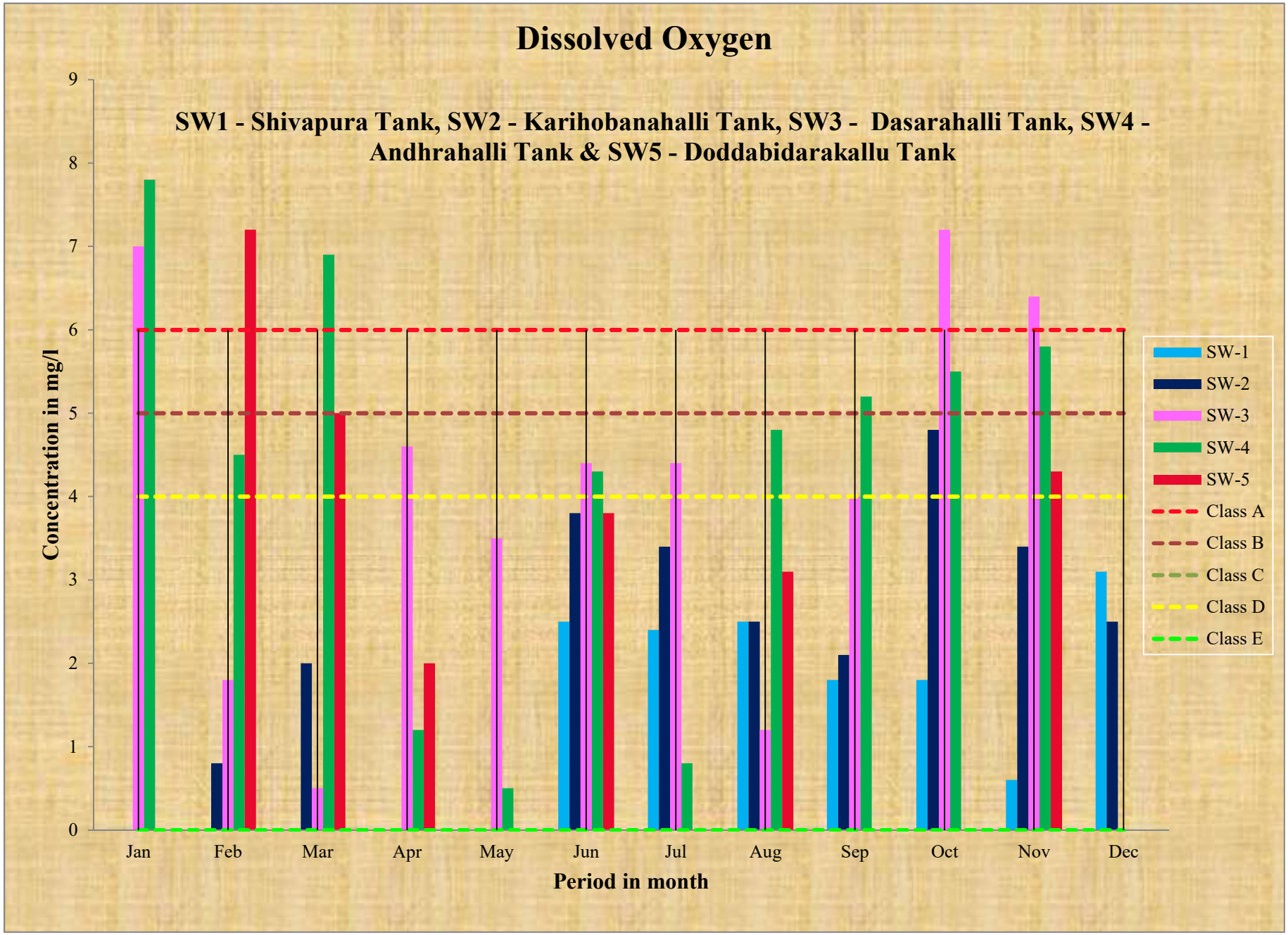
NM- Not Monitored
NA- Not Analysed

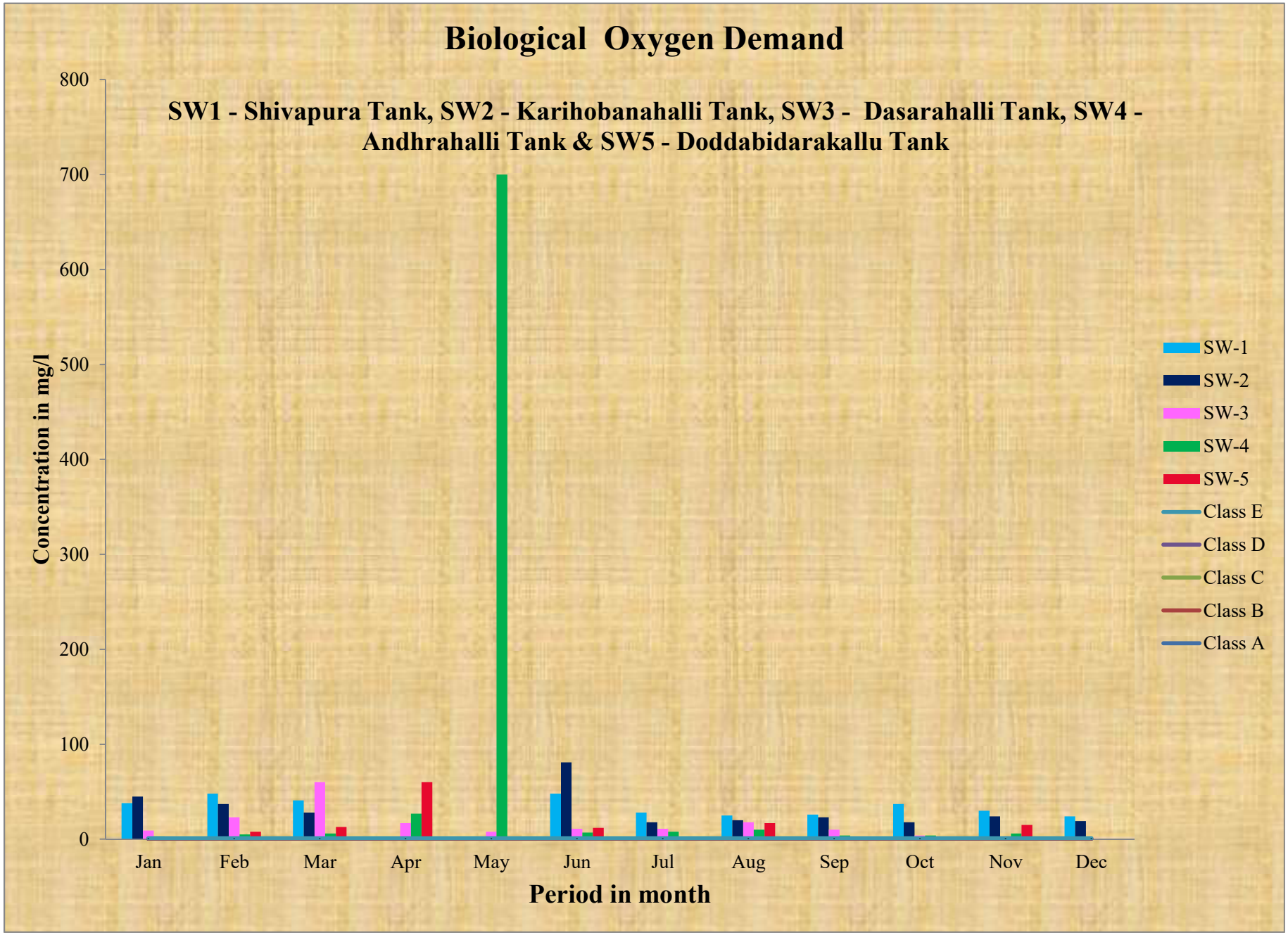
ANNEXURE - I e (SW-5)

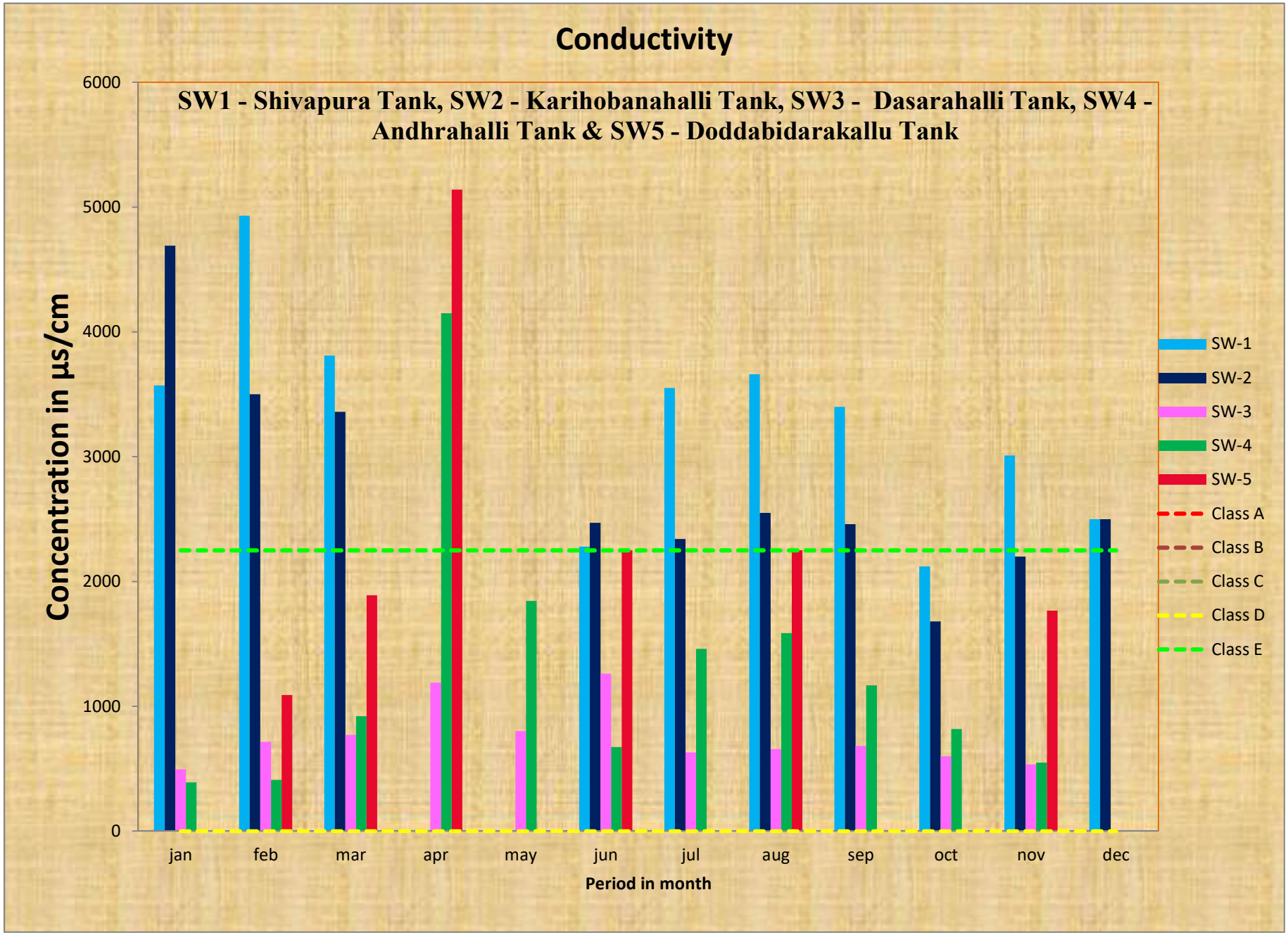
Analysis report extract of Water quality monitoring in Doddabidarakallu Tank from January 2018 to December 2018

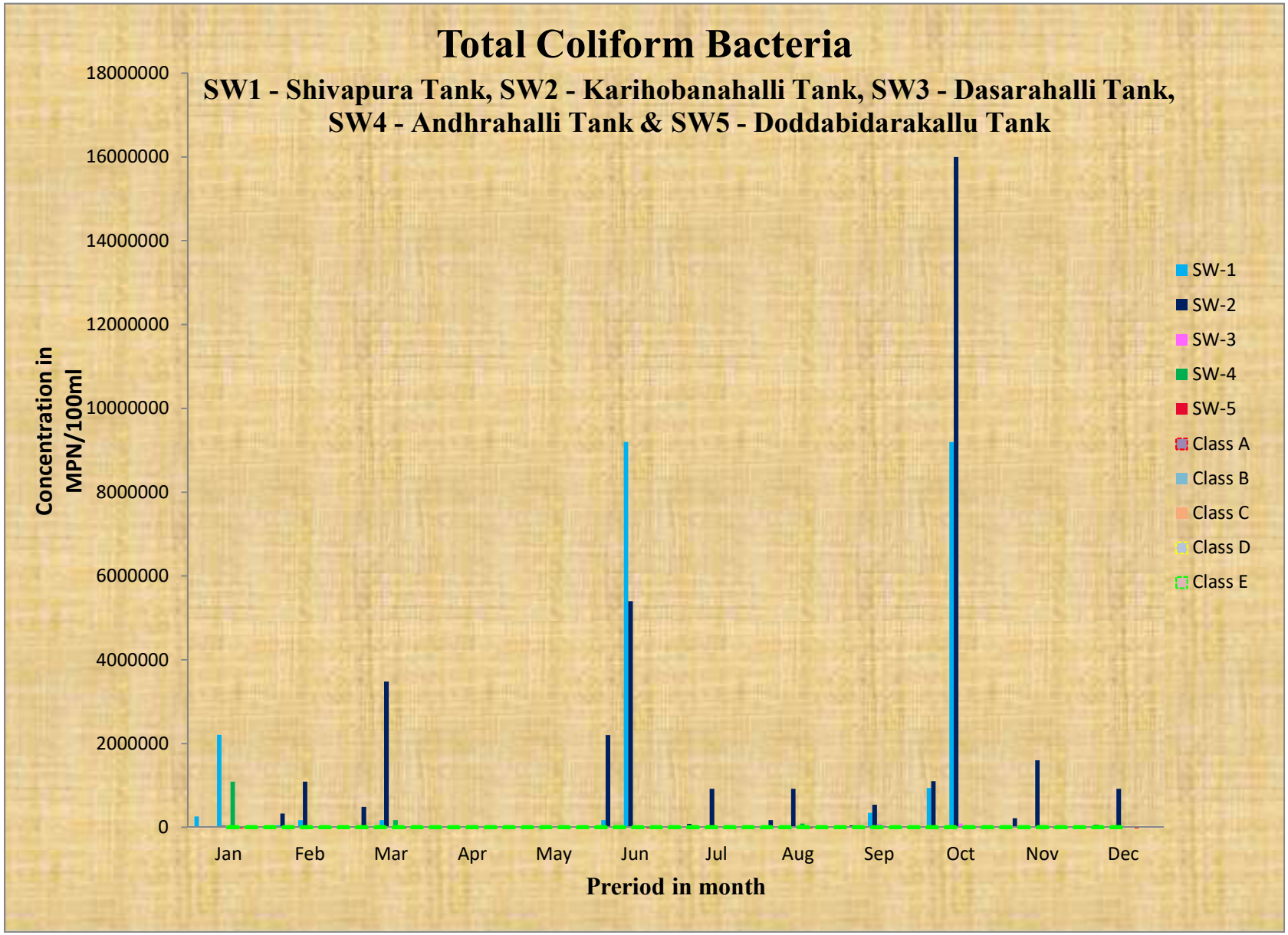
Sl No	Parametrs	Units	Monthly results of the Analysis reports											
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	pH	pH units	NM	8.5	7.2	7.2	NM	6.8	NM	7.3	NM	NM	7.01	NM
2	Dissolved Oxygen (DO	mg/l	NM	7.2	5	2	NM	3.8	NM	3.1	NM	NM	4.3	NM
3	Bio chemical Oxygen Demand (BOD)	mg/l	NM	8	13	60	NM	12	NM	17	NM	NM	15	NM
4	Conductivity	µs/cm	NM	1091	1890	5140	NM	2250	NM	2250	NM	NM	1766	NM
5	Nitrate	mg/l	NM	8.56	14	18	NM	3.6	NM	4.2	NM	NM	2	NM
6	Ammonical Nitrogen	mg/l	NM	NA	NA	14	NM	NA	NM	7	NM	NM	NA	NM
7	Total Coliform Bacteria	MPN/100ml	NM	79000	1720000	160000	NM	920000	NM	350000	NM	NM	540000	NM
8	Fecal Coliform Bacteria	MPN/100ml	NM	NA	NA	NA	NM	NA	NM	NA	NM	NM	NA	NM
9	Chemical Oxygen Demand (COD)	mg/l	NM	123	143	323	NM	173	NM	191	NM	NM	NA	NM
INFERENCE : (As per Primary Water Quality Criteria for best designated use by CPCB class A,B,C,D & E)			-	**Class D**	**Class D**	**Below E**	-	**Below E**	-	**Below E**	-	-	**Class D**	-
Water quality index (WQI)			**Unsatisfactory**											

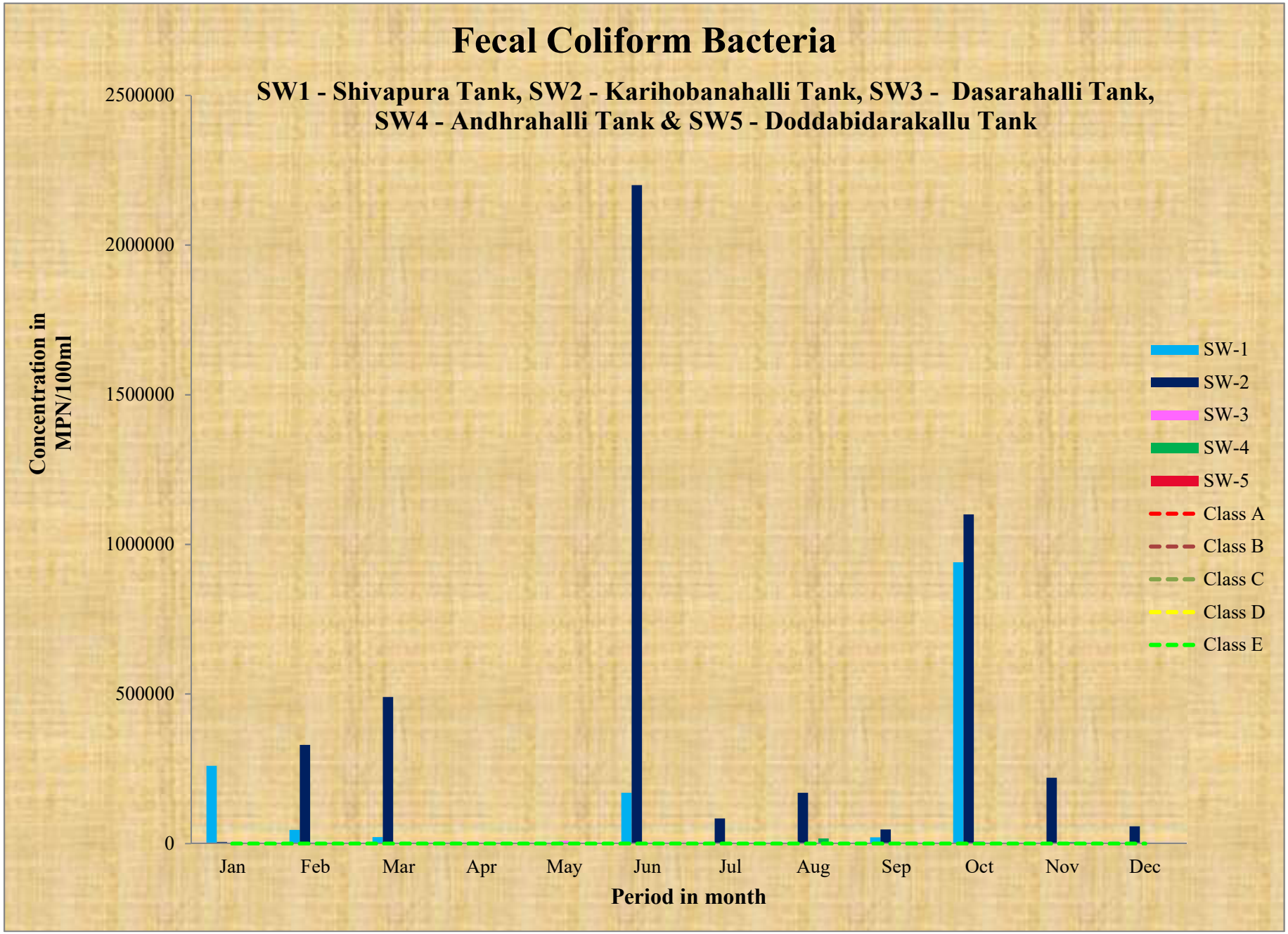
NM- Not Monitored
NA- Not Analysed


Dissolved Oxygen
SW1 - Shivapura Tank, SW2 - Karihobanahalli Tank, SW3 - Dasarahalli Tank, SW4 - Andhrahalli Tank & SW5 - Doddabidarakallu Tank
Concentration in mg/l
0
1
2
3
4
5
6
7
8
9
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Period in month
SW-1
SW-2
SW-3
SW-4
SW-5
Class A
Class B
Class C
Class D
Class E


Biological Oxygen Demand
SW1 - Shivapura Tank, SW2 - Karihobanahalli Tank, SW3 - Dasarahalli Tank, SW4 - Andhrahalli Tank & SW5 - Doddabidarakallu Tank
Concentration in mg/l
800
700
600
500
400
300
200
100
0
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Period in month
SW-1
SW-2
SW-3
SW-4
SW-5
Class E
Class D
Class C
Class B
Class A


Conductivity
SW1 - Shivapura Tank, SW2 - Karihobanahalli Tank, SW3 - Dasarahalli Tank, SW4 - Andhrahalli Tank & SW5 - Doddabidarakallu Tank
Concentration in µs/cm
6000
5000
4000
3000
2000
1000
0
jan
feb
mar
apr
may
jun
jul
aug
sep
oct
nov
dec
Period in month
SW-1
SW-2
SW-3
SW-4
SW-5
Class A
Class B
Class C
Class D
Class E


Total Coliform Bacteria
SW1 - Shivapura Tank, SW2 - Karihobanahalli Tank, SW3 - Dasarahalli Tank,
SW4 - Andhrahalli Tank & SW5 - Doddabidarakallu Tank
Concentration in MPN/100ml
18000000
16000000
14000000
12000000
10000000
8000000
6000000
4000000
2000000
0
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Preriod in month
SW-1
SW-2
SW-3
SW-4
SW-5
Class A
Class B
Class C
Class D
Class E


Fecal Coliform Bacteria
SW1 - Shivapura Tank, SW2 - Karihobanahalli Tank, SW3 - Dasarahalli Tank,
SW4 - Andhrahalli Tank & SW5 - Doddabidarakallu Tank
Concentration in MPN/100ml
2500000
2000000
1500000
1000000
500000
0
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Period in month
SW-1
SW-2
SW-3
SW-4
SW-5
Class A
Class B
Class C
Class D
Class E

ANNEXURE-II

The quantity of water consumption and generation of sewage & trade effluent from Large Red Category located in the core & impact zone of the study area as per consent.

Sl. No.	Name & address of the Industries	Type of the activity	Water consumption quantity in KLD		Effluent generation quantity in KLD	
			Domestic purpose	Industrial purpose	Sewage effluent	Trade effluent
1	ABB Ltd, No.4A, 5 & 6, II Phase, PIA, Bangalore- 560 058,	Assembly, testing & spray painting & pre treatment of electrical & electronic equipment	229	5.003	228	0.003
2	KDDL Ltd (formerly known as M/s. Kamala Dials & Devices), No.296 & 297 IV Phase, PIA, Bengaluru-560 058,	Wrist Watch Hands with brass strap stapping, reviting,degreasing, nickel & gold Electroplating	4.8	8.5	3.8	5.5
3	Advinus Therapeutics Private Ltd, Unit -1, Unit -1, No 21/ 22, II Phase, PIA, Bengaluru-560 058	**R & D activity** on toxicology, biological efficiency on residue of pesticides & R & D of pharmaceutical drug discovery and contract research	85.5	37	70	37
4	Rewdale Precission Tools Pvt Ltd., No.484 B & C, IV Phase, PIA, Bengaluru-560 058	Precision turned components with pre treatment i.e collets	3.8	0.25	3	0.25
5	Sami Labs Ltd, No.19/1 & 19/2, 1st Main, II Phase, PIA, Bangalore-560058	R & D activity on Herbal extraction	8	8.5	7	5.1
6	Ace Designers Ltd, No.7 & 8, II Phase, PIA, Bengaluru-560 058	CNC Machines with surface treatment Spray Painting & Powder Coating operations	50	10	40	10

7	Fouress Engineering India Ltd, N No.2, II Phase, PIA, Bengaluru-560 058	Eng industries with machining, acid cleaning & spray painting i.e industrial valves & isolators	27	3	25	2.6
8	Glastronix LLP (Formerly known as Glastronix), No.21-E2, II Phase, PIA, Bengaluru-560 058	Assembly, testing of electrical & electronic equipments & sheet metal fabrication items with degreasing & powder coating operations	6	0.18	4.8	0.1
9	Beckman Coulter India Pvt Ltd.,(Formerly known as Rea Matrix India Pvt Ltd), No.50 B, II Phase, PIA, Bangalore-560058,	R & D on clinical research for production of diagnostic reagents & research use kits	4.4	1	3.5	1
10	Mag Engineering Pvt Ltd (A unit of Sandhar Technologies), No.46-A, 3rd Main road, Unit - 2 , II Phase, PIA, Bengaluru-560 058,	Earth moving equipments cabins & its parts with sheet metal fabrication, phosphating, spray painting & powder coating operations	12.5	10.5	10	10.5
11	Mysore Thermo Electric Pvt Ltd, No.62, III Phase, PIA, Bengaluru-560 058,	Lead Acid Storage Batteries	2	0.5	2	0.5
12	Healthium Medtech Pvt Ltd (Formerly Sutures India Pvt Ltd, No.472/D, IV Phase, PIA, Bengaluru-560058	Surgical obserbable sutures with processing of sheet & goat guts, desalting, slitting, sizeing, chromo sizeing, assembly with needles followed by testing & packing	12	20	9.6	20

13	Merck Life Science Pvt Ltd., (Formerly known as Millipore (India) Pvt Ltd), No. 50-A/51, II Phase, PIA, Bengaluru-560 058,	Assembly of bio monitoring laboratory water, TFS, analytical products,cartridge housing along with R & D on validation on bio pharmaceutical products	16	4.6	14	4.6
14	Steer Engineering Pvt Ltd, No.290,4th Main, IV Phase, PIA, Bengaluru-560 058	Assembly of machines for plastic, pharma & food processing industries with machining heat treatment and grit blasting operations	15	1.45	12.8	0.23
15	Surhennings Pvt Ltd, No.1-B, II Phase, PIA, Bangalore-560058	Machineries protective equipments with fabrication, M/cing, phosphating & powder coating operations	10	2	8	1
16	Microtex Energy Pvt Ltd., No.42 & 43,2nd Main, II Phase, PIA, Bangalore-560058,	Lead acid Batteries for industrial, automotive, 4 wheeler, 2 wheeler, pvc separator, polyester tubular bags, refining of lead ingots & lead suboxide	5.5	10	2.5	3
17	Eshwari Textile Processing Pvt Ltd., No.109, 6th Main, III Phase, PIA, Bangalore-560058	Fabric/ garment dyeting washing	6.3	112	2.5	64
18	Bioneeds India Pvt Ltd No.3,I Main Road, I Stage, PIE, Bengaluru-560 058,	R & D activity in chemical & Bio Pharma labs	2	0.25	1.6	0.32
19	ICT Services Management Solutions (I) Pvt ltdNo. 30A, Sy.No. 37 & 39, II Phase, PIA, Bengaluru-560 058,	Rebursment of elctronic equipments	11	0	9.5	NA

20	TUV SUD South Asia No.A-151/152, 2nd C Main, II Stage, PIE, Bangalore-560058	Consumer product testing laboratory for food & Water	8	3	7.2	0.015
21	Quenby Transfer (I) (P) Ltd., No.542, 14th Cross, IV Phase. PIA, Bengaluru-560 058	Printed transfer paper labels for garments with screen printing/washing	10	4	8	4
22	Armstrong Acmite India, No.41-B,II Phase, PIA, Bangalore-560058	Non Ferrous Copper based alloy casting	2	2	1.6	2
23	Dynamatic Technologies Limited, No. 11, Dynametic park, II Phase, PIA, Bengaluru-560 058	R & D on design, development photoshop of Hydraulic& Aerospace components with pretreatment operation	55	3.25	30	1.25
24	Healthium Medtech Pvt Ltd (Formerly Sutures India Pvt Ltd.), No.477C, Opp. to Bata Factory, BMTC Depot Main Road, IV Phase,PIA, Bengaluru-560 058	Surgical suture needles of different grades with grinding, buffing, Hardening, Pickling & Electro polishing operations	2.25	0.03	1.6	0.03
25	Cookson India Research Centre, No.89/1, Vaishnavi Bhavan, Industrial Suburb, 2nd Stage, Yeshwanthpura, Bangalore - 560 022.	R & D	3	0.8	2.5	0.8
26	Jubilant Biosys Ltd., No. 96, Industrial Suburb, Yeshwantpur Bangalore - 560 022	R & D	30	0.15	27	0.15
27	The Mysore Electrical Industries Ltd., P.B. NO. 2221, Tumkur road, Industrial Suburb, Yeshwanthpura B'lore – 22	Switch gears & Panel Boards with electroplating	50	100	40	50

28	Danisco (India) Pvt. Ltd., (FMC India R & D Centre) No. 61/A, 1st Main Road, Indl. Suburb, 2nd Stage, Yeshwanthapur, Bangalore-22.	R & D	1.5	2.9	1.2	2.5
29	Gardener Aerospace Bengaluru Pvt. Ltd No 102,3rd cross,3rd main,2nd stage Industrial Subrub,Yeshwanthpur, Bengaluru 560 022	Anodizing, Non destructive testing, spary painting.	1.25	30	1	30
30	HMT Machine Tools Ltd.,No:1, Common Service Division, Hmt Post, Jalahalli, Bangalore.	Machine Tools Spares	20	1	16	0
31	Gemini Dyeing & Printing Mills Limited, No.16, 1st Phase, Peenya Industrial Area, Bangalore	Washing & Printing of Fabrics	10	485	8	475
32	Hind High Vaccum Company (P) Ltd., No.17, 1st Phase, Peenya Industrial Area, Bangalore-560058	Surface treatment	14	4	12	4
33	ITC Limited, 1st Phase, Peenya Industrial Area, Bangalore	R & D Centre	24	62	21	24
34	John Crane Sealing System, 1st Phase, Peenya Industrial Area, Bangalore-560058	Surface treatment	20	0.5	20	0.5
35	Kennametal Widia (I) Limited, (Widia (I) Limited,), 8/9th Mile, Tumkur Road, 16th Km, Bangalore	Surface treatment	100	28	90	2.5
36	Surin Automotives (Krishna Fabrications Limited), No.6a, 1st Phase, Peenya Industrial Area, Bangalore,	Surface treatment	9	0.5	7.2	0.5

37	Welcast Steels Limited, 1st Phase, Peenya Industrial Area, Bangalore,	Surface treatment	31.25	90	25	NA
38	Wipro Infrastructure Engineering, No.9B-10A, 1st Phase, Peenya Industrial Area, Bangalore-560058	Surface treatment	68.32	17.86	51.77	10.37
39	Rallis Research Centre 73/1C & 1D, Byregowda Indl Estate, Srigandanagar, Hegganahalli, Bangalore	R & D Centre	2.5	0.5	2.3	0.4
40	Avery Dennison India Pvt Ltd, Plot No 6B, Ist Main Road, KIADB, Phase I, Peenya Industrial Area, Bangalore 560058	Label Printing	20	2.5	20	NA
Total			**992.87**	**1072.72**	**850.97**	**773.718**

ANNEXURE-II (a)

The quantity of water used and waste water generated from Medium Red category industries located in the core and impact Zone of the study area.

Sl. No.	Name & Address of the Industries	Type	Raw water consumption in KLD		Waste water Generation in KLD	
			Domestic	Industrial	Sewage	Trade effluent
1	Naptha Resins & Chemicals Pvt Ltd, No.492, IV Phase, PIA, Bangalore-560058	Unsaturated Polyester Resin and Phenolic Resin	4.5	11	4	3.35
2	Kamalam Handlooms Pvt Ltd, No.266, IV Phase, PIA, Bengaluru-560 058	Silk yarn dyeing	2.5	49	2	40
3	Advinus Therapeutics Pvt Ltd, unit - 2, unit -2 No.203, III Phase, PIA, Bangalore-560058	R & D activity on Pharmaceuticals, Bulk drug & Bio technology	1.2	1.5	1	1
4	Alufit (India) Pvt Ltd, No.17-A, II Phase, PIA, Bengaluru-560 058,	Aluminium anodizing	4.6	0.6	3.2	0.6
5	Vijaya Metal Finishers, No.365, IV Phase, PIA, Bengaluru-560 058,	Electroplating	0.5	0.35	0.4	0.35
6	D.C. Autoparts, No. A-267, 6th Mian, II Stage, PIE, Bengaluru-560 058	Engineering with Pretreatment	1.9	N	1.5	N
7	Standard International Precision Engineering Pvt Ltd., No A-169, I Stage, PIE, Bengaluru-560 058,	Engineering Unit- Pre treatment	0.8	N	0.7	N
8	Xcyton Diagnostics Ltd., No.449, 10th Cross, IV Phase, PIA, Bengaluru-560 058	Diagonistic Kit	0.79	0.02	0.61	0.02

9	Peenya Industrial Gases,No.313, 8th cross, IV Phase, PIA, Bengaluru-560 058	Industrial gases other than oxygen and carbon dioxide	6	N	3	N
10	KDDL ltd, (Unit: Hands-II), No, 408, IV Phase,PIA Bangalore-58	Nickle & gold Eletroplating on wrist watch hands	6	6	4.8	5.1
11	Synergy Punching Pvt Ltd., No.374, 10th Cross, IV Phase, PIA, Bengaluru-560 058	Sheet metal enclosures with surface treatment	0.8	10	0.6	10
12	BeloorBayir Biotech Ltd.(Bayir Chemicals), No.10, Doddanna Industrial Estate, Near Peenya 2nd Stage, Bangalore	Glucosamine	3.3	1.5	2.7	1.5
13	Lucky Tex - Unit 3 No. 19/A (2 & 3), Raja Industrial Estate, Industrial Suburb, Yeshwanthpura, Bangalore - 560 022.	Garment Stitching & Printing	16	0.47	14.5	0.47
14	Sri Krishna Industries No. 25/26, 3rd main Road, 2nd stage, Yeshwanthpur, B'lore - 22	Non Woven Poly Wadding, Readymade garment stitching	5.6	0.25	4.9	0.25
TOTAL			**55**	**81**	**44**	**63**

ANNEXURE-II (b)

The quantity of water used and waste water generated from Small Red category industries located in the core and impact Zone of the study area.

Sl. No.	Name & Address of the Industries	Type	Raw water consumption in KLD		Waste water Generation in KLD	
			Domestic	Industrial	Sewage	Trade effluent
1	Champion Extrusion,Unit-II, No.A-21, III Stage, PIE, Bengaluru-560 058	Electroplating	1.5	0.05	1.2	0.05
2	Agro Extracts Ltd, No.16, II Phase, PIA, Bengaluru-560 058	Vegetable Oil, De Oil Cake, DAP and Belnding of Lubricating Oil	2.5	24	2	6
3	Swan Silk Ltd, No.107-108, III Phase, PIA, Bangalore-560058	Silk yarn dyeing	1	5	0.8	5
4	Mysore Thermo Electric Pvt Ltd, No.36, III Phase, PIA, Bengaluru-560 058,	manufacture of Formed plates	0.75	2	0.5	1.5
5	A.P.S Industires, No.B-213, II Stage, PIE, Bangalore-560058	Lead suboxide	0.6	N	0.5	N
6	Adpro System India (P) Ltd 318, 8th cross, IV Phase, PIA, Bengaluru-560 058,	Electroplating (Hardchrome)	0.4	0.5	0.3	0.5
7	Ammonia Marketing Co, No.125, III Phase, PIA, Bengaluru-560 058	Bottling/ Refilling of Anhydrous Liquid Ammonia Liquid Ammonia	0.5	N	0.4	N
8	Ananda Metal Corporation, No.C-81, III Stage,PIE, Bengaluru-560 058	Lead smelting	0.3	N	0.2	N
9	Arun Industries, No.B-64, II Stage,PIE, Bengaluru-560 058	Waste oil reprocessing	0.15	0.2	0.12	0
10	Associated Chemicals & Engineering Company, No.B-301, 5th Main , IV Phase, PIA, Bengaluru-560 058	Refilling of industrial chemicals and HW reprocessing	1.5	2	1.2	1.9

11	Sree Balaji Enterprises, No.A-302(a), 7th Main, II Stage, PIE, Bengaluru-560 058,	Aluminium anodizing & powder coating	0.1	0.4	0.08	0.4
12	Sri Balaji Enterprises, No.333, 9th cross , 4th Main, IV Phase, PIA, Bengaluru-560 058,	Engineering Unit with Electroplating (Zinc Electroplating)	0.1	0.1	0.08	0.05
13	Balambiga Metal Finishers, No.C-435, I Stage, PIE, Bengaluru-560 058,	Electroplating Zinc Plating	2.95	1.5	2.3	1.5
14	Bangalore Acids & Chemicals, No.SB-42/1, I Stage, PIE, Bengaluru-560 058,	Refilling and Trading of Chemicals	0.15	0.025	0.1	0.025
15	Bangalore Electroplating, No.C-75, II Stage, PIE, Bengaluru-560 058	electroplating (ZINC PLATING)	0.1	0.06	0.08	0.06
16	Bangalore Oxygen (P) Ltd, No.10E, II Phase, PIA, Bengaluru-560 058.	Acetylene gas	0.7	12	0.5	0
17	Bright Services, No.B-142, 3rd cross, I Stage, PIE, Bengaluru-560 058,	Bright Bars	0.25	N	0.182	N
18	Canara Agro Chemicals, No.443/A,IV Phase,PIA, Bengaluru-560 058,	Micro Nutrients	0.03		0.01	N
19	Celtek Batteries, No.471/B, IV Phase, PIA, Bangalore-560058,	Battery manufacture	1.5	3.5	1.2	0
20	Deepak Industrial Chemicals, No.SB-116, I Stage, PIA, Bangalore-560058,	Rust Preventive Compounds	0.15	N	0.1	N
21	Deepthy Labs Pvt Ltd, No.23, III Stage,PIE, Bengaluru-560 058	Acid purification	1.2	0.8	1	0
22	Elheat Ceramics Engineering Pvt Ltd, No.B-93, 2nd cross, I Stage, PIE, Bangalore-560058,	Manufacture of refractorries, furnace spare ahd heating element	1	N	0.8	N
23	Essem Powder Coatings, No.B-215, II Stage, PIE, Bengaluru-560 058,	Powder coating	0.6	N	0.5	N

24	Excel Process Pvt Ltd, No.278, 4th Main, IV Phase, PIA, Bengaluru-560 058,	Printed name plates, fabrication, anodization & spray painting	0.8	0.16	0.64	0.16
25	G.V.Enterprises, No.17F, II Phase, PIA, Bengaluru-560 058,	Alluminum anodizing	1	1	0.4	1.5
26	Ganesh Engineering, 17(1), II Phase, PIA, Bangalore-58	Electroplating (Hardchrome)	2	3	0.15	0.03
27	I.E.E Engineering Enterprises Pvt Ltd, No.B-94, 2nd cross. I Stage, PIE, Banglaore-58	Manufacture of Capacitors	2	N	1.8	N
28	Indian Oxide No.C-141, II Stage, PIE, Bengaluru-560 058	Lead suboxide	0.4	N	0.4	N
29	Indo Metal Lubricants, No.B-35, III Stage,PIE, Bengaluru-560 058	Manufacture of Compound & Lubricating Oils	1	N	0.8	N
30	Indrajit Industries, No.42/43, III Phase, PIA, Bangalore-560058,	Heat Treatment salts mfg	1	N	1	N
31	Jaymech Ultra Coaters, No.B-232, 6th Cross, I Stage, PIE, Bangalore	Powder coating with De-rusting degreasing, zinc phosphating	0.6	0.32	0.5	0.3
32	Kaviraj Incorporation, No.99, III Phase, PIA, Bangalore-560058	Alluminium utensils & Non stick utensils with Coating	0.65	N	0.5	N
33	Lach Products, , No.B-278, 7th Main, II Stage, PIE, Bangalore-560058	Electroplating of Lead, Zinc & Nickel	0.22	0.2	0.18	0.075
34	Sri Luxmi Electroplating, No.79/80, III Phase, PIA, Bengaluru-560 058,	Electroplating	0.5	0.1	0.1	0.01
35	Lakshmi Electroplaters, No.455,IV Phase, PIA,Bengaluru-560 058,	Electro Plating	1	0.05	0.8	0.05
36	Vintech Surface coaters (Formerly Lalan Enterprises)No.B-226, 5th Main, II Stage, PIE, Bangalore-560058	Powder coating with pre-surface treatment activity	0.18	0.2	0.2	0.2

37	Leo Hard Chrome , No.B-73, I Stage, 2nd cross, PIE, Banglaore-58	Machine of Hydraulics with Electroplating (Hardchrome)	0.315	0.05	0.25	0.05
38	Leo Engineering, No.108, I Stage, PIE, Banglaore-58	Electroplating (Hardchrome)	0.5	0.05	0.4	0.05
39	Mehar Metals India Pvt Ltd, No.A-346, 9th Main, II Stage, PIE, Bengaluru-560 058	wire drawing with pickling	0.5	0.1	0.4	0.1
40	Mekala Metal Works, No.B-152, II Stage, PIE, Bengaluru-560 058	Lead smelting	0.2		0.16	N
41	Metal Coats, No.B-180, II Stage, PIE, Bangalore -58	Aluminium anodizing	0.45	0.6	0.4	0.6
42	Metreat Chem Enterprises, , No.C-76, III Stage,PIE, Bengaluru-560 058	Electroplating Glod & Silver Plating	0.2	0.5	0.16	0.5
43	Modern Light Industries, No.B-103, 2nd cross, I Stage, PIE, Banglaore-58	Manufacture of Aluminium, Stainless Steel & Brass name plates	0.55	0.16	0.5	0.16
44	Multiplex Bio-Tech Pvt Ltd, No.C-428, I Stage, PIE, Bengaluru-560 058,	Sterilization of Carboys & Manufacturing of micronutrients	0.5	N	0.4	N
45	P & S Galvasols, No.490-1, IV Phase, PIA, Bengaluru-560 058,	Electroplating	5	5	0.4	4.8
46	P & S Precitech, No.A-174, 4th cross, I Stage, PIE, Banglaore-58	Plating Chemicals	0.16	N	0.15	N
47	P.C.Process Pvt Ltd, No.V-3(C), 14th cross, II Stage, PIE, Bangalore-560058	Printed Circuit Board manufacture	3	0.27	2.4	0.25
48	Pearl Coatings & Chemicals, No.B-248, 6th Main, II Stage, PIA, Bangalore-560058	Distemper, Primers, Putty & Emulsion	0.5	0.005	0.4	0.05
49	Perfect Profiles, No.B-233, 6th cross, I Stage, PIE, Bengaluru-560 058	Carryingout drawing and polishing of Iron and steel bass & coils	0.3	1	0.3	0.1

50	Polo Paints Pvt Ltd, No.B-225, 5th Main, II Stage, PIE, Bengaluru-560 058	Paint: distemper & Primer	0.6	0.3	0.5	0.05
51	Prithvi Fabrications Pvt Ltd, No.189, 11th Main,2nd Cross, III Phase, PIA, Bangalore-560058	Alluminum cans with degrasing	0.4	2	0.3	1
52	Anode tech (Formerly Profal Coters), No.342, 9th cross, IV Phase, PIA, Bangalore-560058	Aluminium anodizing	0.5	0.5	0.4	0.5
53	Protective Coatings Pvt Ltd, No.B-264, II Stage, PIE, Bengaluru-560 058	Powder coating	1.2	1.1	1.04	1
54	Rainbow Powder Coaters, No.425, 11 th Cross, IV Phase, PIA, Bengaluru-560 058,	Powder coating with pre-surface treatment activity	0.2	0.1	0.14	0.1
55	Rare Metal Manufacturers, No.C-147, II Stage, PIE, Bengaluru-560 058	Ammonia & paratungstate, Cobalt Oxide	0.5	1.5	0.4	1.5
56	S.P.Engineering Enterprises, No.50, III Phase, PIA, Bangalore-560058,	Fabrication with spray painting ,grit blasting,sand blasting & zinc spray	0.4	N	0.3	N
57	S.S.Industries, No.57-C, III Phase, PIA, Bengaluru-560 058,	Battery manufacture	0.31	2	0.25	0.2
58	Shalini Enterprises, No.A-6, III Stage, PIE, Bengaluru-560 058	Solvent reprocessor and used barrels washing	31	7	5.6	9.7
59	Sri Varu Acid & Chemicals, No. 134, III Phase, PIA, Bengaluru-560 058	Copper Oxide from reprocessing of PCB etchant and copper scrap	0.45	0.05	0.5	0.3
60	Srinivasa Industrial Chemicals, No.C-333, 3rd Main road, I Stage, PIE, Bangalore-560058	Phospating Chemicals & Chromating Chemicals by formulation process	0.2	0.1	0.1	0.1

