

**BARC**

BANGALORE ANALYTICAL RESEARCH CENTER (P). Ltd.

global solutions

NABL, ISO9001:2015, OSHAS 45001:2018

TEST REPORT

- 1) Name of the Location : Center of the DVS College campus area
- 2) Name of the project : **Principal DVS College Arts & Science**
Shimoga,- 577201
- 3) Date of collection : 27/11/2021
- 4) Particulars of sample collected : **Ambient Air Quality Monitoring**
- 5) Date of sample Receipt : 27/11/2021
- 6) Sample number : END/2021/11/0824
- 7) Date of Analysis : 29/11/2021
- 8) Date of completion : 02/12/2021
- 9) Report No. : END/2021/11/0824
- 10) Date of report : 02/12/2021

INSTRUMENT USED

Instrument Name	Instrument ID	Make	Model No.	Instrument Calibrated Date	Instrument Calibration Due Date
COMBINED SAMPLER	BARC/INST/232	EGSS	EGSS-006	16/01/2021	15/01/2022
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AMBIENT AIR QUALITY MONITORING

Sl No	Parameters	Unit	Result	Limits (NAAQS)	Test Method
1	Particulate matter (PM10)	µg/m ³	66.8	100	IS 5182 (Part-23) 2006 (Reaff2017)
2	Particulate matter (PM _{2.5})	µg/m ³	18.2	60	IS 5182 (Part-24) 2019
3	Oxides of Sulphur as SO ₂	µg/m ³	6.2	80	IS 5182 (Part-2) 2001 (Reaff2017)
4	Oxides of Nitrogen as NO ₂	µg/m ³	17.1	80	IS 5182 (Part-6) 2006 (Reaff2017)

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TEST REPORT

- 1) Name of the project : **Principal DVS College Arts & Science**
Shimoga,- 577201
- 2) Date of collection : 27/11/2021
- 3) Particulars of sample collected : **Noise Monitoring**
- 4) Date of sample Receipt : 27/11/2021
- 5) Sample number : END/2021/11/0825
- 6) Date of Analysis : 29/11/2021
- 7) Date of completion : 02/12/2021
- 8) Report No. : END/2021/11/0825
- 9) Date of report : 02/12/2021

Instrument Used:

Instrument Name	Instrument ID	Make	Model No.	Instrument Calibrated Date	Instrument Calibration Due Date
SOUND LEVEL METER	BARC/INST/210	ENVIROTECH	SLM-100	06/02/2021	05/02/2022

NOISE MONITORING RESULTS

Sl. No	Sample Location	Results	Limits as per KSPCB in Day Time (6 a.m. to 10 p.m.)
		Ambient Noise Monitoring (LeqAvg)	
1	Center of the DVS college campus area	66.5	75 dB (A) Leq

Note:

- Values are measured in **dB (A) Leq**
- All readings are taken at a distance of 1 Mtr from the location



DVS COLLEGE OF ARTS AND SCIENCE, SHIVAMOGGA

Green Audit Report 2020-21

PLANT DIVERSITY OF DVS COLLEGE CAMPUS, SHIVAMOGGA, KARNATAKA

DVS College of Arts and Science has been in the heart of the city. College is located at latitude 13°56'01.3"N and longitude 75°34'39.1"E in Sir M V Road, Shivamogga, Karnataka, India- 577 201. Campus encloses an area of 2 acres with exceptionally diverse with different species with enormous variety of functions. Campus has a beautiful botanical garden and other area of campus has many different varieties of plant species planted in different periods of time through various plantation programmers organized by the Management and Department of Botany, afterwards it has become an integral part of the college. The trees of the college have increased the quality of life, not only of college fraternity but also of people around the college in terms of contributing to our environment by providing fresh oxygen, quality of air, conservation of water, preventing soil erosion, and supporting wildlife, controlling climate by decreasing the effects of the sun, rain and wind. Plant leaves absorb and filter the sun's radiant energy, feels cool atmosphere during summer. Different types of insects and birds were dependent on plants mainly for food and shelter. Different species display a seemingly endless variety of shapes, forms, texture and vibrant colors. Even individual trees vary their appearance throughout the course of the year as the seasons change. The strength, long lifespan and regal stature of trees give them a monument like quality. They also remind us of glorious history of our institution in particular. A thick belt of large shady trees around the college campus have found to be bringing down noise and cut down dust and storms. Thus, the college has been playing a significant role in maintaining the surrounding environment of the Shivamogga city. The following plant species available in the college campus listed below,

