

February 28, 2022 Ref:- MTV/GHMC/22/003

The Executive Engineer Lakes Division GHMC Hyderabad

Dear Sir,

Sub:- Bioremediation of JVR Park Lake at Banjara Hills, Hyderabad - Conclusion Ref:- Letter No. OSD(H)/GHMC/TA-V/K6/2021/186 dtd 28.12.2021

We Magnatree Ventures Private Limited a Mumbai based company, Promoting

unique bio solutions to treat the waste water, Leachate, lakes and ponds in India.

The GHMC, Hyderabad was approached to permit the trials of our technology to prove the efficacy of our product in treating



the waste water bodies under its purview. JVR Park lake was chosen for this pilot project with no cost to GHMC and the entire cost borne by us. Initial survey of the lake body has shown that the present water was polluted and there was foul stink all around the lake irritating the visitors and the morning joggers and needed treatment. The present area of the Tank is as below.

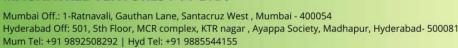
Length:- 175 mts Width:- 75.5mts

Pond Area:- 13,125 Sq.Mts

Average Depth:- 1 - 2mts

Volume of Water = $13125 \times 2 = 26,250 \text{ Cu.mts}$









After receiving the approval for the trials, Magnatree Ventures Pvt. Ltd arranged a visit by the officials of GHMC to the lake bed and water samples were collected by Vimta Labs Ltd, Hyderabad, in the presence of Mr. Laxshmi Narayan (Executive Engineer - GHMC) for analysis of the following 6 parameters

Date of Sample	pН	TSS	TDS	COD	BOD	Ammonia		
PRE TREATMENT ANALYSIS								
04.01.2022	6.89	288	1086	3200	990	16.8		



The Lake was

- 1. Full of Debris.
- 2. The treated sewage water was entering from the STP.
- 3. Foul odour was strong.
- 4. water was Blackish in colour and slurry.
- 5. High density of Mosquito.
- 6. Untreated sludge at the bottom.







After the initial samples were drawn in the presence of GHMC officials, our diluted Probiotic enzymes were sprayed on the lake water. Care was taken to ensure that the marine life is not disturbed,

The probiotic enzymes are prepared in the labs with cow dung base and enriched



nutrient concoction. The enzymes will be obtained by the different bacteria to treat the contaminants of the polluted water body and bacteria will be eliminated before dispatching from our laboratory to avoid consumption of enzymes from the bacteria.



The enzymes started reacting with the contaminated water in the lake and released the un-harmful gases to the atmosphere. The reactions will release the trapped charged ions of various organic chemicals in the water to react with the released oxygen and hydrogen to form various oxides. After 15days of our enzyme spraying, an lab analysis was obtained to ensure the reactions for desired result. Second analysis report was obtained on 04.02.2022 and following results were recorded.





The first sample was taken from the far end point of the lake.

The second sample was taken from the mid point of the treatment stretch.

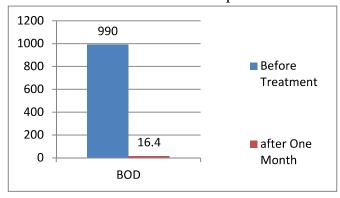
The third sample was collected from the east end of the lake.

The fourth sample was taken at the point of STP treated water entry to the lake.

As observed from the below results, the treatment has improved considerably the quality of water and reduction in organic silt is clearly visible from the results.

Date of Sample	pН	TSS	TDS	COD	BOD	Ammonia
	PF	RE TREAT	MENT AN	NALYSIS		
04.02.2022	7.7	29	746	120	16.4	<1

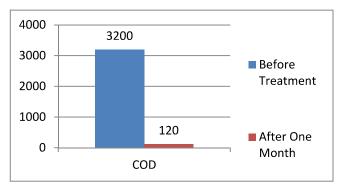
In a nutshell the reduction of pollutants is as under.