61	Standard Screws Industries, No.471-C, 13th Cross, IV Phase, PIA, Bengaluru-560 058,	Bright steel bars & Pickling	1.4	1	1.12	1
62	Sumuka Electroplaters, No.B-70, 3rd Stage, PIE, Bengaluru-560 058	Electroplating	0.6	0.3	0.5	0.1
63	Super Bright Steels Pvt Ltd, No.A-172, 4th Cross, I Stage, PIE, Banglaore-58,	Bright Bars	1.2	0.15	0.8	0.12
64	Tube Style Interiors Pvt Ltd, Ltd, No.244, 11th Main, III Phase, PIA, Bangalore-560058,	Furniture's and interiors with Phospating, Painting and Powder Coating	1	0.05	1	0.2
65	United Forgings, No.465, IV Phase, PIA, Bengaluru-560 058,	Bolts,Wires and birght bars with pickling	1	0.05	0.72	0.05
66	R.N. Industries (Bansal Oxides), No.C-138, II Stage, PIE, Bengaluru-560 058	Lead suboxide	0.1	N	0.08	N
67	Vaishnavi Industries, No.133, III Phase, PIA, Bangalore-560058,	Refilling and Trading of Chemicals	0.4	N	0.4	N
68	Vijaya Seamless Containers (P) Ltd, No.189, 11th Main, III Phase, PIA, Bangalore-560058,	Aluminium Containers/Bottles, shades and plastic components with degreasing	0.8	0.6	0.6	0.5
69	A.S.Surface Finishers, No.P-27, 10th Main, III Stage, PIE, Bengaluru-560 058,	Electroplating (Hardchrome)	0.6	0.1	0.5	0.1
70	Jaya Vijaya Industries, No.C-205, 4th cross, I Stage, PIE, Bengaluru-560 058,	Battery manufacture	0.15	0.04	0.12	0.04
71	Bright India Steel Industry (Formerly known as Laxmi Industries), No.280/3, IV Phase, PIA, Bengaluru-560 058,	Bright Steel Bars	1.5	0.27	1.2	0.27
72	Pragathi Coaters, No.C-102, III Stage, PIE, Bengaluru-560 058,	Powder coating	0.15	0.15	0.12	0.15

73	Protective Coatings Pvt Ltd, No.B-210, II Stage, PIE, Bangalore-560058,	Powder coating on job work	0.3	0.224	0.4	N
74	Varalaxmi Enterprises, No.A-195, 4th cross. I Stage, PIE, Bengaluru-560 058,	Powder coating	0.03	N	0.01	N
75	Benz-O-Chem, No.389, 10th cross, IV Phase, PIA, Banglaore-58,	chemical distillation	0.4	N	0.4	N
76	Vishnu Hard Chrome Industries, No.338,9th Cross, IV Phase, PIA, Bengaluru-560 058	Electroplating (Hardchrome)	0.06	0.02	0.05	0.02
77	Industrial Metal Finishers, No.118, III Phase, PIA, Bengaluru-560 058	Electroplating	1.5	0.7	1	0.63
78	BioOrganics & Applied Materials Pvt Ltd, No.B-64/1, III Stage, PIE, Bengaluru-560 058	R & D activity	0.31	0.01	0.1	0.01
79	Bisheshwar Galvanisers, No.528, IV Phase, PIA, Bengaluru-560 058	Zinc galvanizing (Hot dip galvanizing)	0.5	0.02	0.4	0.02
80	Hind Comp (P) Ltd, No.6-A, III Phase, PIA, Bangalore-560058	Alluminum cans with degrasing	0.6	0.5	0.45	0.5
81	Hot Dip Galvanising, No.B-305 & 306, II Stage, PIE, Bangalore-560058	Zinc galvanizing	0.4	0.1	0.32	0.1
82	Vyoma Switch Gear, No.33 A/2 II Phase, PIA, Bengaluru-560 058	Engineering Unit and Electroplating	1.52	0.02	1.2	0.02
83	Alufit (India) Pvt Ltd, No.A-369, I Stage, PIE, Bangalore-560058	Alluminum Fabrication and anodizing	1	0.6	0.8	0.6
84	Jigar Marketing Pvt Ltd, No.B-101, 2nd cross, I Stage, PIE, Bengaluru-560 058	Manufacture of Bright steel bars	0.27	0.2	0.21	0.2
85	Karnataka Instruments, No.A-269, II Stage, PIE, Bangalore -58	Industrial thermometers (with degreasing and spray painting) (Engineering activity)	1.5	0.007	1.2	0.007

86	Netra Electronics, No.B-50,10th Main, 2nd Cross III Stage,PIE, Bengaluru-560 058	Printed Circuit Board manufacture	1	1	0.8	0.1
87	Sreenathji Chemicals Industry, No.88, 7th Cross, III Phase, PIA, Bangalore-560058,	Chemical Trading	0.3	N	0.24	N
88	Sri Sai Industries, No.P-24, III Stage, PIE, Bengaluru-560 058,	Engineering Unit with pretreatment, powder coating and spray painting	0.2	0.24	0.16	0.24
89	Universal Hands, No.A-103(a), 3rd Main, II Stage, PIE, Bengaluru-560 058	Wrist Watch Hands (Electroplating)	0.6	0.065	0.5	0.065
90	Taj Computer Solution Pt LtdNo.38, No.154/1/3, 1st Main Road, III Phase, PIA, Bengaluru	E-waste collection segregation refurbishment of e-waste	0.9	N	0.72	N
91	Vinumac, No.205/A, III Phase, PIA, Bangalore-560058	Fabrication with pre treatment and spray painting (Hydrulic Pipes & Table Assembly)	3	0.25	0.2	0.15
92	Sree Raj Hard chrome industriesNo.388, 10th Cross, IV Phase Bengaluru-560 058	Electroplating (Hardchrome)	1	0.1	0.8	0.1
93	Jagan Steels, No.497-D, IV Phase, PIA, Bengaluru-560 058	Bright steel Bars cutting and acid pickling	0.1	0.2	0.08	0.2
94	Metal Arts, No.344, 9th Cross, IV Phase, PIA, Bengaluru-560 058	Aluminium anodizing	0.9	0.4	0.7	0.4
95	Chaitanya Indusries, No.C-93, II Stage, PIE, Bangalore-560058	Powder coating	0.25	0.05	0.2	0.03
96	ENNARR Enterprises, No. 57/A, II Stage, PIE, Bengaluru-560 058	Electroplating (Hardchrome)	0.2	0.2	0.16	0.2
97	M.R. Enterprises, No. C-73, II Stage, PIE, Bangalore-560058	Aluminium anodizing with screen printing	0.9	0.3	0.7	0.1

98	Amara E-waste Recyclers, (Formerly Amara Metals Enterprises,)No.V-20/1, 4th Main Road, II Stage, PIE, Bangalore-560058	Cln, Seg &Dismantling of ewaste in Sch-IV of e waste	0.9	N	0.72	N
99	Sri Ranganatha Wire Products, No.333,9th Cross, 4th Main, IV Phase, PIA, Bengaluru-560 058	Wire drawing with pre cleaning activity	0.5	0.025	0.24	0.025
100	Unique Enterprises, No. B-110, III Stage, PIE, Bengaluru-560 058	Powder coating with precleaning	0.1	0.5	0.08	0.5
101	Ganapathi Metal Finishers, No. B-113-1, 3rd cross, III Stage, PIE, Bengaluru-560 058	Electroplating Zinc plating	0.5	0.5	0.4	0.4
102	Mohan Metal Finishers, No. B-113-2, 3rd cross, III Stage, PIE, Bengaluru-560 058	Electroplating Zinc plating	0.5	0.5	0.4	0.4
103	M.S.R Chemicals, No. B-232-B, 5th Main, II Stage, PIE, Bengaluru-560 058	Formulation of Chemical (used for metal finishing industries)	0.5	0.75	0.4	0.4
104	M.S. Industrial Services, No. B-232/A, 5th Main, II Stage, PIE, Bangalore-560058	Degreasing, De-rusting, Phospating, Pickling & Spray Painting activity	0.6	0.5	0.5	0.5
105	South India Wire Products Pvt Ltd., No.17, J-2, II Phase, PIA, Bangalore-560058,	Bright Steel Bars along with pickling and Electroplating	3	1.4	2.8	0.78
106	Koustubha Scientific Research Laboratory Pvt Ltd No. 403-406, KIADB Complex, (Model Export Bhavan), Plot No. 488-B, 14th Cross, IV Phase, PIA, Bengaluru-560 058	R & D activity involving chemicals	1	2	0.8	0.2
107	Hanuman Metal Finishers, No.C-133, 2nd B Main Road, II Stage, PIE, Bengaluru-560 058	Electroplating Zinc plating	1	0.6	0.8	0.6

108	Wonder Fex, (Old name Washwinn Processors), No.270, IV Phase PIA, Bengaluru-560 058	Garment washing	2.4	134.74	1.9	109.54
109	Sri Balaji Industries(old name: Jyothi Electroplaters), No.293/A, IV Phase, PIA, Bengaluru-560 058	Electroplating	0.15	0.06	0.12	0.06
110	Tulip Engineers.,No.249, 3rd cross, 8th Main, III Phase, PIA, Bengaluru-560 058	Electroplating (hardchrome)	0.5	0.25	0.4	0.25
111	Friction Control Productes , Plot No 486 B-2, IV Phase, Bnaglore-560058	Blending of lube oil for Industrial lubricants	0.3	0.2	0.3	Recycled
112	Ashwin precision Product Pvt Ltd., No.C-429, I Stage, PIE, Bengaluru-560 058,	Degreasing, Pickling,Phosphating	1	0.25	0.8	0.25
113	Viziphar Biosciences (P) Ltd., No.303-306, Vitc Model Exports Park, IV Phase, PIA, Bengaluru-560 058	R & D activity	0.48	0.2	0.4	0.2
114	Superchem oxide, No.321-B, 8th Cross, IV Phase, PIA, Bangalore -58	Lead suboxide	0.25	N	0.16	N
115	Sidhivinayaka Fab Engineering, , No.172, 11th main, III Phase, PIA, Bangalore-560058,	Manufacture of steel fabrication and pressure vessel & passivation	1.2	0.15	1	0.15
116	Sree Ranganatha Industries, No.534/B, 8th Main, II Stage,PIE, Bangalore.	Electroplating (Zinc Plating)	0.1	0.3	0.1	0.3
117	E-R3 Solutions No.C-430, 1st Cross, Ist State, PIE, Banglore-58	Recycle (Cleaning) of printer cartridge reconditioner, E-Waste Dismantling	0.7	N	0.56	N
118	S.K.Industries, No.D-426/C, 10th Main, II Stage, PIE, Banglore-560058	Engineering Unit	0.1	0.05	0.08	0.05
119	Globe Hard Chrome Industries, No.D-426A,10th Main, II Stage, PIE, Banglore-58	Electroplating	0.1	0.5	0.08	0.5

120	S&S Gud Services, No C-24,1st Cross, II Stage, PIE, Banglore-58+E31	Electroplating	0.3	0.13	0.24	0.13
121	Micro Coats India,No.223,8th Main, III Phase, PIA, Bangalore-560058	Powder coating & Spray Painting Activity	0.2	0.07	0.16	0.002
122	Shree Maruthi Metals, No.C-82, 3rd cross, III Stage, PIA, Banglore-58	Electroplating	0.6	0.5	0.5	0.4
123	Safe Metals, No.42 & 43, II Phase, PIA, Banglore-58	Lead suboxide	0.05	N	0.01	N
124	Sain Coating Pvt Ltd.,No.A-25/26, III Stage, PIA, Banglore-58	powder coating	0.25	0.5	0.25	0.25
125	Amar Powder Coating, No.470-A, Shed No 2, IV Phase, PIA, Banglore-560058	Powder coating with surface treatment	0.2	0.1	0.16	0.1
126	Adarsha Control Systems, No.B-231,5th Main, II Stage, PIA, Banglore-560058	Surface Treatment & Powder coating	0.5	0.1	0.4	0.1
127	Decan Agro Chemicals,No.411, 11th cross, IV Phase, PIA, Banglore	Pesticide formulation	0.25	N	0.2	N
128	Dinesh Creations, No.C-319, 1st Floor, I Stage, PIE, Banglore-560058.	Printing on clothes	0.5	0.045	0.4	0.045
129	Innova Engineering, No.352, 9th Mian, 4th cross, IV Phase, PIA, B+E31engaluru-560 058	Electroplating (Hardchrome)	3.8	1.5	3	1.5
130	Venkat switchgears,(Formerly known as Supreeth Switchgears,) No.150, III Phase, PIA, Bangalore-560058	Powder coating	1.9	1.6	1.7	1.6
131	Drawcans Pvt Ltd., No.380, 10 th cross , IV Phase, PIA, Bengaluru-560 058	Aluminium Containers	0.9	1.6	0.7	1.4
132	Sai Sri Industries, No.B-151, 5th Main, II Stage, PIE, Bengaluru-560 058	Electroplating	0.14	0.1	0.12	0.1

133	Bangalore Excel Shine Pvt Ltd., No.291/292, 8th cross, I Stage, PIE, Bengaluru-560 058	PVC coated aluminium sheets	0.6	0.1	0.5	0.1
134	Kiran Metal Finishers, No.A-370/2, I Stage, PIE, Bengaluru-560 058	Electroplating Zinc plating	0.4	0.15	0.32	0.15
135	Vimala Mass Finishing Pvt Ld., No.B-154, 5th Main road, II Stage, Bangalore-560058	Powder Coating	0.6	0.08	0.48	0.08
136	A.K.S Trading Company., No.C-69, 2nd cross, II Stage, PIE, Bangalore-560058	Copper recovery	0.12	0.4	0.096	0.4
137	Surface chem Finishers., No.B-41, B-Type, III Stage, PIE, Bengaluru-560 058	Electroplating(Gold Plating)	0.38	0.05	0.3	0.05
138	Integrated Metal Coats, No.333, 4th main, IV Phase, PIA, Bengaluru-560 058	Electroplating	0.1	0.05	0.1	0.05
139	Arrow Systems, No.SM-3, III Stage, PIE, Bengaluru-560 058	Electronic Waste	0.1	0.01	0.96	0.01
140	Lakshmi Electro platers, No.338, 9th Cross, IV Phase,PIA, Bengaluru-560 058	Electroplating	0.4	0.77	0.3	0.77
141	Galaxy Hard Chrome (P) Ltd., No.38,B-1, II Phase, PIA, Bengaluru-560 058,	Electroplating (Hardchrome)	0.12	0.15	0.1	0.05
142	Anjanadri Enterprises,No.B-70, 2nd cross, II Stage, PIE, Bangalore-560058	Phospating and powder coating	13	1.3	10.4	1.3
143	Balaji Hard Chrome, No.473-D, IV Phase, PIA, Bengaluru-560 058	Electroplating (Hardchrome)	0.2	0.39	0.8	3.9
144	E-Waste Managers, No.C-311, 9th cross, I Stage, PIA, Bengaluru-560 058	E-Waste	0.54	N	0.432	N
145	Crescent Polymers,No.93, 4th main, III Phase, PIA, Bangalore-560058	polymer products	1	N	0.8	N

146	Shipai Industries, No.V-15A, Shed No.C-178, 4th main, II Stage,PIE, Bengaluru-560 058	Alluminum Fabrication with anodising	0.35	0.3	0.28	0.3
147	E Pragathi (A-Devision) . M-405, 1st & 2nd Floor, 7th & 8th cross, I Stage, PIE, Bengaluru-560 058	E-Waste Recycling	0.5	N	0.4	N
148	Analytica Chemie INC, No.307 & 308,,IV Phase, PIA, Bangalore-560058	Marketing & Distribution of reagents, columns. R & D lab,	0.65	0.2	0.5	0.2
149	Colour Plus Enterprises, No.450/A, 12th Cross, IV Phase, PIA, Bengaluru-560 058	Powder Coating	4.5	0.05	3.2	0.05
150	Shree Hari Precision Products Private ltd, No 124,7th Main III Phase PIA, Bangalore-560058	Mechanical Assembly, Spray Painting, Power Coating	10	0.08	8	0.08
151	Maruthi steel Industries., No.29-B, II Phase, PIA, Bengaluru-560 058	Manufacture of wire and Bright Steel Bar	2.5	1	2	1
152	Alchemy Surface Technologies, No.344, 9th cross, IV Phase, PIA, Bengaluru-560 058	Electroplating	0.5	0.1	0.4	0.1
153	E-Parisara Pvt Ltd., Unit-2, Unit-2, No P-10(A), III Stage, PIE, Bengaluru-560 058	E-Waste Recycling	1.5	N	1.2	N
154	4R Recycling Pvt Ltd., Shed No, A-5, III Stage, PIE, Bengaluru-560 058	Dismantling and recycling of E-waste	1.2	N	1	N
155	Radiant Research Services Pvt LtdNo.99/A, 8th Main Road, III Phase, PIA, Bengaluru-560058	Research Laboratories	0.7	0.2	0.525	0.11
156	Mythri Metallizing India.,No.177-178, III Phase, PIA, Bangalore-560058	Grit Blasting , Spray Galavanizing, Stress relieving & Spray painting	2	N	2	N

157	Karnataka Fine Chem., No.8, 10th Cross, I Stage, PIE, Bangalore-56008	Trading of Laboratory chemicals with packing & refilling	0.2	N	0.16	N
158	Diamond Hard Chrome Platers., No.C-130, 2nd 'B' Cross, II Stage, PIE, Bengaluru-560 058	Electroplating Hard Chrome Plating activity (Hardchrome)	0.15	0.1	0.12	0.1
159	R.K. Engineering Industries., No.B-87, 2nd Cross, I Stage, PIE , Bengaluru-560 058	Electro polishing	2	0.05	1.5	0.05
160	Tes-Amm India Pvt Ltd, No.A-365,6th cross, I stage, Peenya Industrial Estate, Bengaluru-560 058	Electro polishing (E-waste Dismentling)	1	N	0.8	N
161	Balaji Metal Finishers., No.68-A, 1st Floor, II Stage, PIE, Bengaluru-560 058	Electroplating activity of Nickel & Copper	0.5	0.05	0.4	0.05
162	Barrix Agro Sciences (P) Ltd, No 68A, ground Floor, 6th Main, III Phase, Peenya Industrial Area, Bangalore - 560058	Pest Control Catches and R&D for Pheramones	0.15	0.15	1	0.15
163	Advaith Metal Finishers (Formerly Known as Profal Coaters)., No.342, , IV Phse, PIA, Bangalore-560058	Powder Coating	0.5	0.5	0.4	0.5
164	Powertrek Industries., No.B-197, 5th Main Road, II Stage, Bengaluru-560 058	Lead Sub-Oxide (by using pure lead ingots only)	0.5		0.4	N
165	Srinivasa Metal Coats., No. 293, IV Phase, Peenya Industrial Area, Bengaluru-560 058	Blackening Section	0.5	0.15	0.4	0.15
166	Sam Machinery., No.511, 4th Cross, IV Phase, PIA, Bengaluru-560 058	Special Purpose machine assembly and Lab for Siemens Equipment Validation and process strability trail run studies for Synthesis of Chromium dioxide (CrO2) powder	0.64	0.08	0.54	0.08

167	Shiva Krupa Industries., No.D-426/C, 10th Main, II Stage, PIE, Bengaluru-560 058	Electroplating	0.05	0.1	0.035	0.06
168	Ambika Industries.,No.V-48, 5th Main, II Stage, PIE, Bengaluru-560 058	Electroplating	0.25	0.15	0.2	0.15
169	MJS Metal Coaters Private Limited., No.729/B, 3rd Cross, I Stage, PIE, Bengaluru-560 058	Sheet blasting painting and power coating	1	N	0.8	N
170	Surya metal finishers , P-17 , 3rd cross, III Stage ,PIA, Bengaluru-560 058	Job working electroplating	0.09	0.08	0.08	0.08
171	Hanu Vibro technologies, No.C 248,5th cross, I State,peenya industrial estate ,banglore 58	Metal and steel blockening and grit plasting	0.2	0.03	0.16	0.03
172	P & S ChemtechPlot No. B-223, I st Stage, Peenya Indl Estate, Bengaluru-560 058	Chemical blending & packaging	1	0.01	0.08	0.01
173	Gayathri Metal Finishers, No.C-212, I Stage, PIE, Banglaore -58	Electroplating	0.08	0.03	0.064	0.03
174	Veeresh IndustriesNo.C-27, II Stage , PIE, Bengaluru-560058	Aromatic Chemicals	0.3	N	0.2	N
175	Aar Vee Chemicals, No.22/A, Nadakerappa Industrial Estate, Hegganahalli, Bangalore	Chemicals	0.5	0.1	0.4	0.1
176	Ashwini Hard Chrome Industries, No. 05, Thimmaiah Industrial Estate, Peenya Industrial Area, Behind Asian Fab, 2nd Phase, Bangalore-560058	Surface Treatment	0.2	0.05	0.18	0.05
177	Bangalore Enterprises, 16th Cross, DODDANNA INDUSTRIAL ESTATE, Bangalore,	Powder Coating with surface treatment	0.5	0.054	0.4	0.045

178	Bangalore Refinery Private Limited, No. 6/1, Plot No. 20-A, 1st Phase, Peenya, Bangalore-560058	Gold recovery	1.5	0.4	1.2	0.4
179	Clinix Intel Medical Systems Private Limited, I Cross, Magadi Main Road, Sunkadakatte, I Cross, Magadi Main Road, Sunkadakatte, Bangalore, Bangalore	Surface treatment	3	0.05	2.5	0.05
180	Divya Industries, No.13, 2nd Cross, Bhyraveshwara Industrial Estate, Andhrahalli Main Road, Bangalore-560091	Electroplating	0.38	0.05	0.3	0.05
181	Durgashree Coaters Private Limited, No.421/A, 9th Cross, Patel Chennappa Industrial Estate, Andhrahalli Main Road, Vishwaneedam Post, Bangalore	Powder Coating with surface treatment	0.2	0.102	0.16	0.085
182	Gangashree Metal Finishers, No. 94, Maruthi Industrial Estate, 2nd Stage, Peenya Bangalore-560058	Electroplating	0.2	0.05	0.18	0.05
183	Hanuman Weaving Factory, 1st Phase, PEENYA INDUSTRIAL AREA, Bangalore	Garment Dyeing, Weaving & Washing	3	45	2.6	20
184	Hindustan Barrels, Narayana gowda Industrial Estate, Near Kareem Sab Layout, Hegganahalli, Vishwaneedam Post, Peenya 2nd Stage, Bangalore	Barrel washing	0.2	0.25	0.2	0.2
185	Manjunatha Metal Finishers, No.784, 11th Cross, Ganapathinagar, Bangalore, Bangalore Urban, Ganapathinagar, Bangalore, Bangalore	Electroplating	0.5	0.36	0.4	0.3

186	Marcs Engineering Private Limited, Nadakerappa Industrial Estate, Andhrahalli Main Road, Andhrahalli Main Road, Bangalore, Bangalore	Powder coating	1	0.012	0.89	0.01
187	Sri Balaji Industries(Maxwell Electroplaters), No.112,, SLV indl Estate, 8th Main Road, Peenya 2nd Stage, Bangalore-560058	Electroplating	0.18	0.05	0.15	0.05
188	Bright surface finishers(Midas India), No.42/1, 3rd Main Road, Keonics Layout, 3rd Stage, 4th Phase, Peenya, Thigalarapalya Main Road, Bangalore-560058	Surface Treatment	0.5	0.05	0.4	0.05
189	Mookambika Industries, No 117/B, Rajagopalnagar Main Road, Peenya 3rd Phase, Ganapathinagar, Bangalore 560058	Surface Treatment	0.03	0.15	0.025	0.135
190	Mythri Metalizing Works, Plot No. 5, 1 & 2, 3rd stage, Keonics layout, near 4th Phase, Peenya industrial area, Bangalore-560058	Grit blasting	0.3	NA	0.3	NA
191	Prime Anodizers, Byregowda Industrial Estate, Hegganahalli, Vishwaneedam Post, Bangalore	Surface treatment	1	1.05	0.8	1.05
192	Rashmi Metal Enterprises, No.96, 10th cross, Ganapathinagar, 4th Phase, Peenya	Electroplating	0.1	0.08	0.08	0.07
193	SK Metals Private Limited, No.133/3, Hegganahalli, Bangalore,	Surface treatment	0.25	0.25	0.2	0.2
194	SLN Enterprises, No.97/10, 3rd Cross, Doddanna Industrial Estate, Near Peenya 2nd stage, Hegganahalli, Bangalore-560091	Electroplating	0.5	1	0.5	0.8

195	Shree Raj Hard Chrome Industries, No.96, 10th Cross, GanapathiNagar, II 1st Phase, PEENYA INDUSTRIAL AREA, No.96, 10th Cross, GanapathiNagar, II 1st Phase, Bangalore, Bangalore	Surface Treatment	0.5	1	0.4	1
196	Shri Mahalakshmi Enterprises, No.2, Behind Raghavendra Industrial Estate, Karihobanahalli Main Road, Peenya 2nd Stage, Bangalore	Barrel washing	0.8	0.05	0.6	0.05
197	Sree Vinayaka Hard Chrome, No.41A, 18th Cross, Doddanna Industrial Estate, Near Peenya 2nd Stage, Bangalore-560091	Hard Chrome Plating	0.5	1	0.4	1
198	Srinidhi Hard Chrome, Site No.48/4, Maruthi industrial Town, Thigalarapalya Main Road, Near Peenya 2nd Stage, Bangalore-560058	Hard Chrome Plating	0.3	0.06	0.24	0.06
199	Supreme Metal Finishers, No.63 & 70, Doddanna Industrial Estate, Hegganahalli, Bangalore-560091	powder coating with surface treatment	0.2	0.05	0.15	0.05
200	Vaibhav Industries, No.62, 10th Cross, Doddanna Industrial Estate, Near Peenya 2nd Stage, Bangalore-560091	Electroplating	0.9	0.3	0.9	0.2
201	Veenee Speciality Coatings, No.14, Nadakerappa Industrial Estate, Hegganahalli, Bangalore, Bangalore Urban, Hegganahalli, Bangalore,	Powder coating with Surface treatment	1	0.2	0.8	0.2
202	Veenee Powder Coatings, No.14, Nadakerappa Industrial Estate, Hegganahalli, Bangalore, Bangalore Urban, Hegganahalli, Bangalore,	Powder coating with Surface treatment	1	0.2	0.8	0.2

203	Vignesh Engineering Works, Works, Sy. No. 5/1 & 6/1, Karihobanahalli, Nagasandra Post, Bangalore - 560058	Grit Blasting & spray galvanizing	0.5	NA	0.4	NA
204	Kaveri Enamel & Allied Industries (4s India Pvt. Ltd), No.5 & 6, Karihobanahalli, Near Mythri Industries, Peenya 2nd Stage, Bangalore-560058	Surface treatment	0.35	0.2	0.3	0.2
205	R.K. Metal Finishers, No 146, Madikerappa Industrial Estate, Vishwaneedam Post, Hegganahalli, Bangalore91, Vishwaneedam Post, Hegganahalli, Bangalore,	Powder coating with surface treatment	0.06	0.11	0.06	0.093
206	Innocoat Systems (I) Private Limited, No 33, Saibabanagar, Andhrahalli Main road, Peenya 2nd Stage, Bangalore-560058	Powder coating with surface treatment	0.5	0.15	0.4	0.15
207	JP electrotech, No. 3, 10th Cross, Opposite Padma Bar, Rajagopalnagar Main Road, GanapathiNagar, Bangalore-560058	Electroplating	0.05	1	0.05	0.08
208	Mythri Metalizing Projects, No.14/2, Near Government School, Karihobanahalli, Yeshwanthpura Hobli, Karihobanahalli, Yeshwanthpura Hobli, Bangalore,	Grit Blasting	1	NA	0.8	NA
209	Unilabs, No.40, 11th A Cross, Thigalarapalya Main Road, Balaji Nagar, Peenya 3rd Stage, Bangalore, Thigalarapalya Main Road, Balaji Nagar, Peenya 3rd Stage, Bangalore,	Solvent Extraction	0.1	NA	0.1	NA

210	Complex Engineering Works, No.1 & w, Karihobanahalli, Opp. Sushruthi Bank, Andhrahalli Main Road, Peenya 2nd Stage, Bangalore560091	Surface treatment	1	0.1	0.8	0.1
211	Manjunatha Industries, 25/1, Bhyraveshwara Industrial Estate, Andhrahalli Main Road, Peenya 2nd Stage, Bangalore,	Waste processing	0.1	NA	0.1	NA
212	Shree Vinayaka Hard Chrome Industries, No.32, 12th Cross, Doddanna Industrial Estate, Near Peenya 2nd Stage, Bangalore-560091	Hard chrome plating	0.05	0.03	0.03	0.03
213	E-Scrappy Recyclers, No.106, Andhrahalli Main Road, Bhyraveshwara Industrial Estate, Near Sushruthi Bank, Peenya 2nd Stage, Bangalore,	E-waste recycling	0.5	0.54	0.5	0.54
214	Aegis Manufacturing Systems, No. 73/A, 2351, 2352, Srigandanagar, Doddanna Industrial Estate, Bangalore, Taluk, Bangalore	Surface treatment	0.4	0.5	0.3	0.5
215	Anatech Ultra Coaters and Controls Private Limited, No 45,Bhyraveshwara Industrial Estate,Andhrahalli Main Road,Hegganahalli, Bangalore-560091	Powder coating	0.07	0.3	0.07	0.3
216	Lakshmi Venkateshwara Metallizing, No.3, Sri Raghavendra Indl. Estate, Thigalarapalya Main Road, Bangalore	Grit Blasting & spray galvanizing	0.2	NA	0.15	NA
217	Sree Bhagyalakshmi Powder Coating, No.29 & 30, Bhyraveshwara Industrial Estate, Hegganahalli, Bangalore	Powder Coating	0.18	0.05	0.15	0.05

218	Venus Electrotech, No.76/77, 15th Cross, Doddanna Industrial Estate, Peenya 2nd Stage, Bangalore-560091	Powder Coating with 7 tank process	0.25	0.2	0.25	0.2
219	Vedashree Powder coaters(AMF powder coaters), Doddanna Industrial Estate, Peenya 2nd Stage, Bangalore	Powder Coating	0.125	0.05	0.1	0.05
220	Alvin Engineers, Andrahalli Main Road, Peenya 2nd Stage, Bangalore	Surface Treatment with Power Coating	0.1	0.025	0.08	0.025
221	Stainless Electropolishers, No. 117/D, 1st Floor, 9th Cross, Ganapathinagar, Peenya 3rd Stage, Bangalore-560058	Electropolishing	0.2	0.12	0.15	0.12
222	Sumukha Industries, Plot No. 38/1, Nadikerappa Industrial Estate, Andrahalli Main Road, Vishwaneedam Post, Bangalore	Surface treatment with powder coating	0.64	0.7	0.512	0.5
223	Brite Coats, No. 98, Bhyraveshwara industrial estate, Andrahalli Main Road, V.N Post, Peenya, Bangalore	Surface Treatment with Power Coating	1	0.1	0.8	0.1
224	SP Industries (Shree Annapoorneshwari Enterprises), No. 536, Patel Channappa Industrial Estate, Andrahalli Main Road, Peenya 2nd Stage, Bangalore	Powder Coating Activity	1	0.08	0.8	0.08
225	Tetra Treats, Sy.No.55/41 to 45, Thigalarapalya Main Road, Bangalore-560058	Powder coating with Surface treatment	1	0.1	0.8	0.1
226	Shree Suyoga Technologies, Sy. No. 47, Shed No. 27-28, Raghavendra Industrial Estate, Thigalarapalya Main Road, Doddabidirikallu, Ward No. 40, Bangalore-560058	Powder coating with Surface treatment	0.84	0.26	0.675	0.26

227	Nandini Natura Coatings, No. 112/29B, Hegganahalli Cross, Next to Mohan Theatre, Sunkadakatte, Vishwaneedam Post, Bangalore-560091	powder coating and spray painting	0.1	1	0.1	0.8
228	Global Electro Technologies, No.72/2, 15th Cross, Doddanna Industrial Estate, Vishwaneedam Post, Near Peenya 2nd Stage, Bangalore-560091	Powder coating	1	0.05	0.8	0.05
229	Lords Metal Finishers, Shed No. 8A, Sy.No.112/3, Khata No.624, 12th Cross, Doddanna Industrial Area, Peenya 2nd Stage, Bangalore-560091	Powder coating with 7 tank process	0.4	0.17	0.315	0.12
230	Deepika Industries, No. 49/1A, Sri Laxmi Venkateshwara Industrial Estate, 8th Main Road, Peenya 2nd Stage, Bangalore-560058	Hard Chrome Plating	0.043	0.038	0.043	0.03
231	Shree Benaka Metal Finishers, No. 18, Suprabhatha Nagar, Karihobanahalli, Peenya 2nd Stage, Bangalore-560058	Electroplating	0.05	0.06	0.05	0.046
232	Durgamba Industries, No. 252/3, 6th Cross, Rajgopal Nagar, Near Maruthi Theatre, Peenya 2nd State, Bangalore-560058	Electroplating	0.03	0.03	0.026	0.03
233	Mitra Metal Finishers, Survey No 24, Behind Central Bank, 100 feet road, Jalhalli Cross, T. Dasarahalli, Bangalore 560057	Electroplating	0.05	0.2	0.05	0.18
234	SML Metal Finishers, No.24, Behind Syndicate Bank, 100 Ft Road, Jalahalli Cross, Bangalore - 560057.	Electroplating	0.05	0.2	0.05	0.18
235	Raj Metal Finishers, No 24, 100 Feet road, Jalahalli cross, Behind Syndicate Bank, Bangalore 560057	Electroplating	0.15	0.3	0.15	0.28

236	Om Shakthi Enterprises, No:8, 1st Cross, 1st Main, 2nd Phase, Peenya Industrial Area, Bangalore - 560058.	Electroplating	0.05	0.2	0.05	0.18
237	Sri Balaji Enterprises, No. 333, 9th Cross, 4th Main, 4th Phase, Peenya Industrial Area, Bangalore	Electroplating	1	0.1	0.8	0.1
238	Newtek Recyclers, No 124,Byreveshwara Industrial Estate,Andhrahalli Main Road,Peenya 2nd stage, Bangalore-560091	E-waste recycling	0.1	NA	0.1	NA
239	Sri. Somanateshwara Enterprises, No.117/1, Opp.A-10, Ist Main Road, Peenya 2nd Stage, Bangalore-560058	Electroplating	0.06	0.05	0.046	0.05
240	Vishwa Enterprises, No 5,Thimmaiah Estate,Ist cross,2nd phase,Peenya Industrial Area, Bangalore 560058	Electroplating	0.07	0.15	0.07	0.14
241	Vijai Rotogravures, No.90/A, 3rd Main Road, Keonix Layout, Thigalarapalya Main Road, Peenya 2nd Stage, Bangalore-560058	Hard Chrome Plating	0.01	0.032	0.01	0.03
242	SLV Enterprises, No. 30,Srigandhanagar Main Road, Krishnappa Industrial Estate, Kareemsab Layout, Bangalore-560091	Electroplating	0.5	1	0.4	1
243	Vishruth Nest Hardware Solutions (P) Ltd, No. 147, Nadakerappa Indl Estate, Andhrahalli Main Road, Hegganahalli Village, Bangalore-560091	Electroplating	0.05	0.3	0.05	0.3
244	Lotus technologies, No 72,Shrigandha Kaval behind Konega Garments, Vishwaneedam post, Bangalore-560091	Electroplating	0.15	0.7	0.15	0.62

245	Manjunatha Enterprises, No. 54/1, 21st Cross, Dead End, Peenya Indl Area, 4th Phase, Near Rajagopalnagar New Police Station, Bangalore-560058	Electroplating	0.5	1	0.4	1
246	Hi Life Industries, Plot/Phase No. 44, Nandagokula Indl Layout, Karihobanahalli, Thigalarapalya Main Road, Bangalore-560058	Electroplating	0.25	0.03	0.2	0.02
247	Sri Someshwara Industries, No. 71, 911/829, 15th Cross, Near Veda Garments, Srigandhanagar, Kareemsab Layout, Viswaneedam, Bangalore-560091	Electroplating	0.02	0.05	0.015	0.05
248	Annapoorna Enterprises, No.6, 11th Cross, Peenya 2nd Stage, Bangalore-560058., No.6, 11th Cross, Peenya 2nd Stage, Bangalore-560058.	Electroplating	0.5	0.2	0.4	0.2
249	RS Surfacoats, No.03, First Floor, Nandagokula Indl Layout, Thigalarapalya Main Road, Bangalore-560058	Electropolishing	0.5	0.1	0.4	0.1
250	Faraday Electrotech, No. 15/1, 4th Cross, Kapilanagar Behind Doddanna Indl Estate, Near Peenya 2nd Stage, Bangalore-560091	Electroplating	0.05	0.15	0.05	0.12
251	Manjunatha Enterprises, No. 44/4, Maruthi Layout, Chokkasandra, T. Dasarahalli, Bangalore	Paint Stripping	0.25	0.5	0.2	0.3

252	Shreyas Enterprises, No. 07, Manjunatha Indl Complex, 13th Cross, Kareem Sab Layout, Hegganahalli, Vishwaneedam Post, Bangalore	Electroplating	0.4	0.12	0.4	0.12
253	Kemio Solutions Pvt Ltd, No 432 and 476, 3d Cross, MS Ramaiah Enclave, Nagasandra, Tumkur Road, Dasanapura Hobli, Bangalore 560073	R & D	0.09	0.1	0.04	0.1
254	Varahi Thermo-Tech, No. 53, Srigandakavalu, Peenya 2nd Stage, Vishwaneedam Post, Bangalore	Gas Nitriding	0.2	NA	0.2	NA
255	Universal Industries, No 09, Chinnagiriyappa Industrial Estate, Vishwaneedam Post, Andhrahalli, Bangalore-560091	Electroplating	0.05	0.5	0.05	0.4
256	Unisur Lifecare Pvt Ltd, No.15/1-2-3, Andrahalli Main Road, Acharya Indl.Complex, Vishwaneedam Post, Bangalore	Sutures	1	0.1	0.8	0.1
257	Sri Ranganatha Enterprises, No 45, Bhyraveshwara Industrial Estate, Peenya 2nd stage, Bangalore-560091	Electroplating	0.2	0.05	0.15	0.04
258	Sri Balaji Metal Works, No. 41/1A2, Karihobanahalli Village, Maruthi Industrial Town, Peenya 2nd stage, Bangalore-560058	Aluminium ingots	0.5	NA	0.4	NA
259	Sree Nanjundeshwara Coats, No.41/1A-5, Karihobanahalli, Thigalarapalya Main Road, Peenya 2nd Stage, Bangalore-560058	Powder coating with 7 tank process	0.05	0.25	0.05	0.2

260	Infrastructure Steels, No.30 & 31, Bhyraveshwara Industrial Estate, Hegganahalli, Bangalore-560091	Surface Treatment	0.15	0.1	0.12	0.1
261	SK Steel Industries, No.41, Bhyraveshwara Industrial Estate, Hegganahalli, Bangalore-560091	Surface Treatment	0.15	0.1	0.12	0.1
262	Corrosion Protection Engineers India, No.41/1A2, 3rd stage, 4th phase, Kempegowda Industiral area, Peenya, Bangalore-560058	Surface Treatment	0.5	NA	0.4	NA
263	SRI MANJUNATHA ENTERPRISES, No.74/1-13, 17th cross, Doddanna Industrial Estate, near Peenya 2nd stage, Bangalore-560091	Electroplating	0.3	0.1	0.2	0.1
264	Annapoorna Enterprises, No.6, 11th Cross, Peenya 2nd Stage, Bangalore560058.	non-cyanide zinc electroplating activity	0.36	0.1	0.29	0.1
265	SGD Components, NO.4, CHANDU ESTATE, CHIKKASANDRA, HESARAGHATTA MAIN ROAD, T.DASARAHALLI POST, Bangalore	Dull Nickel plating	0.4	1	0.35	0.1
266	Shree Suyoga Industries, Sy.No.47, Plot No.24, 25, 26, 12th Cross, Ward No.40, Raghavendra Industrial Estate, Thigalarapalya Main Road, Bangalroe	Powder coating with 7 tank process	0.84	1.1	0.67	1
267	Rajathadri Enterprises, No.4 Mayuranagara, Andrahalli Main road, Hegganahalli, Peenya 2nd Stage, Bangalore - 560091	electroplating	0.4	0.1	0.3	0.1

268	Executive Apparels Processor Plot No. 114A, 2nd Stage, Indl Suburb, Yeshwanthpura B'lore - 22	washing & Deying unit	3	175	2	175
269	Standards Screws Indsutries No.38/1, Indsutrial Sururb,Yeshwanthpura, B'lore-22	Acid Pickiling	0.2	0.5	0.16	0.5
270	Standards Shapes & Profile Ltd No.50, Indsutrial Suburb,Yeshwantapura,B'lore-22	Acid Pickiling	0.25	0.64	0.2	0.64
271	Rajeshwari Copper Products Shed No. 79, Industrial Suburb, Yeshwanthpura, Bangalore - 560 022.	copper remelted ingot, Brass re Melted ingot etc	1	Nil	0.8	Nil
272	Prime Tech Accumulators Pvt Ltd.Plot No. 151/A 5th main, 3rd cross, Indl Suburb 2nd Stage, Yeshwanthpura B'lore – 22	Lead Acid Batteries	0.5	0.5	0.4	0.5
273	Ashirwad Prints No. 115/1, Indl Suburb 2nd stage, Yeshwanthapura B'lore - 22	Silk Fabric Printing activity	1	21	0.8	21
274	Geological and Metalurgical Labortory, No.105, 2nd stage, Indl Suburb, Yeshwanthapura, B'lore - 22	Metal Testing	1	0.25	0.8	0.25
275	Zumutor Biologics Pvt. Ltd., {Theramyt Nova Biologics Pvt, Ltd., }Prasad Enclave, No. 118/119, Yeshwanthpura Indl Suburb, 2nd Stage, 5th Main, B'lore - 22	R & D	1.5	0.05	1.2	0.05
276	Auriga Reasearch LtdNo. 136, 6th cross, yeshwanthapur Indl.Suburb, 2nd stage, Bangalore-22.	Analytical Testing Laboratory	2.5	0.1	2	0.1

277	M/s. E. HasiruNo. 168/B, 1st Floor, 7th Main Road, 3rd Phase, Peenya Industrial Area, Bangalore-58	E - Waste recycling	0.25	Nil	0.2	Nil
278	Kanaka Metal FinishersNo. 729, Ramananda Building Laggere Road, Opp. SRS Water Tank, Peenya, Bangalore-58	Electroplating	0.08	0.05	0.05	0.05
279	M/s. J. L Metal Finishers, No. 738/20, 3rd Cross, 2nd Main SRS Road, Near Govt. P U College, Peenya, Bangalolre	Electroplating(None cyanide Nickel & Zinc electroplating)	0.92	0.1	0.72	0.1
280	PCM CraftsNo. 3, 3rd Main Road, Ward No.11, Yeshwanthpura Industrial Suburb II Stage, Bengaluru-560022	Photo-chemically milled precision sheet metal components	0.44	0.01	0.36	0.01
TOTAL			**234**	**509**	**164**	**414**

ANNEXURE -III

Ground Water quality monitoring stations

Sl.No.	Particulars of Monitoring Stations	Station code
1	Sona Engineering & Fabrication., No. 159, III Phase, PIA	GW-1
2	Unitex Apparels(P) Ltd., No.252, III Phase, PIA Front Gate	GW-2
3	Unitex Apparels(P) Ltd., No.252, III Phase, PIA (Gate-2) Back gate	GW-3
4	Gowri Shankar Engineering Industries., No.269, IV Phase, PIA	GW-4
5	Adarsha Control Systems (P) Ltd., No. 273, II Stage, PIE	GW-5
6	Kotak Urja Pvt Ltd., No.378, 10th Cross, IV Phase, PIA	GW-6
7	Bandari Forging Pvt Ltd., No.A-271 & 272, II Stage, PIE,	GW-7
8	Metal Storage Systems., No.409, IV Phase, PIA	GW-8
9	Metal Storage Systems., No.410, IV Phase, PIA	GW-9
10	Trinity NDT Engineering , NO.V-22, 2nd stage,	GW-10
11	Spectronic Plating Pvt Ltd., No.A-152, II Stage, PIE	GW-11
12	Bio-Pharma Drugs & Pharmaceuticals., No.399, IV Phase, PIA	GW-12
13	Public Borewell , Near AS surface finsihers ,3rd Satge	GW-13
14	Metal Arts., No.344, IV Phase, PIA	GW-14
15	Replica Xerography Pvt Ltd., No.B-375, I Stage, PIE	GW-15
16	Alufit India Pvt.Ltd, No B-370, 1st stage, PIE	GW-16
17	Kiran Metal Finishers, No. A-370/2, I Stage, PIE	GW-17
18	Kongovi Electronics, No.377, IV Phase, PIA,	GW-18
19	Karnataka Bank , 1st stsage , PIE	GW-19
20	Indian Designs Exports (P) Ltd., No. 243/243(a), III Phase, PIA	GW-20
21	Coir Board, No.3, II Phase, PIA	GW-21
22	BMD Machinery India Pvt Ltd., No.537/A, IV Phase, PIA	GW-22
23	G.V.Enterprises, Plot No. 17F, II Phase, PIA	GW-23
24	SNS Industries., No.P-26, III Stage, PIE	GW-24
25	Garden City Fashions (P) Ltd., Plot No. 356 & 317, IV Phase, PIA	GW-25
26	Adithya Industries, No.B-376, I Stage, PIE	GW-26
27	Anglo French Drug & Industries Ltd., Plot No. 4, II Phase, PIA	GW-27
28	Alutop., No.P-26, C III Stage, PIE	GW-28
29	M.B.S Metal Finishers., No.B-V-20/1P, II Stage, PIE,	GW-29
30	Millipore India Pvt Ltd., No.50, II Phase, PIA	GW-30
31	ESI Hospital ,5th Main, Industrial suburb, Yeshwanthpura, Bangalore	GW-31
32	Public Borewell Water supply Near Manjunatha Weighers, Kantirava Studio Main Road, Bangalore	GW-32
33	Public Borewell Water supply near S.R.S Road, Tumkur Main Road , Bangalore	GW-33
34	Public Borewell , Shaneshwara Temple Priemises , Rajgopal Nagara , Bangalore	GW-34
35	Public Borewell , Muneshwara Temple Priemises , Thigarapalya Road, Bangalore	GW-35
36	Public Borewell, Near Govt.Middle School ,Karihobana Halli , Bangalore	GW-36
37	Public Borewell ,Near Dogalamma Temple, Rajgopal Nagara, Bangalore	GW-37