Sl.No.	Common Name	Scientific Name	Family	No. of Plants
1	Duck weed	Lemna minor	Araceae	1
2	Areca	Areca catechu	Arecaceae	1
3	Hippu-Nerale	Morus alba	Moraceae	1
4	Beech wood	Gemeliaarborea	Lamiaceae	4
5	Bay laurel	Laurusnobilis	Laureaceae	1
6	Ming arelia	Polysciasfruticosa	Araliaceae	1
7	Chinese banyan	Ficus microcarpa	Moraceae	2
8	Kambadamara	Polyalthia longifolia	Annonaceae	19
9	Kaadu Badami	Terminalia catappa	Combretaceae	5
10	Majjige Hullu	Cymbopogon citratus	Poaceae	1

11	Painter's-paletter	Anthuriumandraeanum	Areaceae	1
12	Satavar	Asparagus densiflorous	Asparagaceae	8
13	Baobab	Adansoniadigitata	Malvaceae	1
14	Spider wort	Tradescantiaspathecea	Commeliaceae	16
15	Honge	Pongamia pinnata	Fabaceae	27
16	Bevu	Azadirachta indica	Meliaceae	2
17	Aadusoge	Justicia adhatoda	Acanthaceae	1
18	True myrtle	Myrtuscomminis	Myrtaceae	1
19	Cats tail	Acalyphahispida	Euphorbeaceae	1
20	Betta-Nelli	Phyllanthus emblica	Phyllanthaceae	1
21	Nandi Battalu	Tabernaemontanadivaricata	Apocynaceae	4
22	Uchhe-Kayi	Spathodea campanulata	Bignoniaceae	2
23	Kaabale	Canna indica	Cannaceae	1
24	Kanchuvala	Bauhinia purpurea	Leguminosae	3
25	Golden arrow	Plumariapudica	Apocynaceae	7
26	Dragon plant	Dracaena marginata	Asparagaceae	6
27	Thega	Tectonagrandis	Lamiaceae	5
28	Nerale	Syzygiumcumini	Myrtaceae	3
29	ReshtaBaage	Dalbergiasissoo	Fabaceae	1
30	Janise alder	Alnus japonica	Betulaceae	1
31	Maggare	Catunaregam spinosa	Rubiaceae	1
32	Lakki	Vitex negundo	Lamiaceae	1
33	Coconut	Cocos nucifera	Araceae	1
34	White dogwood	Cornus alba	Cornaceae	6
35	Red cedar	Juniperusvirginiana	Cupressaceae	3
36	Pink trumpet vine	Podranearicasoliana	Bignoniaceae	7
37	Sadhapushpa	Catharanthus roseus	Apocynaceae	2
38	Guinea Leea	Leea guineensis	Vitaceae	8
39	Egyptian star cluster	Pentaslanceolata	Rubiaceae	12
40	Kesuvu	Colocasia sp.	Araceae	1
41	Noni	Morinda citrifolia	Rubiaceae	1
42	Indian hawthorn	Rhaphiolepis indica	Rosaceae	1
43	Painted spiral Ginger	Costus pictus	Costaceae	1
44	Maalegida	Ixora coccinea	Rubiaceae	24
45	Eropian smoke tree	Cotinuscoggygia	Anacardiaceae	1
46	Markhamia	Markhamiatomentosa	Bignoniaceae	1