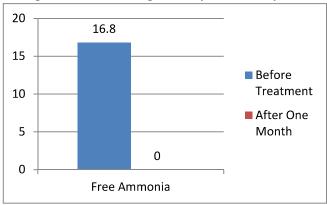
The BoD reduction from 990 to 16.4 is a clear indicator of demand as the pollutants decrease. The initial flare up was due to disturbance in the residual silt coming up as gases.



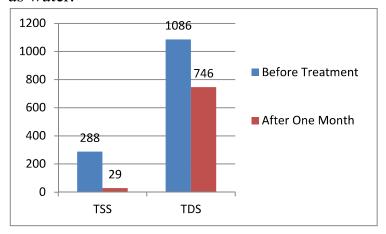




The reduction in COD is attributed to the reaction of residual organic chemicals being converted as gases by our Enzymes.



Reduction in Ammonia is occurring because of reaction by Enzymes and Nitrogen is released to Atmosphere and Hydrogen is combined with oxygen to convert itself as water.

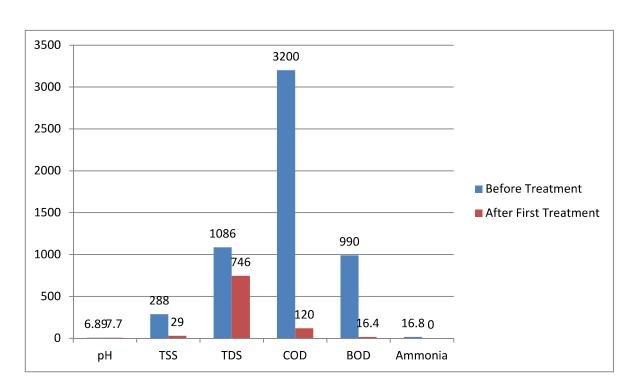




Reduction in TSS and TDS is attributed to the reactions caused by our Probiotic Enzymes increasing the Dissolved Oxygen.

Indicators:

- 1. pH is maintained between 6.89 7.7
- 2. TSS reduced from 288 to 29
- 3. TDS reduced from **1086** to **746**
- 4. CoD reduced from 3200 to 120
- 5. BoD is reduced from 990 to 16.4
- 6. Free Ammonia reduced from 16.8 to <1









The results are on desired reduction range and will further better after conclusion of our treatment.

This is for your kind information.

Thanking you, Yours Sincerely

Jagadesh Reddy Director Encl:- Lab reports and video of the pilot project

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GREATER HYDERABAD MUNICIPAL CORPORATION

From

To

The Commissioner, Greater Hyderabad Municipal Corporation, CC Complex, Tank bund Road, Hyderabad

Magnatree Ventures Pvt Ltd., I-Ratnavali, Gautan lane, Santacruz West, Mumbai - 400054

Lr. No. OSD(H)/GHMC/TA-V/K6/2021 186

Dated 28-12-2021,

GHMC.

Sub: GHMC - Engineering - "Cleaning of JVR park pond, Hyderabad District using Unique Bio Technology by M/s Magnatree Ventures Pvt., Ltd., as Pilot Project"-Approved - Reg.

Ref: Your request letter dt: NIL

Anent to the subject and reference cited above, your proposal of cleaning of JVR park pond using Unique Bio Technology as Pilot project for a period of 3 months at your expense is approved subject to following conditions:

- The Executive Engineer, NTD and The Deputy Director, UBD, Khairatabad Zone, GHMC are nodal officers for the subject work.
- A third party laboratory shall be involved to assess quality parameters like BOD and COD etc., of the said pond and submit weekly reports to nodal officers.
- Required power arrangements shall made by the agency or if available the charges should be paid to GHMC for utilized power.
- Any damages occurring in the act of cleaning the pond/garden shall be reinstated at the cost of agency.
- v. The entire cost of the project should born by the agency including testing.
- vi. All safety measures shall be practiced while executing the project.
- vii. The permission to carry out pilot study in JVR park doesn't guarantee award of contract to the agency in future or any kind of contractual/financial assurance.
- viii. The agency has to intimate the GHMC officials before carrying out any activity as a part of pilot project and carry out the same with due permission of the Authorities.