ANNEXURE -III (GW-1)

Analysis report extract of Ground water quality monitored in M/s.Sona Engineering , No.159 III Phase Peenya Industrial Area, Bengaluru-560058

Sl. No.	Parameters Analysed	Unit	Standards IS 10500:2012		Analysis report Results	
			Acceptable Limit	Permissible Limit	Pre Monsoon	Post Monsoon
1	pH	pH Unit	6.5 to 8.5	6.5 to 8.5	6.3	6.8
2	Turbidity	NTU	5	10	0.6	0.8
3	**Dissolved Solids**	mg/L	500	2000	1710	**1470**
4	Sulphate	mg/L	200	400	205	**286**
5	Chloride	mg/L	250	1000	384	**348**
6	Phenolic Compounds	mg/L	0.001	0.002	BDL	BDL
7	Nitrate as NO_3	mg/L	45	45	18	32.26
8	Total Hardness as Ca	mg/L	300	600	870	**818**
9	Calcium as Ca	mg/L	75	200	180	**174**
10	Magnesium as Mg	mg/L	30	100	102	
11	Fluoride	mg/L	1	1.5	0.3	0.35
12	Alkalinity	mg/L	200	600	340	352
13	Ammonia as N	mg/L	0.5	0.5	0.15	0.4
14	Sulphide	mg/L	0.05	0.05	BDL	NIL
15	Cyanide	mg/L	0.05	0.05	BDL	BDL
16	Copper	mg/L	0.05	1.5	0.1	0.29
17	**Zinc**	mg/L	5	15	BDL	0.05
18	Iron	mg/L	0.3	1	0.6	0.24
19	Manganese	mg/L	0.1	0.3	0.5	BDL
20	Lead	mg/L	0.01	0.01	BDL	BDL
21	Cadmium	mg/L	0.003	0.003	BDL	BDL
22	**Total Chromium**	mg/L	0.05	0.05	5.6	**5.9**
23	**Nickel**	mg/L	0.02	0.02	BDL	BDL
24	**Hexavalent Chromium**	mg/L	0.05	0.05		3.2
25	Boron	mg/L	0.5	1	BDL	BDL
INFERENCE : Non Conforms to permisiable limit of IS 10500:2012 standards with respect to above tested parameters						

ANNEXURE -III (GW-2)

Analysis report extract of Ground water quality monitored in M/s.Unitex Apperels. No252 III phase PIA(Front Gate)

Sl. No.	Parameters Analysed	Unit	Standards IS 10500:2012		Analysis report Results	
			Acceptable Limit	Permissible Limit	Pre Monsoon	Post Monsoon
1	pH	pH Unit	6.5 to 8.5	6.5 to 8.5	3.3	3.4
2	Turbidity	NTU	5	10	196	3.8
3	Dissolved Solids	mg/L	500	2000	8760	11008
4	Sulphate	mg/L	200	400	137	363
5	Chloride	mg/L	250	1000	960	4956
6	Phenolic Compounds	mg/L	0.001	0.002	BDL	BDL
7	Nitrate as NO_3	mg/L	45	45	22	29.96
8	Total Hardness as Ca CO_3	mg/L	300	600	859	3842
9	Calcium as Ca	mg/L	75	200	194	816
10	Magnesium as Mg	mg/L	30	100	91	438
11	Fluoride	mg/L	1	1.5	0.9	0.1
12	Alkalinity	mg/L	200	600	756	NIL
13	Ammonia as N	mg/L	0.5	0.5	19	58.5
14	Sulphide	mg/L	0.05	0.05	BDL	NIL
15	Cyanide	mg/L	0.05	0.05	BDL	BDL
16	Copper	mg/L	0.05	1.5	9.2	20.5
17	Zinc	mg/L	5	15	5.7	49.4
18	Iron	mg/L	0.3	1	521	1197
19	Manganese	mg/L	0.1	0.3	155	188
20	Lead	mg/L	0.01	0.01	0.14	0.7
21	Cadmium	mg/L	0.003	0.003	0.03	0.07
22	Total Chromium	mg/L	0.05	0.05	0.07	0.24
23	Nickel	mg/L	0.02	0.02	1.4	3.1
24	Hexavalent Chromium	mg/L	0.05	0.05		0.13
25	Boron	mg/L	0.5	1	BDL	BDL
INFERENCE : Non Conforms to permisiable limit of IS 10500:2012 standards with respect to above tested parameters						

ANNEXURE -III (GW-3)

Analysis report extract of Ground water quality monitored in of M/s.Unitex Apperels. No252, III Phase, Peenya Industrial Area (Back Gate), Bengaluru-560058

Sl. No.	Parameters Analysed	Unit	Standards IS 10500:2012		Analysis report Results	
			Acceptable Limit	Permissible Limit	Pre Monsoon	Post Monsoon
1	pH	pH Unit	6.5 to 8.5	6.5 to 8.5	3.1	3.8
2	Turbidity	NTU	5	10	250	92
3	Dissolved Solids	mg/L	500	2000	5072	6580
4	Sulphate	mg/L	200	400	73	243
5	Chloride	mg/L	250	1000	860	2801
6	Phenolic Compounds	mg/L	0.001	0.002	BDL	BDL
7	Nitrate as NO_3	mg/L	45	45	4	3.5
8	Total Hardness as Ca CO_3	mg/L	300	600	747	4945
9	Calcium as Ca	mg/L	75	200	170	1210
10	Magnesium as Mg	mg/L	30	100	79	467
11	Fluoride	mg/L	1	1.5	0.1	0.25
12	Alkalinity	mg/L	200	600	567	534
13	Ammonia as N	mg/L	0.5	0.5	5	18.6
14	Sulphide	mg/L	0.05	0.05	BDL	BDL
15	Cyanide	mg/L	0.05	0.05	BDL	BDL
16	Copper	mg/L	0.05	1.5	82.2	12.5
17	Zinc	mg/L	5	15	6.5	1.4
18	Iron	mg/L	0.3	1	225	183
19	Manganese	mg/L	0.1	0.3	106	13.7
20	Lead	mg/L	0.01	0.01	0.9	BDL
21	Cadmium	mg/L	0.003	0.003	0.02	BDL
22	Total Chromium	mg/L	0.05	0.05	0.17	0.37
23	Nickel	mg/L	0.02	0.02	0.46	0.38
24	Hexavalent Chromium	mg/L	0.05	0.05		
25	Boron	mg/L	0.5	1	BDL	BDL
INFERENCE : Non Conforms to permisiable limit of IS 10500:2012 standards with respect to above tested parameters						

ANNEXURE -III (GW-4)

Analysis report extract of Water quality monitored in M/s.Gowri Shankara Engineering Industry, No.269 IV Phase, Peenya Industrial Area, Bengaluru-560058

Sl. No.	Parameters Analysed	Unit	Standards IS 10500:2012		Analysis report Results	
			Acceptable Limit	Permissible Limit	Pre Monsoon	Post Monsoon
1	pH	pH Unit	6.5 to 8.5	6.5 to 8.5	7.1	7
2	Turbidity	NTU	5	10	0.8	0.5
3	Dissolved Solids	mg/L	500	2000	1484	1410
4	Sulphate	mg/L	200	400	85	98
5	Chloride	mg/L	250	1000	400	362
6	Phenolic Compounds	mg/L	0.001	0.002	BDL	0.1
7	Nitrate as NO_3	mg/L	45	45	37	38.3
8	Total Hardness as Ca CO_3	mg/L	300	600	868	816
9	Calcium as Ca	mg/L	75	200	181	164
10	Magnesium as Mg	mg/L	30	100	101	98.8
11	Fluoride	mg/L	1	1.5	0.106	0.1
12	Alkalinity	mg/L	200	600	389	405
13	Ammonia as N	mg/L	0.5	0.5	0.1	1.73
14	Sulphide	mg/L	0.05	0.05	BDL	2
15	Cyanide	mg/L	0.05	0.05	BDL	0.002
16	Copper	mg/L	0.05	1.5	0.26	0.003
17	Zinc	mg/L	5	15	6.7	0.022
18	Iron	mg/L	0.3	1	2.6	0.3
19	Manganese	mg/L	0.1	0.3	0.03	0.003
20	Lead	mg/L	0.01	0.01	0.66	0.001
21	Cadmium	mg/L	0.003	0.003	0.03	0.001
22	Total Chromium	mg/L	0.05	0.05	7.1	6.5
23	Nickel	mg/L	0.02	0.02	0.08	0.002
24	Hexavalent Chromium	mg/L	0.05	0.05	4.2	4.43
25	Boron	mg/L	0.5	1	BDL	

INFERENCE : Non Conforms to permisiable limit of IS 10500:2012 standards with respect to above tested parameters

ANNEXURE -III (GW-5)

Analysis report extract of Water quality monitored in M/s.Adarsha Control Systems No.B-231, II Stage, Peenya Industrial Estate, Bengaluru-560058

Sl. No.	Parameters Analysed	Unit	Standards IS 10500:2012		Analysis report Results	
			Acceptable Limit	Permissible Limit	Pre Monsoon	Post Monsoon
1	pH	pH Unit	6.5 to 8.5	6.5 to 8.5	6.8	6.8
2	Turbidity	NTU	5	10	1	0.5
3	Dissolved Solids	mg/L	500	2000	1414	1354
4	Sulphate	mg/L	200	400	120	146
5	Chloride	mg/L	250	1000	225	325
6	Phenolic Compounds	mg/L	0.001	0.002	BDL	0.1
7	Nitrate as NO_3	mg/L	45	45	38	38.3
8	Total Hardness as Ca CO_3	mg/L	300	600	729	645
9	Calcium as Ca	mg/L	75	200	155	130
10	Magnesium as Mg	mg/L	30	100	83	78.1
11	Fluoride	mg/L	1	1.5	0.37	0.322
12	Alkalinity	mg/L	200	600	387	361
13	Ammonia as N	mg/L	0.5	0.5	0.1	1.58
14	Sulphide	mg/L	0.05	0.05	NIL	2
15	Cyanide	mg/L	0.05	0.05	BDL	0.002
16	Copper	mg/L	0.05	1.5	0.15	0.002
17	Zinc	mg/L	5	15	6.2	0.003
18	Iron	mg/L	0.3	1	0.6	0.3
19	Manganese	mg/L	0.1	0.3	0.01	0.001
20	Lead	mg/L	0.01	0.01	1.3	0.001
21	Cadmium	mg/L	0.003	0.003	0.005	0.001
22	Total Chromium	mg/L	0.05	0.05	1.8	0.42
23	Nickel	mg/L	0.02	0.02	0.03	0.002
24	Hexavalent Chromium	mg/L	0.05	0.05	1.02	0.038
25	Boron	mg/L	0.5	1	BDL	BDL

INFERENCE : Non Conforms to permisiable limit of IS 10500:2012 standards with respect to above tested parameters

ANNEXURE -III (GW-6)

Analysis report extract of Water quality monitored in M/s.Kotak Urja No.378, IV Phase Peenya Industrial Area, Bengaluru-560058

Sl. No.	Parameters Analysed	Unit	Standards IS 10500:2012		Analysis report Results	
			Acceptable Limit	Permissible Limit	Pre Monsoon	Post Monsoon
1	pH	pH Unit	6.5 to 8.5	6.5 to 8.5	6.7	6.7
2	Turbidity	NTU	5	10	0.3	1
3	Dissolved Solids	mg/L	500	2000	1200	1538
4	Sulphate	mg/L	200	400	149	81
5	Chloride	mg/L	250	1000	70	354
6	Phenolic Compounds	mg/L	0.001	0.002	BDL	BDL
7	Nitrate as NO_3	mg/L	45	45	52	38
8	Total Hardness as Ca CO_3	mg/L	300	600	502	895
9	Calcium as Ca	mg/L	75	200	135	182
10	Magnesium as Mg	mg/L	30	100	40	107
11	Fluoride	mg/L	1	1.5	0.242	0.2
12	Alkalinity	mg/L	200	600	387	429
13	Ammonia as N	mg/L	0.5	0.5	0.109	0.1
14	Sulphide	mg/L	0.05	0.05	BDL	BDL
15	Cyanide	mg/L	0.05	0.05	BDL	BDL
16	Copper	mg/L	0.05	1.5	0.2	0.18
17	Zinc	mg/L	5	15	5.4	1.6
18	Iron	mg/L	0.3	1	2.3	**1.1**
19	Manganese	mg/L	0.1	0.3	0.05	**0.29**
20	Lead	mg/L	0.01	0.01	0.6	BDL
21	Cadmium	mg/L	0.003	0.003	0.06	BDL
22	Total Chromium	mg/L	0.05	0.05	6.2	**23.6**
23	Nickel	mg/L	0.02	0.02	0.1	BDL
24	Hexavalent Chromium	mg/L	0.05	0.05	3.6	
25	Boron	mg/L	0.5	1	BDL	BDL
INFERENCE : Non Conforms to permisiable limit of IS 10500:2012 standards with respect to above tested parameters						

ANNEXURE -III (GW-7)

Analysis report extract of Water quality monitored in M/s.Bhandari Precision Forging Pvt Ltd No. 271, II Stage, Peenya Industrial Estate, Bengaluru-560058

Sl. No.	Parameters Analysed	Unit	Standards IS 10500:2012		Analysis report Results	
			Acceptable Limit	Permissible Limit	Pre Monsoon	Post Monsoon
1	pH	pH Unit	6.5 to 8.5	6.5 to 8.5	7.5	7.2
2	Turbidity	NTU	5	10	0.7	1.1
3	Dissolved Solids	mg/L	500	2000	1416	1174
4	Sulphate	mg/L	200	400	131	111
5	Chloride	mg/L	250	1000	320	259
6	Phenolic Compounds	mg/L	0.001	0.002	BDL	0.1
7	Nitrate as NO_3	mg/L	45	45	38	38.3
8	Total Hardness as Ca CO_3	mg/L	300	600	739	514
9	Calcium as Ca	mg/L	75	200	160	104
10	Magnesium as Mg	mg/L	30	100	82	61.6
11	Fluoride	mg/L	1	1.5	0.377	0.374
12	Alkalinity	mg/L	200	600	360	309
13	Ammonia as N	mg/L	0.5	0.5	0.1	0.213
14	Sulphide	mg/L	0.05	0.05	NIL	2
15	Cyanide	mg/L	0.05	0.05	BDL	0.002
16	Copper	mg/L	0.05	1.5	0.1	0.001
17	Zinc	mg/L	5	15	3.3	0.002
18	Iron	mg/L	0.3	1	0.3	0.02
19	Manganese	mg/L	0.1	0.3	0.02	0.001
20	Lead	mg/L	0.01	0.01	0.13	0.001
21	Cadmium	mg/L	0.003	0.003	0.002	0.001
22	Total Chromium	mg/L	0.05	0.05	1.4	0.4
23	Nickel	mg/L	0.02	0.02	0.03	0.002
24	Hexavalent Chromium	mg/L	0.05	0.05	0.84	0.3
25	Boron	mg/L	0.5	1	BDL	
INFERENCE : Non Conforms to permisiable limit of IS 10500:2012 standards with respect to above tested parameters						

ANNEXURE -III (GW-8)

Analysis report extract of Water quality monitored in M/s.Metal Storage systems, No.409 IV Phase, Peenya Industrial Area, Bengaluru-560058

Sl. No.	Parameters Analysed	Unit	Standards IS 10500:2012		Analysis report Results	
			Acceptable Limit	Permissible Limit	Pre Monsoon	Post Monsoon
1	pH	pH Unit	6.5 to 8.5	6.5 to 8.5	6.6	6.6
2	Turbidity	NTU	5	10	0.2	0.2
3	Dissolved Solids	mg/L	500	2000	1202	1090
4	Sulphate	mg/L	200	400	55	21
5	Chloride	mg/L	250	1000	531	220
6	Phenolic Compounds	mg/L	0.001	0.002	BDL	0.1
7	Nitrate as NO_3	mg/L	45	45	83	93
8	Total Hardness as Ca CO_3	mg/L	300	600	514	282
9	Calcium as Ca	mg/L	75	200	113	57
10	Magnesium as Mg	mg/L	30	100	56	33.9
11	Fluoride	mg/L	1	1.5	0.296	0.1
12	Alkalinity	mg/L	200	600	366	242
13	Ammonia as N	mg/L	0.5	0.5	0.1	0.1
14	Sulphide	mg/L	0.05	0.05	BDL	2
15	Cyanide	mg/L	0.05	0.05	BDL	0.002
16	Copper	mg/L	0.05	1.5	0.1	0.001
17	Zinc	mg/L	5	15	4.5	0.002
18	Iron	mg/L	0.3	1	0.8	0.18
19	Manganese	mg/L	0.1	0.3	0.025	0.004
20	Lead	mg/L	0.01	0.01	0.3	0.001
21	Cadmium	mg/L	0.003	0.003	0.012	0.001
22	Total Chromium	mg/L	0.05	0.05	4.3	0.9
23	Nickel	mg/L	0.02	0.02	0.03	0.002
24	Hexavalent Chromium	mg/L	0.05	0.05	2.6	0.76
25	Boron	mg/L	0.5	1	BDL	

INFERENCE : Non Conforms to permisiable limit of IS 10500:2012 standards with respect to above tested parameters

ANNEXURE -III (GW-9)

Analysis report extract of Water quality monitored in M/s.Metal Storage systems, No.410, IV Phase Peenya Industrial Area, Bengaluru-560058

Sl. No.	Parameters Analysed	Unit	Standards IS 10500:2012		Analysis report Results	
			Acceptable Limit	Permissible Limit	Pre Monsoon	Post Monsoon
1	pH	pH Unit	6.5 to 8.5	6.5 to 8.5	6.8	6.8
2	Turbidity	NTU	5	10	0.3	0.2
3	Dissolved Solids	mg/L	500	2000	1280	1058
4	Sulphate	mg/L	200	400	153	37
5	Chloride	mg/L	250	1000	292	241
6	Phenolic Compounds	mg/L	0.001	0.002	BDL	0.1
7	Nitrate as NO_3	mg/L	45	45	22	98
8	Total Hardness as Ca CO_3	mg/L	300	600	741	292
9	Calcium as Ca	mg/L	75	200	154	57
10	Magnesium as Mg	mg/L	30	100	86	36.2
11	Fluoride	mg/L	1	1.5	0.279	0.2
12	Alkalinity	mg/L	200	600	403	279
13	Ammonia as N	mg/L	0.5	0.5	0.112	0.1
14	Sulphide	mg/L	0.05	0.05	BDL	2
15	Cyanide	mg/L	0.05	0.05	BDL	0.002
16	Copper	mg/L	0.05	1.5	0.2	0.001
17	Zinc	mg/L	5	15	7.1	0.002
18	Iron	mg/L	0.3	1	1.3	0.02
19	Manganese	mg/L	0.1	0.3	0.12	0.004
20	Lead	mg/L	0.01	0.01	0.2	0.001
21	Cadmium	mg/L	0.003	0.003	0.004	0.001
22	Total Chromium	mg/L	0.05	0.05	31.4	1.02
23	Nickel	mg/L	0.02	0.02	0.03	0.002
24	Hexavalent Chromium	mg/L	0.05	0.05	24	0.95
25	Boron	mg/L	0.5	1	BDL	

INFERENCE : Non Conforms to permisiable limit of IS 10500:2012 standards with respect to above tested parameters

ANNEXURE -III (GW-10)

Analysis report extract of Water quality monitored in M/s.Trinity NDT Engineering, No.V-22 II Stage Peenya Industrial Area, Bengaluru-560058

Sl. No.	Parameters Analysed	Unit	Standards IS 10500:2012		Analysis report Results	
			Acceptable Limit	Permissible Limit	Pre Monsoon	Post Monsoon
1	pH	pH Unit	6.5 to 8.5	6.5 to 8.5	6.7	6.8
2	Turbidity	NTU	5	10	0.7	1
3	Dissolved Solids	mg/L	500	2000	1568	1924
4	Sulphate	mg/L	200	400	212	141
5	Chloride	mg/L	250	1000	389	417
6	Phenolic Compounds	mg/L	0.001	0.002	BDL	BDL
7	Nitrate as NO_3	mg/L	45	45	20	49
8	Total Hardness as Ca CO_3	mg/L	300	600	913	909
9	Calcium as Ca	mg/L	75	200	165	185
10	Magnesium as Mg	mg/L	30	100	122	108
11	Fluoride	mg/L	1	1.5	0.2	0.2
12	Alkalinity	mg/L	200	600	422	**475**
13	Ammonia as N	mg/L	0.5	0.5	0.1	0.1
14	Sulphide	mg/L	0.05	0.05	BDL	BDL
15	Cyanide	mg/L	0.05	0.05	BDL	BDL
16	Copper	mg/L	0.05	1.5	1	0.05
17	Zinc	mg/L	5	15	1.8	0.07
18	Iron	mg/L	0.3	1	0.9	0.45
19	Manganese	mg/L	0.1	0.3	0.24	0.84
20	Lead	mg/L	0.01	0.01	0.15	BDL
21	Cadmium	mg/L	0.003	0.003	0.01	BDL
22	Total Chromium	mg/L	0.05	0.05	5.8	**9**
23	Nickel	mg/L	0.02	0.02	0.05	BDL
24	Hexavalent Chromium	mg/L	0.05	0.05		
25	Boron	mg/L	0.5	1	BDL	BDL
INFERENCE : Non Conforms to permisiable limit of IS 10500:2012 standards with respect to above tested parameters						

ANNEXURE -III (GW-11)

Analysis report extract of Water quality monitored in M/s. Spectronic Plating, Pvt Ltd, No.A-152 II stage Peenya Industrial Estate, Bengaluru-560058

Sl. No.	Parameters Analysed	Unit	Standards IS 10500:2012		Analysis report Results	
			Acceptable Limit	Permissible Limit	Pre Monsoon	Post Monsoon
1	pH	pH Unit	6.5 to 8.5	6.5 to 8.5	6.9	7.9
2	Turbidity	NTU	5	10	0.3	0.5
3	Dissolved Solids	mg/L	500	2000	1342	1742
4	Sulphate	mg/L	200	400	140	107
5	Chloride	mg/L	250	1000	360	540
6	Phenolic Compounds	mg/L	0.001	0.002	BDL	BDL
7	Nitrate as NO_3	mg/L	45	45	28	30
8	Total Hardness as Ca CO_3	mg/L	300	600	626	786
9	Calcium as Ca	mg/L	75	200	143	190
10	Magnesium as Mg	mg/L	30	100	65	76
11	Fluoride	mg/L	1	1.5	0.317	0.32
12	Alkalinity	mg/L	200	600	380	371
13	Ammonia as N	mg/L	0.5	0.5	0.1	0.12
14	Sulphide	mg/L	0.05	0.05	BDL	BDL
15	Cyanide	mg/L	0.05	0.05	BDL	BDL
16	Copper	mg/L	0.05	1.5	0.4	BDL
17	Zinc	mg/L	5	15	9.8	0.06
18	Iron	mg/L	0.3	1	4.4	0.43
19	Manganese	mg/L	0.1	0.3	65	0.22
20	Lead	mg/L	0.01	0.01	0.5	BDL
21	Cadmium	mg/L	0.003	0.003	0.02	BDL
22	Total Chromium	mg/L	0.05	0.05	0.2	0.3
23	Nickel	mg/L	0.02	0.02	0.16	BDL
24	Hexavalent Chromium	mg/L	0.05	0.05	BDL	
25	Boron	mg/L	0.5	1	BDL	BDL
INFERENCE : Non Conforms to permisiable limit of IS 10500:2012 standards with respect to above tested parameters						

ANNEXURE -III (GW-12)

Analysis report extract of Water quality monitored in M/s. Bio Pharma drugs & Pharmaceuticals, No, 399 IV phase Peenya Industrial Area, Bengaluru-560058

Sl. No.	Parameters Analysed	Unit	Standards IS 10500:2012		Analysis report Results	
			Acceptable Limit	Permissible Limit	Pre Monsoon	Post Monsoon
1	pH	pH Unit	6.5 to 8.5	6.5 to 8.5	6.9	7.2
2	Turbidity	NTU	5	10	0.7	0.4
3	Dissolved Solids	mg/L	500	2000	1362	1080
4	Sulphate	mg/L	200	400	125	239
5	Chloride	mg/L	250	1000	286	190
6	Phenolic Compounds	mg/L	0.001	0.002	BDL	BDL
7	Nitrate as NO_3	mg/L	45	45	39	24.5
8	Total Hardness as Ca CO_3	mg/L	300	600	854	**670**
9	Calcium as Ca	mg/L	75	200	181	142
10	Magnesium as Mg	mg/L	30	100	97	76
11	Fluoride	mg/L	1	1.5	0.233	0.266
12	Alkalinity	mg/L	200	600	451	358
13	Ammonia as N	mg/L	0.5	0.5	0.1	0.2
14	Sulphide	mg/L	0.05	0.05	NIL	NIL
15	Cyanide	mg/L	0.05	0.05	BDL	BDL
16	Copper	mg/L	0.05	1.5	0.08	BDL
17	Zinc	mg/L	5	15	7	0.06
18	Iron	mg/L	0.3	1	0.4	0.6
19	Manganese	mg/L	0.1	0.3	0.008	BDL
20	Lead	mg/L	0.01	0.01	0.1	BDL
21	Cadmium	mg/L	0.003	0.003	0.001	BDL
22	Total Chromium	mg/L	0.05	0.05	3.5	0.29
23	Nickel	mg/L	0.02	0.02	0.01	BDL
24	Hexavalent Chromium	mg/L	0.05	0.05	2.05	0.15
25	Boron	mg/L	0.5	1	BDL	BDL

INFERENCE : Non Conforms to permisiable limit of IS 10500:2012 standards with respect to above tested parameters

ANNEXURE -III (GW-13)

Analysis report extract of Water quality monitored in Public bore well Near A.S Surface finisher, III Stage, Peenya Industrial Estate, Bengaluru-560058

Sl. No.	Parameters Analysed	Unit	Standards IS 10500:2012		Analysis report Results	
			Acceptable Limit	Permissible Limit	Pre Monsoon	Post Monsoon
1	pH	pH Unit	6.5 to 8.5	6.5 to 8.5	6.8	7.7
2	Turbidity	NTU	5	10	0.1	0.5
3	Dissolved Solids	mg/L	500	2000	1640	1732
4	Sulphate	mg/L	200	400	85	200
5	Chloride	mg/L	250	1000	801	398
6	Phenolic Compounds	mg/L	0.001	0.002	BDL	BDL
7	Nitrate as NO_3	mg/L	45	45	51.3	30
8	Total Hardness as Ca CO_3	mg/L	300	600	624	882
9	Calcium as Ca	mg/L	75	200	126	216
10	Magnesium as Mg	mg/L	30	100	75	83
11	Fluoride	mg/L	1	1.5	0.52	0.5
12	Alkalinity	mg/L	200	600	398	308
13	Ammonia as N	mg/L	0.5	0.5	0.312	0.14
14	Sulphide	mg/L	0.05	0.05	BDL	BDL
15	Cyanide	mg/L	0.05	0.05	BDL	BDL
16	Copper	mg/L	0.05	1.5	0.09	0.06
17	Zinc	mg/L	5	15	13	0.23
18	Iron	mg/L	0.3	1	0.4	0.42
19	Manganese	mg/L	0.1	0.3	0.03	0.2
20	Lead	mg/L	0.01	0.01	0.1	BDL
21	Cadmium	mg/L	0.003	0.003	0.001	BDL
22	Total Chromium	mg/L	0.05	0.05	0.7	0.62
23	Nickel	mg/L	0.02	0.02	0.02	BDL
24	Hexavalent Chromium	mg/L	0.05	0.05	0.35	0.3
25	Boron	mg/L	0.5	1	BDL	BDL
INFERENCE : Non Conforms to permisiable limit of IS 10500:2012 standards with respect to above tested parameters						

ANNEXURE -III (GW-14)

Analysis report extract of Water quality monitored in M/s. Metal Arts,No.344, IV Phase Peenya Industrial Area, Bengaluru-560058

Sl. No.	Parameters Analysed	Unit	Standards IS 10500:2012		Analysis report Results	
			Acceptable Limit	Permissible Limit	Pre Monsoon	Post Monsoon
1	pH	pH Unit	6.5 to 8.5	6.5 to 8.5	6.5	7.8
2	Turbidity	NTU	5	10	0.2	0.5
3	Dissolved Solids	mg/L	500	2000	2016	2100
4	Sulphate	mg/L	200	400	408	319
5	Chloride	mg/L	250	1000	438	495
6	Phenolic Compounds	mg/L	0.001	0.002	BDL	BDL
7	Nitrate as NO_3	mg/L	45	45	108	37
8	Total Hardness as Ca CO_3	mg/L	300	600	1196	1259
9	Calcium as Ca	mg/L	75	200	240	310
10	Magnesium as Mg	mg/L	30	100	144	118
11	Fluoride	mg/L	1	1.5	0.171	0.19
12	Alkalinity	mg/L	200	600	324	319
13	Ammonia as N	mg/L	0.5	0.5	0.109	0.11
14	Sulphide	mg/L	0.05	0.05	BDL	BDL
15	Cyanide	mg/L	0.05	0.05	BDL	BDL
16	Copper	mg/L	0.05	1.5	0.17	0.18
17	Zinc	mg/L	5	15	18.6	0.06
18	Iron	mg/L	0.3	1	2.1	0.2
19	Manganese	mg/L	0.1	0.3	0.9	BDL
20	Lead	mg/L	0.01	0.01	0.4	BDL
21	Cadmium	mg/L	0.003	0.003	0.02	BDL
22	Total Chromium	mg/L	0.05	0.05	25.1	11
23	Nickel	mg/L	0.02	0.02	0.09	BDL
24	Hexavalent Chromium	mg/L	0.05	0.05	16.4	5.39
25	Boron	mg/L	0.5	1	BDL	BDL
INFERENCE : Non Conforms to permisiable limit of IS 10500:2012 standards with respect to above tested parameters						

ANNEXURE -III (GW-15)

Analysis report extract of Water quality monitored in M/s. Replica Xergraphy Pvt Ltd, No.B-375,I stage Peenya Industrial Estate, Bengaluru-560058

Sl. No.	Parameters Analysed	Unit	Standards IS 10500:2012		Analysis report Results	
			Acceptable Limit	Permissible Limit	Pre Monsoon	Post Monsoon
1	pH	pH Unit	6.5 to 8.5	6.5 to 8.5	7.3	6.5
2	Turbidity	NTU	5	10	0.5	0.2
3	Dissolved Solids	mg/L	500	2000	362	454
4	Sulphate	mg/L	200	400	55	43
5	Chloride	mg/L	250	1000	56	87
6	Phenolic Compounds	mg/L	0.001	0.002	BDL	0.1
7	Nitrate as NO_3	mg/L	45	45	14	24
8	Total Hardness as Ca CO_3	mg/L	300	600	192	242
9	Calcium as Ca	mg/L	75	200	37	50
10	Magnesium as Mg	mg/L	30	100	24	28.7
11	Fluoride	mg/L	1	1.5	0.2	0.7
12	Alkalinity	mg/L	200	600	191	186
13	Ammonia as N	mg/L	0.5	0.5	0.3	0.1
14	Sulphide	mg/L	0.05	0.05	BDL	2
15	Cyanide	mg/L	0.05	0.05	BDL	0.002
16	Copper	mg/L	0.05	1.5	0.1	0.001
17	Zinc	mg/L	5	15	3.4	15
18	Iron	mg/L	0.3	1	0.5	0.2
19	Manganese	mg/L	0.1	0.3	0.02	0.001
20	Lead	mg/L	0.01	0.01	0.19	0.001
21	Cadmium	mg/L	0.003	0.003	0.006	0.001
22	Total Chromium	mg/L	0.05	0.05	4.98	1.1
23	Nickel	mg/L	0.02	0.02	0.98	0.002
24	Hexavalent Chromium	mg/L	0.05	0.05		1.05
25	Boron	mg/L	0.5	1	BDL	
INFERENCE : Non Conforms to permisiable limit of IS 10500:2012 standards with respect to above tested parameters						

ANNEXURE -III (GW-16)

Analysis report extract of Water quality monitored in M/s. Alufit India Pvt Ltd, No.B-370,I stage, Peenya Industrial Estate, Bengaluru-560058

Sl. No.	Parameters Analysed	Unit	Standards IS 10500:2012		Analysis report Results	
			Acceptable Limit	Permissible Limit	Pre Monsoon	Post Monsoon
1	pH	pH Unit	6.5 to 8.5	6.5 to 8.5	5.8	5.9
2	Turbidity	NTU	5	10	20.4	3.9
3	Dissolved Solids	mg/L	500	2000	2898	3318
4	Sulphate	mg/L	200	400	35	116
5	Chloride	mg/L	250	1000	1232	1176
6	Phenolic Compounds	mg/L	0.001	0.002	BDL	BDL
7	Nitrate as NO_3	mg/L	45	45	10	15.64
8	Total Hardness as Ca CO_3	mg/L	300	600	993	984
9	Calcium as Ca	mg/L	75	200	211	210
10	Magnesium as Mg	mg/L	30	100	113	112
11	Fluoride	mg/L	1	1.5	1.09	1.46
12	Alkalinity	mg/L	200	600	199	252
13	Ammonia as N	mg/L	0.5	0.5	11	9.85
14	Sulphide	mg/L	0.05	0.05	NIL	NIL
15	Cyanide	mg/L	0.05	0.05	BDL	BDL
16	Copper	mg/L	0.05	1.5	0.23	0.75
17	Zinc	mg/L	5	15	8.3	131
18	Iron	mg/L	0.3	1	47.2	260
19	Manganese	mg/L	0.1	0.3	0.5	3
20	Lead	mg/L	0.01	0.01	0.24	0.54
21	Cadmium	mg/L	0.003	0.003	0.003	BDL
22	Total Chromium	mg/L	0.05	0.05	0.9	7.1
23	Nickel	mg/L	0.02	0.02	14.6	20.4
24	Hexavalent Chromium	mg/L	0.05	0.05	0.48	4.2
25	Boron	mg/L	0.5	1	BDL	BDL

INFERENCE : Non Conforms to permisiable limit of IS 10500:2012 standards with respect to above tested parameters

ANNEXURE -III (GW-17)

Analysis report extract of Water quality monitored in M/s. Kiran metal finishers, No.370/2 I stage Peenya Industrial Estate, Bengaluru-560058

Sl. No.	Parameters Analysed	Unit	Standards IS 10500:2012		Analysis report Results	
			Acceptable Limit	Permissible Limit	Pre Monsoon	Post Monsoon
1	pH	pH Unit	6.5 to 8.5	6.5 to 8.5	6.9	7
2	Turbidity	NTU	5	10	0.2	0.3
3	Dissolved Solids	mg/L	500	2000	978	864
4	Sulphate	mg/L	200	400	160.3	129
5	Chloride	mg/L	250	1000	368	181
6	Phenolic Compounds	mg/L	0.001	0.002	BDL	0.1
7	Nitrate as NO_3	mg/L	45	45	61	18
8	Total Hardness as Ca CO_3	mg/L	300	600	370	399
9	Calcium as Ca	mg/L	75	200	93	81
10	Magnesium as Mg	mg/L	30	100	33	48
11	Fluoride	mg/L	1	1.5	0.254	0.4
12	Alkalinity	mg/L	200	600	308	365
13	Ammonia as N	mg/L	0.5	0.5	0.124	0.1
14	Sulphide	mg/L	0.05	0.05	BDL	2
15	Cyanide	mg/L	0.05	0.05	BDL	0.002
16	Copper	mg/L	0.05	1.5	0.15	0.001
17	Zinc	mg/L	5	15	9.1	0.002
18	Iron	mg/L	0.3	1	2.8	0.02
19	Manganese	mg/L	0.1	0.3	0.1	0.01
20	Lead	mg/L	0.01	0.01	0.4	0.001
21	Cadmium	mg/L	0.003	0.003	0.01	0.001
22	Total Chromium	mg/L	0.05	0.05	0.9	1
23	Nickel	mg/L	0.02	0.02	0.1	0.1
24	Hexavalent Chromium	mg/L	0.05	0.05	0.46	0.9
25	Boron	mg/L	0.5	1	BDL	
INFERENCE : Non Conforms to permisiable limit of IS 10500:2012 standards with respect to above tested parameters						

ANNEXURE -III (GW-18)

Analysis report extract of Water quality monitored in M/s. Kongovi Electronics, No.377 IV phase, Peenya Industrial Area, Bengaluru-560058

Sl. No.	Parameters Analysed	Unit	Standards IS 10500:2012		Analysis report Results	
			Acceptable Limit	Permissible Limit	Pre Monsoon	Post Monsoon
1	pH	pH Unit	6.5 to 8.5	6.5 to 8.5	6.7	7.9
2	Turbidity	NTU	5	10	1	0.5
3	Dissolved Solids	mg/L	500	2000	1866	1750
4	Sulphate	mg/L	200	400	49	184
5	Chloride	mg/L	250	1000	320	444
6	Phenolic Compounds	mg/L	0.001	0.002	BDL	BDL
7	Nitrate as NO_3	mg/L	45	45	17	44
8	Total Hardness as Ca CO_3	mg/L	300	600	700	1004
9	Calcium as Ca	mg/L	75	200	144	244
10	Magnesium as Mg	mg/L	30	100	83	96
11	Fluoride	mg/L	1	1.5	0.1	0.2
12	Alkalinity	mg/L	200	600	450	456
13	Ammonia as N	mg/L	0.5	0.5	0.3	0.16
14	Sulphide	mg/L	0.05	0.05	BDL	BDL
15	Cyanide	mg/L	0.05	0.05	BDL	BDL
16	Copper	mg/L	0.05	1.5	0.2	0.07
17	Zinc	mg/L	5	15	3.3	0.56
18	Iron	mg/L	0.3	1	1	1.5
19	Manganese	mg/L	0.1	0.3	0.1	0.18
20	Lead	mg/L	0.01	0.01	0.4	BDL
21	Cadmium	mg/L	0.003	0.003	BDL	BDL
22	Total Chromium	mg/L	0.05	0.05	155	9
23	Nickel	mg/L	0.02	0.02	0.1	BDL
24	Hexavalent Chromium	mg/L	0.05	0.05		
25	Boron	mg/L	0.5	1	BDL	BDL
INFERENCE : Non Conforms to permisiable limit of IS 10500:2012 standards with respect to above tested parameters						

ANNEXURE -III (GW-19)

Analysis report extract of Water quality monitored in M/s. Karnataka Bank I Stage Peenya Industrial Estate, Bengaluru-560058

Sl. No.	Parameters Analysed	Unit	Standards IS 10500:2012		Analysis report Results	
			Acceptable Limit	Permissible Limit	Pre Monsoon	Post Monsoon
1	pH	pH Unit	6.5 to 8.5	6.5 to 8.5	6.4	6.5
2	Turbidity	NTU	5	10	85	0.4
3	Dissolved Solids	mg/L	500	2000	1448	1714
4	Sulphate	mg/L	200	400	145	264
5	Chloride	mg/L	250	1000	412	380
6	Phenolic Compounds	mg/L	0.001	0.002	BDL	BDL
7	Nitrate as NO_3	mg/L	45	45	18	2.99
8	Total Hardness as Ca CO_3	mg/L	300	600	752	880
9	Calcium as Ca	mg/L	75	200	153	184
10	Magnesium as Mg	mg/L	30	100	84	102
11	Fluoride	mg/L	1	1.5	0.2	0.192
12	Alkalinity	mg/L	200	600	526	374
13	Ammonia as N	mg/L	0.5	0.5	1.4	0.3
14	Sulphide	mg/L	0.05	0.05	BDL	NIL
15	Cyanide	mg/L	0.05	0.05	BDL	BDL
16	Copper	mg/L	0.05	1.5	0.08	BDL
17	Zinc	mg/L	5	15	4.4	0.08
18	Iron	mg/L	0.3	1	11.5	6.1
19	Manganese	mg/L	0.1	0.3	1.3	7.6
20	Lead	mg/L	0.01	0.01	0.1	BDL
21	Cadmium	mg/L	0.003	0.003	0.003	BDL
22	Total Chromium	mg/L	0.05	0.05	0.05	BDL
23	Nickel	mg/L	0.02	0.02	0.02	BDL
24	Hexavalent Chromium	mg/L	0.05	0.05	BDL	BDL
25	Boron	mg/L	0.5	1	BDL	BDL
INFERENCE : Non Conforms to permisiable limit of IS 10500:2012 standards with respect to above tested parameters						

ANNEXURE -III (GW-20)

Analysis report extract of Water quality monitored in M/s. Indian Disigns Export pvt ltd, No.243 & 243A III phase Peenya Industrial Area, Bengaluru-560058

Sl. No.	Parameters Analysed	Unit	Standards IS 10500:2012		Analysis report Results	
			Acceptable Limit	Permissible Limit	Pre Monsoon	Post Monsoon
1	pH	pH Unit	6.5 to 8.5	6.5 to 8.5	6.7	6.5
2	Turbidity	NTU	5	10	0.2	0.3
3	Dissolved Solids	mg/L	500	2000	1950	2692
4	Sulphate	mg/L	200	400	62	116
5	Chloride	mg/L	250	1000	723	911
6	Phenolic Compounds	mg/L	0.001	0.002	BDL	BDL
7	Nitrate as NO_3	mg/L	45	45	81	24.48
8	Total Hardness as Ca CO_3	mg/L	300	600	921	1428
9	Calcium as Ca	mg/L	75	200	200	297
10	Magnesium as Mg	mg/L	30	100	102	166
11	Fluoride	mg/L	1	1.5	0.163	0.146
12	Alkalinity	mg/L	200	600	388	384
13	Ammonia as N	mg/L	0.5	0.5	0.1	0.4
14	Sulphide	mg/L	0.05	0.05	BDL	NIL
15	Cyanide	mg/L	0.05	0.05	BDL	BDL
16	Copper	mg/L	0.05	1.5	0.16	BDL
17	Zinc	mg/L	5	15	7.5	0.13
18	Iron	mg/L	0.3	1	2.1	1.7
19	Manganese	mg/L	0.1	0.3	0.1	0.41
20	Lead	mg/L	0.01	0.01	0.2	BDL
21	Cadmium	mg/L	0.003	0.003	0.005	BDL
22	Total Chromium	mg/L	0.05	0.05	0.05	BDL
23	Nickel	mg/L	0.02	0.02	0.1	BDL
24	Hexavalent Chromium	mg/L	0.05	0.05	BDL	BDL
25	Boron	mg/L	0.5	1	BDL	BDL
INFERENCE : Non Conforms to permisiable limit of IS 10500:2012 standards with respect to above tested parameters						

ANNEXURE -III (GW-21)

Analysis report extract of Water quality monitored in M/s. Coir Board, No.36 II phase Peenya Industrial Area, Bengaluru-560058

Sl. No.	Parameters Analysed	Unit	Standards IS 10500:2012		Analysis report Results	
			Acceptable Limit	Permissible Limit	Pre Monsoon	Post Monsoon
1	pH	pH Unit	6.5 to 8.5	6.5 to 8.5	7.1	7.1
2	Turbidity	NTU	5	10	1.6	0.5
3	Dissolved Solids	mg/L	500	2000	652	558
4	Sulphate	mg/L	200	400	48	52
5	Chloride	mg/L	250	1000	118	94
6	Phenolic Compounds	mg/L	0.001	0.002	BDL	0.1
7	Nitrate as NO_3	mg/L	45	45	26	38.3
8	Total Hardness as Ca CO_3	mg/L	300	600	354	275
9	Calcium as Ca	mg/L	75	200	74	56
10	Magnesium as Mg	mg/L	30	100	41	33.1
11	Fluoride	mg/L	1	1.5	0.331	0.3
12	Alkalinity	mg/L	200	600	234	228
13	Ammonia as N	mg/L	0.5	0.5	0.1	0.77
14	Sulphide	mg/L	0.05	0.05	NIL	2
15	Cyanide	mg/L	0.05	0.05	BDL	0.002
16	Copper	mg/L	0.05	1.5	0.28	0.001
17	Zinc	mg/L	5	15	13.5	0.005
18	Iron	mg/L	0.3	1	4.7	0.034
19	Manganese	mg/L	0.1	0.3	0.14	0.001
20	Lead	mg/L	0.01	0.01	0.6	0.001
21	Cadmium	mg/L	0.003	0.003	0.02	0.001
22	Total Chromium	mg/L	0.05	0.05	15	9.5
23	Nickel	mg/L	0.02	0.02	0.14	0.002
24	Hexavalent Chromium	mg/L	0.05	0.05	9	7.73
25	Boron	mg/L	0.5	1	BDL	
INFERENCE : Non Conforms to permisiable limit of IS 10500:2012 standards with respect to above tested parameters						