47	Subabul	Leucaena leucocephala	Momoseae	1
48	Kuteja	Wrightia angustifolia	Apocynaceae	1
49	May flower	Delonix regia	Caesalpinaceae	1
50	Palmarosa	Cymbopogon martinii	Poaceae	1
51	Rheo	Rheo discolor	Liliaceae	1
52	Darbe	Andropogon serratus	Poaceae	1
53	Tulasi	Ocimum basilicum	Lamiaceae	5
54	Leaf flower	Phyllanthus tenellus	Phyllanthaceae	2
55	Cycas	Cycas revoluta	Cycadaceae	1
56	Umbrell plant	Schefflera arboricola	Araliaceae	18
57	Rainy lilly	Zephyranthes candida	Amaryllidaceae	1
58	Red ginger	Alphiniapurpurata	Zingiberaceae	1
59	Ti plant	Cordylina fruticosa	Asparagaceae	1
60	Bambo palm	Dypsis lutescens	Aracaceae	6
61	Dagger plant	Yucca gloriosa	Asparagaceae	4
62	Philodendron	Philodendron hederaceum	Araceae	1
63	Umbrella tree	Schefflera actinophylla	Araliaceae	1
64	Cupressus	Cupressus semipervirens	Cupressaceae	30
65	Red ginger	Alphinia zerumbet	Zingiberaceae	1
66	Arrow head plant	Syngonium podophyllum	Araceae	6
67	Semar	Dracena angustifolia	Asparagaceae	1
68	Chinese wistria	Wistria senensis	Fabaceae	1
69	Hedge blinweed	Calystegia sepium	Convovulaceae	1
70	Crown of Thorns	Euphorbia milii	Euphorbiaceae	5
71	Perigrina	Jatropaintegerrima	Euphorbiaceae	19
72	Red frangipani	Plumaricarubra	gentianals	1
73	True cinnamomum	Cinnamomum verum	Laureaceae	1
74	Hiptage	Hiptage benghalensis	Malphigaceae	1
75	Great Bougainvillea	Bougainvillea spectabilis	Nectaginaceae	1
76	Yellow elder	Teconastans	Bignoniaceae	1
77	West indian elm	Guazuma ulmifolia	Malvaceae	1
78	Lady palm	Rhapis excelsa	Aracaceae	1
79	Spider plant	Chlorophytum comosum	Asparagaceae	1
80	May flower	Crataegus laevigata	Rosaceae	1
81	Singapur cherry	Muntingia calabura	Muntingaceae	2
82	Jacobinia	Justicia carnea	Acanthaceae	2

83	Fire bush	Hamelia Patens	Rubiaceae	3
84	Mauritius hemp	Fucracafoetida	Asparagaceae	2
85	Kenya Hyacinth	Sansevieriahyacinthoides	Asparagaceae	6
86	Fish tail fern	Nephrolepisfalcata	Nephrolepidaceae	1
87	Aloe	Aloe vera	Asphodelaceae	3
88	Phillippine evergreen	Aglaomenacomumtatum	Arecaceae	1
89	Green Heather	Erica scoparia	Ericaceae	2
90	Water lettuce	Pistiastratioles	Araceae	1
91	European ash	Fraxinus excelsior	Oleaceae	7
92	Chinese taro	Alocasiacucullata	Araceae	1
93	Norfolk island pine	Araucariheterophylla	Araucariaceae	5
94	Sea shore lilly	Crinum asiaticum	Amaryllidaceae	1
95	African milk bush	Euphorbia umbellata	Euphorbeaceae	2
96	Peace lilly	Spathiphyllum wallisii	Araceae	2
97	Garden croton	Codiaeum verigatum	Euphorbeaceae	1
98	Hala tree	Pandanus tectorius	Pandanaceae	1
99	Soft rush	Juncus effusus	Juncaceae	1
			Total	363

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HEAD
Department Botany
D.V.S. College of Arts & Science
Shimoga-577 201.

[Handwritten signature]
PRINCIPAL
D.V.S. College of Arts & Science
SHIVAMOGGA.

[Handwritten signature]
Range Forest Officer
Shankar Range, Shivamogga.

TEST REPORT

Page : 1 of 4

Address of the Customer:

 DVS College of Arts and Science
 Shimoga, - 577201

Report No. : DWD/2021/11/0613

Date of Receipt : 27/11/2021

Date of Analysis : 27/11/2021

Date of Completion : 30/11/2021

Date of Report : 01/12/2021

Job Order No. : DWD/2021/11/0613

Sampling Type : Grab

Sampling Point : Direct Bore well water tap

Your Reference : Verbal

Sample Particulars : Bore well water

Date of Sampling : 27/11/2021

Sample Qty. : 2 Ltrs+250ml

Sample Marked : N.S

Sample Description : Colorless, odorless, transparent liquid.