(This has got approval of the Commissioner, GHMC)

Copy to:

- 1. The Additional Commissioner, UBD.
- 2. The Superintending Engineer, HL&WBMC.
- 3. The Executive Engineer, NTD.
- 4. The Deputy Director, UBD, Khairatabad Zone, GHMC.

Copy submitted to the Commissioner, GHMC.







ISSUED TO

M/s Magnatree Ventures Private Limited, MCR Complex, Ayyappa Society, Madhapur, Hyderabad-500 081.

TS,INDIA

Report Number

: VLL/VLS/21/12820/001

Issue Date

2022.01.13

P.O. Ref

TRF

P.O. Date

: 2022.01.04

Page	0	

Sample Name JVR Park Lake Water (Banjarahills)					
Sample Collection Date	:	2022.01.04	Sample Registration Date	1:	2022.01.04
Analysis Starting Date		2022.01.05	Analysis Completion Date	1:	2022.01.13
Test Required: COD, BOI	D,T	DS,TSS,pH,Ammo	nia		
Method of Testing: As pe	er A	APHA 23rd Edition a	and IS 3025 Part-44.		
Samples Collected by Vin	mta	Labs Limited.	CALLED TO THE CONTROL OF THE CALLED THE CONTROL OF		

Sr.No.	Sample Type	Method of Testing	Units	Results	
1	рН @ 25°C	APHA 23 rd Ed 4500 H B	_	6.89	
2	Total Suspended Solids	APHA 23 rd Ed 2540 D	mg/l	280	
3	Total Dissolved Solids	APHA 23 rd Ed 2540 C	mg/l	1086	
4	Chemical Oxygen Demand	APHA 23 rd Ed 5220 B	mg/l	3200	
5	Biological Oxygen Demand	IS 3025 Part-44	mg/l	990	
6	Ammonia as NH ₃	APHA 23rd Ed 4500 F	mg/l	16.8	

Note: Results relate only to the sample tested

-END OF THE REPORT-

Name and Designation of Authorized Signatory

Dr.Subbareddy Mallampati Group Leader-Environment







ISSUED TO

M/s Magnatree Ventures Private Limited, MCR Complex, Ayyappa Society, Madhapur, Hyderabad-500 081.

TS,INDIA

Report Number

VLL/VLS/21/14423/001

Issue Date

2022.02.12

P.O. Ref

: TRF

P.O. Date

: 2022.02.04

Page 1 of 1

Sample Name	JVR Park Lake Water (Banjarahills)				
Sample Collection Date	:	2022.02.04	Sample Registration Date		2022.02.04
Analysis Starting Date	:	2022.02.07	Analysis Completion Date		2022.02.12
Test Required: COD,BO	D,7	DS,TSS,pH,Ammo	onia		
Method of Testing: As pe	er A	APHA 23rd Edition a	and IS 3025 Part-44.		
Samples Collected by Vi	mta	Labs Limited.	Consideration of the second		

TEST RESULTS

Sr.No.	Sample Type	Method of Testing	Units	Results
1	pH @ 25°C	APHA 23 rd Ed 4500 H B		7.70
2	Total Suspended Solids	APHA 23rd Ed 2540 D	mg/l	29
3	Total Dissolved Solids	APHA 23 rd Ed 2540 C	mg/l	746
4	Chemical Oxygen Demand	APHA 23 rd Ed 5220 B	mg/l	120
5	Biological Oxygen Demand	IS 3025 Part-44	mg/l	16.4
6	Ammonia as NH ₃	APHA 23 rd Ed 4500 F	mg/l	<1.0

Note: Results relate only to the sample tested

-END OF THE REPORT-

Name and Designation of Authorized Signatory

Dr. Subbareddy Mallampati Group Leader-Environment