ANNEXURE -III (GW-22)

Analysis report extract of Water quality monitored in M/s. BMD Machinery Peenya Industrial Area, Bengaluru-560058

Sl. No.	Parameters Analysed	Unit	Standards IS 10500:2012		Analysis report Results	
			Acceptable Limit	Permissible Limit	Pre Monsoon	Post Monsoon
1	pH	pH Unit	6.5 to 8.5	6.5 to 8.5	6.7	6.5
2	Turbidity	NTU	5	10	0.6	0.5
3	Dissolved Solids	mg/L	500	2000	1422	1168
4	Sulphate	mg/L	200	400	133	148
5	Chloride	mg/L	250	1000	346	235
6	Phenolic Compounds	mg/L	0.001	0.002	BDL	0.1
7	Nitrate as NO_3	mg/L	45	45	39	38.3
8	Total Hardness as Ca CO_3	mg/L	300	600	781	595
9	Calcium as Ca	mg/L	75	200	169	120
10	Magnesium as Mg	mg/L	30	100	87	71.9
11	Fluoride	mg/L	1	1.5	0.36	0.36
12	Alkalinity	mg/L	200	600	377	351
13	Ammonia as N	mg/L	0.5	0.5	0.1	0.78
14	Sulphide	mg/L	0.05	0.05	NIL	2
15	Cyanide	mg/L	0.05	0.05	BDL	0.002
16	Copper	mg/L	0.05	1.5	0.44	0.001
17	Zinc	mg/L	5	15	10.5	0.002
18	Iron	mg/L	0.3	1	3.9	0.02
19	Manganese	mg/L	0.1	0.3	0.12	0.001
20	Lead	mg/L	0.01	0.01	0.1	0.001
21	Cadmium	mg/L	0.003	0.003	0.001	0.001
22	Total Chromium	mg/L	0.05	0.05	3.5	0.29
23	Nickel	mg/L	0.02	0.02	0.01	0.002
24	Hexavalent Chromium	mg/L	0.05	0.05	1.35	0.024
25	Boron	mg/L	0.5	1	BDL	
INFERENCE : Non Conforms to permisiable limit of IS 10500:2012 standards with respect to above tested parameters						

ANNEXURE -III (GW-23)

Analysis report extract of Water quality monitored in M/s. G.V enterprises, No. 17 F II Phase Peenya Industrial Area, Bengaluru-560058

Sl. No.	Parameters Analysed	Unit	Standards IS 10500:2012		Analysis report Results	
			Acceptable Limit	Permissible Limit	Pre Monsoon	Post Monsoon
1	pH	pH Unit	6.5 to 8.5	6.5 to 8.5	7.6	7.1
2	Turbidity	NTU	5	10	0.3	0.5
3	Dissolved Solids	mg/L	500	2000	1504	1068
4	Sulphate	mg/L	200	400	138	119
5	Chloride	mg/L	250	1000	324	183
6	Phenolic Compounds	mg/L	0.001	0.002	BDL	0.1
7	Nitrate as NO_3	mg/L	45	45	36	38.3
8	Total Hardness as Ca CO_3	mg/L	300	600	788	548
9	Calcium as Ca	mg/L	75	200	166	110
10	Magnesium as Mg	mg/L	30	100	90	66.2
11	Fluoride	mg/L	1	1.5	0.738	0.27
12	Alkalinity	mg/L	200	600	702	348
13	Ammonia as N	mg/L	0.5	0.5	0.16	0.67
14	Sulphide	mg/L	0.05	0.05	BDL	2
15	Cyanide	mg/L	0.05	0.05	BDL	0.002
16	Copper	mg/L	0.05	1.5	0.09	0.001
17	Zinc	mg/L	5	15	15.9	15
18	Iron	mg/L	0.3	1	0.46	0.3
19	Manganese	mg/L	0.1	0.3	0.01	0.006
20	Lead	mg/L	0.01	0.01	0.16	0.001
21	Cadmium	mg/L	0.003	0.003	0.007	0.001
22	Total Chromium	mg/L	0.05	0.05	0.03	0.03
23	Nickel	mg/L	0.02	0.02	0.02	0.002
24	Hexavalent Chromium	mg/L	0.05	0.05	BDL	0.05
25	Boron	mg/L	0.5	1	BDL	
INFERENCE : Non Conforms to permisiable limit of IS 10500:2012 standards with respect to above tested parameters						

ANNEXURE -III (GW-24)

Analysis report extract of Water quality monitored in M/s. SNS Industries, No.P-26 III Stage Peenya Industrial Estate, Bengaluru-560058

Sl. No.	Parameters Analysed	Unit	Standards IS 10500:2012		Analysis report Results	
			Acceptable Limit	Permissible Limit	Pre Monsoon	Post Monsoon
1	pH	pH Unit	6.5 to 8.5	6.5 to 8.5	7	6.5
2	Turbidity	NTU	5	10	0.5	1
3	Dissolved Solids	mg/L	500	2000	1490	290
4	Sulphate	mg/L	200	400	253	7
5	Chloride	mg/L	250	1000	444	83
6	Phenolic Compounds	mg/L	0.001	0.002	BDL	0.1
7	Nitrate as NO_3	mg/L	45	45	49	4
8	Total Hardness as Ca CO_3	mg/L	300	600	747	240
9	Calcium as Ca	mg/L	75	200	149	49
10	Magnesium as Mg	mg/L	30	100	91	28.7
11	Fluoride	mg/L	1	1.5	0.3	0.9
12	Alkalinity	mg/L	200	600	406	123
13	Ammonia as N	mg/L	0.5	0.5	0.2	0.1
14	Sulphide	mg/L	0.05	0.05	BDL	2
15	Cyanide	mg/L	0.05	0.05	BDL	0.002
16	Copper	mg/L	0.05	1.5	0.2	0.001
17	Zinc	mg/L	5	15	13	0.002
18	Iron	mg/L	0.3	1	1.6	0.02
19	Manganese	mg/L	0.1	0.3	0.5	0.005
20	Lead	mg/L	0.01	0.01	0.35	0.001
21	Cadmium	mg/L	0.003	0.003	0.03	0.001
22	Total Chromium	mg/L	0.05	0.05	0.19	0.6
23	Nickel	mg/L	0.02	0.02	0.07	0.002
24	Hexavalent Chromium	mg/L	0.05	0.05		0.5
25	Boron	mg/L	0.5	1	BDL	
INFERENCE : Non Conforms to permisiable limit of IS 10500:2012 standards with respect to above tested parameters						

ANNEXURE -III (GW-25)

Analysis report extract of Water quality monitored in M/s. Garden City Fashions, No.356, IV Phase Peenya Industrial Area, Bengaluru-560058

Sl. No.	Parameters Analysed	Unit	Standards IS 10500:2012		Analysis report Results	
			Acceptable Limit	Permissible Limit	Pre Monsoon	Post Monsoon
1	pH	pH Unit	6.5 to 8.5	6.5 to 8.5	6.8	6.7
2	Turbidity	NTU	5	10	1.8	0.5
3	Dissolved Solids	mg/L	500	2000	1536	1460
4	Sulphate	mg/L	200	400	112	130
5	Chloride	mg/L	250	1000	394	378
6	Phenolic Compounds	mg/L	0.001	0.002	BDL	0.1
7	Nitrate as NO_3	mg/L	45	45	48	38.3
8	Total Hardness as Ca CO_3	mg/L	300	600	864	810
9	Calcium as Ca	mg/L	75	200	183	163
10	Magnesium as Mg	mg/L	30	100	98	97.9
11	Fluoride	mg/L	1	1.5	0.171	0.17
12	Alkalinity	mg/L	200	600	376	329
13	Ammonia as N	mg/L	0.5	0.5	0.1	0.16
14	Sulphide	mg/L	0.05	0.05	NIL	2
15	Cyanide	mg/L	0.05	0.05	BDL	0.002
16	Copper	mg/L	0.05	1.5	0.25	0.001
17	Zinc	mg/L	5	15	11.3	0.002
18	Iron	mg/L	0.3	1	3.1	0.3
19	Manganese	mg/L	0.1	0.3	0.06	0.004
20	Lead	mg/L	0.01	0.01	0.64	0.001
21	Cadmium	mg/L	0.003	0.003	0.03	0.001
22	Total Chromium	mg/L	0.05	0.05	19.7	3.5
23	Nickel	mg/L	0.02	0.02	0.1	0.002
24	Hexavalent Chromium	mg/L	0.05	0.05	11.7	2.98
25	Boron	mg/L	0.5	1	BDL	
INFERENCE : Non Conforms to permisiable limit of IS 10500:2012 standards with respect to above tested parameters						

ANNEXURE -III (GW-26)

Analysis report extract of Water quality monitored in M/s. Adithya Industry, No.B-376, I stage Peenya Industrial Estate, Bengaluru-560058

Sl. No.	Parameters Analysed	Unit	Standards IS 10500:2012		Analysis report Results	
			Acceptable Limit	Permissible Limit	Pre Monsoon	Post Monsoon
1	pH	pH Unit	6.5 to 8.5	6.5 to 8.5	6.7	6.3
2	Turbidity	NTU	5	10	1.2	0.5
3	Dissolved Solids	mg/L	500	2000	1338	1214
4	Sulphate	mg/L	200	400	215	257
5	Chloride	mg/L	250	1000	307	281
6	Phenolic Compounds	mg/L	0.001	0.002	BDL	0.1
7	Nitrate as NO_3	mg/L	45	45	9	38.3
8	Total Hardness as Ca CO_3	mg/L	300	600	751	653
9	Calcium as Ca	mg/L	75	200	156	131
10	Magnesium as Mg	mg/L	30	100	88	79
11	Fluoride	mg/L	1	1.5	0.23	0.2
12	Alkalinity	mg/L	200	600	307	293
13	Ammonia as N	mg/L	0.5	0.5	0.1	0.08
14	Sulphide	mg/L	0.05	0.05	NIL	2
15	Cyanide	mg/L	0.05	0.05	BDL	0.002
16	Copper	mg/L	0.05	1.5	0.13	0.001
17	Zinc	mg/L	5	15	8.5	0.002
18	Iron	mg/L	0.3	1	1.7	0.08
19	Manganese	mg/L	0.1	0.3	0.7	0.3
20	Lead	mg/L	0.01	0.01	0.21	0.001
21	Cadmium	mg/L	0.003	0.003	0.003	0.001
22	Total Chromium	mg/L	0.05	0.05	5.2	3
23	Nickel	mg/L	0.02	0.02	0.02	0.002
24	Hexavalent Chromium	mg/L	0.05	0.05	3.1	0.64
25	Boron	mg/L	0.5	1	BDL	
INFERENCE : Non Conforms to permisiable limit of IS 10500:2012 standards with respect to above tested parameters						

ANNEXURE -III (GW-27)

Analysis report extract of Water quality monitored in M/s. Anglo French Drugs & industry No. 4 II Phase, Peenya Industrial Area, Bengaluru-560058

Sl. No.	Parameters Analysed	Unit	Standards IS 10500:2012		Analysis report Results	
			Acceptable Limit	Permissible Limit	Pre Monsoon	Post Monsoon
1	pH	pH Unit	6.5 to 8.5	6.5 to 8.5	6.6	6.5
2	Turbidity	NTU	5	10	0.2	0.5
3	Dissolved Solids	mg/L	500	2000	822	600
4	Sulphate	mg/L	200	400	94	42
5	Chloride	mg/L	250	1000	352	109
6	Phenolic Compounds	mg/L	0.001	0.002	BDL	0.1
7	Nitrate as NO_3	mg/L	45	45	12	38.3
8	Total Hardness as Ca CO_3	mg/L	300	600	320	281
9	Calcium as Ca	mg/L	75	200	74	57
10	Magnesium as Mg	mg/L	30	100	33	33.8
11	Fluoride	mg/L	1	1.5	0.3	0.31
12	Alkalinity	mg/L	200	600	296	229
13	Ammonia as N	mg/L	0.5	0.5	0.2	0.09
14	Sulphide	mg/L	0.05	0.05	BDL	2
15	Cyanide	mg/L	0.05	0.05	BDL	0.002
16	Copper	mg/L	0.05	1.5	BDL	0.001
17	Zinc	mg/L	5	15	BDL	0.002
18	Iron	mg/L	0.3	1	0	0.3
19	Manganese	mg/L	0.1	0.3	0.3	0.003
20	Lead	mg/L	0.01	0.01	BDL	0.001
21	Cadmium	mg/L	0.003	0.003	BDL	0.001
22	Total Chromium	mg/L	0.05	0.05	14.5	11.5
23	Nickel	mg/L	0.02	0.02	BDL	0.002
24	Hexavalent Chromium	mg/L	0.05	0.05		8.77
25	Boron	mg/L	0.5	1	BDL	
INFERENCE : Non Conforms to permisiable limit of IS 10500:2012 standards with respect to above tested parameters						

ANNEXURE -III (GW-28)

Analysis report extract of Water quality monitored in M/s. Alu Top, No,P-26, III stage Peenya Industrial Estate, Bengaluru-560058

Sl. No.	Parameters Analysed	Unit	Standards IS 10500:2012		Analysis report Results	
			Acceptable Limit	Permissible Limit	Pre Monsoon	Post Monsoon
1	pH	pH Unit	6.5 to 8.5	6.5 to 8.5	6.9	6.6
2	Turbidity	NTU	5	10	0.5	0.5
3	Dissolved Solids	mg/L	500	2000	2310	2108
4	Sulphate	mg/L	200	400	142	142
5	Chloride	mg/L	250	1000	733	684
6	Phenolic Compounds	mg/L	0.001	0.002	BDL	0.1
7	Nitrate as NO_3	mg/L	45	45	34	38.3
8	Total Hardness as Ca CO_3	mg/L	300	600	1216	1101
9	Calcium as Ca	mg/L	75	200	248	220
10	Magnesium as Mg	mg/L	30	100	145	133.9
11	Fluoride	mg/L	1	1.5	0.304	0.3
12	Alkalinity	mg/L	200	600	385	347
13	Ammonia as N	mg/L	0.5	0.5	0.1	0.28
14	Sulphide	mg/L	0.05	0.05	0.05	0.2
15	Cyanide	mg/L	0.05	0.05	BDL	0.002
16	Copper	mg/L	0.05	1.5	0.3	1.5
17	Zinc	mg/L	5	15	7.2	15
18	Iron	mg/L	0.3	1	0.8	0.2
19	Manganese	mg/L	0.1	0.3	0.3	0.17
20	Lead	mg/L	0.01	0.01	0.33	0.001
21	Cadmium	mg/L	0.003	0.003	0.002	0.001
22	Total Chromium	mg/L	0.05	0.05	0.01	0.03
23	Nickel	mg/L	0.02	0.02	0.02	0.002
24	Hexavalent Chromium	mg/L	0.05	0.05	BDL	0.05
25	Boron	mg/L	0.5	1	BDL	
INFERENCE : Non Conforms to permisiable limit of IS 10500:2012 standards with respect to above tested parameters						

ANNEXURE -III (GW-29)

Analysis report extract of Water quality monitored in M/s. Amara E-wast, No.V-20/1, II Stage, Peenya Industrial Estate, Bengaluru-560058

Sl. No.	Parameters Analysed	Unit	Standards IS 10500:2012		Analysis report Results	
			Acceptable Limit	Permissible Limit	Pre Monsoon	Post Monsoon
1	pH	pH Unit	6.5 to 8.5	6.5 to 8.5	6.6	6.4
2	Turbidity	NTU	5	10	0.3	0.5
3	Dissolved Solids	mg/L	500	2000	1230	1292
4	Sulphate	mg/L	200	400	137	34
5	Chloride	mg/L	250	1000	224	254
6	Phenolic Compounds	mg/L	0.001	0.002	BDL	0.1
7	Nitrate as NO_3	mg/L	45	45	24	88
8	Total Hardness as Ca CO_3	mg/L	300	600	292	321
9	Calcium as Ca	mg/L	75	200	64	66
10	Magnesium as Mg	mg/L	30	100	32	38.3
11	Fluoride	mg/L	1	1.5	0.3	0.1
12	Alkalinity	mg/L	200	600	264	239
13	Ammonia as N	mg/L	0.5	0.5	0.14	0.1
14	Sulphide	mg/L	0.05	0.05	BDL	2
15	Cyanide	mg/L	0.05	0.05	BDL	0.002
16	Copper	mg/L	0.05	1.5	BDL	0.01
17	Zinc	mg/L	5	15	BDL	0.003
18	Iron	mg/L	0.3	1	0.3	0.02
19	Manganese	mg/L	0.1	0.3	0.3	0.1
20	Lead	mg/L	0.01	0.01	0.3	0.001
21	Cadmium	mg/L	0.003	0.003	BDL	0.001
22	Total Chromium	mg/L	0.05	0.05	40.4	1.57
23	Nickel	mg/L	0.02	0.02	0.1	0.002
24	Hexavalent Chromium	mg/L	0.05	0.05		1.5
25	Boron	mg/L	0.5	1	BDL	
INFERENCE : Non Conforms to permisiable limit of IS 10500:2012 standards with respect to above tested parameters						

ANNEXURE -III (GW-30)

Analysis report extract of Water quality monitored in M/s. Merck life Science pvt ltd, No.50-A 51, II phase, Peenya Industrial Area, Bengaluru-560058

Sl. No.	Parameters Analysed	Unit	Standards IS 10500:2012		Analysis report Results	
			Acceptable Limit	Permissible Limit	Pre Monsoon	Post Monsoon
1	pH	pH Unit	6.5 to 8.5	6.5 to 8.5	6.4	7.8
2	Turbidity	NTU	5	10	0.4	5
3	Dissolved Solids	mg/L	500	2000	1422	1420
4	Sulphate	mg/L	200	400	162.3	168
5	Chloride	mg/L	250	1000	729	354
6	Phenolic Compounds	mg/L	0.001	0.002	BDL	BDL
7	Nitrate as NO_3	mg/L	45	45	14.31	21
8	Total Hardness as Ca CO_3	mg/L	300	600	495	755
9	Calcium as Ca	mg/L	75	200	129	180
10	Magnesium as Mg	mg/L	30	100	42	74
11	Fluoride	mg/L	1	1.5	0.325	0.3
12	Alkalinity	mg/L	200	600	70	296
13	Ammonia as N	mg/L	0.5	0.5	0.179	0.1
14	Sulphide	mg/L	0.05	0.05	BDL	BDL
15	Cyanide	mg/L	0.05	0.05	BDL	BDL
16	Copper	mg/L	0.05	1.5	0.14	0.08
17	Zinc	mg/L	5	15	3.8	0.07
18	Iron	mg/L	0.3	1	0.5	0.43
19	Manganese	mg/L	0.1	0.3	0.03	0.1
20	Lead	mg/L	0.01	0.01	0.23	BDL
21	Cadmium	mg/L	0.003	0.003	0.004	BDL
22	Total Chromium	mg/L	0.05	0.05	2.2	2.3
23	Nickel	mg/L	0.02	0.02	0.03	BDL
24	Hexavalent Chromium	mg/L	0.05	0.05	1.17	1.14
25	Boron	mg/L	0.5	1	BDL	BDL
INFERENCE : Non Conforms to permisiable limit of IS 10500:2012 standards with respect to above tested parameters						

ANNEXURE -III (GW-31)

Analysis report extract of Water quality monitored at ESI Yeshwanthpura, 5th Main Industrial Suburb Yeshwanthpura, Bengaluru.

Sl. No.	Parameters Analysed	Unit	Standards IS 10500:2012		Analysis report Results	
			Acceptable Limit	Permissible Limit	Pre Monsoon	Post Monsoon
1	PH	unit	6.5-8.5	6.5-8.5	7.4	6.9
2	Turbidity	NTU	1	5	Nil	0.3
3	Total Dissolved Solids	mho/cm	500	2000	912	848
4	Sulphate	mg/L	200	400	109	44
5	Chloride	mg/L	250	1000	157	123
6	Phenolic Compound	mg/L	0.001	0.002	<0.1	<0.1
7	Nitrate as No3	mg/L	45	45	92	65
8	Total Hardness as Ca CO3	mg/L	200	600	342	348
9	Calcium as Ca	Mg/L	75	200	41	70
10	Magnesium as Mg	mg/L	30	100	58	42
11	Total Alkalinity	mg/L	200	600	276	359
12	Fluoride	mg/L	1	1.5	0.33	0.42
13	Ammonical Nitrogen as N	mg/L	0.5	0.5	<0.05	0.34
14	Cyanide	mg/L	0.05	0.05	<0.001	<0.002
15	Sulphide	mg/L	0.05	0.05	<2.0	<2.0
16	Boron	mg/L	0.5	1	<0.1	<0.1
17	Copper	mg/L	0.05	1.5	<0.001	<0.05
18	Lead	mg/L	0.01	0.01	0.003	<0.2
19	Zinc	mg/L	5	15	<0.002	0.3
20	Nickel	mg/L	0.02	0.02	0.002	<0.1
21	Total Chromium	mg/L	0.05	0.05	<0.001	<0.2
22	Manganese	mg/L	0.1	0.3	0.01	<0.1
23	cadmium	mg/L	0.003	0.003	<0.001	<0.1
24	**Iron**	mg/L	0.03	0.03	0.04	0.5
INFERENCE : Non Conforms to permisiable limit of IS 10500:2012 standards with respect to above tested parameters						

ANNEXURE -III (GW-32)

Analysis report extract of Water quality monitored at Borewell water supply scheme Manjuntha Weighers Kanteerava Studio Main Road, Bengaluru

Sl. No.	Parameters Analysed	Unit	Standards IS 10500:2012		Analysis report Results	
			Acceptable Limit	Permissible Limit	Pre Monsoon	Post Monsoon
1	PH	unit	6.5-8.5	6.5-8.5	7.7	6.5
2	Turbidity	NTU	1	5	0.2	0.2
3	Total Dissolved Solids	mho/cm	500	2000	666	810
4	Sulphate	mg/L	200	400	46	72
5	Chloride	mg/L	250	1000	82	150
6	Phenolic Compound					<0.1
7	Nitrate as No3	mg/L	45	45	24	53
8	Total Hardness as Ca CO3	mg/L	200	600	306	386
9	Calcium as Ca	Mg/L	75	200	24	80
10	Magnesium as Mg	mg/L	30	100	30	45
11	Total Alkalinity	mg/L	200	600	284	264
12	Fluoride	mg/L	1	1.5	0.47	0.14
13	Ammonical Nitrogen as N	mg/L	0.5	0.5	<0.05	0.42
14	Cyanide	mg/L	0.05	0.05	<0.001	<0.002
15	Sulphide					<2.0
16	Boron	mg/L	0.5	1	<0.1	<0.1
17	Copper	mg/L	0.05	1.5	<0.001	<0.05
18	Lead	mg/L	0.01	0.01	0.01	<0.05
19	Zinc	mg/L	5	15	<0.002	<0.2
20	Nickel	mg/L	0.02	0.02	0.002	<0.1
21	Total Chromium	mg/L	0.05	0.05	<0.001	<0.2
22	Manganese	mg/L	0.1	0.3	0.01	<0.1
23	cadmium	mg/L	0.003	0.003	<0.001	<0.1
24	**Iron**	mg/L	0.03	0.03	0.02	<0.2
INFERENCE : Non Conforms to permisiable limit of IS 10500:2012 standards with respect to above tested parameters						

ANNEXURE -III (GW-33)

Analysis report extract of Water quality monitored at Borewell Water Supply Scheme, S.R.S Road, Tumkur Road, Yeshwanthpura, Bengaluru.

Sl. No.	Parameters Analysed	Unit	Standards IS 10500:2012		Analysis report Results	
			Acceptable Limit	Permissible Limit	Pre Monsoon	Post Monsoon
1	PH	unit	6.5-8.5	6.5-8.5	7.09	6.5
2	Turbidity	NTU	1	5	43	0.1
3	Total Dissolved Solids	mho/cm	500	2000	100	808
4	Sulphate	mg/L	200	400	10	61
5	Chloride	mg/L	250	1000	24	148
6	Phenolic Compound	mg/L	0.001	0.002	3	<0.1
7	Nitrate as No3	mg/L	45	45	68	50
8	Total Hardness as Ca CO3	mg/L	200	600	3	386
9	Calcium as Ca	Mg/L	75	200	68	80
10	Magnesium as Mg	mg/L	30	100	30	45
11	Total Alkalinity	mg/L	200	600	9	268
12	Fluoride	mg/L	1	1.5	44	0.15
13	Ammonical Nitrogen as N	mg/L	0.5	0.5	0.057	0.14
14	Cyanide	mg/L	0.05	0.05	<0.05	<0.002
15	Sulphide	mg/L	0.05	0.05	<0.001	<2.0
16	Boron	mg/L	0.5	1	<0.1	<0.1
17	Copper	mg/L	0.05	1.5	0.162	<0.05
18	Lead	mg/L	0.01	0.01	0.01	<0.2
19	Zinc	mg/L	5	15	15	<0.1
20	Nickel	mg/L	0.02	0.02	0.02	<0.1
21	Total Chromium	mg/L	0.05	0.05	0.05	<0.2
22	Manganese	mg/L	0.1	0.3	0.3	<0.1
23	cadmium	mg/L	0.003	0.003	0.003	<0.1
24	**Iron**	mg/L	0.03	0.03	0.3	<0.2
INFERENCE : Non Conforms to permisiable limit of IS 10500:2012 standards with respect to above tested parameters						

ANNEXURE -III (GW-34)

Analysis report extract of Water quality monitored in the premises of Shaneshwara temple, Rajagopalnagar, Bengaluru.

Sl. No.	Parameters Analysed	Unit	Standards IS 10500:2012		Analysis report Results	
			Acceptable Limit	Permissible Limit	Pre Monsoon	Post Monsoon
1	pH	pH Unit	6.5 to 8.5	6.5 to 8.5	0	7.4
2	Turbidity	NTU	5	10	0	1.2
3	Dissolved Solids	mg/L	500	2000	0	1006
4	Sulphate	mg/L	200	400	0	81
5	Chloride	mg/L	250	1000	0	249
6	Phenolic Compounds	mg/L	0.001	0.002	0	<0.1
7	Nitrate as NO_3	mg/L	45	45	0	166
8	Total Hardness as Ca CO_3	mg/L	300	600	0	588
9	Calcium as Ca	mg/L	75	200	0	126
10	Magnesium as Mg	mg/L	30	100	0	67
11	Fluoride	mg/L	1	1.5	0	0.065
12	Alkalinity	mg/L	200	600	0	224
13	Ammonia as N	mg/L	0.5	0.5	0	1.59
14	Sulphide	mg/L	0.05	0.05	0	2
15	Cyanide	mg/L	0.05	0.05	0	0.001
16	Copper	mg/L	0.05	1.5	0	0.05
17	Zinc	mg/L	5	15	0	0.22
18	Iron	mg/L	0.3	1	0	1.2
19	Manganese	mg/L	0.1	0.3	0	0.1
20	Lead	mg/L	0.01	0.01	0	0.2
21	Cadmium	mg/L	0.003	0.003	0	0.1
22	Total Chromium	mg/L	0.05	0.05	0	**0.2**
23	Nickel	mg/L	0.02	0.02	0	0.1
24	Hexavalent Chromium	mg/L	0.05	0.05	0	0
25	Boron	mg/L	0.5	1	0	0.1
INFERENCE : Non Conforms to permisiable limit of IS 10500:2012 standards with respect to above tested parameters						

ANNEXURE -III (GW-35)

Analysis report extract of Water quality monitored in the premises of Muneshwara Temple, Thigalarapalaya, Bengaluru.

Sl. No.	Parameters Analysed	Unit	Standards IS 10500:2012		Analysis report Results	
			Acceptable Limit	Permissible Limit	Pre Monsoon	Post Monsoon
1	pH	pH Unit	6.5 to 8.5	6.5 to 8.5	7.5	7.08
2	Turbidity	NTU	5	10	0.5	0.1
3	Dissolved Solids	mg/L	500	2000	1654	860
4	Sulphate	mg/L	200	400	120	12
5	Chloride	mg/L	250	1000	453	185
6	Phenolic Compounds	mg/L	0.001	0.002	BDL	BDL
7	Nitrate as NO_3	mg/L	45	45	19	24
8	Total Hardness as Ca CO_3	mg/L	300	600	888	417
9	Calcium as Ca	mg/L	75	200	166	88
10	Magnesium as Mg	mg/L	30	100	115	48
11	Fluoride	mg/L	1	1.5	0.3	0.312
12	Alkalinity	mg/L	200	600	291	269
13	Ammonia as N	mg/L	0.5	0.5	0.6	0.1
14	Sulphide	mg/L	0.05	0.05	0	0
15	Cyanide	mg/L	0.05	0.05	0	0
16	Copper	mg/L	0.05	1.5	0.007	0
17	Zinc	mg/L	5	15	0.076	6
18	Iron	mg/L	0.3	1	0.151	0
19	Manganese	mg/L	0.1	0.3	0.004	0
20	Lead	mg/L	0.01	0.01	0.001	0
21	Cadmium	mg/L	0.003	0.003	0	0
22	Total Chromium	mg/L	0.05	0.05	0	0
23	Nickel	mg/L	0.02	0.02	0.02	0
24	Hexavalent Chromium	mg/L	0.05	0.05	0	0
25	Boron	mg/L	0.5	1	0	0
INFERENCE : Non Conforms to permisiable limit of IS 10500:2012 standards with respect to above tested parameters						

ANNEXURE -III (GW-36)

Analysis report extract of Water quality monitored in front of Govt. Middle school, Karihobanahalli, Bengaluru.

Sl. No.	Parameters Analysed	Unit	Standards IS 10500:2012		Analysis report Results	
			Acceptable Limit	Permissible Limit	Pre Monsoon	Post Monsoon
1	pH	pH Unit	6.5 to 8.5	6.5 to 8.5	0	7
2	Turbidity	NTU	5	10	0	1
3	Dissolved Solids	mg/L	500	2000	0	1572
4	Sulphate	mg/L	200	400	0	118
5	Chloride	mg/L	250	1000	0	513
6	Phenolic Compounds	mg/L	0.001	0.002	0	<0.1
7	Nitrate as NO_3	mg/L	45	45	0	71
8	Total Hardness as Ca CO_3	mg/L	300	600	0	808
9	Calcium as Ca	mg/L	75	200	0	172
10	Magnesium as Mg	mg/L	30	100	0	92
11	Fluoride	mg/L	1	1.5	0	0.18
12	Alkalinity	mg/L	200	600	0	268
13	Ammonia as N	mg/L	0.5	0.5	0	2.2
14	Sulphide	mg/L	0.05	0.05	0	2
15	Cyanide	mg/L	0.05	0.05	0	0.001
16	Copper	mg/L	0.05	1.5	0	0.05
17	Zinc	mg/L	5	15	0	0.1
18	Iron	mg/L	0.3	1	0	0.2
19	Manganese	mg/L	0.1	0.3	0	0.1
20	Lead	mg/L	0.01	0.01	0	0.2
21	Cadmium	mg/L	0.003	0.003	0	0.1
22	Total Chromium	mg/L	0.05	0.05	0	0.2
23	Nickel	mg/L	0.02	0.02	0	0.1
24	Hexavalent Chromium	mg/L	0.05	0.05	0	0
25	Boron	mg/L	0.5	1	0	0.1
INFERENCE : Non Conforms to permisiable limit of IS 10500:2012 standards with respect to above tested parameters						

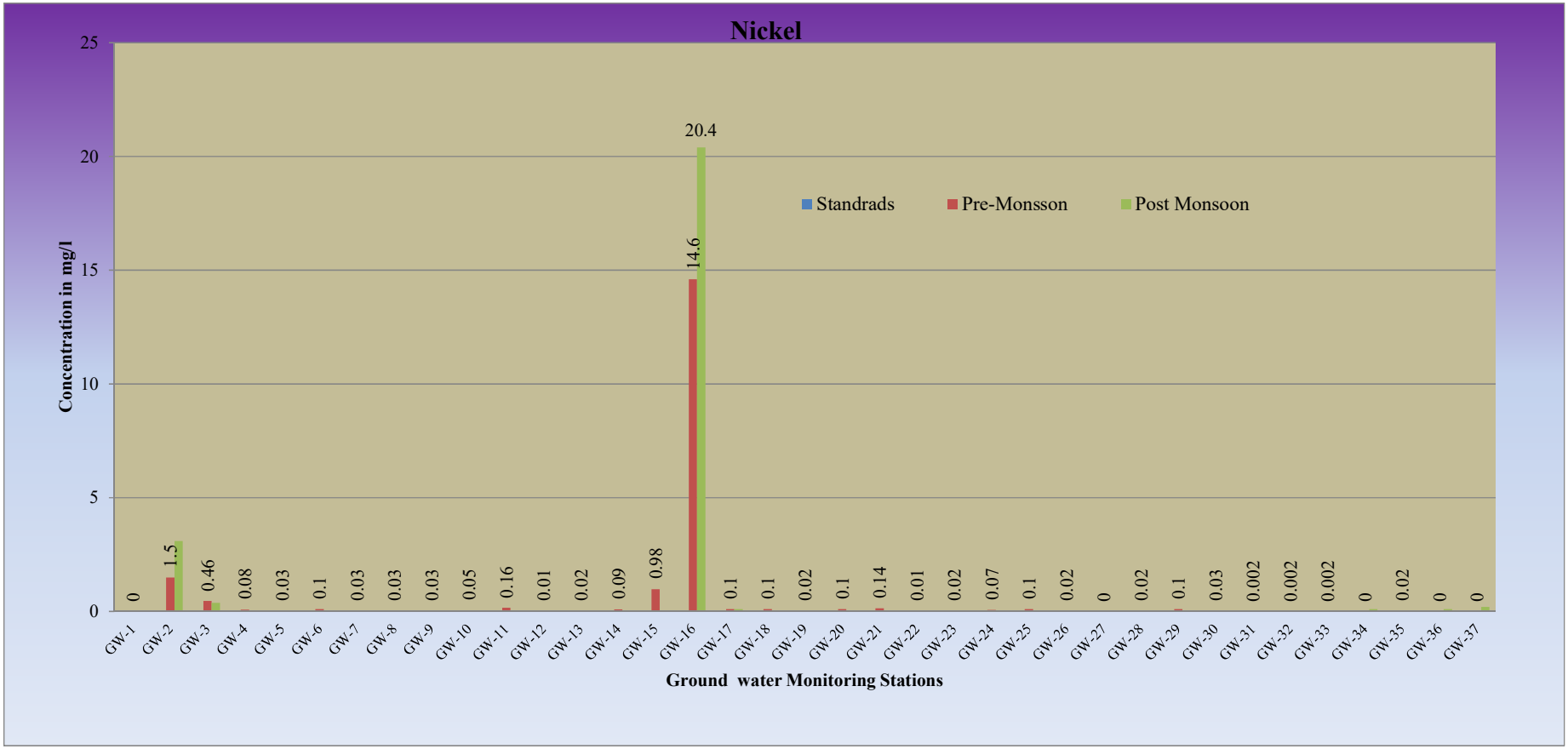
ANNEXURE -III (GW-37)

Analysis report extract of Water quality monitored in front of Duggalamma temple, Rajagopalnagar, Bengaluru.

Sl. No.	Parameters Analysed	Unit	Standards IS 10500:2012		Analysis report Results	
			Acceptable Limit	Permissible Limit	Pre Monsoon	Post Monsoon
1	pH	pH Unit	6.5 to 8.5	6.5 to 8.5	0	7.7
2	Turbidity	NTU	5	10	0	0.8
3	Dissolved Solids	mg/L	500	2000	0	828
4	Sulphate	mg/L	200	400	0	54
5	Chloride	mg/L	250	1000	0	134
6	Phenolic Compounds	mg/L	0.001	0.002	0	<0.1
7	Nitrate as NO_3	mg/L	45	45	0	70
8	Total Hardness as Ca CO_3	mg/L	300	600	0	308
9	Calcium as Ca	mg/L	75	200	0	66
10	Magnesium as Mg	mg/L	30	100	0	35
11	Fluoride	mg/L	1	1.5	0	0.329
12	Alkalinity	mg/L	200	600	0	336
13	Ammonia as N	mg/L	0.5	0.5	0	0.854
14	Sulphide	mg/L	0.05	0.05	0	2
15	Cyanide	mg/L	0.05	0.05	0	0.001
16	Copper	mg/L	0.05	1.5	0	0.05
17	Zinc	mg/L	5	15	0	0.1
18	Iron	mg/L	0.3	1	0	0.15
19	Manganese	mg/L	0.1	0.3	0	0.1
20	Lead	mg/L	0.01	0.01	0	0.2
21	Cadmium	mg/L	0.003	0.003	0	0.1
22	Total Chromium	mg/L	0.05	0.05	0	0.2
23	Nickel	mg/L	0.02	0.02	0	0.1
24	Hexavalent Chromium	mg/L	0.05	0.05	0	0
25	Boron	mg/L	0.5	1	0	0.1
INFERENCE : Non Conforms to permisiable limit of IS 10500:2012 standards with respect to above tested parameters						

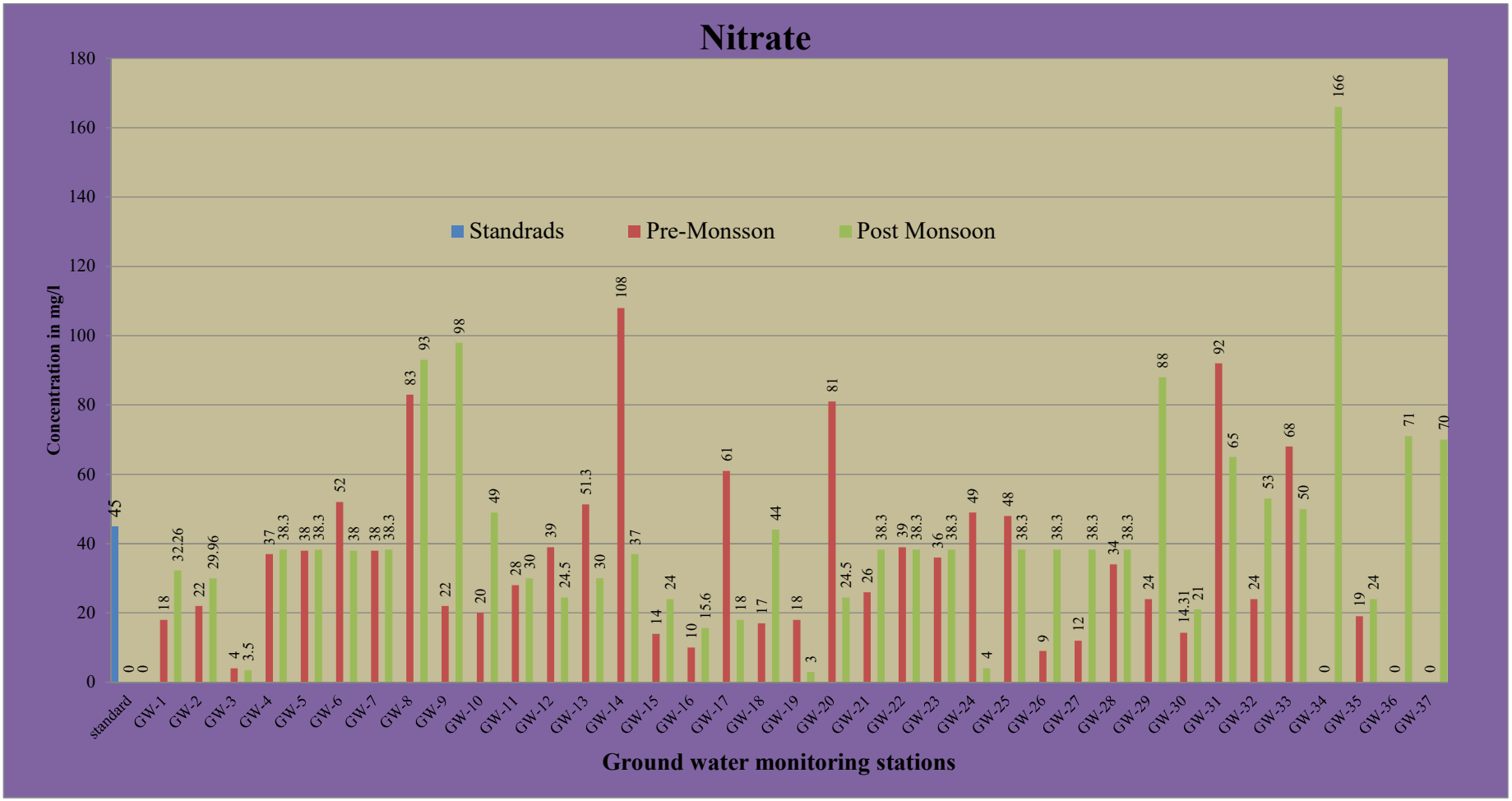
ANNEXURE -III (38)

Graphical representation of Nickel concentration in 37 Ground Water Monitoring stations in the core and Impact Zone of the study area



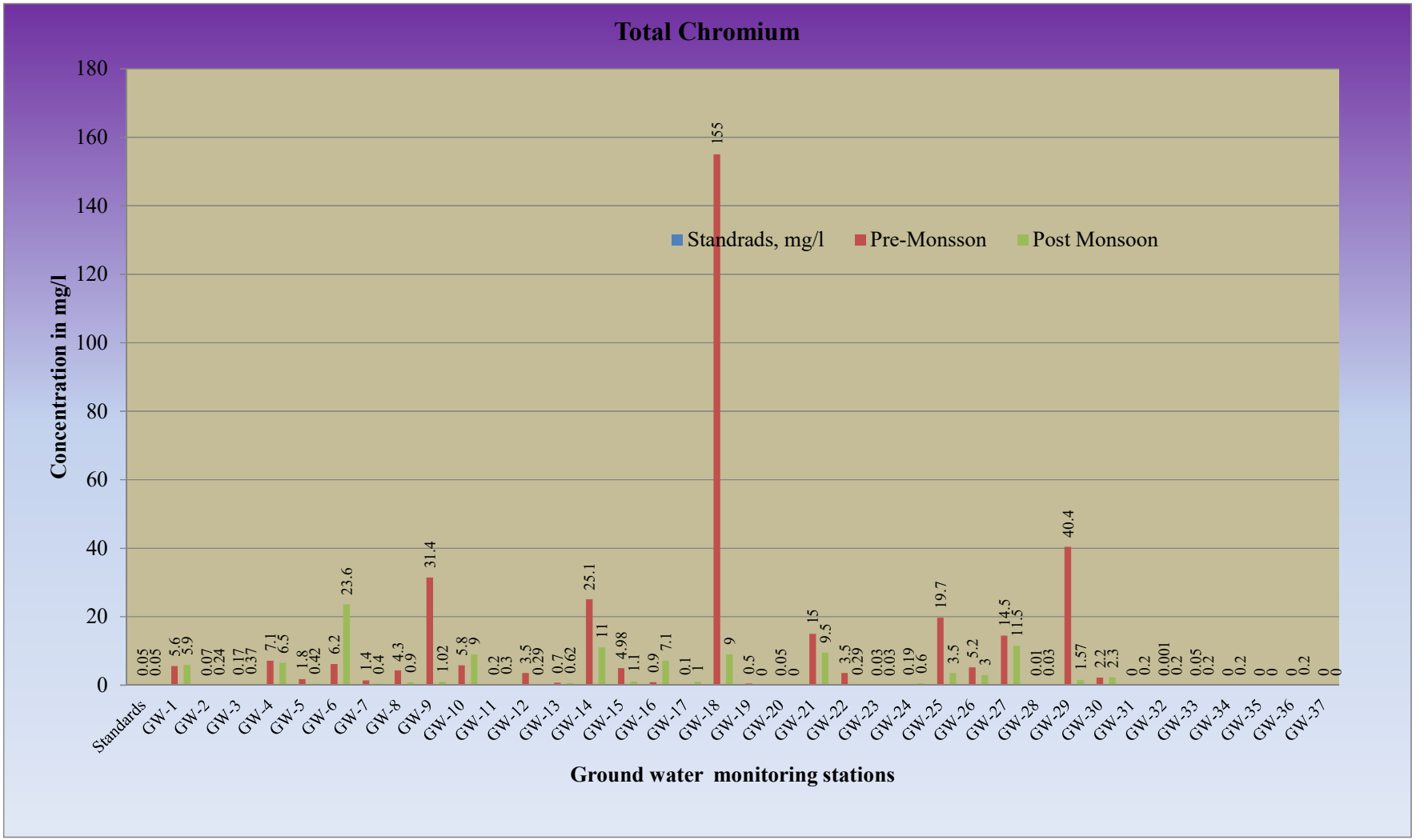
ANNEXURE -III (39)

Graphical representation of Nitrate concentration in 37 Ground Water Monitoring stations in the core and Impact Zone of the study area