Sl. No.	TESTS	Units	Result	Requirement	Acceptable Limits	Permissible limit in the absence at alternate source	Method
				(As per IS 10500:2012)			
Chemical Test - Environment							
1	Color	Hazen	<5(BDL)	5	15		IS 3025 (Part-4)1983 (Reaff:2002)
2	Odor	----	Agreeable	Agreeable	Agreeable		IS 3025 (Part-5)1983(Reaff:2017)
3	pH Value	----	7.1	6.5-8.5	No relaxation		IS 3025 (Part-11)1983 (Reaff:2017)
4	Taste	-----	Agreeable	Agreeable	Agreeable		IS 3025 (Part-8)
5	Turbidity	NTU	0.7	1	5		IS 3025 (Part-10)1984 (Reaff:2017)
6	Total Dissolved Solids	mg/L	405	500	2000		IS 3025 (Part-16)1984 (Reaff:2017)
7	Calcium as Ca	mg/L	52	75	200		IS 3025 (Part-40)1991(Reaff:2014)
8	Chloride as Cl	mg/L	54	250	1000		IS 3025 (Part-32)1988 (Reaff:2014)
9	Fluoride as F	mg/L	0.05	1.0	1.5		APHA 23rd Edition 4500 -F:2017
10	Residual Free Chlorine	mg/L	<0.1(BDL)	0.2	1.0		IS 3025 (Part-26) 1984 (Reaff :2014)
11	Iron as Fe	mg/L	0.1	1.0	No relaxation		IS 3025 (Part-53)2003 (Reaff :2014)
12	Magnesium as Mg	mg/L	25	30	100		IS 3025 (Part-46)1994 (Reaff :2014)
13	Mineral Oil	mg/L	<0.1(BDL)	0.5	No relaxation		IS 3025 (Part-39)1991 (Reaff:2009)
14	Nitrate as NO3	mg/L	18	45	No relaxation		APHA 23rd Edition 4500-NO3:2017
15	Sulphate as SO4	mg/L	30	200	400		APHA 23rd Edition 4500 -E:2017
16	Total Alkalinity as CaCO3	mg/L	224	200	600		IS 3025 (Part-23)1986 (Reaff:2014)
17	Total Hardness as CaCO3	mg/L	233	200	600		IS 3025 (Part-21)2009 (Reaff:2014)
18	Ammonia (as total ammonia- N)	mg/L	<0.1(BDL)	0.5	No relaxation		IS 3025 (Part-34)1988 (Reaff:2009)
19	Chloramines as Cl2	mg/L	<0.1(BDL)	4.0	No relaxation		IS 3025 (Part-26) 1984 (Reaff :2009)
20	Phenolic Compounds as	mg/L	<0.001	0.001	0.002		IS 3025 (Part-43)1992

Sr. Chemist

Tested by

Authorised Signatory

Note 1. The results listed above pertain only to the tested samples and applicable parameters. 2. Samples will be stored for a period of one month unless otherwise specified. 3. This report is not to be reproduced either wholly or in part and can not be used as evidence in the court of law and should not be used in any advertising media without prior written permission. 4. Sampling not done by us, unless specified.

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Sampling Point : Direct Bore well water tap

Your Reference : Verbal

Sample Particulars : Bore well water


Date of Sampling : 27/11/2021

Sample Qty. : 2 Ltrs+250ml

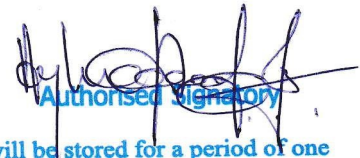
Sample Marked : N.S

Sample Description : Colorless, odorless, transparent liquid.

Sl. No.	TESTS	Units	Result	Requirement	Acceptable Limits	Method
				Permissible limit in the absence at alternate source		
(As per IS 10500:2012)						
20	C6H5OH		(BDL)			
21	Anionic detergents as MBAS	mg/L	<0.1(BDL)	0.2	1.0	Annex K of IS 13428
22	Sulphide as H ₂ S	mg/L	<0.05(BDL)	0.05	No relaxation	IS 3025 (Part-29)2009
23	Cyanide as CN	mg/L	BDL	0.05	No relaxation	IS 3025 (Part-27)2003


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Sampling Point : Direct Bore well water tap

Your Reference : Verbal

Sample Particulars : Bore well water


Date of Sampling : 27/11/2021

Sample Qty. : 2 Ltrs+250ml

Sample Marked : N.S

Sample Description : Colorless, odorless, transparent liquid.