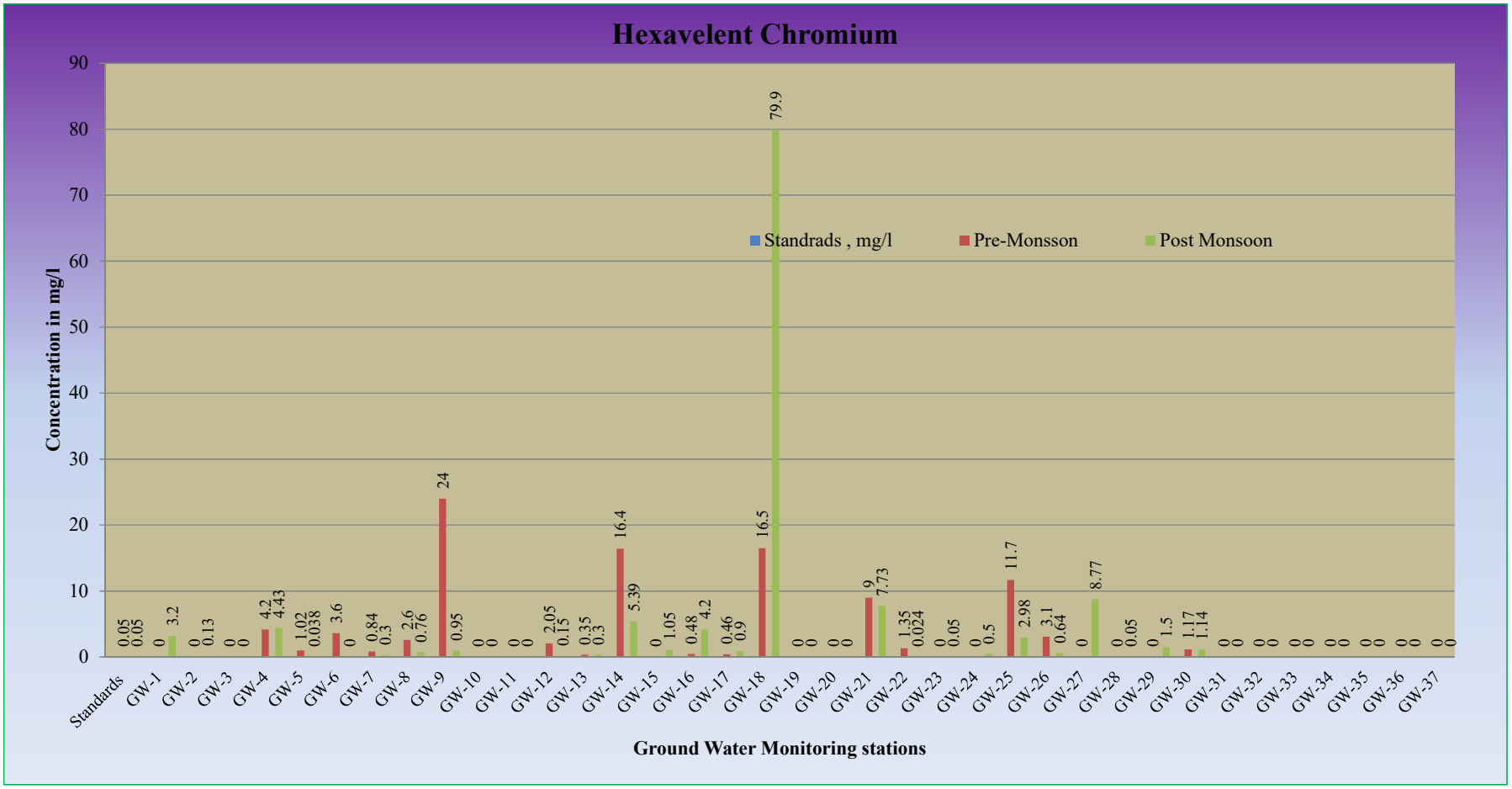
ANNEXURE -III (40)

Graphical representation of Total Chromium concentration in 37 Ground Water Monitoring stations in the core and Impact Zone of the study area



ANNEXURE -III (41)

Graphical representation of Hexavalent Chromium concentration in 37 Ground Water Monitoring stations in the core and Impact Zone of the study area



ANNEXURE- IV (a)

Analysis report extract of the Storm water drain leading to Vrishabhavathi Valley Near Culvert near, Laggere bridge

Sl. No.	Parameters Analysed	Unit	Standards	Monthly Results of the Analysis report								
				26.04.2018	26.05.2018	29.6.2018	24.7.2018	25.8.2018	26.09.2018	29.10.2018	29.11.2018	17.12.2018
1	**pH**	pH Unit	5.5 to 9	7.7	6.7	6.5	6.9	7	7.6	6.6	6.9	6.9
2	**Elecrical Conductivity@25 C**	µs/cm	NS	3800	1530	1485	4980	1266	1120	1262	1164	1564
3	**Dissolved Oxygen(D.O)**	mg/l	NS	0.4	NIL	0.5	Nill	0.5	Nil	0.5	**Nil**	**<0.5**
4	**Boichemical Oxygen Demand (B.O.D)**	mg/l	30	52	37	136	66	114	46	88	72	78
5	**Sulphate (as SO4)**	mg/l	NS	96	43	46	107	56	46	86	38	89
6	**Nitrates (as NO3)**	mg/l	NS	9	3.8	12	23	156	150	125	10	10
7	**Fluorides (as F)**	mg/l	2	0.3	0.5	0.23	0.32	0.28	1.21	0.33	0.32	0.6
8	**Boron (as B)**	mg/l	NS	BDL	<0.1	0.1	0.1	0.1	<0.1	<0.1	<0.1	<0.1
9	**Total Dissolved Solids**	mg/l	NS	2622	1086	952	3286	878	772	922	814	1062
10	**Suspended Solids**	mg/l	100	42	84	44	44	92	80	72	248	64
11	**Free Ammonia(as N)**	mg/l	5	0.1	0.02	0.03	0.1	0.13	0.2	0.1	0.04	0.2
12	**Sodium Absorption Ratio**	-	NS	13	4.2	9.5	8.7	3.6	4	2.5	3.5	3.5
13	**Hexvalent Chromium (as Cr+6)**	mg/l	0.1	BDL	<0.05	0.05	0.05	0.05	<0.05	<0.05	<0.05	<0.05
14	**Iron (as Fe)**	mg/l	3	1.4385	21.834	19.96	0.2	0.94	0.9	1.2	1.02	0.71
15	**Lead (as Pb)**	mg/l	0.1	0.0015	<0.001	0.2	0.2	0.2	<0.2	0.2	<0.2	<0.2
16	**Copper (as Cu)**	mg/l	3	0.0212	0.9	1.24	0.05	0.05	0.05	0.05	0.1	0.13
17	**Zinc (as Zn)**	mg/l	5	0.0325	0.15	0.11	0.1	0.1	0.15	0.1	0.2	0.1
18	**Mercury (as Hg)***	mg/l	0.01	NIL	NIL	NA	NA	NA	NA	NA	NA	NA
19	**Arsenic (as As*)**	mg/l	0.2	0.0015	NIL	NA	NA	NA	NA	NA	NA	NA
20	**Cadmium (as Cd)**	mg/l	2	BDL	<0.1	0.1	0.1	0.1	<0.1	<0.1	<0.1	<0.1
INFERENCE				Non conforms to general standards for discharge of Environment Pollutants for inland surface water as laid down in Part-A of Shedule -VI of the Environment (Protection) Rules, 1986								

NA-Not Analysed

ANNEXURE- IV (b)

Analysis report extract of the Storm water drain leading to Vrishabhavathi Valley near Culvert -CMTI - Tumkur Road

Sl. No.	Parameters Analysed	Unit	Standards	Monthly Results of the Analysis report								
				26.04.2018	26.05.2018	29.6.2018	24.7.2018	25.8.2018	26.09.2018	29.10.2018	29.11.2018	17.12.2018
1	**pH**	pH Unit	5.5 to 9	6.9	6.8	6.5	7	7.1	7.5	6.7	7.2	7
2	**Elecrical Conductivity@25 C**	µs/cm	NS	3860	5580	1907	7220	3260	5880	3970	1517	1495
3	**Dissolved Oxygen(D.O)**	mg/l	NS	NIL	NIL	0.5	0.5	0.5	Nil	0.5	Nil	<0.5
4	**Boichemical Oxygen Demand (B.O.D)**	mg/l	30	465	74	43	113	257	192	523	31	64
5	**Sulphate (as SO4)**	mg/l	NS	72	107	64	121	231	117	371	63	80
6	**Nitrates (as NO3)**	mg/l	NS	23	10	15	52	120	223	218	35	36
7	**Fluorides (as F)**	mg/l	2	0.26	0.35	0.65	0.3	0.26	0.37	0.26	0.19	0.3
8	**Boron (as B)**	mg/l	NS	BDL	<0.1	2	0.1	0.1	<0.1	<0.1	<0.1	<0.1
9	**Total Dissolved Solids**	mg/l	NS	2702	3902	1244	4928	2178	3998	2938	1062	1016
10	**Suspended Solids**	mg/l	100	60	22	42	126	132	60	286	116	46
11	**Free Ammonia(as N)**	mg/l	5	0.14	0.03	0.02	0.1	0.15	0.17	0.27	0.03	0.1
12	**Sodium Absorption Ratio**	-	NS	14	5.8	22	23	11.6	14	9.1	4	4.3
13	**Hexvalent Chromium (as Cr+6)**	mg/l	0.1	BDL	<0.05	0.05	0.05	0.05	<0.05	<0.05	<0.05	<0.05
14	**Iron (as Fe)**	mg/l	3	57.0556	1.722	1	1.2	0.41	1.1	5.05	0.92	0.29
15	**Lead (as Pb)**	mg/l	0.1	0.0491	<0.001	0.2	0.2	0.2	<0.2	0.2	0.2	<0.2
16	**Copper (as Cu)**	mg/l	3	0.3586	0.07	0.05	0.06	0.05	0.16	0.07	0.1	<0.05
17	**Zinc (as Zn)**	mg/l	5	0.6308	0.2	0.1	0.1	0.1	0.024	0.23	0.21	0.15
18	**Mercury (as Hg)***	mg/l	0.01	BDL	BDL	-	-	-	-	-	-	-
19	**Arsenic (as As*)**	mg/l	0.2	0.0031	BDL	-	-	-	-	-	-	-
20	**Cadmium (as Cd)**	mg/l	2	BDL	<0.1	0.1	0.1	0.1	<0.1	<0.1	<0.1	<0.1
INFERENCE				Non conforms to general standards for discharge of Environment Pollutants for inland surface water as laid down in Part-A of Shedule -VI of the Environment (Protection) Rules, 1986								

ANNEXURE- IV (c)

Analysis report extract of the Storm water drain leading to Vrishabhavathi Valley Near Nandini Layout BMTC Bus Stop

Sl. No.	Parameters Analysed	Unit	Standards	Monthly Results of the Analysis report								
				26.04.2018	26.05.2018	29.6.2018	24.7.2018	25.8.2018	26.09.2018	29.10.2018	29.11.2018	17.12.2018
1	**pH**	pH Unit	5.5 to 9	6.9	7	6.6	6.9	7.1	7.3	6.7	7	6.9
2	**Elecrical Conductivity@25 C**	µs/cm	NS	2680	1980	1774	1864	1977	1777	2060	2400	2290
3	**Dissolved Oxygen(D.O)**	mg/l	NS	NIL	NIL	0.5	Nil	0.5	Nil	0.5	Nil	<0.5
4	**Boichemical Oxygen Demand**	mg/l	30	81	33	91	33	128	51	202	348	87
5	**Sulphate (as SO4)**	mg/l	NS	105	119	82	111	123	71	125	102	114
6	**Nitrates (as NO3)**	mg/l	NS	15	5	13	9	142	180	148	20	51
7	**Fluorides (as F)**	mg/l	2	1.17	0.053	0.24	0.38	0.28	0.23	0.32	0.41	0.5
8	**Boron (as B)**	mg/l	NS	BDL	<0.1	0.1	0.1	0.1	<0.1	<0.1	<0.1	<0.1
9	**Total Dissolved Solids**	mg/l	NS	1820	1362	1200	1268	1342	1242	1460	1656	1556
10	**Suspended Solids**	mg/l	100	54	30	46	36	104	162	186	346	44
11	**Free Ammonia(as N)**	mg/l	5	0.16	0.1	0.04	0.15	0.16	0.2	0.11	0.05	0.2
12	**Sodium Absorption Ratio**	-	NS	7.4	5.8	8.6	4.6	2.9	8.6	4.6	8	3.5
13	**Hexvalent Chromium (as Cr+6)**	mg/l	0.1	BDL	0.05	0.05	0.05	0.05	<0.05	<0.05	<0.05	<0.05
14	**Iron (as Fe)**	mg/l	3		1.722	13.84	0.2	0.23	1.9	1.8	1.36	0.7
15	**Lead (as Pb)**	mg/l	0.1	2.5698	<0.001	0.48	0.072	0.2	<0.2	0.2	<0.2	<0.2
16	**Copper (as Cu)**	mg/l	3	0.0089	0.07	0.19	0.064	0.05	0.06	0.1	0.3	0.13
17	**Zinc (as Zn)**	mg/l	5	0.4652	0.2	0.14	0.1	0.1	0.13	0.24	0.3	0.1
18	**Mercury (as Hg)***	mg/l	0.01	0.1335	NIL	-	-	-	-	-	-	-
19	**Arsenic (as As*)**	mg/l	0.2	0.0013	NIL	-	-	-	-	-	-	-
20	**Cadmium (as Cd)**	mg/l	2	BDL	<0.1	0.1	0.1	0.1	<0.1	<0.1	<0.1	<0.1
INFERENCE				Non conforms to general standards for discharge of Environment Pollutants for inland surface water as laid down in Part-A of Shedule -VI of the Environment (Protection) Rules, 1986								

ANNEXURE- IV (d)

Analysis report extract of the Storm water drain leading to Gangondanahalli Tank near Sri Shivakumaraswamy layout, Andrahalli Main Road, Benagaluru

Sl. No.	Parameters Analysed	Unit	Standards	Monthly Results of the Analysis report		
				13.10.2017	19.09.2018	08.01.2019
1	pH	pH Unit	5.5 to 9.0	7.1	6.7	6.9
2	Biochemical Oxygen Demand (B.O.D)	mg/l	30	116	12	48
3	Chemicall Oxygen Demand (C.O.D)	mg/l	250	353	189	350
4	Suspended Solids	mg/l	100	102	0	388
5	Hexvalent Chromium (as Cr+6)	mg/l	0.1	BDL	0.06	0.05
6	Fluorides (as F)	mg/l	2	0.207	0.7	0.39
7	Ammonical Nitrogen as N	mg/l	50	34.1	4.8	19
8	Lead (as Pb)	mg/l	0.1	0.1	0.2	0.2
9	Zinc (as Zn)	mg/l	5	0.39	0.14	0.95
10	Nickel	mg/l	3	3	0.1	0.1
11	Total Chromium	mg/l	2	2	0.2	0.2
12	Cadmium (as Cd)	mg/l	2	2	0.1	0.1
13	Copper (as Cu)	mg/l	3	3	0.12	0.33
INFERENCE				**Non conforms to general standards for discharge of Environment Pollutants for inland surface water as laid down in Part-A of Shedule VI of the Environment (Protection) Rules, 1986**		

ANNEXURE- IV (e)

Analysis report extract of the Storm water drain leading to Gangondanahalli Tank near Rajakaluve Bridge, Andarahalli Main Road, Thigalarapalya, Benagaluru

Sl. No.	Parameters Analysed	Unit	Standards	Monthly Results of the Analysis report	
				10.10.2017	05.01.2018
1	pH	pH Unit	5.5 to 9.0	7	7.5
2	Biochemical Oxygen Demand (B.O.D)	mg/l	30	82	55
3	Chemicall Oxygen Demand (C.O.D)	mg/l	250	475	248
4	Suspended Solids	mg/l	100	196	14
5	Hexvalent Chromium (as Cr+6)	mg/l	0.1	BDL	BDL
6	Fluorides (as F)	mg/l	2	0.38	0.408
7	Ammonical Nitrogen as N	mg/l	50	34.5	7.84
8	Lead (as Pb)	mg/l	0.1	BDL	0.3
9	Zinc (as Zn)	mg/l	5	0.17	0.1
10	Nickel	mg/l	3	BDL	0.2
11	Total Chromium	mg/l	2	BDL	BDL
12	Cadmium (as Cd)	mg/l	2	BDL	BDL
13	Copper (as Cu)	mg/l	3	BDL	BDL
INFERENCE				**Non conforms to general standards for discharge of Environment Pollutants for inland surface water as laid down in Part-A of Shedule -VI of the Environment (Protection) Rules, 1986**	

ANNEXURE-V

Salient features of pollution control measures installed by major industries (Large Red)

Sl No	Name and Address of the Industries	Main Raw materials	Products Manufactured	Sewage /Trade effluent generation	Treatment system Provided	
					Sewage	Trade
1	ABB Ltd, No.4A, 5 & 6, II Phase, PIA, Bangalore,	Aluminium foil, Base assemblies, Bearings, Control Boards, Copper/brass, Copper windings, Diesel (HSD), Diode bridge, Fan castings, Fan cover, Fans - Aluminium/PVC, Grease (Multi purpose), Hydraulic oil, IGBT modules, Impregnation oil, Insulating paper, Lubricating oil 20W/40, Metal housing Metal Shaft Metal terminal box cover, Pim modules, polypropylene film, Sheet metal, Silicon steel stamping, SINT Maint circuit Boards, Thermo plastic material, Thermo set plastic, Wooden packing box.	Electrical equipment i.e Industrial motors with Assmb,testing & spraypainting oprs Electrical equipment i.e Relays electro mechanical & numaricals electrical equipments i.e ac drives with assembly &testing operations Electrical equipments i.e Capacitors with Assembly& Testing operations Electrical panels with Assembly & testing operations Electronic equipments i.e Flow meters with Assembly &Testing Operations Electronic euipments i.e Field instrumentation devices with Ass&Testing oprs	Both	STP	ETP

2	KDDL Ltd (formerly known as Kamala Dials & Devices), No.296 & 297 IV Phase, PIA, Bangalore-58,	Activator-501, Ammonia Solution, Boric Acid cryst pure, Brass strip, CC 2000 TNC cobalt additive, Electro cleaner, Globlack Nickel Salt, Gold Potassium cyanide, Hydrochloric Acid GR, Lacquers, Metex-308, Nickel Additive 306, Nickel Chloride, Nickel Stripper, Nickel Sulphate solution, Nitric Acid Com GR, Sulphuric Acid LR, Ultrasonic cleaner SU 227	Wrist watch hands (Brass strip,stamping & revirting Wrist watch hands (Brass strip,stamping & revirting, degreasing, Nickel plating Wrist watch hands (Brass strip,stamping & revirting, degreasing, Nickel & Gold plating	Both	STP	ETP
3	Advinus Therapeutics Private Ltd, Unit -1, No 21- 22, II Phase, PIA, Bangalore-58	No raw material since it is R & D activity	R & D activity on toxicology, Biological efficiency & residue of pesticides R & D of pharmaceutical drug discovery and contract research	Both	STP	Disposed to CETP
4	Rewdale Precission Tools Pvt Ltd, No.484 B &C, IV Phase, PIA, Bangalore-58	Spring steel	Precision turned components with pre treatment i.e collets	Both	ST&SP	Disposed to CETP
5	Sami Labs Ltd, No.19-1 & 19-2, II Phase, PIA, Bangalore-58	R & D	R & D activity on Herbal productes	Both	STP	ETP

6	Ace Designers Ltd, No.7 & 8, II Phase, PIA, Bangalore-58	Alloy Steel Castings, Ball screws, CNC controls &drives, consumbles &Stores, Couplings &encoders, Electrical&electronic items, hydraulic assemblies, pnematic assemblies, precision bearings, sheet metal guarding(crca/hrca sheets), umatic assemblies, work holding fixtures	CNC Machins with surface treatment Spray Painting & Powder Coating operations	Both	STP	ETP
7	Fouress Engineering India Ltd, No.2, II Phase, PIA, Bangalore-58,	a) Casting – Body/disc, b) Mild steel, c)Stain less Steel	Industrial valves with maching, asembling, testing, acid cleaning & spray painting And Industrial Isolators with machining, assembling, testing (Shot blasting outsourcing) and spray painting	Both	STP	ETP
8	Glastronics No.21 E-2, II Phase, Peenya Industrial Area, Bangalore	Galvanised Sheets, CRCA Sheets, Aluminium, Copper Wires, Laminations, Paint Powder	Assembly, testing of electrical & electronic equipments & sheet metal fabrication items with degreasing & powder coating operations	Both	ST&SP	Disposed to CETP
9	Beckman Coulter India Pvt Ltd (Rea Matrix India Pvt Ltd), No.50 B, II Phase, PIA, Bangalore-58,	R & D in biotechnology and bioinformatics	R & D on clinical research for production of diagnostic reagents & research use kits	Both	STP	ETP
10	Mag Engineering Pvt Ltd, No.46-A, 3rd Main road, Unit -2 , II Phase, PIA, Bangalore-58,	Paints & Chemicals, Powder and Stell	Earth moving equipments cabins & its parts with sheet metal fabrication, phosphating, spray painting & powder coating operations	Both	STP	ETP
11	Mysore Thermo Electric Pvt Ltd, No.62, III Phase, PIA, Bangalore-58	Diluted Sulphuric Acid, Lead alloy	Lead acid storage batteries	Both	ST&SP	Treated in ETP at Mysore thermo Plot No 35

12	Sutures India Pvt Ltd, No.472-D, 13th Cross,IV Phase, PIA, Bangalore-58,	Acider, Cutting wheel, Stainless steel wires	Surgical obserbable sutures with processing of sheet & goat guts, desalting, sliting, sizeing,chromo sizeing, assembly with needles followed by testing & packing	Both	BWSSB Sewer	ETP
13	Merck Life Science Pvt Ltd., (Formerly known as Millipore (India) Pvt Ltd), No. 50-A/51, II Phase, PIA, Bengaluru-560 058,	Membrane	Assembly of bio monitoring laboratory water, TFS, analytical products, cartridges housing along with R & D on validation on bio pharmaceutical products	Both	STP	ETP
14	Steer Engineering Pvt Ltd, No.290,4th Main, IV Phase, PIA, Bangalore-58,	Alloy Steels	Assembly of machines for plastic, pharma & food processing industries with machining heat treatment and grit blasting operations	Sewage	BWSSB Sewer	Disposed to CETP
15	Surhennings Pvt Ltd, No.1-B, II Phase, PIA, Bangalore-58,	S S Sheets	Apron cover, Bellow, Cable drug chain, Electrical cabinet, Following machinery protective equipments, Machine cladding, Roller cover, Stabbiflex conduits, telescope cover, telescope spring, wiper	Both	STP	Disposed to CETP
16	Microtex Energy Pvt Ltd., No.42 & 43, 2nd Main , II Phase, PIA, Bangalore-58,	Lead alloy, Pure lead, Sulphuric acid	Lead acid barreries and components, Lead refining, Lead sub oxide, Smaller UPS and Motor cycle batteries	Both	ST&SP	ETP
17	Eshwari Textile Processing Pvt Ltd., No.109, 6th Main, III Phase, PIA, Bangalore-560058	Softener, Acetic Acid, Dye fixer, Soda ash, Caustic lye, HCL, Soap oil, Sodium silicate, Citric acid, Sodium Sulphate, Enzymes, Ferrous sulphate, Hydrated lime	Garment washing & dyeing, Fabric washing, dyeing & printing	Both	ST&SP	ETP
18	Bioneeds India Pvt Ltd No.3,I Main Road, I Stage, PIE, Bengaluru-560 058,	Bacterial growth media, Life science research reagents, Mammalian growth media, microbial & mammalian cells, Nucleic acids, recombination	R & D activity in chemical & Bio Pharma labs	Both	ST&SP	Disposed to CETP

		proteins				
19	ICT Services Management Solutions (I) Pvt ltdNo. 30A, Sy.No. 37 & 39, II Phase, PIA, Bengaluru-560 058,	Electronic components and packing boxes	Reburshment of elctronic equipments	Sewage	STP	NA
20	TUV SUD South Asia No.A-151/152, 2nd C Main, II Stage, PIE, Bangalore-560058	-	Consumer product testing laboratory for food & Water	Both	BWSSB sewer	ETP
21	Quenby Transfer (I) (P) Ltd., No.542, 14th Cross, IV Phase. PIA, Bangalore-58	Paper/fabric, Printing Ink	Printed transfer paper labels for garments with screen printing/washing	Both	STP	ETP
22	Armstrong Acmite India, No.41-B,II Phase, PIA, Bangalore-560058	COPPER Alloy Ingots, moulding sand, grits, binder chemicals	Non Ferrous Copper based alloy casting	Both	ST&SP	Disposed to CETP
23	Dynamatic Technologies Limited, No. 11, Dynametic park, II Phase, PIA, Bengaluru-560 058	Aluminium die cast, Aluminium extrusion, cast iron steel	R & D on design, development photoshop of Hydraulic& Aerospace components with pretreatment operation	Both	STP	ETP
24	Healthium Medtech Pvt Ltd (Formerly Sutures India Pvt Ltd.), No.477C, Opp. to Bata Factory, BMTC Depot Main Road, IV Phase,PIA, Bengaluru-560 058	Cat gut sutures, silk sutures, Nylon sutures, PGA/Polyglycolic acid sutures, Polyester sutures.	Surgical suture needles of different gardes with grinding, buffing, Hardening, Pickling & Electropolishing opeartions	Both	ST&SP	Disposed to CETP
25	Gemini Dyeing & Printing Mills Limited, No.16, 1st Phase, Peenya Industrial Area, Bangalore	Garment Washing detergent	Washing & Printing of Fabrics	Both	Com. ETP	---

26	Hind High Vacuum Company (P) Ltd., No.17, 1st Phase, Peenya Industrial Area, Bangalore-560058	Watch glass	Surface treatment	Both	Com. ETP	---
27	ITC Limited, 1st Phase, Peenya Industrial Area, Bangalore	R & D food grade chemicals	R & D	Both	STP	ETP
28	John Crane Sealing System, 1st Phase, Peenya Industrial Area, Bangalore-560058	Electroplating chemicals	Surface treatment	Both	Com. ETP	---
29	Kennametal Widia (I) Limited, (Widia (I) Limited,), 8/9th Mile, Tumkur Road, 16th Km, Bangalore	Electroplating chemicals	Surface treatment	Both	Com. ETP	---
30	Surin Automotives, No.6a, 1st Phase, Peenya Industrial Area, Bangalore	Steel	Surface treatment	Both	Com. ETP	---
31	Welcast Steels Limited, 1st Phase, Peenya Industrial Area, Bangalore	Iron	Surface treatment	Sewage	STP	---
32	Wipro Infrastructure Engineering, No.9B-10A, 1st Phase, Peenya Industrial Area, Bangalore-560058	Electroplating chemicals	Surface treatment	Both	Com. ETP	--
33	Rallis Research Centre 73/1C & 1D, Byregowda Indl Estate, Srigandanagar, Hegganahalli, Bangalore	Agro chemicals	R & D	Both	ST& SP	Disposed to CETP

34	Avery Dennison India Pvt Ltd, Plot No 6B, Ist Main Road, KIADB, Phase I, Peenya Industrial Area, Bangalore 560058	Adhesives, Paper	Labels	sewage	STP	--
35	Cookson India Research Centre, No.89/1, Vaishnavi Bhavan, Industrial Suburb, 2nd Stage, Yeshwanthpura, Bangalore - 560 022.	Electronic material research and development activity laboratory	R & D Lab	Both	BWSSB Sewer	Disposed to CETP
36	Jubilant Biosys Ltd., No. 96, Industrial Suburb, Yeshwantpur Bangalore - 560 022	R & D and software development in the field of Cell Biology and Chemistry	R & D and software development	Both	STP	Disposed to CETP
37	The Mysore Electrical Industries Ltd., P.B. NO. 2221, Tumkur road, Industrial Suburb, Yeshwanthpura B'lore – 22	Steel, Copper, Brass, Aluminium, Bakelite and chemicals, sodium hudroxide, sulpuric acid, hydrochloric acid and nitric acid	Oil fused switches, PCVCB, VCB	Both	BWSSB Sewer	ETP
38	Danisco (India)Pvt. Ltd., (FMC India R & D Centre)No. 61/A, 1st Main Road, Indl Suburb, 2nd Stage, Yeshwanthapur, Bangalore-22.	Laboratory chemicals and reagents, natural and synthetic chemicals and intermediates	R & D lab to carryout bench scale experiment to organic synthesis and formulation	Both	BWSSB Sewer	Disposed to CETP
39	Gardener Aerospace Bengaluru Pvt Ltd No 102,3rd cross,3rd main,2nd stage Industrial Subrub,Yeshwanthpur, Bengaluru 560 022	Aluminium, Aluminium etch, Developer, Potassium dichromate, primer, sulphuric acid, tataric acid, top coat, Turco Aldox-V and Turco-4215NC	**Anodizing, Non destructive testing, Spray painting**	Both	BWSSB Sewer	ETP
40	HMT Machine Tools Ltd.,No:1, Common Service Division, Hmt Post, Jalahalli, Bangalore.	Coalant oil, diesel, foundry sand, packing materials, paints of different colors, pig iron, steel sheets and steel tubes	CNC and conventional machine tools and Blackening	Sewage	STP	NA

ANNEXURE-VI

Details of pollution control measures installed by Small Red industries located in Core and Impact Zone of the Study Area

Sl No	Name and Address of the industry	Name of the products manufacture	Industry Category & Classification	Quantity of Sewage effluent generation in KLD	Mode of treatment & disposal of sewage effluent /STP/ST &SP/BWSSB sewer/ BWSSB STP	Quantity of trade effluent generation in KLD	Mode of treatment & disposal of trade effluent ETP/CETP
1	Champion Extrusion,Unit-II, No.A-21, III Stage, PIE, Bengaluru-560 058	Electroplating	SR	0.8	BWSSB Sewer	0.05	CETP
2	Agro Extracts Ltd, No.16, II Phase, PIA, Bengaluru-560 058	Vegetable Oil, De Oil Cake, DAP and Belnding of Lubricating Oil	SR	2	ST & SP	6	CETP
3	Swan Silk Ltd, No.107-108, III Phase, PIA, Bangalore-560058	Silk yarn dyeing	SR	1.65	ST & SP	45	ETP
4	Mysore Thermo Electric Pvt Ltd, No.36, III Phase, PIA, Bengaluru-560 058,	manufacture of Formed plates	SR	0.8	ST & SP	1.5	ETP
5	A.P.S Industires, No.B-213, II Stage, PIE, Bangalore-560058	Lead suboxide	SR	0.5	BWSSB Sewer	Nil	NA

6	Adpro System India (P) Ltd 318, 8th cross, IV Phase, PIA, Bengaluru-560 058,	Electroplating (Hardchrome)	SR	0.3	ST & SP	0.5	CETP
7	Ammonia Marketing Co, No.125, III Phase, PIA, Bengaluru-560 058	Bottling/ Refilling of Anhydrous Liquid Ammonia Liquid Ammonia	SR	0.4	ST & SP	Nil	NA
8	Ananda Metal Corporation, No.C-81, III Stage,PIE, Bengaluru-560 058	Lead smelting	SR	0.2	BWSSB Sewer	Nil	NA
9	Arun Industries, No.B-64, III Stage,PIE, Bengaluru-560 058	Waste oil reprocessing	SR	0.12	BWSSB Sewer	Nil	NA
10	Associated Chemicals & Engineering Company, No.B-301, 5th Main , IV Phase, PIA, Bengaluru-560 058	Refilling of industrial chemicals and HW reprocessing	SR	1.2	ST & SP	1.9	CETP
11	Sree Balaji Enterprises, No.A-302(a), 7th Main, II Stage, PIE, Bengaluru-560 058,	Aluminium anodizing & powder coating	SR	0.08	BWSSB Sewer	0.4	CETP
12	Sri Balaji Enterprises, No.333, 9th cross , 4th Main, IV Phase, PIA, Bengaluru-560 058,	Engineering Unit with Electroplating (Zinc Electroplating)	SR	0.08	ST & SP	0.05	CETP
13	Balambiga Metal Finishers, No.C-435, I Stage, PIE, Bengaluru-560 058,	Electroplating Zinc Plating	SR	2.3	BWSSB Sewer	1.5	CETP
14	Bangalore Acids & Chemicals, No.SB-42/1, I Stage, PIE, Bengaluru-560	Refilling and Trading of Chemicals	SR	0.1	BWSSB Sewer	0.025	CETP

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15	Bangalore Electroplating, No.C-75, II Stage, PIE, Bengaluru-560 058	electroplating (ZINC PLATING)	SR	0.08	BWSSB Sewer	0.06	CETP
16	Bangalore Oxygen (P) Ltd, No.10E, II Phase, PIA, Bengaluru-560 058.	Acetylene gas	SR	0.5	ST & SP	4	ETP
17	Bright Services, No.B-142, 3rd cross, I Stage, PIE, Bengaluru-560 058,	Bright Bars	SR	0.1	BWSSB Sewer	Nil	NA
18	Canara Agro Chemicals, No.443/A,IV Phase,PIA, Bengaluru-560 058,	Micro Nutrients	SR	0	BWSSB Sewer	Nil	NA
19	Celtek Batteries, No.471/B, IV Phase, PIA, Bangalore-560058,	Battery manufacture	SR	3.5	ST & SP	1.2	Recycling into the process
20	Deepak Industrial Chemicals, No.SB-116, I Stage, PIA, Bangalore-560058,	Rust Preventive Compounds	SR	0.1	BWSSB Sewer	Nil	NA
21	Deepthy Labs Pvt Ltd, No.23, III Stage,PIE, Bengaluru-560 058	Acid purification	SR	0.4	BWSSB Sewer	0.2	CETP
22	Elheat Ceramics Engineering Pvt Ltd, No.B-93, 2nd cross, I Stage, PIE, Bangalore-560058,	Manufacture of refractorries, furnace spare ahd heating element	SR	0.8	BWSSB Sewer	Nil	NA

23	Essem Powder Coatings, No.B-215, II Stage, PIE, Bengaluru-560 058,	Powder coating	SR	0.2	BWSSB Sewer	Nil	NA
24	Excel Process Pvt Ltd, No.278, 4th Main, IV Phase, PIA, Bengaluru-560 058,	Printed name plates, fabrication, anodization & spray painting	SR	0.64	ST & SP	0.16	CETP
25	G.V.Enterprises, No.17F, II Phase, PIA, Bengaluru-560 058,	Alluminum anodizing	SR	0.4	ST & SP	1.5	ETP
26	Ganesh Engineering, 17(1), II Phase, PIA, Bangalore-58	Electroplating (Hardchrome)	SR	0.15	ST & SP	0.03	CETP
27	I.E.E Engineering Enterprises Pvt Ltd, No.B-94, 2nd cross. I Stage, PIE, Banglaore-58	Manufacture of Capacitors	SR	1.8	BWSSB Sewer	Nil	NA
28	Indian Oxide No.C-141, II Stage, PIE, Bengaluru-560 058	Lead suboxide	SR	0.4	BWSSB Sewer	Nil	NA
29	Indo Metal Lubricants, No.B-35, III Stage,PIE, Bengaluru-560 058	Manufacture of Compound & Lubricating Oils	SR	0.8	BWSSB Sewer	Nil	NA
30	Indrajit Industries, No.42/43, III Phase, PIA, Bangalore-560058,	Heat Treatment salts mfg	SR	1	ST & SP	Nil	NA
31	Jaymech Ultra Coaters, No.B-232, 6th Cross, I Stage, PIE, Bangalore	Powder coating with De-rusting degreasing, zinc phosphating	SR	0.5	BWSSB Sewer	0.3	CETP
32	Kaviraj Incorporation, No.99, III Phase, PIA, Bangalore-560058	Alluminium utensils & Non stick utensils with Coating	SR	0.5	ST & SP	Nil	NA

33	Lach Products, , No.B-278, 7th Main, II Stage, PIE, Bangalore-560058	Electroplating of Lead, Zinc & Nickel	SR	0.18	BWSSB Sewer	0.075	CETP
34	Sri Luxmi Electroplating, No.79/80, III Phase, PIA, Bengaluru-560 058,	Electroplating	SR	0.1	ST & SP	0.03	CETP
35	Lakshmi Electroplaters, No.455,IV Phase, PIA,Bengaluru-560 058,	Electro Plating	SR	0.96	BWSSB Sewer	0.05	CETP
36	Vintech Surface coaters (Formerly Lalan Enterprises)No.B-226, 5th Main, II Stage, PIE, Bangalore-560058	Powder coating with pre-surface treatment activity	SR	0.2	BWSSB Sewer	0.2	CETP
37	Leo Hard Chrome , No.B-73, I Stage, 2nd cross, PIE, Banglaore-58	Machine of Hydraulics with Electroplating (Hardchrome)	SR	0.25	BWSSB Sewer	0.05	CETP
38	Leo Engineering, No.108, I Stage, PIE, Banglaore-58	Electroplating (Hardchrome)	SR	0.4	BWSSB Sewer	0.5	CETP
39	Mehar Metals India Pvt Ltd, No.A-346, 9th Main, II Stage, PIE, Bengaluru-560 058	wire drawing with pickling	SR	0.4	BWSSB Sewer	0.1	CETP
40	Mekala Metal Works, No.B-152, II Stage, PIE, Bengaluru-560 058	Lead smelting	SR	0.2	BWSSB Sewer	Nil	NA
41	Metal Coats, No.B-180, II Stage, PIE, Bangalore -58	Aluminium anodizing	SR	0.4	BWSSB Sewer	0.6	CETP
42	Metreat Chem Enterprises, , No.C-76, III Stage,PIE, Bengaluru-560 058	Electroplating Glod & Silver Plating	SR	0.16	BWSSB Sewer	0.5	ETP

43	Modern Light Industries, No.B-103, 2nd cross, I Stage, PIE, Banglaore-58	Manufacture of Aluminium, Stainless Steel & Brass name plates	SR	0.5	BWSSB Sewer	0.16	CETP
44	Multiplex Bio-Tech Pvt Ltd, No.C-428, I Stage, PIE, Bengaluru-560 058,	Sterilization of Carboys & Manufacturing of micronutrients	SR	0.4	BWSSB Sewer	Nil	NA
45	P & S Galvasols, No.490-1, IV Phase, PIA, Bengaluru-560 058,	Electroplating	SR	0.4	ST & SP	4.8	CETP
46	P & S Precitech, No.A-174, 4th cross, I Stage, PIE, Banglaore-58	Plating Chemicals	SR	0.16	BWSSB Sewer	Nil	NA
47	P.C.Process Pvt Ltd, No.V-3(C), 14th cross, II Stage, PIE, Bangalore-560058	Printed Circuit Board manufacture	SR	0.08	BWSSB Sewer	0.23	CETP
48	Pearl Coatings & Chemicals, No.B-248, 6th Main, II Stage, PIA, Bangalore-560058	Distemper, Primers, Putty & Emulsion	SR	0.5	BWSSB Sewer	0.05	CETP
49	Perfect Profiles, No.B-233, 6th cross, I Stage, PIE, Bengaluru-560 058	Carryingout drawing and polishing of Iron and steel bass & coils	SR	0.3	ST & SP	0.1	CETP
50	Polo Paints Pvt Ltd, No.B-225, 5th Main, II Stage, PIE, Bengaluru-560 058	Paint: distemper & Primer	SR	0.5	BWSSB Sewer	0.05	CETP
51	Prithvi Fabrications Pvt Ltd, No.189, 11th Main,2nd Cross, III Phase, PIA, Bangalore-560058	Alluminum cans with degrasing	SR	0.3	ST & SP	1	ETP

52	Anode tech (Formerly Profal Coters), No.342, 9th cross, IV Phase, PIA, Bangalore-560058	Aluminium anodizing	SR	0.4	ST & SP	0.5	CETP
53	Protective Coatings Pvt Ltd, No.B-264, II Stage, PIE, Bengaluru-560 058	Powder coating	SR	1.04	BWSSB Sewer	1	CETP
54	Rainbow Powder Coaters, No.425, 11 th Cross, IV Phase, PIA, Bengaluru-560 058,	Powder coating with pre-surface treatment activity	SR	0.14	ST & SP	0.1	CETP
55	Rare Metal Manufacturers, No.C-147, II Stage, PIE, Bengaluru-560 058	Ammonia & paratungstate, Cobalt Oxide	SR	0.4	BWSSB Sewer	1.5	CETP
56	S.P.Engineering Enterprises, No.50, III Phase, PIA, Bangalore-560058,	Fabrication with spray painting ,grit blasting,sand blasting & zink spray	SR	0.3	ST & SP	Nil	NA
57	S.S.Industries, No.57-C, III Phase, PIA, Bengaluru-560 058,	Battery manufacture	SR	0.25	ST & SP	0.2	CETP
58	Shalini Enterprises, No.A-6, III Stage, PIE, Bengaluru-560 058	Solvent reprocessor and used barrels washing	SR	0.8	BWSSB Sewer	8.9	CETP
59	Sri Varu Acid & Chemicals, No. 134, III Phase, PIA, Bengaluru-560 058	Copper Oxide from reprocessing of PCB etchant and copper scapt	SR	0.5	ST & SP	0.3	CETP
60	Srinivasa Industrial Chemicals, No.C-333, 3rd Main road, I Stage, PIE, Bangalore-560058	Phospating Chemicals & Chromating Chemicals by formulation process	SR	0.1	BWSSB Sewer	0.1	CETP

61	Standard Screws Industries, No.471-C, 13th Cross, IV Phase, PIA, Bengaluru-560 058,	Bright steel bars & Pickling	SR	1.2	ST & SP	1	CETP
62	Sumuka Electroplaters, No.B-70, 3rd Stage, PIE, Bengaluru-560 058	Electroplating	SR	0.5	BWSSB Sewer	0.1	CETP
63	Super Bright Steels Pvt Ltd, No.A-172, 4th Cross, I Stage, PIE, Banglaore-58,	Bright Bars	SR	0.8	BWSSB Sewer	0.12	CETP
64	Tube Style Interiors Pvt Ltd, Ltd, No.244, 11th Main, III Phase, PIA, Bangalore-560058,	Furniture's and interiors with Phospating, Painting and Powder Coating	SR	1	ST & SP	0.2	CETP
65	United Forgings, No.465, IV Phase, PIA, Bengaluru-560 058,	Bolts,Wires and birght bars with pickling	SR	0.05	ST & SP	0.72	CETP
66	R.N. Industries (Bansal Oxides), No.C-138, II Stage, PIE, Bengaluru-560 058	Lead suboxide	SR	0.08	BWSSB Sewer	Nil	NA
67	Vaishnavi Industries, No.133, III Phase, PIA, Bangalore-560058,	Refilling and Trading of Chemicals	SR	0.4	BWSSB Sewer	Nil	NA
68	Vijaya Seamless Containers (P) Ltd, No.189, 11th Main, III Phase, PIA, Bangalore-560058,	Aluminium Containers/Bottles, shades and plastic components with degreasing	SR	0.6	ST & SP	0.5	ETP
69	A.S.Surface Finishers, No.P-27, 10th Main, III Stage, PIE, Bengaluru-560 058,	Electroplating (Hardchrome)	SR	0.5	BWSSB Sewer	0.1	CETP

70	Jaya Vijaya Industries, No.C-205, 4th cross, I Stage, PIE, Bengaluru-560 058,	Battery manufacture	SR	0.12	BWSSB Sewer	0.3	CETP
71	Bright India Steel Industry (Formerly known as Laxmi Industries), No.280/3, IV Phase, PIA, Bengaluru-560 058,	Bright Steel Bars	SR	1.2	ST & SP	0.27	CETP
72	Pragathi Coaters, No.C-102, III Stage, PIE, Bengaluru-560 058,	Powder coating	SR	0.12	BWSSB Sewer	0.15	CETP
73	Protective Coatings Pvt Ltd, No.B-210, II Stage, PIE, Bangalore-560058,	Powder coating on job work	SR	0.22	BWSSB Sewer	Nil	NA
74	Varalaxmi Enterprises, No.A-195, 4th cross. I Stage, PIE, Bengaluru-560 058,	Powder coating	SR	0	BWSSB Sewer	Nil	NA
75	Benz-O-Chem, No.389, 10th cross, IV Phase, PIA, Banglaore-58,	chemical distillation	SR	0.2	BWSSB Sewer	Nil	NA
76	Vishnu Hard Chrome Industries, No.338,9th Cross, IV Phase, PIA, Bengaluru-560 058	Electroplating (Hardchrome)	SR	1.05	ST & SP	0.02	CETP
77	Industrial Metal Finishers, No.118, III Phase, PIA, Bengaluru-560 058	Electroplating	SR	1	ST & SP	0.63	CETP
78	BioOrganics & Applied Materials Pvt Ltd, No.B-64/1, III Stage, PIE, Bengaluru-560 058	R & D activity	SR	0.1	ST & SP	0.01	CETP

79	Bisheshwar Galvanisers, No.528, IV Phase, PIA, Bengaluru-560 058	Zinc galvanizing (Hot dip galvanizing)	SR	0.5	ST & SP	0.2	CETP
80	Hind Comp (P) Ltd, No.6-A, III Phase, PIA, Bangalore-560058	Alluminum cans with degrasing	SR	0.45	ST & SP	0.5	CETP
81	Hot Dip Galvanising, No.B-305 & 306, II Stage, PIE, Bangalore-560058	Zinc galvanizing	SR	0.3	BWSSB Sewer	0.1	CETP
82	Vyoma Switch Gear, No.33 A/2 II Phase, PIA, Bengaluru-560 058	Engineering Unit and Electroplating	SR	1.2	ST & SP	0.02	CETP
83	Alufit (India) Pvt Ltd, No.A-369, I Stage, PIE, Bangalore-560058	Alluminum Fabrication and anodizing	SR	0.8	BWSSB Sewer	0.6	CETP
84	Jigar Marketing Pvt Ltd, No.B-101, 2nd cross, I Stage, PIE, Bengaluru-560 058	Manufacture of Bright steel bars	SR	0.35	BWSSB Sewer	0.3	CETP
85	Karnataka Instruments, No.A-269, II Stage, PIE, Bangalore -58	Industrial thermometers (with degreasing and spray painting) (Engineering activity)	SR	1.2	BWSSB Sewer	0.007	CETP
86	Netra Electronics, No.B-50,10th Main, 2nd Cross III Stage,PIE, Bengaluru-560 058	Printed Circuit Board manufacture	SR	0.8	BWSSB Sewer	0.1	CETP
87	Sreenathji Chemicals Industry, No.88, 7th Cross, III Phase, PIA, Bangalore-560058,	Chemical Trading	SR	0.24	ST & SP	Nil	NA

88	Sri Sai Industries, No.P-24, III Stage, PIE, Bengaluru-560 058,	Engineering Unit with pretreatment, powder coating and spray painting	SR	0.24	BWSSB Sewer	0.16	CETP
89	Universal Hands, No.A-103(a), 3rd Main, II Stage, PIE, Bengaluru-560 058	Wrist Watch Hands (Electroplating)	SR	0.5	BWSSB Sewer	0.065	CETP
90	Taj Computer Solution Pt LtdNo.38, No.154/1/3, 1st Main Road, III Phase, PIA, Bengaluru	E-waste collection segregation refurbishment of e-waste	SR	0.72	ST & SP	Nil	NA
91	Vinumac, No.205/A, III Phase, PIA, Bangalore-560058	Fabrication with pre treatment and spray painting (Hydrulic Pipes & Table Assembly)	SR	0.2	ST & SP	0.15	CETP
92	Sree Raj Hard chrome industriesNo.388, 10th Cross, IV Phase Bengaluru-560 058	Electroplating (Hardchrome)	SR	0.8	ST & SP	0.1	CETP
93	Jagan Steels, No.497-D, IV Phase, PIA, Bengaluru-560 058	Bright steel Bars cutting and acid pickling	SR	0.08	ST & SP	0.2	CETP
94	Metal Arts, No.344, 9th Cross, IV Phase, PIA, Bengaluru-560 058	Aluminium anodizing	SR	0.7	BWSSB Sewer	0.4	CETP
95	Chaitanya Indusries, No.C-93, II Stage, PIE, Bangalore-560058	Powder coating	SR	0.2	BWSSB Sewer	0.03	CETP
96	ENNARR Enterprises, No. 57/A, II Stage, PIE, Bengaluru-560 058	Electroplating (Hardchrome)	SR	0.16	ST & SP	0.2	CETP

97	M.R. Enterprises, No. C-73, II Stage, PIE, Bangalore-560058	Aluminium anodizing with screen printing	SR	0.7	BWSSB Sewer	0.1	CETP
98	Amara E-waste Recyclers, (Formerly Amara Metals Enterprises,)No.V-20/1, 4th Main Road, II Stage, PIE, Bangalore-560058	Cln, Seg &Dismantling of ewaste in Sch-IV of e waste	SR	0.72	BWSSB Sewer	Nil	NA
99	Sri Ranganatha Wire Products, No.333,9th Cross, 4th Main, IV Phase, PIA, Bengaluru-560 058	Wire drawing with pre cleaning activity	SR	0.24	ST & SP	0.025	CETP
100	Unique Enterprises, No. B-110, III Stage, PIE, Bengaluru-560 058	Powder coating with precleaning	SR	0.4	BWSSB Sewer	0.1	CETP
101	Ganapathi Metal Finishers, No. B-113-1, 3rd cross, III Stage, PIE, Bengaluru-560 058	Electroplating Zinc plating	SR	0.4	BWSSB Sewer	0.4	CETP
102	Mohan Metal Finishers, No. B-113-2, 3rd cross, III Stage, PIE, Bengaluru-560 058	Electroplating Zinc plating	SR	0.4	BWSSB Sewer	0.4	CETP
103	M.S.R Chemicals, No. B-232-B, 5th Main, II Stage, PIE, Bengaluru-560 058	Formulation of Chemical (used for metal finishing industries)	SR	0.4	BWSSB Sewer	0.4	CETP
104	M.S. Industrial Services, No. B-232/A, 5th Main, II Stage, PIE, Bangalore-560058	Degreasing, De-rusting, Phospating, Pickling & Spray Painting activity	SR	0.5	BWSSB Sewer	0.5	CETP

105	South India Wire Products Pvt Ltd., No.17, J-2, II Phase, PIA, Bangalore-560058,	Bright Steel Bars along with pickling and Electroplating	SR	2.8	ST & SP	0.78	CETP
106	Koustubha Scientific Research Laboratory Pvt Ltd No. 403-406,KIADB Complex, (Model Export Bhavan), Plot No. 488-B, 14th Cross, IV Phase, PIA, Bengaluru-560 058	R & D activity involving chemicals	SR	0.8	BWSSB Sewer	0.2	CETP
107	Hanuman Metal Finishers, No.C-133, 2nd B Main Road, II Stage, PIE, Bengaluru-560 058	Electroplating Zinc plating	SR	0.8	BWSSB Sewer	0.6	CETP
108	Wonder Fex, (Old name Washwinn Processors), No.270, IV Phase PIA, Bengaluru-560 058	Garment washing	SR	0.76	BWSSB Sewer	133	ETP
109	Sri Balaji Industries(old name: Jyothi Electroplaters), No.293/A, IV Phase, PIA, Bengaluru-560 058	Electroplating	SR	0.24	BWSSB Sewer	0.1	CETP
110	Tulip Engineers.,No.249, 3rd cross, 8th Main, III Phase, PIA, Bengaluru-560 058	Electroplating (hardchrome)	SR	0.4	ST & SP	0.25	CETP
111	Friction Control Productes, Plot No 486 B-2, IV Phase, Bnaglore-560058	Blending of lube oil for Industrial lubricants	SR	0.3	ST & SP	0.1	Recycling into the process

112	Ashwin precision Product Pvt Ltd., No.C-429, I Stage, PIE, Bengaluru-560 058,	Degreasing, Pickling,Phosphating	SR	0.8	BWSSB Sewer	0.25	CETP
113	Viziphar Biosciences (P) Ltd., No.303-306, Vitc Model Exports Park, IV Phase, PIA, Bengaluru-560 058	R & D activity	SR	0.4	BWSSB Sewer	0.2	CETP
114	Superchem oxide, No.321-B, 8th Cross, IV Phase, PIA, Bangalore -58	Lead suboxide	SR	0.16	ST & SP	Nil	NA
115	Sidhivinayaka Fab Engineering, , No.172, 11th main, III Phase, PIA, Bangalore-560058,	Manufacture of steel fabrication and pressure vessel & passivation	SR	1	ST & SP	0.15	CETP
116	Sree Ranganatha Industries, No.534/B, 8th Main, II Stage,PIE, Bangalore.	Electroplating (Zinc Plating)	SR	0.1	ST & SP	0.3	CETP
117	E-R3 Solutions No.C-430, 1st Cross, Ist State, PIE, Banglore-58	Recycle (Cleaning) of printer cartridge reconditioner, E-Waste Dismantling	SR	0.56	BWSSB Sewer	Nil	NA
118	S.K.Industries, No.D-426/C, 10th Main, II Stage, PIE, Banglore-560058	Engineering Unit	SR	0.08	BWSSB Sewer	0.05	CETP
119	Globe Hard Chrome Industries, No.D-426A,10th Main, II Stage, PIE, Banglore-58	Electroplating	SR	0.08	BWSSB Sewer	0.5	CETP
120	S&S Gud Services, No C-24,1st Cross, II Stage, PIE, Banglore-58+E31	Electroplating	SR	0.08	BWSSB Sewer	0.05	CETP

121	Micro Coats India,No.223,8th Main, III Phase, PIA, Bangalore-560058	Powder coating & Spray Painting Activity	SR	0.16	ST & SP	0.002	CETP
122	Shree Maruthi Metals, No.C-82, 3rd cross, III Stage, PIA, Banglore-58	Electroplating	SR	0.5	BWSSB Sewer	0.4	CETP
123	Safe Metals, No.42 & 43, II Phase, PIA, Banglore-58	Lead suboxide	SR	0	BWSSB Sewer	Nil	NA
124	Sain Coating Pvt Ltd.,No.A-25/26, III Stage, PIA, Banglore-58	powder coating	SR	0.25	BWSSB Sewer	0.25	CETP
125	Amar Powder Coating, No.470-A, Shed No 2, IV Phase, PIA, Banglore-560058	Powder coating with surface treatment	SR	0.16	ST & SP	0.1	CETP
126	Adarsha Control Systems, No.B-231,5th Main, II Stage, PIA, Banglore-560058	Surface Treatment & Powder coating	SR	0.4	BWSSB Sewer	0.1	CETP
127	Decan Agro Chemicals,No.411, 11th cross, IV Phase, PIA, Banglore	Pesticide formulation	SR	0.2	ST & SP	Nil	NA
128	Dinesh Creations, No.C-319, 1st Floor, I Stage, PIE, Banglore-560058.	Printing on clothes	SR	0.4	ST & SP	0.045	CETP
129	Innova Engineering, No.352, 9th Mian, 4th cross, IV Phase, PIA, B+E31engaluru-560 058	Electroplating (Hardchrome)	SR	0.15	ST & SP	0.16	CETP

130	Venkat switchgears,(Formerly known as Supreeth Switchgears,) No.150, III Phase, PIA, Bangalore-560058	Powder coating	SR	1.7	BWSSB Sewer	1.6	CETP
131	Drawcans Pvt Ltd., No.380, 10 th cross , IV Phase, PIA, Bengaluru-560 058	Aluminium Containers	SR	19.2	ST & SP	1.5	ETP
132	Sai Sri Industries, No.B-151, 5th Main, II Stage, PIE, Bengaluru-560 058	Electroplating	SR	0.12	ST & SP	0.1	CETP
133	Bangalore Excel Shine Pvt Ltd., No.291/292, 8th cross, I Stage, PIE, Bengaluru-560 058	PVC coated aluminium sheets	SR	0.5	BWSSB Sewer	0.1	CETP
134	Kiran Metal Finishers, No.A-370/2, I Stage, PIE, Bengaluru-560 058	Electroplating Zinc plating	SR	0.32	BWSSB Sewer	0.15	CETP
135	Vimala Mass Finishing Pvt Ld., No.B-154, 5th Main road, II Stage, Bangalore-560058	Powder Coating	SR	0.48	BWSSB Sewer	0.45	CETP
136	A.K.S Trading Company., No.C-69, 2nd cross, II Stage, PIE, Bangalore-560058	Copper recovery	SR	0.096	BWSSB Sewer	0.4	CETP
137	Surface chem Finishers., No.B-41, B-Type, III Stage, PIE, Bengaluru-560 058	Electroplating(Gold Plating)	SR	0.3	BWSSB Sewer	0.05	CETP

138	Integrated Metal Coats, No.333, 4th main, IV Phase, PIA, Bengaluru-560 058	Electroplating	SR	0.1	ST & SP	0.05	CETP
139	Arrow Systems, No.SM-3, III Stage, PIE, Bengaluru-560 058	Electronic Waste	SR	0.96	BWSSB Sewer	0.01	CETP
140	Lakshmi Electro platers, No.338, 9th Cross, IV Phase,PIA, Bengaluru-560 058	Electroplating	SR	0.3	ST & SP	0.77	CETP
141	Galaxy Hard Chrome (P) Ltd., No.38,B-1, II Phase, PIA, Bengaluru-560 058,	Electroplating (Hardchrome)	SR	0.16	ST & SP	0.05	CETP
142	Anjanadri Enterprises,No.B-70, 2nd cross, II Stage, PIE, Bangalore-560058	Phospating and powder coating	SR	0.4	BWSSB Sewer	0.05	CETP
143	Balaji Hard Chrome, No.473-D, IV Phase, PIA, Bengaluru-560 058	Electroplating (Hardchrome)	SR	0.8	BWSSB Sewer	3.9	CETP
144	E-Waste Managers, No.C-311, 9th cross, I Stage, PIA, Bengaluru-560 058	E-Waste	SR	0.432	BWSSB Sewer	Nil	NA
145	Crescent Polymers,No.93, 4th main, III Phase, PIA, Bangalore-560058	polymer products	SR	0.1	ST & SP	Nil	NA
146	Shipai Industries, No.V-15A, Shed No.C-178, 4th main, II Stage,PIE, Bengaluru-560 058	Alluminum Fabrication with anodising	SR	0.28	ST & SP	0.3	CETP

147	E Pragathi (A-Devision) . M-405, 1st & 2nd Floor, 7th & 8th cross, I Stage, PIE, Bengaluru-560 058	E-Waste Recycling	SR	0.4	ST & SP	Nil	NA
148	Analytica Chemie INC, No.307 & 308,,IV Phase, PIA, Bangalore-560058	Marketing & Distribution of reagents, columns. R & D lab,	SR	0.5	BWSSB Sewer	0.2	CETP
149	Colour Plus Enterprises, No.450/A, 12th Cross, IV Phase, PIA, Bengaluru-560 058	Powder Coating	SR	3.2	ST & SP	0.05	CETP
150	Shree Hari Precision Products Private ltd, No 124,7th Main III Phase PIA, Bangalore-560058	Mechanical Assembly, Spray Painting, Power Coating	SR	10	STP	2	CETP
151	Maruthi steel Industries., No.29-B, II Phase, PIA, Bengaluru-560 058	Manufacture of wire and Bright Steel Bar	SR	2	ST & SP	1	CETP
152	Alchemy Surface Technologies, No.344, 9th cross, IV Phase, PIA, Bengaluru-560 058	Electroplating	SR	0.4	ST & SP	0.1	CETP
153	E-Parisara Pvt Ltd., Unit-2, Unit-2, No P-10(A), III Stage, PIE, Bengaluru-560 058	E-Waste Recycling	SR	0.8	BWSSB Sewer	Nil	NA
154	4R Recycling Pvt Ltd., Shed No, A-5, III Stage, PIE, Bengaluru-560 058	Dismantling and recycling of E-waste	SR	1	BWSSB Sewer	Nil	NA
155	Radiant Research Services Pvt LtdNo.99/A, 8th Main Road, III Phase, PIA, Bengaluru-560058	Research Laboratories	SR	0.525	BWSSB Sewer	0.11	CETP

156	Mythri Metallizing India.,No.177-178, III Phase, PIA, Bangalore-560058	Grit Blasting , Spray Galavanizing, Stress relieving & Spray painting	SR	2	BWSSB Sewer	Nil	NA
157	Karnataka Fine Chem., No.8, 10th Cross, I Stage, PIE, Bangalore-56008	Trading of Laboratory chemicals with packing & refilling	SR	0.16	BWSSB Sewer	Nil	NA
158	Diamond Hard Chrome Platers., No.C-130, 2nd 'B' Cross, II Stage, PIE, Bengaluru-560 058	Electroplating Hard Chrome Plating activity (Hardchrome)	SR	0.15	BWSSB Sewer	0.1	CETP
159	R.K. Engineering Industries., No.B-87, 2nd Cross, I Stage, PIE , Bengaluru-560 058	Electro polishing	SR	1.5	BWSSB Sewer	0.05	CETP
160	Tes-Amm India Pvt Ltd, No.A-365,6th cross, I stage, Peenya Industrial Estate, Bengaluru-560 058	Electro polishing (E-waste Dismentling)	SR	0.8	ST & SP	Nil	NA
161	Balaji Metal Finishers., No.68-A, 1st Floor, II Stage, PIE, Bengaluru-560 058	Electroplating activity of Nickel & Copper	SR	0.4	BWSSB Sewer	0.06	CETP
162	Barrix Agro Sciences (P) Ltd, No 68A, ground Floor, 6th Main, III Phase, Peenya Industrial Area, Bangalore - 560058	Pest Control Catches and R&D for Pheramones	SR	1	BWSSB Sewer	0.15	CETP
163	Advaith Metal Finishers (Formerly Known as Profal Coaters)., No.342, , IV Phse, PIA, Bangalore-560058	Powder Coating	SR	0.4	BWSSB Sewer	0.5	CETP

164	Powertrek Industries., No.B-197, 5th Main Road, II Stage, Bengaluru-560 058	Lead Sub-Oxide (by using pure lead ingots only)	SR	0.4	BWSSB Sewer	Nil	NA
165	Srinivasa Metal Coats., No. 293, IV Phase, Peenya Industrial Area, Bengaluru-560 058	Blackening Section	SR	0.4	ST & SP	0.15	CETP
166	Sam Machinery., No.511, 4th Cross, IV Phase, PIA, Bengaluru-560 058	Special Purpose machine assembly and Lab for Siemens Equipment Validation and process strability trail run studies for Synthesis of Chromium dioxide (CrO2) powder	SR	0.54	ST & SP	0.1	CETP
167	Shiva Krupa Industries., No.D-426/C, 10th Main, II Stage, PIE, Bengaluru-560 058	Electroplating	SR	0.03	BWSSB Sewer	0.06	CETP
168	Ambika Industries.,No.V-48, 5th Main, II Stage, PIE, Bengaluru-560 058	Electroplating	SR	0.2	BWSSB Sewer	0.15	CETP
169	MJS Metal Coaters Private Limited., No.729/B, 3rd Cross, I Stage, PIE, Bengaluru-560 058	Sheet blasting painting and power coating	SR	0.8	BWSSB Sewer	Nil	NA
170	Surya metal finishers , P-17 , 3rd cross, III Stage ,PIA, Bengaluru-560 058	Job working electroplating	SR	0.08	BWSSB Sewer	0.08	CETP
171	Hanu Vibro technologies, No.C 248,5th cross, I State,peenya industrial estate	Metal and steel blockening and grit plasting	SR	0.16	BWSSB Sewer	0.03	CETP

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172	P & S ChemtechPlot No. B-223, I st Stage, Peenya Indl Estate, Bengaluru-560 058	Chemical blending & packaging	SR	0.08	BWSSB Sewer	0.01	CETP
173	Gayathri Metal Finishers, No.C-212, I Stage, PIE, Banglaore -58	Electroplating	SR	0.64	BWSSB Sewer	0.03	CETP
174	Veeresh IndustriesNo.C-27, II Stage , PIE, Bengaluru-560058	Aromatic Chemicals	SR	0.2	BWSSB Sewer	Nil	NA
175	Executive Apparels Processor, Plot No. 114A, 2nd Stage, Indl Suburb, Yeshwanthpura B'lore - 22	washing & Deying unit	SR	2	BWSSB Sewer	175	ETP (BWSSB SEWER after treatment)
176	Standards Screws Indsutries No.38/1, Indsutrial Sururb,Yeshwanthpura, B'lore-22	Acid Pickiling	SR	0.16	BWSSB Sewer	0.5	CETP
177	Standards Shapes & Profile Ltd No.50, Indsutrial Suburb,Yeshwantapura, B'lore-22	Acid Pickiling	SR	0.2	BWSSB Sewer	0.64	CETP
178	Rajeshwari Copper Products Shed No. 79, Industrial Suburb, Yeshwanthpura, Bangalore - 560 022.	copper remelted ingot,Brass re Melted ingot etc	SR	0.8	BWSSB Sewer	Nil	Nil

179	Prime Tech Accumulators Pvt Ltd.Plot No. 151/A 5th main, 3rd cross, Indl Suburb 2nd Stage, Yeshwanthpura B'lore – 22	Lead Acid Batteries	SR	0.4	BWSSB Sewer	0.5	ETP (Gardening after treatment)
180	Ashirwad Prints No. 115/1, Indl Suburb 2nd stage, Yeshwanthapura B'lore - 22	Silk Fabric Printing activity	SR	0.8	BWSSB Sewer	21	ETP (Gardening after treatment)
181	Geological and Metalurgical Labortory No.105, 2nd stage, Indl Suburb, Yeshwanthapura, B'lore - 22	Metal Testing	SR	0.8	BWSSB Sewer	0.25	CETP
182	Zumutor Biologics Pvt. Ltd., {Theramyt Nova Biologics Pvt, Ltd., }Prasad Enclave, No. 118/119, Yeshwanthpura Indl Suburb, 2nd Stage, 5th Main, B'lore - 22	R & D	SR	1.2	BWSSB Sewer	0.05	CETP
183	Auriga Reasearch LtdNo. 136, 6th cross, yeshwanthapur Indl.Suburb, 2nd stage, Bangalore-22.	Analytical Testing Laboratory	SR	2	BWSSB Sewer	0.1	CETP
184	M/s. E. HasiruNo. 168/B, 1st Floor, 7th Main Road, 3rd Phase, Peenya Industrial Area, Bangalore-58	E - Waste recycling	SR	0.2	BWSSB Sewer	Nil	Nil
185	Kanaka Metal FinishersNo. 729, Ramananda Building Laggere Road, Opp. SRS Water Tank, Peenya,	Electroplating	SR	0.05	BWSSB Sewer	0.05	CETP

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186	M/s. J. L Metal Finishers, No. 738/20, 3rd Cross, 2nd Main SRS Road, Near Govt. P U College, Peenya, Bangalolre-58 (None cyanide Nickel & Zinc electroplating)	Electroplating	SR	0.72	BWSSB Sewer	0.1	CETP
187	PCM CraftsNo. 3, 3rd Main Road, Ward No.11, Yeshwanthpura Industrial Suburb II Stage, Bengaluru-560022	photo-chemically milled precision sheet metal components	SR	0.36	BWSSB Sewer	0.01	CETP
188	Aar Vee Chemicals, No.22/A, Nadakerappa Industrial Estate, Hegganahalli, Bangalore	Chemicals	SR	0.1	ST & SP	0.1	CETP
189	Ashwini Hard Chrome Industries, No. 05, Thimmaiah Industrial Estate, Penya Industrial Area, Behind Asian Fab, 2nd Phase, Bangalore-560058	Surface Treatment	SR	0.05	ST & SP	0.05	CETP
190	Bangalore Enterprises, 16th Cross, DODDANNA INDUSTRIAL ESTATE, 16th Cross, DODDANNA INDUSTRIAL ESTATE, Bangalore, Bangalore	Powder Coating with surface treatment	SR	0.054	ST & SP	0.045	CETP

191	Bangalore Refinery Private Limited, No. 6/1, Plot No. 20-A, 1st Phase, Peenya, Bangalore-560058	Gold recovery	SR	0.4	ST & SP	0.4	CETP
192	Clinix Intel Medical Systems Private Limited, I Cross, Magadi Main Road, Sunkadakatte, I Cross, Magadi Main Road, Sunkadakatte, Bangalore, Bangalore	Surface treatment	SR	0.05	ST & SP	0.05	CETP
193	Divya Industries, No.13, 2nd Cross, Bhyraveshwara Industrial Estate, Andhrahalli Main Road, Bangalore-560091	Electroplating	SR	0.05	ST & SP	0.05	CETP
194	Durgashree Coaters Private Limited, No.421/A, 9th Cross, Patel Chennappa Industrial Estate, Andhrahalli Main Road, Vishwaneedam Post, Bangalore	Powder Coating with surface treatment	SR	0.102	ST & SP	0.085	CETP
195	Gangashree Metal Finishers, No. 94, Maruthi Industrial Estate, 2nd Stage, Peenya Bangalore-560058	Electroplating	SR	0.05	ST & SP	0.05	CETP
196	Hanuman Weaving Factory, 1st Phase, Peenya Industrial Area, Bangalore	Garment Dyeing, Weaving & Washing	SR	45	Combined ETP	20	Com. ETP

197	Hindustan Barrels, Narayana gowda Industrial Estate, Near Kareem Sab Layout, Hegganahalli, Vishwaneedam Post, Peenya 2nd Stage, Bangalore	Barrel washing	SR	0.25	ST & SP	0.2	CETP
198	Manjunatha Metal Finishers, No.784, 11th Cross, Ganapathinagar, Bangalore, Bangalore Urban, Ganapathinagar, Bangalore, Bangalore	Electroplating	SR	0.36	ST & SP	0.3	CETP
199	Marcs Engineering Private Limited, Nadakerappa Industrial Estate, Andhrahalli Main Road, Andhrahalli Main Road, Bangalore, Bangalore	Powder coating	SR	0.012	ST & SP	0.01	CETP
200	Sri Balaji Industries(Maxwell Electroplaters), No.112,, SLV indl Estate, 8th Main Road, Peenya 2nd Stage, Bangalore-560058	Electroplating	SR	0.05	ST & SP	0.05	CETP
201	Bright surface finishers(Midas India), No.42/1, 3rd Main Road, Keonics Layout, 3rd Stage, 4th Phase, Peenya, Thigalarapalya Main Road, Bangalore-560058	Surface Treatment	SR	0.05	ST & SP	0.05	CETP

202	Mookambika Industries, No 117/B, Rajagopalnagar Main Road, Peenya 3rd Phase, Ganapathinagar, Bangalore 560058	Surface Treatment	SR	0.15	ST & SP	0.135	CETP
203	Mythri Metalizing Works, Plot No. 5, 1 & 2, 3rd stage, Keonics layout, near 4th Phase, Peenya industrial area, Bangalore-560058	Grit blasting	SR	NA	ST & SP	NA	NA
204	Prime Anodizers, Byregowda Industrial Estate, Hegganahalli, Vishwaneedam Post, Bangalore	Surface treatment	SR	1.05	ST & SP	1.05	CETP
205	Rashmi Metal Enterprises, No.96, 10th cross, Ganapathinagar, 4th Phase, Peenya	Electroplating	SR	0.08	ST & SP	0.07	CETP
206	SK Metals Private Limited, No.133/3, Hegganahalli, Bangalore, Bangalore	Surface treatment	SR	0.25	ST & SP	0.2	CETP
207	SLN Enterprises, No.97/10, 3rd Cross, Doddanna Industrial Estate, Near Peenya 2nd stage, Hegganahalli, Bangalore-560091	Electroplating	SR	1	ST & SP	0.8	CETP

208	Shree Raj Hard Chrome Industries, No.96, 10th Cross, GanapathiNagar, II 1st Phase, PEENYA INDUSTRIAL AREA, No.96, 10th Cross, GanapathiNagar, II 1st Phase, Bangalore, Bangalore	Surface Treatment	SR	1	ST & SP	1	CETP
209	Shri Mahalakshmi Enterprises, No.2, Behind Raghavendra Industrial Estate, Karihobanahalli Main Road, Peenya 2nd Stage, Bangalore	Barrel washing	SR	0.05	ST & SP	0.05	CETP
210	Sree Vinayaka Hard Chrome, No.41A, 18th Cross, Doddanna Industrial Estate, Near Peenya 2nd Stage, Bangalore-560091	Hard Chrome Plating	SR	1	ST & SP	1	CETP
211	Srinidhi Hard Chrome, Site No.48/4, Maruthi industrial Town, Thigalarapalya Main Road, Near Peenya 2nd Stage, Bangalore-560058	Hard Chrome Plating	SR	0.06	ST & SP	0.06	CETP
212	Supreme Metal Finishers, No.63 & 70, Doddanna Industrial Estate, Hegganahalli, Bangalore-560091	powder coating with surface treatment	SR	0.05	ST & SP	0.05	CETP
213	Vaibhav Industries, No.62, 10th Cross, Doddanna Industrial Estate, Near Peenya 2nd Stage,	Electroplating	SR	0.3	ST & SP	0.2	CETP

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214	Veenee Speciality Coatings, No.14, Nadakerappa Industrial Estate, Hegganahalli, Bangalore, Bangalore Urban, Hegganahalli, Bangalore, Bangalore	Powder coating with Surface treatment	SR	0.2	ST & SP	0.2	CETP
215	Veenee Powder Coatings, No.14, Nadakerappa Industrial Estate, Hegganahalli, Bangalore, Bangalore Urban, Hegganahalli, Bangalore, Bangalore	Powder coating with Surface treatment	SR	0.2	ST & SP	0.2	CETP
216	Vignesh Engineering Works, Works, Sy. No. 5/1 & 6/1, Karihobanahalli, Nagasandra Post, Bangalore - 560058	Grit Blasting & spray galvanizing	SR	NA	ST & SP	NA	NA
217	Kaveri Enamel & Allied Industries (4s India Pvt. Ltd), No.5 & 6, Karihobanahalli, Near Mythri Industries, Peenya 2nd Stage, Bangalore-560058	Surface treatment	SR	0.2	ST & SP	0.2	CETP

218	R.K. Metal Finishers, No 146, Madikerappa Industrial Estate, Vishwaneedam Post, Hegganahalli, Bangalore91, Vishwaneedam Post, Hegganahalli, Bangalore, Bangalore	Powder coating with surface treatment	SR	0.11	ST & SP	0.093	CETP
219	Innocoat Systems (I) Private Limited, No 33, Saibabanagar, Andhrahalli Main road, Peenya 2nd Stage, Bangalore-560058	Powder coating with surface treatment	SR	0.15	ST & SP	0.15	CETP
220	JP electrotech, No. 3, 10th Cross, Opposite Padma Bar, Rajagopalnagar Main Road, GanapathiNagar, Bangalore-560058	Electroplating	SR	1	ST & SP	0.08	CETP
221	Mythri Metalizing Projects, No.14/2, Near Government School, Karihobanahalli, Yeshwanthpura Hobli, Karihobanahalli, Yeshwanthpura Hobli, Bangalore, Bangalore	Grit Blasting	SR	NA	ST & SP	NA	NA
222	Unilabs, No.40, 11th A Cross, Thigalarapalya Main Road, Balaji Nagar, Peenya 3rd Stage, Bangalore, Thigalarapalya Main Road, Balaji Nagar, Peenya 3rd Stage, Bangalore, Bangalore	Solvent Extraction	SR	NA	ST & SP	NA	NA

223	Complex Engineering Works, No.1 & w, Karihobanahalli, Opp. Sushruthi Bank, Andhrahalli Main Road, Peenya 2nd Stage, Bangalore560091 Karihobanahalli, Opp. Sushruthi Bank, Andhrahalli Main Road, Peenya 2nd Stage, Bangalore, Bangalore	Surface treatment	SR	0.1	ST & SP	0.1	CETP
224	Manjunatha Industries, 25/1, Bhyraveshwara Industrial Estate, Andhrahalli Main Road, Peenya 2nd Stage, Bangalore, Bhyraveshwara Industrial Estate, Andhrahalli Main Road, Bangalore, Bangalore	Waste processing	SR	NA	ST & SP	NA	NA
225	Shree Vinayaka Hard Chrome Industries, No.32, 12th Cross, Doddanna Industrial Estate, Near Peenya 2nd Stage, Bangalore-560091	Hard chrome plating	SR	0.03	ST & SP	0.03	CETP
226	E-Scrappy Recyclers, No.106, Andhrahalli Main Road, Bhyraveshwara Industrial Estate, Near Sushruthi Bank, Peenya 2nd Stage, Bangalore, Taluk, Bangalore	E-waste recycling	SR	0.54	ST & SP	0.54	CETP

227	Aegis Manufacturing Systems, No. 73/A, 2351, 2352, Srigandanagar, Doddanna Industrial Estate, Bangalore, Taluk, Bangalore	Surface treatment	SR	0.5	ST & SP	0.5	CETP
228	Anatech Ultra Coaters and Controls Private Limited, No 45,Bhyraveshwara Industrial Estate,Andhrahalli Main Road,Hegganahalli, Bangalore-560091	Powder coating	SR	0.3	ST & SP	0.3	CETP
229	Lakshmi Venkateshwara Metallizing, No.3, Sri Raghavendra Indl. Estate, Thigalarapalya Main Road, Bangalore	Grit Blasting & spray galvanizing	SR	NA	ST & SP	NA	NA
230	Sree Bhagyalakshmi Powder Coating, No.29 & 30, Bhyraveshwara Industrial Estate, Hegganahalli, Bangalore	Powder Coating	SR	0.05	ST & SP	0.05	CETP
231	Venus Electrotech, No.76/77, 15th Cross, Doddanna Industrial Estate, Peenya 2nd Stage, Bangalore-560091	Powder Coating with 7 tank process	SR	0.2	ST & SP	0.2	CETP
232	Vedashree Powder coaters(AMF powder coaters), Doddanna Industrial Estate, Peenya 2nd Stage, Bangalore	Powder Coating	SR	0.05	ST & SP	0.05	CETP

233	Alvin Engineers, Andrahalli Main Road, Peenya 2nd Stage, Bangalore	Surface Treatment with Power Coating	SR	0.025	ST & SP	0.025	CETP
234	Stainless Electropolishers, No. 117/D, 1st Floor, 9th Cross, Ganapathinagar, Peenya 3rd Stage, Bangalore-560058	Electropolishing	SR	0.12	ST & SP	0.12	CETP
235	Sumukha Industries, Plot No. 38/1, Nadikerappa Industrial Estate, Andrahalli Main Road, Vishwaneedam Post, Bangalore	SURFACE TREATMENT WITH POWDER COATING	SR	0.7	ST & SP	0.5	CETP
236	Brite Coats, No. 98, Bhyraveshwara industrial estate, Andrahalli Main Road, V.N Post, Peenya, Bangalore	Surface Treatment with Power Coating	SR	0.1	ST & SP	0.1	CETP
237	SP Industries (Shree Annapoorneshwari Enterprises), No. 536, Patel Channappa Industrial Estate, Andrahalli Main Road, Peenya 2nd Stage, Bangalore	Powder Coating Activity	SR	0.08	ST & SP	0.08	CETP
238	Tetra Treats, Sy.No.55/41 to 45, Thigalarapalya Main Road, Bangalore-560058	Powder coating with Surface treatment	SR	0.1	ST & SP	0.1	CETP

239	Shree Suyoga Technologies, Sy. No. 47, Shed No. 27-28, Raghavendra Industrial Estate, Thigalarapalya Main Road, Doddabidirikallu, Ward No. 40, Bangalore-560058	Powder coating with Surface treatment	SR	0.26	ST & SP	0.26	CETP
240	Nandini Natura Coatings, No. 112/29B, Hegganahalli Cross, Next to Mohan Theatre, Sunkadakatte, Vishwaneedam Post, Bangalore-560091	powder coating and spray painting	SR	1	ST & SP	0.8	CETP
241	Global Electro Technologies, No.72/2, 15th Cross, Doddanna Industrial Estate, Vishwaneedam Post, Near Peenya 2nd Stage, Bangalore-560091	Powder coating	SR	0.05	ST & SP	0.05	CETP
242	Lords Metal Finishers, Shed No. 8A, Sy.No.112/3, Khata No.624, 12th Cross, Doddanna Industrial Area, Peenya 2nd Stage, Bangalore-560091	Powder coating with 7 tank process	SR	0.17	ST & SP	0.12	CETP
243	Deepika Industries, No. 49/1A, Sri Laxmi Venkateshwara Industrial Estate, 8th Main Road, Peenya 2nd Stage, Bangalore-560058	Hard Chrome Plating	SR	0.038	ST & SP	0.03	CETP

244	Shree Benaka Metal Finishers, No. 18, Suprabhatha Nagar, Karihobanahalli, Peenya 2nd Stage, Bangalore-560058	Electroplating	SR	0.06	ST & SP	0.046	CETP
245	Durgamba Industries, No. 252/3, 6th Cross, Rajgopal Nagar, Near Maruthi Theatre, Peenya 2nd Stae, Bangalore-560058	Electroplating	SR	0.03	ST & SP	0.03	CETP
246	Mitra Metal Finishers, Survey No 24, Behind Central Bank, 100 feet road, Jalhalli Cross, T. Dasarahalli, Bangalore 560057	Electroplating	SR	0.2	ST & SP	0.18	CETP
247	SML Metal Finishers, No.24, Behind Syndicate Bank, 100 Ft Road, Jalahalli Cross, Bangalore - 560057.	Electroplating	SR	0.2	ST & SP	0.18	CETP
248	Raj Metal Finishers, No 24, 100 Feet road, Jalahalli cross, Behind Syndicate Bank, Bangalore 560057	Electroplating	SR	0.3	ST & SP	0.28	CETP
249	Om Shakthi Enterprises, No:8, 1st Cross, 1st Main, 2nd Phase, Peenya Industrial Area, Bangalore - 560058.	Electroplating	SR	0.2	ST & SP	0.18	CETP
250	Sri Balaji Enterprises, No. 333, 9th Cross, 4th Main, 4th Phase, Peenya Industrial Area, Bangalore	Electroplating	SR	0.1	ST & SP	0.1	CETP

251	Newtek Recyclers, No 124,Byreveshwara Industrial Estate,Andhrahalli Main Road,Peenya 2nd stage, Bangalore-560091	E-waste recycling	SR	NA	ST & SP	NA	NA
252	Sri. Somanateshwara Enterprises, No.117/1, Opp.A-10, Ist Main Road, Peenya 2nd Stage, Bangalore-560058	Electroplating	SR	0.05	ST & SP	0.05	CETP
253	Vishwa Enterprises, No 5,Thimmaiah Estate,Ist cross,2nd phase,Peenya Industrial Area, Bangalore 560058	Electroplating	SR	0.15	ST & SP	0.14	CETP
254	Vijai Rotogravures, No.90/A, 3rd Main Road, Keonix Layout, Thigalarapalya Main Road, Peenya 2nd Stage, Bangalore-560058	Hard Chrome Plating	SR	0.032	ST & SP	0.03	CETP
255	SLV Enterprises, No. 30,Srigandhanagar Main Road, Krishnappa Industrial Estate, Kareemsab Layout, Bangalore-560091	Electroplating	SR	1	ST & SP	1	CETP
256	Vishruth Nest Hardware Solutions (P) Ltd, No. 147, Nadakerappa Indl Estate, Andhrahalli Main Road, Hegganahalli Village, Bangalore-560091	Electroplating	SR	0.3	ST & SP	0.3	CETP

257	Lotus technologies, No 72,Shrigandha Kaval behind Konega Garments,Vishwaneedam post, Bangalore-560091	Electroplating	SR	0.7	ST & SP	0.62	CETP
258	Manjunatha Enterprises, No. 54/1, 21st Cross, Dead End, Peenya Indl Area, 4th Phase, Near Rajagopalnagar New Police Station, Bangalore-560058	Electroplating	SR	1	ST & SP	1	CETP
259	Hi Life Industries, Plot/Phase No. 44, Nandagokula Indl Layout, Karihobanahalli, Thigalarapalya Main Road, Bangalore-560058	Electroplating	SR	0.03	ST & SP	0.02	CETP
260	Sri Someshwara Industries, No. 71, 911/829, 15th Cross, Near Veda Garments, Srigandhanagar, Kareemsab Layout, Viswaneedam, Bangalore-560091	Electroplating	SR	0.05	ST & SP	0.05	CETP
261	Annapoorna Enterprises, No.6, 11th Cross, Peenya 2nd Stage, Bangalore-560058., No.6, 11th Cross, Peenya 2nd Stage, Bangalore-560058.	Electroplating	SR	0.2	ST & SP	0.2	CETP
262	RS Surfacoats, No.03, First Floor, Nandagokula Indl Layout, Thigalarapalya Main Road, Bangalore-560058	Electropolishing	SR	0.1	ST & SP	0.1	CETP

263	Faraday Electrotech, No. 15/1, 4th Cross, Kapilanagar Behind Doddanna Indl Estate, Near Peenya 2nd Stage, Bangalore-560091	Electroplating	SR	0.15	ST & SP	0.12	CETP
264	Manjunatha Enterprises, No. 44/4, Maruthi Layout, Chokkasandra, T. Dasarahalli, Bangalore	Paint Stripping	SR	0.5	ST & SP	0.3	CETP
265	Shreyas Enterprises, No. 07, Manjunatha Indl Complex, 13th Cross, Kareem Sab Layout, Hegganahalli, Vishwaneedam Post, Bangalore	Electroplating	SR	0.12	ST & SP	0.12	CETP
266	Kemio Solutions Pvt Ltd, No 432 and 476, 3d Cross, MS Ramaiah Enclave, Nagasandra, Tumkur Road, Dasanapura Hobli, Bangalore 560073	R & D	SR	0.1	ST & SP	0.1	CETP
267	Varahi Thermo-Tech, No. 53, Srigandakavalu, Peenya 2nd Stage, Vishwaneedam Post, Bangalore	Gas Nitriding	SR	NA	ST & SP	NA	NA
268	Universal Industries, No 09, Chinnagiriyappa Industrial Estate, Vishwaneedam Post, Andhrahalli, Bangalore-560091	Electroplating	SR	0.5	ST & SP	0.4	CETP

269	Unisur Lifecare Pvt Ltd, No.15/1-2-3, Andrahalli Main Road, Acharya Indl.Complex, Vishwaneedam Post, Bangalore	Sutures	SR	0.1	ST & SP	0.1	CETP
270	Sri Ranganatha Enterprises, No 45, Bhyraveshwara Industrial Estate, Peenya 2nd stage, Bangalore-560091	Electroplating	SR	0.05	ST & SP	0.04	CETP
271	Sri Balaji Metal Works, No. 41/1A2, Karihobanahalli Village, Maruthi Industrial Town, Peenya 2nd stage, Bangalore-560058	Aluminium ingots	SR	NA	ST & SP	NA	NA

272	Sree Nanjundeshwara Coats, No.41/1A-5, Karihobanahalli, Thigalarapalya Main Road, Peenya 2nd Stage, Bangalore-560058	Powder coating with 7 tank process	SR	0.25	ST & SP	0.2	CETP
273	Infrastructure Steels, No.30 & 31, Bhyraveshwara Industrial Estate, Hegganahalli, Bangalore-560091	Surface Treatment	SR	0.1	ST & SP	0.1	CETP
274	SK Steel Industries, No.41, Bhyraveshwara Industrial Estate, Hegganahalli, Bangalore-560091	Surface Treatment	SR	0.1	ST & SP	0.1	CETP
275	Corrosion Protection Engineers India, No.41/1A2, 3rd stage, 4th phase, Kempegowda Industiral area, Peenya, Bangalore-560058	Surface Treatment	SR	NA	ST & SP	NA	NA
276	Sri Manjunatha Enterprises, No.74/1-13, 17th cross, Doddanna Industrial Estate, near Peenya 2nd stage, Bangalore-560091	Electroplating	SR	0.1	ST & SP	0.1	CETP
277	Annapoorna Enterprises, No.6, 11th Cross, Peenya 2nd Stage, Bangalore560058.	non-cyanide zinc electroplating activity	SR	0.1	ST & SP	0.1	CETP

278	SGD Components, NO.4, Chandu Estate, Chikkasandra, Hesarghatta Main Road, T.Dasarahalli, Bangalore	Dull Nickel plating	SR	1	ST & SP	0.1	CETP
279	Shree Suyoga Industries, Sy.No.47, Plot No.24, 25, 26, 12th Cross, Ward No.40, Raghavendra Industrial Estate, Thigalarapalya Main Road, Bangalroe	Powder coating with 7 tank process	SR	1.1	ST & SP	1	CETP
280	Rajathadri Enterprises, No.4 Mayuranagara, Andrahalli Main road, Hegganahalli, Peenya 2nd Stage, Bangalore - 560091	electroplating	SR	0.1	ST & SP	0.1	CETP

ANNEXURE-VII

Compliance to 6 Point Criteria Conditions laid down by KSPCB to the Surface treatment industries

Sl. No.	Name & Address of the Industry	Type of Activity (Electroplating / Powder coating/hard chrome phosphating etc)	Category & Classification		Mode of treatment & disposal of trade effluent ETP/CETP	6 Point Criteria Conditions laid down by KSPCB and its compliance status					
						Impervious Flooring for process & effluent collection tanks	Providing Process & Effluent collection tank AGL	Leak proof test for process tanks	Scrubber for treatment of process emission	Maintenance records w.r.t water consumption,trade effluent generation & timely disposal of effluent	Primary Treatment plant before disposing to CETP
1	ABB Ltd, No.4A, 5 & 6, II Phase, PIA, Bangalore- 560 058,	Engineering with pre treatment	Large	Red	CETP	Yes	Yes	Yes	Yes	Yes	Yes
2	KDDL Ltd (formerly know as Kamala Dials & Devices), No.296 & 297 IV Phase, PIA, Bengaluru-560 058,	Wrist Watch dials Hands and Industries with Electroplating	Large	Red	ETP	Yes	Yes	Yes	Yes	Yes	Yes
3	Kongovi Electronics Pvt Ltd , No.377,10th cross, PIA, IV Phase, Bengaluru-560 058	Engineering with Electroplating	Small	Red	ETP	Yes	Yes	Yes	Yes	Yes	Yes

4	Rewdale Precission Tools Pvt Ltd., No.484 B & C, IV Phase, PIA, Bengaluru-560 058	Precision turned components with pre treatment	Large	Red	CETP	Yes	Yes	Yes	Yes	Yes	Yes
5	Ace Designers Ltd, No.7 & 8, II Phase, PIA, Bengaluru-560 058	CNC Machinery with surface treatment such as Degreasing, Derusting, Phosphating and Spray Painting / Powder Coating	Large	Red	ETP	Yes	Yes	Yes	Yes	Yes	Yes
6	Fouress Engineering India Ltd, N No.2, II Phase, PIA, Bengaluru-560 058	Valves Isolators & Fabrication works	Large	Red	ETP	Yes	Yes	Yes	Yes	Yes	Yes
7	Champion Extrusion,Unit-II, No.A-21, III Stage, PIE, Bengaluru-560 058	Electroplating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	Yes
8	Asian Fab tech Ltd, No.15, II Phase, PIA, Bangalore-560058	Engineering with zinc spraying	Large	Red	CETP	Yes	Yes	Yes	Yes	Yes	Yes

9	Glastronix LLP (Formerly known as Glastronix), No.21-E2, II Phase, PIA, Bengaluru-560 058	Electrical & Electronics Components	Large	Red	CETP	Yes	Yes	Yes	NA	Yes	Yes
10	Alufit (India) Pvt Ltd, No.17-A, II Phase, PIA, Bengaluru-560 058,	Aluminium anodizing	Medium	Red	CETP	Yes	Yes	Yes	Yes	Yes	Yes
11	Mag Engineering Pvt Ltd (A unit of Sandhar Technologies), No.46-A, 3rd Main road, Unit -2 , II Phase, PIA, Bengaluru-560 058,	Mild Steel Cabinets, Control Panels, Switch Boards, Elevating Components, Automobile components & all types of sheet metal fabrication with powder caoting(surface teratment)	Large	Red	ETP	Yes	Yes	Yes	Yes	Yes	Yes
12	Kongovi Electronics, No.30/C, II Phase, PIA, Bengaluru-560 058	Electroplating	Large	Red	ETP	Yes	Yes	Yes	Yes	Yes	Yes
13	Surhennings Pvt Ltd, No.1-B, II Phase, PIA, Bangalore-560058	Engineering with surface treatment and powder caoting	Large	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO

14	Adpro System India (P) Ltd E2519 IV Phase, PIA, Bengaluru-560 058,	Electroplating (Hardchrome)	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
15	Sree Balaji Enterprises, No.A-302(a), 7th Main, II Stage, PIE, Bengaluru-560 058,	Aluminium anodizing & powder coating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
16	Sri Balaji Enterprises, No.333, 9th cross , 4th Main, IV Phase, PIA, Bengaluru-560 058,	Engineering Unit with Electroplating (Zinc Electroplating)	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
17	Balambiga Metal Finishers, No.C-435, I Stage, PIE, Bengaluru-560 058,	Electroplating Zinc Plating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
18	Bangalore Electroplating, No.C-75, II Stage, PIE, Bengaluru-560 058	electroplating (ZINC PLATING)	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
19	Bright Services, No.B-142, 3rd cross, I Stage, PIE, Bengaluru-560 058,	Bright Bars	Small	Red	NA	Yes	Yes	Yes	Yes	Yes	NO
20	Excel Process Pvt Ltd, No.278, 4th Main, IV Phase, PIA, Bengaluru-560 058,	Printed name plates, fabrication, anodization & spray painting	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO

21	G.V.Enterprises, No.17F, II Phase, PIA, Bengaluru-560 058,	Alluminum anodizing	Small	Red	ETP	Yes	Yes	Yes	Yes	Yes	Yes
22	Lach Products, , No.B-278, 7th Main, II Stage, PIE, Bangalore-560058	Electroplating of Lead, Zinc & Nickel	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
23	Sri Luxmi Electroplating, No.79/80, III Phase, PIA, Bengaluru-560 058,	Electroplating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
24	Lakshmi Electroplaters, No.455,IV Phase, PIA,Bengaluru-560 058,	Electro Plating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
25	Lalan Enterprises, No.B-226, 5th Main, II Stage, PIE, Bangalore-560058	Powder coating with pre-surface treatment activity	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
26	Leo Hard Chrome , No.B-73, I Stage, 2nd cross, PIE, Banglaore-58	Machine of Hydraulics with Electroplating (Hardchrome)	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
27	Leo Engineering, No.108, I Stage, PIE, Banglaore-58	Electroplating (Hardchrome)	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO

28	Mehar Metals India Pvt Ltd, No.A-346, 9th Main, II Stage, PIE, Bengaluru-560 058	wire drawing with pickling	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
29	Metal Coats, No.B-180, II Stage, PIE, Bangalore -58	Aluminium anodizing	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
30	Metreat Chem Enterprises, , No.C-76, III Stage,PIE, Bengaluru-560 058	Electroplating Glod & Silver Plating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	Yes
31	Modern Light Industries, E1922PIE, Banglaore-58	Manufacture of Aluminium, Stainless Steel & Brass name plates	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
32	P & S Galvasols, No.490-1, IV Phase, PIA, Bengaluru	Electroplating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
33	Perfect Profiles, No.B-233, 6th cross, I Stage, PIE, Bengaluru-560 058	Carryingout drawing and polishing of Iron and steel bass & coils	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
34	Prithvi Fabrications Pvt Ltd, No.189, 11th Main,2nd Cross, III Phase, PIA, Bangalore	Alluminum cans with degrasing	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO

35	Anode tech (Formerly Profal Coters), No.342, 9th cross, IV Phase, PIA, Bangalore-560058	Aluminium anodizing	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
36	Protective Coatings Pvt Ltd, No.B-264, II Stage, PIE, Bengaluru-560 058	Powder coating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	Yes
37	Rainbow Powder Coaters, No.425, 11 th Cross, IV Phase, PIA, Bengaluru-560 058,	Powder coating with pre-surface treatment activity	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
38	S.P.Engineering Enterprises, No.50, III Phase, PIA, Bangalore-560058,	Fabrication with spray painting ,grit blasting,sand blasting & zink spray	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
39	Standard Screws Industries, No.471-C, 13th Cross, IV Phase, PIA, Bengaluru-560 058,	Bright steel bars & Pickling	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
40	Sumuka Electroplaters, No.B-70, 3rd Stage, PIE, Bengaluru-560 058	Electroplating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO

41	Super Bright Steels Pvt Ltd, No.A-172, 4th Cross, I Stage, PIE, Banglaore-58,	Bright Bars	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
42	Tube Style Interiors Pvt Ltd, Ltd, No.244, 11th Main, III Phase, PIA, Bangalore-560058,	Furniture's and interiors with Phospating, Painting and Powder Coating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
43	United Forgings, No.465, IV Phase, PIA, Bengaluru-560 058,	Bolts,Wires and birght bars with pickling	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
44	Vijaya Metal Finishers, E425, PIA, Bengaluru-560 058,	Electroplating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
45	Vijaya Seamless Containers (P) Ltd, No.189, 11th Main, III Phase, PIA, Bangalore-560058,	Aluminium Containers/Bottles, shades and plastic components with degreasing	Small	Red	ETP	Yes	Yes	Yes	Yes	Yes	Yes
46	A.S.Surface Finishers, No.P-27, 10th Main, III Stage, PIE, Bengaluru-560 058,	Electroplating (Hardchrome)	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO

47	Bright India Steel Industry (Formerly known as Laxmi Industries), No.280/3, IV Phase, PIA, Bengaluru-560 058,	Bright Steel Bars	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
48	Pragathi Coaters, No.C-102, III Stage, PIE, Bengaluru-560 058,	Powder coating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
49	Vishnu Hard Chrome Industries, No.338,9th Cross, IV Phase, PIA, Bengaluru-560 058	Electroplating (Hardchrome)	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
50	Industrial Metal Finishers, , No.118, III Phase, PIA, Bengaluru-560 058	Electroplating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
51	Bisheshwar Galvanisers, No.528, IV Phase, PIA, Bengaluru-560 058	Zinc galvanizing (Hot dip galvanizing)	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
52	Hind Comp (P) Ltd, No.6-A, III Phase, PIA, Bangalore-560058	Alluminum cans with degrasing	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO

53	Vyoma Switch Gear, No.33 A/2 II Phase, PIA, Bengaluru-560 058	Engineering Unit and Electroplating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
54	Alufit (India) Pvt Ltd, No.A-369, I Stage, PIE, Bangalore-560058	Alluminum Fabrication and anodizing	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
55	Jigar Marketing Pvt Ltd, No.B-101, 2nd cross, I Stage, PIE, Bengaluru-560 058	Manufacture of Bright steel bars	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
56	Karnataka Instruments, No.A-269, II Stage, PIE, Bangalore -58	Industrial thermometers (with degreasing and spray painting) (Engineering activity)	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
57	Netra Electronics, No.B-50,10th Main, 2nd Cross III Stage,PIE, Bengaluru-560 058	Printed Circuit Board manufacture	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
58	Sri Sai Industries, No.P-24, III Stage, PIE, Bengaluru-560 058,	Engineering Unit with pretreatment, powder coating and spray painting	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO

59	Universal Hands, No.A-103(a), 3rd Main, II Stage, PIE, Bengaluru-560 058	Wrist Watch Hands (Electroplating)	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
60	Vinumac, No.205/A, III Phase, PIA, Bangalore-560058	Fabrication with pre treatment and spray painting (Hydrulic Pipes & Table Assembly)	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
61	Sree Raj Hard chrome, E1936PIA, Bengaluru-560 058	Electroplating (Hardchrome)	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	Yes
62	Jagan Steels, No.497-D, IV Phase, PIA, Bengaluru-560 058	Bright steel Bars cutting and acid pickling	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
63	Metal Arts, No.344, 9th Cross, IV Phase, PIA, Bengaluru-560 058	Aluminium anodizing	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
64	Chaitanya Indusries, No.C-93, II Stage, PIE, Bangalore-560058	Powder coating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
65	ENNARR Enterprises, No. 57/A, II Stage, PIE, Bengaluru-560 058	Electroplating (Hardchrome)	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO

66	M.R. Enterprises, No. C-73, II Stage, PIE, Bangalore-560058	Aluminium anodizing with screen printing	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
67	D.C. Autoparts, No. A-267, 6th Mian, II Stage, PIE, Bengaluru-560 058	Engineering with Pretreatment	Medium	Red	NA	Yes	Yes	Yes	Yes	Yes	NO
68	Sri Ranganatha Wire Products, No.333,9th Cross, 4th Main, IV Phase, PIA, Bengaluru-560 058	Wire drawing with pre cleaning activity	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
69	Unique Enterprises, No. B-110, III Stage, PIE, Bengaluru-560 058	Powder coating with precleaning	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
70	Ganapathi Metal Finishers, No. B-113-1, 3rd cross, III Stage, PIE, Bengaluru-560 058	Electroplating Zinc plating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
71	Mohan Metal Finishers, No. B-113-2, 3rd cross, III Stage, PIE, Bengaluru-560 058	Electroplating Zinc plating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO

72	M.S. Industrial Services, No. B-232/A, 5th Main, II Stage, PIE, Bangalore-560058	Degreasing, De-rusting, Phospating, Pickling & Spray Painting activity	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
73	South India Wire Products Pvt Ltd., No.17, J-2, II Phase, PIA, Bangalore-560058,	Bright Steel Bars along with pickling and Electroplating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
74	Hanuman Metal Finishers, No.C-133, 2nd B Main Road, II Stage, PIE, Bengaluru-560 058	Electroplating Zinc plating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
75	Sri Balaji Industries(old name: Jyothi Electroplaters), No.293/A, IV Phase, PIA, Bengaluru-560 058	Electroplating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
76	Tulip Engineers.,No.249, 3rd cross, 8th Main, III Phase, PIA, Bengaluru-560 058	Electroplating (hardchrome)	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO

77	Ashwin precision Product Pvt Ltd., No.C-429, I Stage, PIE, Bengaluru-560 058,	Degreasing, Pickling,Phosphating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
78	Best Coats, No.B-136, 2nd 'C' Main Road, II Stage, PIE, Bengaluru-560 058,	powder Coating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
79	Spectronic Plating Pvt. Ltd., No. A-152, 2nd Main, II Stage, PIE, Bengaluru-560 058	Electroplating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
80	Sidhivinayaka Fab Engineering, , No.172, 11th main, III Phase, PIA, Bangalore-560058,	Manufacture of steel fabrication and pressure vessel & passivation	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
81	Sree Ranganatha Industries, No.534/B, 8th Main, II Stage,PIE, Bangalore.	Electroplating (Zinc Plating)	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
82	Globe Hard Chrome, No.D-426A,10th Main, II Stage, PIE, Banglore-58	Electroplating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
83	S&S Gud Services, No C-24,1st Cross, II Stage, PIE, Banglore-58+E31	Electroplating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO

84	Micro Coats India,No.223,8th Main, III Phase, PIA, Bangalore-560058	Powder coating & Spray Painting Activity	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
85	Shree Maruthi Metals, No.C-82, 3rd cross, III Stage, PIA, Banglore-58	Electroplating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
86	Sain Coating Pvt Ltd.,No.A-25/26, III Stage, PIA, Banglore-58	powder coating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
87	Amar Powder Coating, No.470-A, Shed No 2, IV Phase, PIA, Banglore-560058	Powder coating with surface treatment	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
88	Adarsha Control Systems, No.B-231,5th Main, II Stage, PIA, Banglore-560058	Surface Treatment & Powder coating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
89	Innova Engineering, No.352, 9th Mian, 4th cross, IV Phase, PIA, B+E31engaluru-560 058	Electroplating (Hardchrome)	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO

90	Venkat switchgears,(Formerly known as Supreeth Switchgears,) No.150, III Phase, PIA, Bangalore-560058	Powder coating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
91	Drawcans Pvt Ltd., No.380, 10 th cross , IV Phase, PIA, Bengaluru-560 058	Aluminium Containers	Small	Red	ETP	Yes	Yes	Yes	Yes	Yes	Yes
92	Sai Sri Industries, No.B-151, 5th Main, II Stage, PIE, Bengaluru-560 058	Electroplating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
93	Nash Industries (I) Pvt Ltd., No.235,8th Main, 3rd cross III Phase, PIA, Bangalore-560058	powder coating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
94	Bangalore Excel Shine Pvt Ltd., No.291/292, 8th cross, I Stage, PIE, Bengaluru-560 058	PVC coated aluminium sheets	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
95	Kiran Metal Finishers, No.A-370/2, I Stage, PIE, Bengaluru-560 058	Electroplating Zinc plating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO

96	Vimala Mass Finishing Pvt Ld., No.B-154, 5th Main road, II Stage, Bangalore-560058	Powder Coating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
97	Surface chem Finishers., No.B-41, B-Type, III Stage, PIE, Bengaluru-560 058	Electroplating(Gold Plating)	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
98	Integrated Metal Coats, No.333, 4th main, IV Phase, PIA, Bengaluru-560 058	Electroplating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
99	Lakshmi Electro platers, No.338, 9th Cross, IV Phase,PIA, Bengaluru-560 058	Electroplating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
100	Galaxy Hard Chrome (P) Ltd., No.38,B-1, II Phase, PIA, Bengaluru-560 058,	Electroplating (Hardchrome)	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
101	Anjanadri Enterprises,No.B-70, 2nd cross, II Stage, PIE, Bangalore-560058	Phospating and powder coating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO

102	Balaji Hard Chrome, No.473-D, IV Phase, PIA, Bengaluru-560 058	Electroplating (Hardchrome)	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
103	Shipai Industries, No.V-15A, Shed No.C-178, 4th main, II Stage,PIE, Bengaluru-560 058	Alluminum Fabrication with anodising	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
104	Colour Plus Enterprises, No.450/A, 12th Cross, IV Phase, PIA, Bengaluru-560 058	Powder Coating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
105	KDDL ltd, (Unit: Hands-II), No, 408, IV Phase,PIA Bangalore-58	Nickle & gold Eletroplating on wrist watch hands	Medium	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
106	Shree Hari Precision Products Private ltd, No 124,7th Main III Phase PIA, Bangalore-560058	Mechanical Assembly, Spray Painting, Power Coating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
107	Maruthi steel Industries., No.29-B, II Phase, PIA, Bengaluru-560 058	Manufacture of wire and Bright Steel Bar	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO

108	Alchemy Surface Technologies, No.344, 9th cross, IV Phase, PIA, Bengaluru-560 058	Electroplating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
109	Dynamatic Technologies Limited, No. 11, Dynametic park, II Phase, PIA, Bengaluru-560 058	R & D activites and manufacture of Hydraulic equipments	Large	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
110	Mythri Metallizing India.,No.177-178, III Phase, PIA, Bangalore-560058	Grit Blasting , Spray Galavanizing, Stress relieving & Spray painting	Small	Red	NA	Yes	Yes	Yes	Yes	Yes	NO
111	Diamond Hard Chrome Platers., No.C-130, 2nd 'B' Cross, II Stage, PIE, Bengaluru-560 058	Electroplating Hard Chrome Plating activity (Hardchrome)	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
112	R.K. Engineering Industries., No.B-87, 2nd Cross, I Stage, PIE , Bengaluru-560 058	Electro polishing	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO

113	Balaji Metal Finishers., No.68-A, 1st Floor, II Stage, PIE, Bengaluru-560 058	Electroplating activity of Nickel & Copper	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
114	Shivajyothi coaters, No SM-7, 3rd stage, Peenya Industrial Estate, Bangalore - 560058	Powder coating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
115	Advaith Metal Finishers (Formerly Known as Profal Coaters)., E607PIA, Bangalore-560058	Powder Coating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
116	Srinivasa Metal Coats., No. 293, IV Phase, Peenya Industrial Area, Bengaluru-560 058	Blackening Section	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
117	Shiva Krupa Industries., No.D-426/C, 10th Main, II Stage, PIE, Bengaluru-560 058	Electroplating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
118	Ambika Industries.,No.V-48, 5th Main, II Stage, PIE, Bengaluru-560 058	Electroplating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO

119	MJS Metal Coaters Private Limited., No.729/B, 3rd Cross, I Stage, PIE, Bengaluru-560 058	Sheet blasting painting and power coating	Small	Red	NA	Yes	Yes	Yes	Yes	Yes	NO
120	Surya metal finishers , P-17 , 3rd cross, 3rd stage ,PIA, Bengaluru-560 058	Electroplating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
121	Hanu Vibro technologies, No.C 248,5th cross,peenya industrial estate ,banglore 58	Metal and steel blockening and grit plasting	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
122	Gayathri Metal Finishers, No.C-212, I Stage, PIE, Banglaore -58	Electroplating	Small	Red	CETP	Yes	Yes	Yes	Yes	Yes	NO
123	The Mysore Electrical Industries Ltd., P.B. NO. 2221, Tumkur road, Industrial Suburb, Yeshwanthpura B'lore – 22	Switch gears & Panel Boards with electroplating	Large	Red	ETP	Yes	Yes	No	No	Yes	NA

124	Gardener Aerospace Bengaluru Pvt Ltd No 102,3rd cross,3rd main,2nd stage Industrial Subrub,Yeshwanthpur, Bengaluru 560 022	Anodizing, Non destructive testing, spary painting.	Large	Red	ETP	Yes	Yes	No (AGL)	Yes	Yes	Yes
125	M/s. J. L Metal Finishers, No. 738/20, 3rd Cross, 2nd Main SRS Road, Near Govt. P U College, Peenya, Bangalolre-58 (None cyanide Nickel & Zinc electroplating)	Electroplating	Small	Red	CETP	Yes	Yes	No (AGL)	Yes	Yes	Yes
126	Kanaka Metal FinishersNo. 729, Ramananda Building Laggere Road, Opp. SRS Water Tank, Peenya, Bangalore-58	Electroplating	Small	Red	CETP	Yes	Yes	No (AGL)	Yes	Yes	Yes
127	Hind High Vaccum Company (P) Ltd., No.17, 1st Phase, Peenya Industrial Area, Bangalore-560058	Surface treatment	L	R	Combined ETP	Yes	Yes	Yes	Yes	Yes	Yes

128	John Crane Sealing System, 1st Phase, Peenya Industrial Area, Bangalore-560058	Surface treatment	L	R	Combined ETP	Yes	Yes	Yes	Yes	Yes	Yes
129	Kennametal Widia (I) Limited, (Widia (I) Limited,), 8/9th Mile, Tumkur Road, 16th Km, Bangalore	Surface treatment	L	R	Combined ETP	Yes	Yes	Yes	Yes	Yes	Yes
130	Surin Automotives(Krishna Fabrications Limited), No.6a, 1st Phase, Peenya Industrial Area, Bangalore	Surface treatment	L	R	Combined ETP	Yes	Yes	Yes	Yes	Yes	Yes
131	Wipro Infrastructure Engineering, No.9B-10A, 1st Phase, Peenya Industrial Area, Bangalore-560058	Surface treatment	L	R	Combined ETP	Yes	Yes	Yes	Yes	Yes	Yes
132	Ashwini Hard Chrome Industries, No. 05, Thimmaiah Industrial Estate, Penya Industrial Area, Behind Asian Fab, 2nd Phase, Bangalore-560058	Surface Treatment	S	R	CETP	Yes	Yes	Yes	Yes	Yes	Yes

133	Bangalore Enterprises, 16th Cross, DODDANNA INDUSTRIAL ESTATE, 16th Cross, DODDANNA INDUSTRIAL ESTATE, Bangalore, Bangalore	Powder Coating with surface treatment	S	R	CETP	Yes	Yes	Yes	No	Yes	Yes
134	Clinix Intel Medical Systems Private Limited, I Cross, Magadi Main Road, Sunkadakatte, I Cross, Magadi Main Road, Sunkadakatte, Bangalore, Bangalore	Surface treatment	S	R	CETP	Yes	Yes	Yes	No	Yes	Yes
135	Divya Industries, No.13, 2nd Cross, Bhyraveshwara Industrial Estate, Andhrahalli Main Road, Bangalore-560091	Electroplating	S	R	CETP	Yes	Yes	Yes	No	Yes	Yes

136	Durgashree Coaters Private Limited, No.421/A, 9th Cross, Patel Chennappa Industrial Estate, Andhrahalli Main Road, Vishwaneedam Post, Bangalore	Powder Coating with surface treatment	S	R	CETP	Yes	Yes	Yes	No	Yes	Yes
137	Gangashree Metal Finishers, No. 94, Maruthi Industrial Estate, 2nd Stage, Peenya Bangalore-560058	Electroplating	S	R	CETP	Yes	Yes	Yes	No	Yes	Yes
138	Manjunatha Metal Finishers, No.784, 11th Cross, Ganapathinagar, Bangalore, Bangalore Urban, Ganapathinagar, Bangalore, Bangalore	Electroplating	S	R	CETP	Yes	Yes	Yes	No	Yes	Yes
139	Marcs Engineering Private Limited, Nadakerappa Industrial Estate, Andhrahalli Main Road, Andhrahalli Main Road, Bangalore, Bangalore	Powder coating	S	R	CETP	Yes	Yes	Yes	No	Yes	Yes

140	Sri Balaji Industries(Maxwell Electroplaters), No.112,, SLV indl Estate, 8th Main Road, Peenya 2nd Stage, Bangalore-560058	Electroplating	S	R	CETP	Yes	Yes	Yes	Yes	Yes	Yes
141	Bright surface finishers(Midas India), No.42/1, 3rd Main Road, Keonics Layout, 3rd Stage, 4th Phase, Peenya, Thigalarapalya Main Road, Bangalore-560058	Surface Treatment	S	R	CETP	Yes	Yes	Yes	Yes	Yes	Yes
142	Mookambika Industries, No 117/B, Rajagopalnagar Main Road, Peenya 3rd Phase, Ganapathinagar, Bangalore 560058	Surface Treatment	S	R	CETP	Yes	Yes	Yes	Yes	Yes	Yes
143	Prime Anodizers, Byregowda Industrial Estate, Hegganahalli, Vishwaneedam Post, Bangalore	Surface treatment	S	R	CETP	Yes	Yes	Yes	No	Yes	Yes

144	Rashmi Metal Enterprises, No.96, 10th cross, Ganapathinagar, 4th Phase, Peenya	Electroplating	S	R	CETP	Yes	Yes	Yes	No	Yes	Yes
145	SK Metals Private Limited, No.133/3, Hegganahalli, Bangalore, Bangalore	Surface treatment	S	R	CETP	Yes	Yes	Yes	No	Yes	Yes
146	SLN Enterprises, No.97/10, 3rd Cross, Doddanna Industrial Estate, Near Peenya 2nd stage, Hegganahalli, Bangalore-560091	Electroplating	S	R	CETP	Yes	Yes	Yes	Yes	Yes	Yes
147	Shree Raj Hard Chrome Industries, No.96, 10th Cross, GanapathiNagar, II 1st Phase, PEENYA INDUSTRIAL AREA, No.96, 10th Cross, GanapathiNagar, II 1st Phase, Bangalore, Bangalore	Surface Treatment	S	R	CETP	Yes	Yes	Yes	Yes	Yes	Yes

148	Sree Vinayaka Hard Chrome, No.41A, 18th Cross, Doddanna Industrial Estate, Near Peenya 2nd Stage, Bangalore-560091	Hard Chrome Plating	S	R	CETP	Yes	Yes	Yes	Yes	Yes	Yes
149	Srinidhi Hard Chrome, Site No.48/4, Maruthi industrial Town, Thigalarapalya Main Road, Near Peenya 2nd Stage, Bangalore-560058	Hard Chrome Plating	S	R	CETP	Yes	Yes	Yes	Yes	Yes	Yes
150	Supreme Metal Finishers, No.63 & 70, Doddanna Industrial Estate, Hegganahalli, Bangalore-560091	powder coating with surface treatment	S	R	CETP	Yes	Yes	Yes	No	Yes	Yes
151	Vaibhav Industries, No.62, 10th Cross, Doddanna Industrial Estate, Near Peenya 2nd Stage, Bangalore-560091	Electroplating	S	R	CETP	Yes	Yes	Yes	No	Yes	Yes

152	Veenee Speciality Coatings, No.14, Nadakerappa Industrial Estate, Hegganahalli, Bangalore, Bangalore Urban, Hegganahalli, Bangalore, Bangalore	Powder coating with Surface treatment	S	R	CETP	Yes	Yes	Yes	No	Yes	Yes
153	Veenee Powder Coatings, No.14, Nadakerappa Industrial Estate, Hegganahalli, Bangalore, Bangalore Urban, Hegganahalli, Bangalore, Bangalore	Powder coating with Surface treatment	S	R	CETP	Yes	Yes	Yes	No	Yes	Yes
154	Kaveri Enamel & Allied Industries (4s India Pvt. Ltd), No.5 & 6, Karihobanahalli, Near Mythri Industries, Peenya 2nd Stage, Bangalore-560058	Surface treatment	S	R	CETP	Yes	Yes	Yes	No	Yes	Yes

155	R.K. Metal Finishers, No 146, Madikerappa Industrial Estate, Vishwaneedam Post, Hegganahalli, Bangalore91, Vishwaneedam Post, Hegganahalli, Bangalore, Bangalore	Powder coating with surface treatment	S	R	CETP	Yes	Yes	Yes	No	Yes	Yes
156	Innocoat Systems (I) Private Limited, No 33, Saibabanagar, Andhrahalli Main road, Peenya 2nd Stage, Bangalore-560058	Powder coating with surface treatment	S	R	CETP	Yes	Yes	Yes	No	Yes	Yes
157	JP electrotech, No. 3, 10th Cross, Opposite Padma Bar, Rajagopalnagar Main Road, GanapathiNagar, Bangalore-560058	Electroplating	S	R	CETP	Yes	Yes	Yes	Yes	Yes	Yes
158	Complex Engineering Works, No.1 & w, Karihobanahalli, Opp. Sushruthi Bank, Andhrahalli Main Road, Peenya 2nd Stage, Bangalore560091	Surface treatment	S	R	CETP	Yes	Yes	Yes	No	Yes	Yes

159	Shree Vinayaka Hard Chrome Industries, No.32, 12th Cross, Doddanna Industrial Estate, Near Peenya 2nd Stage, Bangalore-560091	Hard chrome plating	S	R	CETP	Yes	Yes	Yes	Yes	Yes	Yes
160	Aegis Manufacturing Systems, No. 73/A, 2351, 2352, Srigandanagar, Doddanna Industrial Estate, Bangalore, Taluk, Bangalore	Surface treatment	S	R	CETP	Yes	Yes	Yes	No	Yes	Yes
161	Anatech Ultra Coaters and Controls Private Limited, No 45,Bhyraveshwara Industrial Estate,Andhrahalli Main Road,Hegganahalli, Bangalore-560091	Powder coating	S	R	CETP	Yes	Yes	Yes	No	Yes	Yes
162	Sree Bhagyalakshmi Powder Coating, No.29 & 30, Bhyraveshwara Industrial Estate, Hegganahalli, Bangalore	Powder Coating	S	R	CETP	Yes	Yes	Yes	No	Yes	Yes

163	Venus Electrotech, No.76/77, 15th Cross, Doddanna Industrial Estate, Peenya 2nd Stage, Bangalore-560091	Powder Coating with 7 tank process	S	R	CETP	Yes	Yes	Yes	Yes	Yes	Yes
164	Vedashree Powder coaters(AMF powder coaters), Doddanna Industrial Estate, Peenya 2nd Stage, Bangalore	Powder Coating	S	R	CETP	Yes	Yes	Yes	No	Yes	Yes
165	Alvin Engineers, Andrahalli Main Road, Peenya 2nd Stage, Bangalore	Surface Treatment with Power Coating	S	R	CETP	Yes	Yes	Yes	No	Yes	Yes
166	Stainless Electropolishers, No. 117/D, 1st Floor, 9th Cross, Ganapathinagar, Peenya 3rd Stage, Bangalore-560058	Electropolishing	S	R	CETP	Yes	Yes	Yes	Yes	Yes	Yes
167	Sumukha Industries, Plot No. 38/1, Nadikerappa Industrial Estate, Andrahalli Main Road, Vishwaneedam Post, Bangalore	SURFACE TREATMENT WITH POWDER COATINGACTIVITY	S	R	CETP	Yes	Yes	Yes	No	Yes	Yes

168	Brite Coats, No. 98, Bhyraveshwara industrial estate, Andrahalli Main Road, V.N Post, Peenya, Bangalore	Surface Treatment with Power Coating	S	R	CETP	Yes	Yes	Yes	No	Yes	Yes
169	SP Industries (Shree Annapoorneshwari Enterprises), No. 536, Patel Channappa Industrial Estate, Andrahalli Main Road, Peenya 2nd Stage, Bangalore	Powder Coating Activity	S	R	CETP	Yes	Yes	Yes	No	Yes	Yes
170	Tetra Treats, Sy.No.55/41 to 45, Thigalarapalya Main Road, Bangalore-560058	Powder coating with Surface treatment	S	R	CETP	Yes	Yes	Yes	No	Yes	Yes
171	Shree Suyoga Technologies, Sy. No. 47, Shed No. 27-28, Raghavendra Industrial Estate, Thigalarapalya Main Road, Doddabidirikallu, Ward No. 40, Bangalore-560058	Powder coating with Surface treatment	S	R	CETP	Yes	Yes	Yes	Yes	Yes	Yes

172	Nandini Natura Coatings, No. 112/29B, Hegganahalli Cross, Next to Mohan Theatre, Sunkadakatte, Vishwaneedam Post, Bangalore-560091	powder coating and spray painting	S	R	CETP	Yes	Yes	Yes	No	Yes	Yes
173	Global Electro Technologies, No.72/2, 15th Cross, Doddanna Industrial Estate, Vishwaneedam Post, Near Peenya 2nd Stage, Bangalore-560091	Powder coating	S	R	CETP	Yes	Yes	Yes	Yes	Yes	Yes
174	Lords Metal Finishers, Shed No. 8A, Sy.No.112/3, Khata No.624, 12th Cross, Doddanna Industrial Area, Peenya 2nd Stage, Bangalore-560091	Powder coating with 7 tank process	S	R	CETP	Yes	Yes	Yes	Yes	Yes	Yes
175	Deepika Industries, No. 49/1A, Sri Laxmi Venkateshwara Industrial Estate, 8th Main Road, Peenya 2nd Stage, Bangalore-560058	Hard Chrome Plating	S	R	CETP	Yes	Yes	Yes	No	Yes	Yes

176	Shree Benaka Metal Finishers, No. 18, Suprabhatha Nagar, Karihobanahalli, Peenya 2nd Stage, Bangalore-560058	Electroplating	S	R	CETP	Yes	Yes	Yes	Yes	Yes	Yes
177	Durgamba Industries, No. 252/3, 6th Cross, Rajgopal Nagar, Near Maruthi Theatre, Peenya 2nd Stae, Bangalore-560058	Electroplating	S	R	CETP	Yes	Yes	Yes	No	Yes	Yes
178	Mitra Metal Finishers, Survey No 24, Behind Central Bank, 100 feet road, Jalhalli Cross, T. Dasarahalli, Bangalore 560057	Electroplating	S	R	CETP	Yes	Yes	Yes	Yes	Yes	Yes
179	SML Metal Finishers, No.24, Behind Syndicate Bank, 100 Ft Road, Jalahalli Cross, Bangalore - 560057.	Electroplating	S	R	CETP	Yes	Yes	Yes	Yes	Yes	Yes

180	Raj Metal Finishers, No 24, 100 Feet road, Jalahalli cross, Behind Syndicate Bank, Bangalore 560057	Electroplating	S	R	CETP	Yes	Yes	Yes	Yes	Yes	Yes
181	Om Shakthi Enterprises, No:8, 1st Cross, 1st Main, 2nd Phase, Peenya Industrial Area, Bangalore - 560058.	Electroplating	S	R	CETP	Yes	Yes	Yes	Yes	Yes	Yes
182	Sri Balaji Enterprises, No. 333, 9th Cross, 4th Main, 4th Phase, Peenya Industrial Area, Bangalore	Electroplating	S	R	CETP	Yes	Yes	Yes	Yes	Yes	Yes
183	Sri. Somanateshwara Enterprises, No.117/1, Opp.A-10, Ist Main Road, Peenya 2nd Stage, Bangalore-560058	Electroplating	S	R	CETP	Yes	Yes	Yes	Yes	Yes	Yes
184	Vishwa Enterprises, No 5,Thimmaiah Estate,Ist cross,2nd phase,Peenya Industrial Area, Bangalore 560058	Electroplating	S	R	CETP	Yes	Yes	Yes	Yes	Yes	Yes

185	Vijai Rotogravures, No.90/A, 3rd Main Road, Keonix Layout, Thigalarapalya Main Road, Peenya 2nd Stage, Bangalore-560058	Hard Chrome Plating	S	R	CETP	Yes	Yes	Yes	Yes	Yes	Yes
186	SLV Enterprises, No. 30,Srigandhanagar Main Road, Krishnappa Industrial Estate, Kareemsab Layout, Bangalore-560091	Electroplating	S	R	CETP	Yes	Yes	Yes	No	Yes	Yes
187	Vishruth Nest Hardware Solutions (P) Ltd, No. 147, Nadakerappa Indl Estate, Andhrahalli Main Road, Hegganahalli Village, Bangalore-560091	Electroplating	S	R	CETP	Yes	Yes	Yes	No	Yes	Yes
188	Lotus technologies, No 72,Shrigandha Kaval behind Konega Garments,Vishwaneedam post, Bangalore-560091	Electroplating	S	R	CETP	Yes	Yes	Yes	No	Yes	Yes

189	Manjunatha Enterprises, No. 54/1, 21st Cross, Dead End, Peenya Indl Area, 4th Phase, Near Rajagopalnagar New Police Station, Bangalore-560058	Electroplating	S	R	CETP	Yes	Yes	Yes	Yes	Yes	Yes
190	Hi Life Industries, Plot/Phase No. 44, Nandagokula Indl Layout, Karihobanahalli, Thigalarapalya Main Road, Bangalore-560058	Electroplating	S	R	CETP	Yes	Yes	Yes	No	Yes	Yes
191	Sri Someshwara Industries, No. 71, 911/829, 15th Cross, Near Veda Garments, Srigandhanagar, Kareemsab Layout, Viswaneedam, Bangalore-560091	Electroplating	S	R	CETP	Yes	Yes	Yes	Yes	Yes	Yes
192	Annapoorna Enterprises, No.6, 11th Cross, Peenya 2nd Stage, Bangalore-560058., No.6, 11th Cross, Peenya 2nd Stage, Bangalore-560058.	Electroplating	S	R	CETP	Yes	Yes	Yes	Yes	Yes	Yes

193	RS Surfacoats, No.03, First Floor, Nandagokula Indl Layout, Thigalarapalya Main Road, Bangalore-560058	Electropolishing	S	R	CETP	Yes	Yes	Yes	Yes	Yes	Yes
194	Faraday Electrotech, No. 15/1, 4th Cross, Kapilanagar Behind Doddanna Indl Estate, Near Peenya 2nd Stage, Bangalore-560091	Electroplating	S	R	CETP	Yes	Yes	Yes	Yes	Yes	Yes
195	Manjunatha Enterprises, No. 44/4, Maruthi Layout, Chokkasandra, T. Dasarahalli, Bangalore	Paint Stripping	S	R	CETP	Yes	Yes	Yes	Yes	Yes	Yes
196	Shreyas Enterprises, No. 07, Manjunatha Indl Complex, 13th Cross, Kareem Sab Layout, Hegganahalli, Vishwaneedam Post, Bangalore	Electroplating	S	R	CETP	Yes	Yes	Yes	Yes	Yes	Yes

197	Universal Industries, No 09, Chinnagiriyappa Industrial Estate, Vishwaneedam Post, Andhrahalli, Bangalore-560091	Electroplating	S	R	CETP	Yes	Yes	Yes	Yes	Yes	Yes
198	Sri Ranganatha Enterprises, No 45, Bhyraveshwara Industrial Estate, Peenya 2nd stage, Bangalore-560091	Electroplating	S	R	CETP	Yes	Yes	Yes	Yes	Yes	Yes
199	Sree Nanjundeshwara Coats, No.41/1A-5, Karihobanahalli, Thigalarapalya Main Road, Peenya 2nd Stage, Bangalore-560058	Powder coating with 7 tank process	S	R	CETP	Yes	Yes	Yes	No	Yes	Yes
200	Infrastructure Steels, No.30 & 31, Bhyraveshwara Industrial Estate, Hegganahalli, Bangalore-560091	Surface Treatment	S	R	CETP	Yes	Yes	Yes	No	Yes	Yes
201	SK Steel Industries, No.41, Bhyraveshwara Industrial Estate, Hegganahalli, Bangalore-560091	Surface Treatment	S	R	CETP	Yes	Yes	Yes	No	Yes	Yes

202	Sri Manjunatha Enterprises, No.74/1-13, 17th cross, Doddanna Industrial Estate, near Peenya 2nd stage, Bangalore-560091	Electroplating	S	R	CETP	Yes	Yes	Yes	Yes	Yes	Yes
203	Annapoorna Enterprises, No.6, 11th Cross, Peenya 2nd Stage, Bangalore560058.	non-cyanide zinc electroplating activity	S	R	CETP	Yes	Yes	Yes	Yes	Yes	Yes
204	SGD Components, NO.4, Chandu Estate, Chikkasandra, Hesaraghatta Mian Road, T.Dasarahalli Post, Bangalore	Dull Nickel plating	S	R	CETP	Yes	Yes	Yes	Yes	Yes	Yes
205	Shree Suyoga Industries, Sy.No.47, Plot No.24, 25, 26, 12th Cross, Ward No.40, Raghavendra Industrial Estate, Thigalarapalya Main Road, Bangalore	Powder coating with 7 tank process	S	R	CETP	Yes	Yes	Yes	Yes	Yes	Yes
206	Rajathadri Enterprises, No.4 Mayuranagara, Andrahalli Main road, Hegganahalli, Peenya 2nd Stage, Bangalore	electroplating	S	R	CETP	Yes	Yes	Yes	Yes	Yes	Yes

ANNEXURE-VIII

Details of Industries having Air pollution sources in core and impact zones of the study area

Sl No	Name of Industries	Type	Major Sources of Air pollution
1	ABB Ltd, No.4A, 5 & 6, II Phase, PIA, Bangalore,	Assembly, testing & spray painting & pre treatment of electrical & electronic equipment	380 KVA DG Set 380 KVA DG Set 400 KVA DG Set 500 KVA DG Set 500 KVA DG set 500 KVA DG Set 1010 KVA DG Set 1010 KVA DG Set 1010 KVA DG Set Spray Painting Booth Paint Booth Oven
2	KDDL Ltd (formerly know as Kamala Dials & Devices), No.296 & 297 IV Phase, PIA, Bangalore-58,	Wrist Watch Hands with brass strap stapping, reviting,degreasing, nickel & gold Electroplating	Alkali bath Gold electro plating bath Nickel electroplating bath Spray Painting Booth 250 KVA DG Set
3	Advinus Therapeutics Private Ltd, Unit -1, No 21- 22, II Phase, PIA, Bangalore-58	R & D activity on toxycology, biological efficiency on residue of pesticides & R & D of pharmaceutical drug discovery and contract research	Pilot Plant 30 Nos. Fumehoood 2 Nos. Racks chemical storage Boiler 10 Kg/hr 750 KVA DG Set 750 KVA DG Set
4	Rewdale Precission Tools Pvt Ltd, No.484 B &C, IV Phase, PIA, Bangalore-58	Precision turned components with pre treatment i.e collets	Buffing Machine Blackening bath Oil Quenching tank 320 KVA DG Set
5	Sami Labs Ltd, No.19-1 & 19-2, II Phase, PIA, Bangalore-58	R & D activity on Herbal extraction	12 Nos. of Laboratory Exhaust 180 KVA DG Set 180 KVA DG Set 600 Kg/hr Boiler (HSD Fired) S.S Reactor

6	Ace Designers Ltd, No.7 & 8, II Phase, PIA, Bangalore-58	CNC Machines with surface treatment Spray Painting & Powder Coating operations	200 KVA DG Set 320 KVA DG Set 500 KVA DG Set-1 500 KVA DG Set-2 Spray Painting Booth Shot Blasting Machine
7	Fouress Engineering India Ltd, No.2, II Phase, PIA, Bangalore-58,	Eng industries with machining, acid cleaning & spray painting i.e industrial valves & isolators	2 Nos. of 125 KVA DG Set 2 Nos. of 200 KVA DG Set 4 Nos. of Spray paint booth 5 Nos. of Welding machines Plasma Machine
8	Glastronix, No.21-E2, II Phase, PIA, Bangalore-58	Assembly, testing of electrical & electronic equipments & sheet metal fabrication items with degreasing & powder coating operations	5 Nos. of Powder coating booths 2 Nos. of Powder curing Oven Grinding machine Degreasing tank Buffing Machine 500 KVA DG Set
9	Beckman Coulter India Pvt Ltd (Rea Matrix India Pvt Ltd), No.50 B, II Phase, PIA, Bangalore-58,	R & D on clinical research for production of diagnostic reagents & research use kits	Lab exhaust manufacturing R&D labexhaust 2 fumecups 250 KVA DG Set
10	Mag Engineering Pvt Ltd, No.46-A, 3rd Main road, Unit -2 , II Phase, PIA, Bangalore-58,	Earth moving equipments cabins & its parts with sheet metal fabrication, phosphating, spray painting & powder coating operations	Pre treatment section Powder Coating section 2 booths 2 Nos.Paint Drying oven HSD Fired 4 Nos. of Liquid Paint Booth 2 Nos. of Sanding Booth Powder Curing Oven 4 Nos. of Laser Cutting Machine Grit Blasting Machine Dry off oven Pre-Treatment section Primer paint booth 2 Nos. of Thermic fluid heater 2 Lakhs K.Cal Baking oven 320 KVA DG Set 180 KVA DG Set

11	Mysore Thermo Electric Pvt Ltd, No.62, III Phase, PIA, Bangalore-58	Lead Acid Storage Batteries	575 KVA DG Set Casting Section (5 Nos of Melting Furnace For Spine casting) + 4 Nos Grind Casting + Lead Melting furnace (oxide mill) 2 Nos Lead Melting furnace for component casting) Pasting Section Filling Section 4 Nos and 4Nos group burning machine & one bitumen melting bath Oxide Mill
12	Healthium Medtech Pvt Ltd (Formerly Sutures India Pvt Ltd, No.472/D, IV Phase, PIA, Bengaluru-560058	Surgical obserbable sutures with processing of sheet & goat guts, desalting, sliting, sizeing,chromo sizeing, assembly with needles followed by testing & packing	250 KVA DG Set 380 KVA DG set
13	Merck Life Science Pvt Ltd., (Formerly known as Millipore (India) Pvt Ltd), No. 50-A/51, II Phase, PIA, Bengaluru-560 058,	Assembly of bio monitoring laboratory water, TFS, analytical products, cartridges housing along with R & D on validation on bio pharmaceutical products	2 Nos. of Lab exhaust fume hood Lab exhaust 2-fume hood 3 250 KVA DG Set 500 KVA DG Set 60 HP Fire Engine
14	Steer Engineering Pvt Ltd, No.290,4th Main, IV Phase, PIA, Bangalore-58,	Assembly of machines for plastic, pharma & food processing industries with machining heat treatment and grit blasting operations	Annealing furnace 2 Nos. of Grit Blasting Machine Heat treatment furnance Fluidized bed furnace Fume cup board Nitridising Shot Blasting Machine 2 Nos. of Hardening furnace Astoning furnace 2 Nos of Tempering furnace Buffing Machine 500 KVA DG Set

15	Surhennings Pvt Ltd, No.1-B, II Phase, PIA, Bangalore-58,	Machineries protective equipments with fabrication, machining, phosphating & powder coating operations	500 KVA DG Set 62.5 KVA DG Set 2 Nos. of Powder Coating Booth 3 Nos. of Laser Cutting Machine
16	Microtex Energy Pvt Ltd., No.42 & 43, 2nd Main , II Phase, PIA, Bangalore-58,	Lead acid Batteries for industrial, automotive, 4 wheeler, 2 wheeler, pvc separator, polyester tubular bags, refining of lead ingots & lead suboxide	380 KVA DG Set 380 KVA DG Set 250 KVA DG Set 575 KVA DG Set Group welding section Casting machines PVC separator production section Powder Mixing Section Casting buffing section Formation Section Lead Melting Pot Oxide Filing Section 5 Nos. of Pulverisers
17	Eshwari Textile Processing Pvt Ltd., No.109, 6th Main, III Phase, PIA, Bangalore-560058	Fabric/ garment dyeing washing	Boiler 3 TPH Boiler 4 TPH Thermic fluid heater 6 L.K cal/Hr Drying oven 125 KVA DG Set 500 KVA DG Set
18	Bioneeds India Pvt Ltd No.3,I Main Road, I Stage, PIE, Bengaluru-560 058,	R & D activity in chemical & Bio Pharma labs	2 Nos. of Chemistry Lab Wet Lab 200 KVA DG Set
19	ICT Services Management Solutions (I) Pvt ltd No. 30A, II Phase, PIA, Bengaluru-560 058,	Rebushment of elctronic equipments	250 KVA DG Set 62.5 KVA DG Set Diesel Engine for fire hydrant system (65HP) Electro static discharge repair stations
20	TUV SUD South Asia No.A-151/152, 2nd C Main, II Stage, PIE, Bangalore-560058	Consumer product testing laboratory for food & Water	380 KVA DG Set Antibiotic wet testing laboratory Heavy metal wet Food residue laboratory Food chemical laboratory Food chemical laboratory Food chemical laboratory