Sl. No.	TESTS	Units	Result	Requirement	Acceptable Limits	Method
				Permissible limit in the absence of alternate source		
(As per IS 10500:2012)						
Heavy Metals -Environment						
1	Aluminum as Al	mg/L	<0.022(BDL)	0.03	0.2	APHA 23rd Edition 3120 B:2017 (By ICP-OES)
2	Boron as B	mg/L	<0.03(BDL)	0.5	2.4	APHA 23rd Edition 3120 B:2017 (By ICP-OES)
3	Copper as Cu	mg/L	<0.03(BDL)	0.05	1.5	APHA 23rd Edition 3120 B:2017 (By ICP-OES)
4	Manganese as Mn	mg/L	<0.03(BDL)	0.1	0.3	APHA 23rd Edition 3120 B:2017 (By ICP-OES)
5	Selenium as Se	mg/L	<0.01(BDL)	0.01	No relaxation	APHA 23rd Edition 3120 B:2017 (By ICP-OES)
6	Zinc as Zn	mg/L	<0.02(BDL)	5	15	APHA 23rd Edition 3120 B:2017 (By ICP-OES)
7	Cadmium as Cd	mg/L	<0.003(BDL)	0.003	No relaxation	APHA 23rd Edition 3120 B:2017 (By ICP-OES)
8	Lead as Pb	mg/L	<0.01(BDL)	0.01	No relaxation	APHA 23rd Edition 3120 B:2017 (By ICP-OES)
9	Barium as Ba	mg/L	<0.03(BDL)	0.7	No relaxation	APHA 23rd Edition 3120 B:2017 (By ICP-OES)
10	Silver as Ag	mg/L	<0.03(BDL)	0.1	No relaxation	APHA 23rd Edition 3120 B:2017 (By ICP-OES)
11	Molybdenum as Mo	mg/L	<0.03(BDL)	0.07	No relaxation	APHA 23rd Edition 3120 B:2017 (By ICP-OES)
12	Nickel as Ni	mg/L	<0.02(BDL)	0.02	No relaxation	APHA 23rd Edition 3120 B:2017 (By ICP-OES)
13	Total Arsenic as As	mg/L	<0.01(BDL)	0.01	No relaxation	APHA 23rd Edition 3120 B:2017 (By ICP-OES)
14	Total Chromium as Cr	mg/L	<0.03(BDL)	0.05	No relaxation	APHA 23rd Edition 3120 B:2017 (By ICP-OES)
15	Mercury as Hg	mg/L	<0.001(BDL)	0.001	No relaxation	APHA 23rd Edition 3120 B:2017 (By ICP-OES)


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Date of Report : 01/12/2021

Job Order No. : DWD/2021/11/0613

Sampling Type : Grab

Sampling Point : Direct Bore well water tap

Your Reference : Verbal

Sample Particulars : Bore well water

Date of Sampling : 27/11/2021

Sample Qty. : 2 Ltrs+250ml

Sample Marked : N.S

Sample Description : Colorless, odorless, transparent liquid.


Sl. No.	TESTS	Units	Result	Requirement Acceptable Limits	Permissible limit in the absence at alternate source	Method
				(As per IS 10500:2012)		
Microbiological Test - Environment						
1	Total coliform bacteria	MPN/100ml	<1	Shall not be detected in 100ml	----	IS 1622-1981RA 2019
2	Escherichia coli	MPN/100ml	<1	Shall not be detected in 100ml	-----	IS 1622-1981RA 2019

Remarks : The given sample meets to Permissible limits as per IS 10500:2012 for the above Physico-chemical test & meets to bacteriological acceptable limits for E.coli & Coliform.

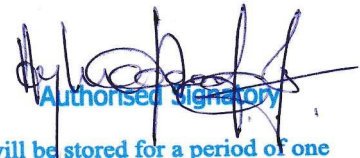
Note: <1 Indicates Absent, Sample preserved @ 2-8°C.

BDL-Below Detection Limit

End of Report


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