21	Quenby Transfer (I) (P) Ltd., No.542, 14th Cross, IV Phase. PIA, Bangalore-58	Printed transfer paper labels for garments with screen printing/washing	500 KVA DG Set 6 Nos. of Drying Ovens 2 Nos. of Powder applicant machine
22	Armstrong Acmite India, No.41-B,II Phase, PIA, Bangalore-58	Non Ferrous Copper based alloy casting	2 Nos. of Induction Furnace-400 Kgs/hr (Electrically operated) Shot Blasting Machine (Electrically operated) Sieving Machine Sand Plant 125 KVA DG Set 185 KVA DG Set 250 KVA DG Set
23	Dynamatic Technologies Ltd, No.11, II Phase, PIA, Bangalore-58,	R & D on design, development photoshop of Hydraulic& Airspace components with pretreatment operation	725 Kva DG set 1010 KVA DG set Spot welding machine Has Router Spray Painting Booth Primary painting booth Spray Painting Booth Paint baking oven
24	Healthium Medtech Pvt Ltd (Formerly Sutures India Pvt Ltd, No.477C, IV Phase, PIA, Bengaluru-560058	Surgical suture needles of different gardes with grinding, buffing, Hardening, Pickling & Electropolishing opeartions	125 KVA DG Set 50 KVA DG set Grinding machine Tip grinding bath electro polishing bath Buffing machine Grinding machine
25	Gemini Dyeing & Printing Mills Limited, No.16, 1st Phase, Peenya Industrial Area, Bangalore	Washing & Printing of Fabrics	85 KVA DG Set 320 KVA DG Set Fuel Heater(Thermic) 10lakh Kcl Boiler +T.F.H 3ton
26	Hind High Vaccum Company (P) Ltd., No.17, 1st Phase, Peenya Industrial Area, Bangalore-560058	Surface treatment	365 Kva DG set 500 Kva DG set 380 Kva DG set 380 Kva DG set Electropolishing section Process emission
27	ITC Limited, 1st Phase, Peenya Industrial Area, Bangalore	R & D Centre	1010 KVA DG Set 1110 KVA DG Set 1110 KVA DG Set Laboratory exhausts

28	John Crane Sealing System, 1st Phase, Peenya Industrial Area, Bangalore-560058	Surface treatment	625 KVA DG Set 625 KVA DG Set Phosphating section
29	Kennametal Widia (I) Limited, (Widia (I) Limited,), 8/9th Mile, Tumkur Road, 16th Km, Bangalore	Surface treatment	1000 KVA DG Set 1000 KVA DG Set 1000 KVA DG Set 2 MW DG Set 167 HP Fire Engine Spray drier Double Cone Blender Screening Carbide Crusher Screening Screening and grinding Floor Level Exhaust Carburizing Furnace Floor Level Exhaust FL Exhaust Sedimentation Tank Reduction Furnace PU-I Reduction Furnace PU-I Attritor Milling Green Carbide Machining (Shaping) Powder Compacting-CIP Green Carbide Machining (GTD) Sintering Furnace (DS1) Sintering Furnace (DS2) Sintering Furnace (AK5) Sintering Furnace (PF1) Sintering Furnace(PF1) LPG Burning Sintering Furnace(PF2) Sintering Furnace(PF2) LPG Burning Sintering Furnace(PF5) Sintering Furnace(PF5) LPG Burning Sulphur Cast Station Carbide Grinding

			Carbide Grinding Widma Edge Rounding M/c Graphite Plate Cleaning M/c Insert Cleaning/Vaqua Blast Green Carbide Inspection Green Carbide Drilling Sintered Tip Cleaning Furnace Sintering Furnace(PF-3) Sintering Furnace(PF-4) Sintering Furnace(PF-6) Sintering Furnace(PF-6) LPG Burning Sintering Furnace(PF-6) Argon Emergency Vent Sintering Furnace(PF-7) Sintering Furnace(PF-7) LPG Burning Sintering Furnace(PF-7) Argon Emergency Vent Coating Furnace (CVD-3) Coating Furnace (CVD-4) Coating Furnace (CVD-5) Coating Furnace (CVD-6) Micro Blasting Fuming Cupboard Ken Blast Machine and Ultrasonic Cleaning Bath Grit Blasting Grinding M/c. Grit Blasting Blackening Bath Filter Cleaning 3M Dressing M/c. Down Draft Table Brazing Furnace Grit Blasting M/c. Painting Booth SPM Blower 1 Painting Booth SPM Blower 2 Oven Fume Hood/Chemical Lab TEM M/c. Canteen Exhaust

30	Surin Automotives (Krishna Fabrications Ltd), No.6a, I Phase, Peenya Industrial Area, Bangalore	Surface treatment	Diesel Ovens-6 nos. Electric oven Shot Blasting Machine Paint booths-7 nos. 320 KVA DG sets-2 nos.
31	Welcast Steels Limited, 1st Phase, Peenya Industrial Area, Bangalore	Surface treatment	5.1 MW DG set 400 KVA DG set Heat Treatment Furnace-II Induction Furnace-IV 2500 Induction Furnace-III 2500 Heat Treatment Furnace Rotary Drum Cooler Breaker Drum Grinding Machine Induction Furnace-II 1500
32	Wipro Infrastructure Engineering, No.9B-10A, 1st Phase, Peenya Industrial Area, Bangalore-560058	Surface treatment	Fume killers(Existing) Phosphating (Existing) Phosphating (Existing) Exhaust gas from M/c-Pro Welding Exhaust-16 Nos Pmry Paint bth (Existing) Drying oven- HSD Existing Top Coat-Existing 750KVA- 2- Existing 750KVA- Existing 500KVA- Existing Manual- Existing 1000KVA- Existing
33	Rallis Research Centre 73/1C & 1D, Byregowda Indl Estate, Srigandanagar, Hegganahalli, Bangalore	R & D Centre	chem.store Chem.store F.C -synthe-1 F.C Kilo lab&analy F.C Synthesis -2 F.C&spotextractor formul. 500 KVA DG Set
34	Avery Dennison India Pvt Ltd, Plot No 6B, Ist Main Road, KIADB, Phase I, Peenya Industrial Area, Bangalore 560058	Label Printing	Plate making process Flexo machine Ink mixing room Fire hydrant Diesel pump 380KVA 500KVA

35	Cookson India Research Centre, No.89/1, Vaishnavi Bhavan, Industrial Suburb, 2nd Stage, Yeshwanthpura, Bangalore - 560 022.	Electronic material research and development activity laboratory	Lab exhaust 4 Nos
36	Jubilant Biosys Ltd., No. 96, Industrial Suburb, Yeshwantpur Bangalore - 560 022	R & D and software development in the field of Cell Biology and Chemistry	250 KVA DG Set 500 KVA DG Set 500 KVA DG Set Lab exhaust 14 Nos
37	The Mysore Electrical Industries Ltd., P.B. NO. 2221, Tumkur road, Industrial Suburb, Yeshwanthpura B'lore – 22	Steel, Copper, Brass, Aluminium, Bakelite and chemicals, sodium hudroxide, sulpuric acid, hydrochloric acid and nitric acid	380 KVA DG Set Painting booth- 1 Painting booth -2 Paintting booth
38	Danisco (India)Pvt. Ltd., (FMC India R & D Centre)No. 61/A, 1st Main Road, Indl Suburb, 2nd Stage, Yeshwanthapur, Bangalore-22.	Laboratory chemicals and reagents, natural and synthetic chemicals and intermediates	250 KVA DG Set Fume Boards 6 Nos
39	Gardener Aerospace Bengaluru Pvt Ltd No 102,3rd cross,3rd main,2nd stage Industrial Subrub,Yeshwanthpur, Bengaluru 560 022	Aluminium, Aluminium etch, Developer, Potassium dichromate, primer, sulphuric acid, tataric acid, top coat, Turco Aldox-V and Turco-4215NC	Anodizing section Spray painting booth- I Spray painting booth- II Hot air oven Boiler of 300 Kg/Hr Laboratory fume wood DG Set of 750 KVA

40	HMT Machine Tools Ltd.,No:1, Common Service Division, Hmt Post, Jalahalli, Bangalore.	Coalant oil, diesel, foundry sand, packing materials, paints of different colors, pig iron, steel sheets and steel tubes	Sand dry unit Dust collector connected to transfer point Knocking section Core drying vertical oven shot blasting machines no. 791 shot blasting machines no. 792 Centriblast machine 1500 KVA DG Set 1500 KVA DG Set 310 KVA DG Set Shot blasting machines Chromium plating booth Heat treatment Booth Wave soldering machine Mould drying oven no.2 Mould drying oven no.4 Induction furnace 3 T Induction furnace 3 T Induction furnace 1.5 T

ANNEXURE-IX

Details of Large Red Industries having Air pollution Sources and its control measures in core and Impact Zones of the study area

Sl No	Name and Address of Industries	Type	Major Sources of Air pollution	Air Pollution Control Measures Provided
1	ABB Ltd, No.4A, 5 & 6, II Phase, PIA, Bangalore,	Assembly, testing & spray painting & pre treatment of electrical & electronic equipment	380 KVA DG Set 380 KVA DG Set 400 KVA DG Set 500 KVA DG Set 500 KVA DG set 500 KVA DG Set 1010 KVA DG Set 1010 KVA DG Set 1010 KVA DG Set Spray Painting Booth Paint Booth Oven	Acoustics Enclosures Acoustics Enclosures Acoustics Enclosures Acoustics Enclosures Acoustics Enclosures Acoustics Enclosures Acoustics Enclosures Acoustics Enclosures Acoustics Enclosures Filters (Fiber Glass Filter & blower followed by exhaust of 3 Mts ht ARL) Acoustics Enclosures
2	KDDL Ltd (formerly know as Kamala Dials & Devices), No.296 & 297 IV Phase, PIA, Bangalore-58,	Wrist Watch Hands with brass strap stapping, reviting,degreasing, nickel & gold Electroplating	Alkali bath Gold electro plating bath Nickel electroplating bath Spray Painting Booth 250 KVA DG Set	Scrubber Scrubber Scrubber Scrubber Acoustics Enclosures
3	Advinus Therapeutics Private Ltd, Unit -1, No 21-22, II Phase, PIA, Bangalore-58	R & D activity on toxycology, biological efficiency on residue of pesticides & R & D of pharmaceutical drug discovery and contract research	Pilot Plant 30 Nos. Fumehoood 2 Nos. Racks chemical storage Boiler 10 Kg/hr 750 KVA DG Set 750 KVA DG Set	Scrubber Individual scrubber Individual scrubber Dust suppressor Dust suppressor Dust suppressor
4	Rewdale Precission Tools Pvt Ltd, No.484 B &C, IV Phase, PIA, Bangalore-58	Precision turned components with pre treatment i.e collets	Buffing Machine Blackening bath Oil Quenching tank 320 KVA DG Set	Bag filters Scrubber Hood cover Acoustics Enclosures

5	Sami Labs Ltd, No.19-1 & 19-2, II Phase, PIA, Bangalore-58	R & D activity on Herbal extraction	12 Nos. of Laboratory Exhaust	Hood cover
			180 KVA DG Set	Acoustics Enclosures
			180 KVA DG Set	Acoustics Enclosures
			600 Kg/hr Boiler (HSD Fired)	Acoustics Enclosures
			S.S Reactor	Scrubber
6	Ace Designers Ltd, No.7 & 8, II Phase, PIA, Bangalore-58	CNC Machins with surface treatment Spray Painting & Powder Coating operations	200 KVA DG Set	Acoustics Enclosures
			320 KVA DG Set	Acoustics Enclosures
			500 KVA DG Set-1	Acoustics Enclosures
			500 KVA DG Set-2	Acoustics Enclosures
			Spray Painting Booth	Scrubber
			Shot Blasting Machine	Cyclone Dust Collector
7	Fouress Engineering India Ltd, No.2, II Phase, PIA, Bangalore-58,	Eng industries with machining, acid cleaning & spray painting i.e industrial valves & isolators	2 Nos. of 125 KVA DG Set	Acoustics Enclosures
			2 Nos. of 200 KVA DG Set	Acoustics Enclosures
			4 Nos. of Spray paint booth	Acoustics Enclosures with water curtains
			5 Nos. of Welding machines	Individual bag filters
			Plasma Machine	Individual bag filters
8	Glastronix, No.21-E2, II Phase, PIA, Bangalore-58	Assembly, testing of electrical & electronic equipments & sheet metal fabrication items with degreasing & powder coating operations	5 Nos. of Powder coating booths	Cyclone duct collector
			2 Nos. of Powder curing Oven	Acoustics Enclosures
			Grinding machine	Cyclone duct collector
			Degreasing tank	Acoustics Enclosures
			Buffing Machine	Cyclone duct collector
			500 KVA DG Set	Acoustics Enclosures
9	Beckman Coulter India Pvt Ltd (Rea Matrix India Pvt Ltd), No.50 B, II Phase, PIA, Bangalore-58,	R & D on clinical research for production of diagnostic reagents & research use kits	Lab exhaust manufacturing	Scrubber
			R&D labexhaust 2 fumecups	Scrubber
			250 KVA DG Set	Acoustics Enclosures

10	Mag Engineering Pvt Ltd, No.46-A, 3rd Main road, Unit -2 , II Phase, PIA, Bangalore-58,	Earth moving equipments cabins & its parts with sheet metal fabrication, phosphating, spray painting & powder coating operations	Pre treatment section Powder Coating section 2 booths 2 Nos.Paint Drying oven HSD Fired 4 Nos. of Liquid Paint Booth 2 Nos. of Sanding Booth Powder Curing Oven 4 Nos. of Laser Cutting Machine Grit Blasting Machine Dry off oven Pre-Treatment section Primer paint booth 2 Nos. of Thermic fluid heater 2 Lakhs K.Cal Baking oven 320 KVA DG Set 180 KVA DG Set	Scrubber Cyclone Dust collector Scrubber Cyclone Dust collector Dust collector Dust Collector Port hole Bag filters Port hole Scrubber Port hole - Acoustics Enclosures Acoustics Enclosures
11	Mysore Thermo Electric Pvt Ltd, No.62, III Phase, PIA, Bangalore-58	Lead Acid Storage Batteries	575 KVA DG Set Casting Section (5 Nos of Melting Furnace For Spine casting) + 4 Nos Grind Casting + Lead Melting furnace (oxide mill) 2 Nos Lead Melting furnace for component casting) Pasting Section Filling Section 4 Nos and 4Nos group burning machine & one bitumen melting bath Oxide Mill	Acoustics Enclosures Common hood, Ducting & Scrubber Common hood, Ducting & Scrubber Filling machine having individual pulse jet bag filter Pulse jet operated bag filter primary & secondary bag filter

12	Healthium Medtech Pvt Ltd (Formerly Sutures India Pvt Ltd, No.472/D, IV Phase, PIA, Bengaluru-560058	Surgical obserbable sutures with processing of sheet & goat guts, desalting, sliting, sizeing,chromo sizeing, assembly with needles followed by testing & packing	250 KVA DG Set 380 KVA DG set	Acoustics Enclosures Acoustics Enclosures
13	Merck Life Science Pvt Ltd., (Formerly known as Millipore (India) Pvt Ltd), No. 50-A/51, II Phase, PIA, Bengaluru-560 058,	Assembly of bio monitoring laboratory water, TFS, analytical products, cartridges housing along with R & D on validation on bio pharmaceutical products	2 Nos. of Lab exhaust fume hood Lab exhaust 2-fume hood 3 250 KVA DG Set 500 KVA DG Set 60 HP Fire Engine	Scrubber Scrubber Acoustics Enclosures Acoustics Enclosures Acoustics Enclosures
14	Steer Engineering Pvt Ltd, No.290,4th Main, IV Phase, PIA, Bangalore-58,	Assembly of machines for plastic, pharma & food processing industries with machining heat treatment and grit blasting operations	Annealing furnace 2 Nos. of Grit Blasting Machine Heat treatment furnance Fluidized bed furnace Fume cup board Nitridising Shot Blasting Machine 2 Nos. of Hardening furnace Astoning furnace 2 Nos of Tempering furnace Buffing Machine 500 KVA DG Set	Closed type Cyclone dust collector Closed type Closed type Scrubber Cyclone dust collector Closed Type Cyclone dust collector Closed Type Cyclone dust collector Cyclone dust collector Acoustics Enclosures

15	Surhennings Pvt Ltd, No.1-B, II Phase, PIA, Bangalore-58,	Machineries protective equipments with fabrication, machining, phosphating & powder coating operations	500 KVA DG Set 62.5 KVA DG Set 2 Nos. of Powder Coating Booth	Acoustics Enclosures Acoustics Enclosures Cyclone type dust collectors
			3 Nos. of Laser Cutting Machine	Dust Collector
16	Microtex Energy Pvt Ltd., No.42 & 43, 2nd Main , II Phase, PIA, Bangalore-58,	Lead acid Batteries for industrial, automotive, 4 wheeler, 2 wheeler, pvc separator, polyester tubular bags, refining of lead ingots & lead suboxide	380 KVA DG Set 380 KVA DG Set 250 KVA DG Set 575 KVA DG Set Group welding section Casting machines PVC separator production section Powder Mixing Section Casting buffing section Formation Section Lead Melting Pot Oxide Filing Section 5 Nos. of Pulverisers	Acoustic enclosure Acoustic enclosure Acoustic enclosure Acoustic enclosure Hood cover Scrubber Scrubber Dust collector Hood cover Scrubber Scrubber Bag filters Duct Collectors/bag Filters
17	Eshwari Textile Processing Pvt Ltd., No.109, 6th Main, III Phase, PIA, Bangalore-560058	Fabric/ garment dyeting washing	Boiler 3 TPH Boiler 4 TPH Thermic fluid heater 6 L.K cal/Hr Drying oven 125 KVA DG Set 500 KVA DG Set	cyclone dust collector cyclone dust collector cyclone dust collector cyclone dust collector Acoustic enclosure Acoustic enclosure
18	Bioneeds India Pvt Ltd No.3,I Main Road, I Stage, PIE, Bengaluru-560 058,	R & D activity in chemical & Bio Pharma labs	2 Nos. of Chemistry Lab Wet Lab 200 KVA DG Set	Scrubber Scrubber Acoustic enclosure

19	ICT Services Management Solutions (I) Pvt ltdNo. 30A, Sy.No. 37 & 39, II Phase, PIA, Bengaluru-560 058,	Reburshment of elctronic equipments	250 KVA DG Set 62.5 KVA DG Set Diesel Engine for fire hydrant system (65HP) Electro static discharge repair stations	Acoustic enclosure Acoustic enclosure Acoustic enclosure Acoustic enclosure
20	TUV SUD South Asia No.A-151/152, 2nd C Main, II Stage, PIE, Bangalore-560058	Consumer product testing laboratory for food & Water	380 KVA DG Set Antibiotic wet testing laboratory Heavy metal wet Food residue laboratory Food chemical laboratory Food chemical laboratory Food chemical laboratory	Acoustic enclosure Individual fume cups 1-9 with common duct to scrubber Individual 10-12 fume cups with common exhaust connected to scrubber Individual 13-14 fume cups with common exhaust connected to scrubber Fume cup-15 with exhaust & scrubber
21	Quenby Transfer (I) (P) Ltd., No.542, 14th Cross, IV Phase. PIA, Bangalore-58	Printed transfer paper labels for garments with screen printing/washing	500 KVA DG Set 6 Nos. of Drying Ovens 2 Nos. of Powder applicant machine	Acoustics Enclosures Acoustics Enclosures Scrubber
22	Armstrong Acmite India, No.41-B,II Phase, PIA, Bangalore-58	Non Ferrous Copper based alloy casting	2 Nos. of Induction Furnace-400 Kgs/hr (Electrically operated) Shot Blasting Machine (Electrically operated) Sieving Machine Sand Plant 125 KVA DG Set 185 KVA DG Set 250 KVA DG Set	Fume Extraction system with suitable Hood & Duct Inbuilt Dust collector & Bag Filter Acoustics Enclosures Acoustics Enclosures Acoustics Enclosures Acoustics Enclosures

23	Dynamatic Technologies Ltd, No.11, II Phase, PIA, Bangalore-58,	R & D on design, development photoshop of Hydraulic& Airspace components with pretreatment operation	725 Kva DG set 1010 KVA DG set Spot welding M/C Has Router Spray Painting Booth	With acoustic enclosure With acoustic enclosure Scrubber Dust collector Water filter curtain
			Primary painting booth Spray Painting Booth Paint baking oven	Paint arrest filter Paint arrest filter -
24	Healthium Medtech Pvt Ltd (Formerly Sutures India Pvt Ltd, No.477C, IV Phase, PIA, Bengaluru-560058	Surgical suture needles of different gardes with grinding, buffing, Hardening, Pickling & Electropolishing opeartions	125 KVA DG Set 50 KVA DG set Grinding machine Tip grinding bath electro polishing bath Buffing machine Grinding machine	Acoustics Enclosures Acoustics Enclosures Bag filters Common scrubber Bag filters Bag filters
25	Gemini Dyeing & Printing Mills Limited, No.16, 1st Phase, Peenya Industrial Area, Bangalore	Washing & Printing of Fabrics	85 KVA DG Set 320 KVA DG Set Fuel Heater(Thermic) 10lakh Kcl Boiler +T.F.H 3ton	Acoustics Enclosures Acoustics Enclosures Dust Collector Dust Collector
26	Hind High Vaccum Company (P) Ltd., No.17, 1st Phase, Peenya Industrial Area, Bangalore-560058	Surface treatment	365 Kva DG set 500 Kva DG set 380 Kva DG set 380 Kva DG set Electropolishing section Process emission	With acoustic enclosure With acoustic enclosure With acoustic enclosure Water scrubbing system with 3 Mt ARL chimney
27	ITC Limited, 1st Phase, Peenya Industrial Area, Bangalore	R & D Centre	1010 KVA DG Set 1110 KVA DG Set 1110 KVA DG Set Laboratory exhausts	Acoustics Enclosures Acoustics Enclosures Acoustics Enclosures 3 Mt ARL chimney

28	John Crane Sealing System, 1st Phase, Peenya Industrial Area, Bangalore-560058	Surface treatment	625 KVA DG Set 625 KVA DG Set Phosphating section	Acoustics Enclosures Acoustics Enclosures Ducting system with Chimney & Scrubber
29	Kennametal Widia (I) Limited, (Widia (I) Limited,), 8/9th Mile, Tumkur Road, 16th Km, Bangalore	Surface treatment	**Sources** 1000 KVA DG Set 1000 KVA DG Set 1000 KVA DG Set 2 MW DG Set 167 HP Fire Engine Spray drier Double Cone Blender Screening Carbide Crusher Screening Screening and grinding Floor Level Exhaust Carburizing Furnace Floor Level Exhaust FL Exhaust Sedimentation Tank Reduction Furnace PU-I Reduction Furnace PU-I Attritor Milling Green Carbide	**Provided** 23.5 Mtr Chimney 23.5 Mtr Chimney 23.5 Mtr Chimney 45 Mtr Chimney 3 Mtr ARL Chimney 14 Mtr Chimney 14 Mtr Chimney With bag filters 14 Mtr Chimney With Bag filters 20 Mtr Chimney With bag filters 10mtrs Chimney With bag filters 20 Mtr Chimney With Bag filters 20 Mtr AGL Chimney 18 Mtr AGL Chimney 20 Mtr AGL Chimney 10 Mtr AGL Chimney 15 Mtr AGL Chimney with Bag Filter 15 Mtr AGL Chimney with Bag Filter 14 Mtr AGL Chimney

			Machining (Shaping)	with Bag Filter
			Powder Compacting-CIP	15 Mtr Chimney with Wet Type DC
			Green Carbide Machining (GTD)	15 Mtr AGL Chimney with Bag Filter
			Sintering Furnace (DS1)	12 Mtr Chimney with Wet Type DC
			Sintering Furnace (DS2)	03 Mtr ARL Chimney
			Sintering Furnace (AK5)	03 Mtr ARL Chimney
			Sintering Furnace (PF1)	03 Mtr ARL Chimney
			Sintering Furnace(PF1)	03 Mtr ARL Chimney
			LPG Burning Sintering Furnace(PF2)	03 Mtr ARL Chimney
			Sintering Furnace(PF2)	03 Mtr ARL Chimney
			LPG Burning Sintering Furnace(PF5)	03 Mtr ARL Chimney
			Sintering Furnace(PF5)	03 Mtr ARL Chimney with Exhaust Blower
			LPG Burning Sulphur Cast Station	03 Mtr ARL Chimney with Bag Filter
			Carbide Grinding	03 Mtr ARL Chimney with Bag Filter
			Carbide Grinding Widma Edge Rounding M/c	3 Mtr ARL Chimney with Bag Filter
			Graphite Plate Cleaning M/c	3 Mtr ARL Chimney with Bag Filter
			Insert Cleaning/Vaqua Blast	15 Mtr AGL Chimney with Exhaust Blower
			Green Carbide Inspection	12 Mtr AGL Chimney with Bag Filter
			Green Carbide Drilling	3 Mtr ARL Chimney with Bag Filter
			Sintered Tip Cleaning Furnace	3 Mtr ARL Chimney

			Sintering Furnace(PF-3)	3 Mtr ARL Chimney
			Sintering Furnace(PF-4)	3 Mtr ARL Chimney
			Sintering Furnace(PF-6)	3 Mtr ARL Chimney
			Sintering Furnace(PF-6)	3 Mtr ARL Chimney
			LPG Burning Sintering Furnace(PF-6)	3 Mtr ARL Chimney
			Argon Emergency Vent	3 Mtr ARL Chimney
			Sintering Furnace(PF-7)	
			Sintering Furnace(PF-7)	
			LPG Burning Sintering Furnace(PF-7)	3 Mtr ARL Chimney with Exhaust Blower
			Argon Emergency Vent	3 Mtr ARL Chimney with Exhaust Blower
			Coating Furnace (CVD-3)	3 Mtr ARL Chimney with Exhaust Blower
			Coating Furnace (CVD-4)	3 Mtr ARL Chimney with Exhaust Blower
			Coating Furnace (CVD-5)	15 Mtr AGL Chimney with Bag Filter
			Coating Furnace (CVD-6)	3 Mtr ARL Chimney with Exhaust Blower
			Micro Blasting Fuming Cupboard	15 Mtr AGL with Bag Filter
			Ken Blast Machine and Ultrasonic Cleaning Bath	12 Mtr AGL with Bag Filter
			Grit Blasting	12 Mtr AGL Chimney with Bag Filter
			Grinding M/c.	12 Mtr AGL Chimney with Bag Filter
			Grit Blasting	3 Mtr ARL Chimney with Scrubber
				3 Mtr ARL Chimney with Bag Filter
				3 Mtr ARL Chimney

			Blackening Bath Filter Cleaning 3M Dressing M/c. Down Draft Table Brazing Furnace Grit Blasting M/c. Painting Booth SPM Blower 1 Painting Booth SPM Blower 2 Oven Fume Hood/Chemical Lab TEM M/c. Canteen Exhaust	with Bag Filter 12 Mtr AGL Chimney with Bag Filter 3 Mtr ARL Chimney 12 Mtr AGL Chimney with Bag Filter 3 Mtr ARL Chimney with Filter 3 Mtr ARL Chimney with Filter 3 Mtr ARL Chimney 3 Mtr ARL Chimney with Exhaust Blower 3 Mtr ARL Chimney with Exhaust Blower 3 Mtr ARL Chimney with Oil Mist Trap Filter
30	Surin Automotives(Krishna Fabrications Limited), No.6a, 1st Phase, Peenya Industrial Area, Bangalore	Surface treatment	Diesel Ovens-6 nos. Electric oven Shot Blasting Machine Paint booths-7 nos. 320 KVA DG sets-2 nos.	---- ---- Cyclone dust collector Scrubber Acoustics Enclosures
31	Welcast Steels Limited, 1st Phase, Peenya Industrial Area, Bangalore	Surface treatment	5.1 MW DG set 400 KVA DG set Heat Treatment Furnace-II Induction Furnace-IV 2500 Induction Furnace-III 2500 Heat Treatment Furnace Rotary Drum Cooler Breaker Drum	Acoustics Enclosures Acoustics Enclosures --- --- Dust collector --- --- Dust collector Dust collector ---

			Grinding Machine Induction Furnace-II 1500	
32	Wipro Infrastructure Engineering, No.9B-10A, 1st Phase, Peenya Industrial Area, Bangalore-560058	Surface treatment	Fume killers(Existing) Phosphating (Existing) Phosphating (Existing) Exhaust gas from M/c-Pro Welding Exhaust-16 Nos Pmry Paint bth (Existing) Drying oven- HSD Existing Top Coat-Existing 750KVA- 2-Existing 750KVA- Existing 500KVA- Existing Manual- Existing 1000KVA-Existing	---------- Scrubber Scrubber ---------- Dust Collector ---------- ---------- Dust Collector Acoustics Enclosures Acoustics Enclosures Acoustics Enclosures Acoustics Enclosures Acoustics Enclosures
33	Rallis Research Centre 73/1C & 1D, Byregowda Indl Estate, Srigandanagar, Hegganahalli, Bangalore	R & D Centre	chem.store Chem.store F.C -synthe-1 F.C Kilo lab&analy F.C Synthesis -2 F.C&spotextractor formul. 500 KVA DG Set	N.A N.A Scrubber Scrubber Scrubber Scrubber Acoustics Enclosures
34	Avery Dennison India Pvt Ltd, Plot No 6B, Ist Main Road, KIADB, Phase I, Peenya Industrial Area, Bangalore 560058	Label Printing	Plate making process Flexo machine Ink mixing room Fire hydrant Diesel pump 380KVA 500KVA	---------- ---------- ---------- ---------- Acoustics Enclosures Acoustics Enclosures

35	Cookson India Research Centre, No.89/1, Vaishnavi Bhavan, Industrial Suburb, 2nd Stage, Yeshwanthpura, Bangalore - 560 022.	Electronic material research and development activity laboratory	Lab exhaust 4 Nos	Provided individual chimney of height 3 mtr ARL with individual wood & scrubber
36	Jubilant Biosys Ltd., No. 96, Industrial Suburb, Yeshwantpur Bangalore - 560 022	R & D and software development in the field of Cell Biology and Chemistry	250 KVA DG Set 500 KVA DG Set 500 KVA DG Set Lab exhaust 14 Nos	5 mts ARL with acoustic enclosures 7 mts ARL with acoustic enclosures 7 mts ARL with acoustic enclosures Individual chimney of 3 mtr ARL with individual scrubber.
37	The Mysore Electrical Industries Ltd., P.B. NO. 2221, Tumkur road, Industrial Suburb, Yeshwanthpura B'lore – 22	Steel, Copper, Brass, Aluminium, Bakelite and chemicals, sodium hudroxide, sulpuric acid, hydrochloric acid and nitric acid	380 KVA DG Set	6 mts ARL with acoustic enclosures
38	Danisco (India)Pvt. Ltd., (FMC India R & D Centre)No. 61/A, 1st Main Road, Indl Suburb, 2nd Stage, Yeshwanthapur, Bangalore-22.	Laboratory chemicals and reagents, natural and synthetic chemicals and intermediates	250 KVA DG Set Fume Boards 6 Nos	5 mts ARL with acoustic enclosures Individual chimney of 3 mtr ARL with individual scrubber .
39	Gardener Aerospace Bengaluru Pvt Ltd No 102,3rd cross,3rd main,2nd stage Industrial Subrub,Yeshwanthpur, Bengaluru 560 022	Aluminium, Aluminium etch, Developer, Potassium dichromate, primer, sulphuric acid, tataric acid, top coat, Turco Aldox-V and Turco-4215NC	Anodizing section	scrubber with chimney of 3mtr ARL.

40	HMT Machine Tools Ltd.,No:1, Common Service Division, Hmt Post, Jalahalli, Bangalore.	Coalant oil, diesel, foundry sand, packing materials, paints of different colors, pig iron, steel sheets and steel tubes	Sand dry unit Dust collector connected to transfer point	9 mts AGL with Wet type dust collector 12.5 mts AGL Wet type dust collector

ANNEXURE-X

Analysis report extract of the Soil samples in the Core and Impact Zones of the Study area

Sl. No.	Parameters Analysed	Unit	Results of the Soil Sample collected near **Culvert near CMTI - Tumkur Road** along with Date of sample collection		
			29.6.2018	26.09.2018	**17.12.2018**
1	Copper	mg/kg	252	120	217
2	Lead	mg/kg	111	130	174
3	Zinc	mg/kg	140	237	619
4	Nickel	mg/kg	64	69	60
5	Total Chromium	mg/kg	101	113	99
6	Manganese	mg/kg	365	576	586
7	Cadmium	mg/kg	2	3	3
8	Iron	mg/kg	32,740	635	33034

Sl. No.	Parameters Analysed	Unit	Results of the Soil Sample collected near **Nandini Layout BMTC Bus Stop**, along with Date of sample collection		
			29.6.2018	**26.09.2018**	**17.12.2018**
1	Copper	mg/kg	127	57	88
2	Lead	mg/kg	75	32	2108
3	Zinc	mg/kg	24	89	132
4	Nickel	mg/kg	42	35	74
5	Total Chromium	mg/kg	75	60	154
6	Manganese	mg/kg	164	155	408
7	Cadmium	mg/kg	0.7	2	3
8	Iron	mg/kg	19,481	545	31960

Sl. No.	Parameters Analysed	Unit	Results of the Soil Sample collected near **Culvert near, Leggere bridge**,Ward No-69 Bangalore along with Date of sample collection		
			23.04.2016	**25.07.2016**	**23-6-2017**
1	Copper	101	101	120	198
2	Lead	mg/kg	101	55	82
3	Zinc	mg/kg	216	201	192
4	Nickel	mg/kg	27	45	72
5	Total Chromium	mg/kg	31	88	94
6	Manganese	mg/kg	137	335	295
7	Cadmium	mg/kg	BDL	BDL	BDL
8	Iron	mg/kg	8507	15084	24557

Sl. No.	Parameters Analysed	Unit	Results of the Soil Sample collected near **M/s. Unitex Apparels Ltd.,** No. 252, 11th Main, III Phase, PIA, Bangalore-58 along with Date of sample collection		
			09.07.2016		
			At surface level	**3 ft below ground level**	**5 ft below ground level**
1	Copper	mg/kg	51	84	48
2	Manganese	mg/kg	536	502	208
3	Lead	mg/kg	30	42	20
4	Zinc	mg/kg	65	160	100
5	Nickel	mg/kg	30	97	28
6	Total Chromium	mg/kg	27	89	46
7	Cadmium	mg/kg	BDL	BDL	BDL
8	Iron	mg/kg	8,400	17764	8836
9	Hexavalent Chromium	mg/kg	BDL	BDL	BDL

Sl. No.	Parameters Analysed	Unit	Results of the Soil Sample collected near **M/s. Sona Engineering, Pvt. Ltd,** No.159, 10th Main, III Phase, PIA, Bengaluru-58. along with Date of sample collection		
			09.07.2016		
			At surface level	**3 ft below ground level**	**5 ft below ground level**
1	Copper	mg/kg	24	9	15
2	Manganese	mg/kg	217	62	78
3	Lead	mg/kg	194	23	113
4	Zinc	mg/kg	30	78	24
5	Nickel	mg/kg	20	9	9
6	Total Chromium	mg/kg	114	11	7
7	Cadmium	mg/kg	BDL	BDL	BDL
8	Iron	mg/kg	11,333	6255	5874
9	Hexavalent Chromium	mg/kg	2.3	BDL	BDL

Sl. No.	Parameters Analysed	Unit	Results of the Soil Sample collected near **M/s. Surya Hard Chrome Industry,** I Stage, PIE, Bengaluru-58 along with Date of sample collection		
			09.07.2016		
			At surface level	**3 ft below ground level**	**5 ft below ground level**
1	Copper	mg/kg	16	30	21
2	Manganese	mg/kg	167	407	218
3	Lead	mg/kg	26	19	14
4	Zinc	mg/kg	52	65	16
5	Nickel	mg/kg	5	36	30
6	Total Chromium	mg/kg	34	44	29
7	Cadmium	mg/kg	BDL	BDL	BDL
8	Iron	mg/kg	7,035	17306	12118
9	Hexavalent Chromium	mg/kg	BDL	BDL	BDL

Sl. No.	Parameters Analysed	Unit	Results of the Soil Sample collected near **M/s. Anglo French Industry premises,** II Phase, PIA, Bengaluru-58. along with Date of sample collection		
			09.07.2016		
			At surface level	**3 ft below ground level**	**5 ft below ground level**
1	Copper	mg/kg	64	55	26
2	Manganese	mg/kg	726	523	270
3	Lead	mg/kg	35	22	6
4	Zinc	mg/kg	110	45	26
5	Nickel	mg/kg	61	56	20
6	Total Chromium	mg/kg	108	87	11
7	Cadmium	mg/kg	BDL	BDL	BDL
8	Iron	mg/kg	21,916	30160	9493
9	Hexavalent Chromium	mg/kg	BDL	BDL	BDL

Sl. No.	Parameters Analysed	Unit	Results of the Soil Sample collected near **M/s. AS Surface Finishers,** III Stage, PIE, Bengaluru-58 along with Date of sample collection		
			09.07.2016		
			At surface level	**3 ft below ground level**	**5 ft below ground level**
1	Copper	mg/kg	576	236	22
2	Manganese	mg/kg	230	414	226
3	Lead	mg/kg	329	509	11
4	Zinc	mg/kg	264	157	25
5	Nickel	mg/kg	28	48	31
6	Total Chromium	mg/kg	77	82	46
7	Cadmium	mg/kg	BDL	BDL	BDL
8	Iron	mg/kg	10,687	12069	7996
9	Hexavalent Chromium	mg/kg	BDL	BDL	BDL

Sl. No.	Parameters Analysed	Unit	Results of the Soil Sample collected near **M/s. Ambika Industry,** factory premises, II Stage, PIE, Bengaluru-58 along with Date of sample collection		
			09.07.2016		
			At surface level	**3 ft below ground level**	**5 ft below ground level**
1	Copper	mg/kg	248	22	38
2	Manganese	mg/kg	591	145	316
3	Lead	mg/kg	551	17	19
4	Zinc	mg/kg	149	16	29
5	Nickel	mg/kg	122	24	38
6	Total Chromium	mg/kg	143	32	41
7	Cadmium	mg/kg	BDL	BDL	BDL
8	Iron	mg/kg	14,718	7034	10258
9	Hexavalent Chromium	mg/kg	BDL	BDL	BDL

Sl. No.	Parameters Analysed	Unit	Results of the Soil Sample collected near **M/s. Kongovi Electronics Industry** factory premises, IV Phase, PIA, Bengaluru-58 along with Date of sample collection		
			09.07.2016		
			At surface level	**3 ft below ground level**	**5 ft below ground level**
1	Copper	mg/kg	71	12	56
2	Manganese	mg/kg	312	95	303
3	Lead	mg/kg	55	5	39
4	Zinc	mg/kg	75	42	76
5	Nickel	mg/kg	188	69	158
6	Total Chromium	mg/kg	222	56	183
7	Cadmium	mg/kg	BDL	BDL	BDL
8	Iron	mg/kg	17,353	10425	16590
9	Hexavalent Chromium	mg/kg	BDL	BDL	0.9

Regional Office - Peenya
Karnataka State Pollution Control Board
Urban Eco Park,
100 Feet Road, 3rd Phase,
Peenya Industrial Area,
Bengaluru - 560 058.
Telefax: 080-28395272

ಪ್ರಾದೇಶಿಕ ಕಛೇರಿ : ಪೀಣ್ಯ
ಕರ್ನಾಟಕ ರಾಜ್ಯ ಮಾಲಿನ್ಯ ನಿಯಂತ್ರಣ ಮಂಡಳಿ
ಅರ್ಬನ್ ಇಕೋ-ಪಾರ್ಕ್,
100 ಅಡಿ ರಸ್ತೆ, 3ನೇ ಹಂತ, ಪೀಣ್ಯ ಕೈಗಾರಿಕಾ ಪ್ರದೇಶ,
ಬೆಂಗಳೂರು-560 058.
ದೂರವಾಣಿ : 080-28395272
Email : peenya@kspcb.gov.in

ಕರ್ನಾಟಕ ರಾಜ್ಯ
ಮಾಲಿನ್ಯ ನಿಯಂತ್ರಣ ಮಂಡಳಿ

towards a cleaner Karnataka

No: KSPCB/RO-Peenya/CEPI/No.13/2019-20/ 1210 Date: 28 FEB 2020

To,

The Member Secretary
Karnataka State Pollution Control Board,
Parisara Bhavan, Church Street,
Bengaluru – 560 001.

//Kind Attn: Sri. M.K.Prabhudev, CEO-2, //

Sir,

Sub: Submission of revised map by considering 5 KM impact area from core area.
Ref: CPCB letter No.CPCB/IPC-VII/CEPI/NGT order/2019-12069 Dt:19.2.2020

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As per the directions of Central Pollution Control Board and discussions hade during the video conference held on 7.1.2020, the revised map of Peenya Industrial Cluster by considering 5KM impact area around the core area is attached herewith for kind consideration.

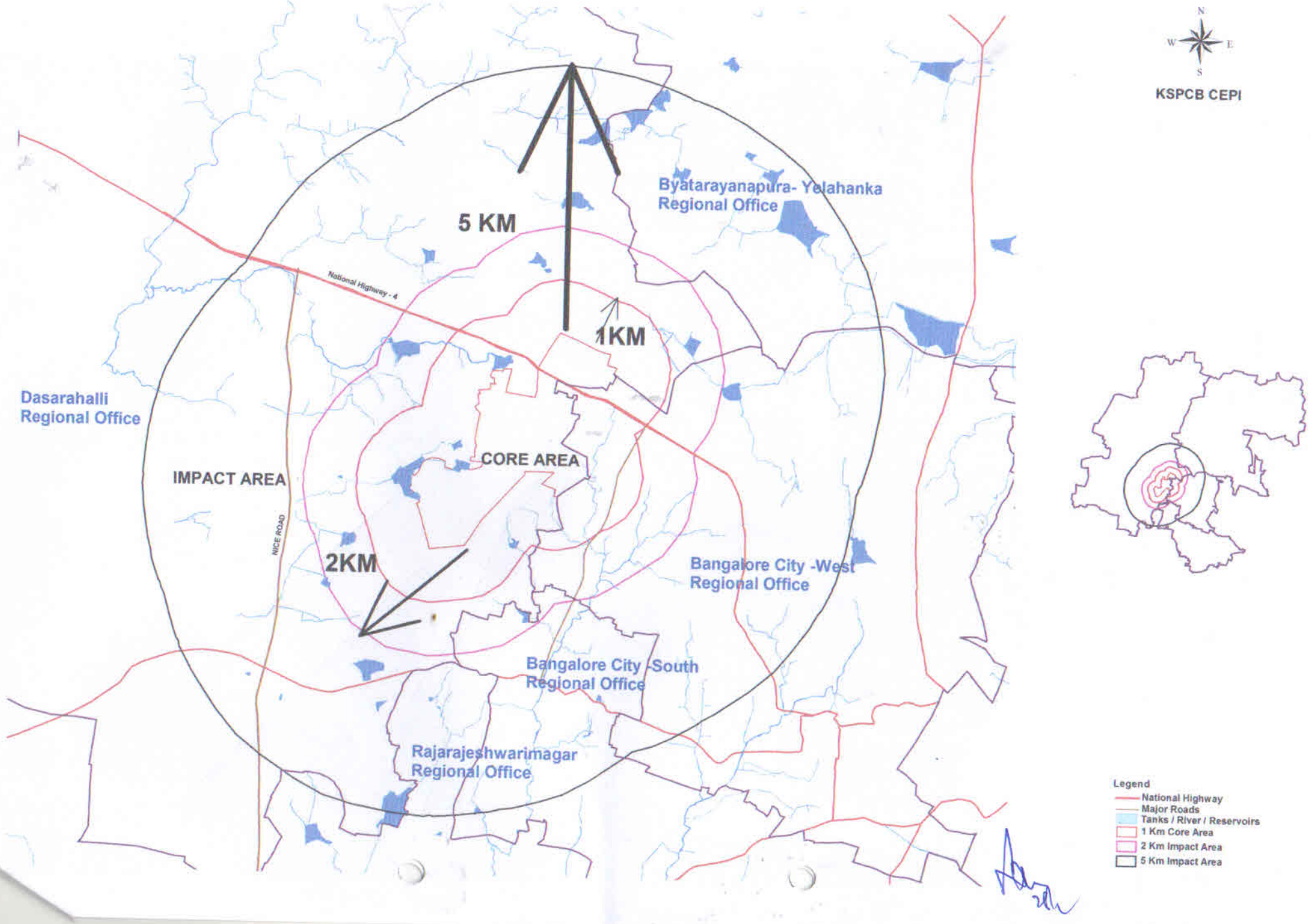
Yours faithfully

Lokesh.H.K
Regional Officer - Peenya

Encl: Google image & google map

Copy submitted for kind information :

1. Sri.G.Thirumurthy, Addl Director, CPCB, Nisarga Bhavana, Thimmaiah Road, Bengaluru
2. The ZSEO-Bng city
3. The ZSEO-Bng North


N
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E
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KSPCB CEPI
5 KM
1KM
2KM
Byatarayanapura- Yelahanka
Regional Office
National Highway - 4
Dasarahalli
Regional Office
IMPACT AREA
CORE AREA
NICE ROAD
Bangalore City -West
Regional Office
Bangalore City -South
Regional Office
Rajarajeshwarimagar
Regional Office
Legend
National Highway
Major Roads
Tanks / River / Reservoirs
1 Km Core Area
2 Km Impact Area
5 Km Impact Area

Google Image