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TEST REPORT				
Test Report No: -	GESEC/PRO/AAQM/2022-23/02/180		Report Date	19.02.2023
Sample ID: -	GESEC/PRO/AAQM/2022-23/02/180			
Name & Address of the Customer	M/s.Pad.Dr.D.Y.Patil Sahakari Sakhar Karkhana Ltd, Dnyanshanti Nagar, Vesaraf Palsambe, Tal-Gaganbawada, Dist-Kolhapur, Maharashtra			
Ambient Air Sample Details				
Type	Sampling Location		Sampling done by	
Ambient Air	Palsambe Village		GESEC	
Sampling Time				
Start Time	Stop Time		Total Hrs.	
10.00 am	10.00 am		24 Hrs.	
Meteorological Data/Environmental Conditions				
Ambient Temperature °C	29	Wet Bulb Temperature °C	19	
Dry Bulb Temperature °C	29	Relative Humidity % RH	48.4	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
08.02.2023 to 09.02.2023	10.02.2023	10.02.2023	18.02.2023	
Name of Instrument	Ambient Fine Dust Sampler	Date of Calibration	15/03/2022	
Calibration Certificate No.	TECH/CAL/2022/03.B/33	Due Date of Calibration	14/03/2023	
Parameters	Method	Unit	NAAQ Standards	Result
Sulphur Dioxide (SO <sub>2</sub> )	IS:5182 (PART 2):2017	µg/m <sup>3</sup>	≤ 80	18.65
Nitrogen Dioxide (NO <sub>2</sub> )	IS:5182 (PART 6):2018	µg/m <sup>3</sup>	≤ 80	21.47
Particulate Matter PM <sub>10</sub>	IS:5182 (PART 4):2019	µg/m <sup>3</sup>	≤ 100	45.02
Particulate Matter PM <sub>2.5</sub>	IS:5182 (PART 24):2019	µg/m <sup>3</sup>	≤ 60	17.36
Ozone(O <sub>3</sub> ) For 1 Hrs.	Method 411, Air Sampling and Analysis 3 <sup>rd</sup> Edition ,2013	µg/m <sup>3</sup>	≤ 180	9.65
Ammonia (NH <sub>3</sub> ) For 24 Hrs.	Method 401, Air Sampling and Analysis 3 <sup>rd</sup> Edition ,2013	µg/m <sup>3</sup>	≤400	3.47
Carbon Monoxide (CO)	MASA-822 3rd Edition	mg/m <sup>3</sup>	≤ 04	BDL
Benzene (C <sub>6</sub> H <sub>6</sub> )	IS 5182 (Part 11) :2006 (RA 2017)	µg/m <sup>3</sup>	≤ 05	BDL
Benzo(a)Pyrene (BaP)	CPCB Manual Vol 1 2011	ng/m <sup>3</sup>	≤ 01	BDL
Arsenic (As)	MASA-822 3rd Edition	ng/m <sup>3</sup>	≤ 06	BDL
Nickel (Ni)	MASA-822 3rd Edition	ng/m <sup>3</sup>	≤ 20	BDL
Lead (Pb)	MASA-822 3rd Edition	µg/m <sup>3</sup>	≤1.0	BDL
Remark-	<ul style="list-style-type: none"> <li>➤ All above results are within National Ambient Air Quality standards.</li> <li>➤ BDL-Below Detectable Limit.</li> </ul>			
		 Mr. Vinod Hande (Technical Manager) Reviewed & Authorized By		

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TEST REPORT				
Test Report No: -	GESEC/PRO/AAQM/2022-23/02/181		Report Date	19.02.2023
Sample ID: -	GESEC/PRO/AAQM/2022-23/02/181			
Name & Address of the Customer	M/s.Pad.Dr.D.Y.Patil Sahakari Sakhar Karkhana Ltd, Dnyanshanti Nagar, Vesaraf Palsambe, Tal-Gaganbawada, Dist-Kolhapur, Maharashtra			
Ambient Air Sample Details				
Type	Sampling Location		Sampling done by	
Ambient Air	Asalaj Village		GESEC	
Sampling Time				
Start Time	Stop Time		Total Hrs.	
10.30 am	10.30 am		24 Hrs.	
Meteorological Data/Environmental Conditions				
Ambient Temperature °C	29	Wet Bulb Temperature °C	19	
Dry Bulb Temperature °C	29	Relative Humidity % RH	48.4	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
08.02.2023 to 09.02.2023	10.02.2023	10.02.2023	18.02.2023	
Name of Instrument	Ambient Fine Dust Sampler	Date of Calibration	15/03/2022	
Calibration Certificate No.	TECH/CAL/2022/03.B/37	Due Date of Calibration	14/03/2023	
Parameters	Method	Unit	NAAQ Standards	Result
Sulphur Dioxide (SO <sub>2</sub> )	IS:5182 (PART 2):2017	µg/m <sup>3</sup>	≤ 80	19.02
Nitrogen Dioxide (NO <sub>2</sub> )	IS:5182 (PART 6):2018	µg/m <sup>3</sup>	≤ 80	22.77
Particulate Matter PM <sub>10</sub>	IS:5182 (PART 4):2019	µg/m <sup>3</sup>	≤ 100	48.01
Particulate Matter PM <sub>2.5</sub>	IS:5182 (PART 24):2019	µg/m <sup>3</sup>	≤ 60	18.32
Ozone(O <sub>3</sub> ) For 1 Hrs.	Method 411, Air Sampling and Analysis 3 <sup>rd</sup> Edition ,2013	µg/m <sup>3</sup>	≤ 180	10.89
Ammonia (NH <sub>3</sub> ) For 24 Hrs.	Method 401, Air Sampling and Analysis 3 <sup>rd</sup> Edition ,2013	µg/m <sup>3</sup>	≤400	3.74
Carbon Monoxide (CO)	MASA-822 3rd Edition	mg/m <sup>3</sup>	≤ 04	BDL
Benzene (C <sub>6</sub> H <sub>6</sub> )	IS 5182 (Part 11) :2006 (RA 2017)	µg/m <sup>3</sup>	≤ 05	BDL
Benzo(a)Pyrene (BaP)	CPCB Manual Vol 1 2011	ng/m <sup>3</sup>	≤ 01	BDL
Arsenic (As)	MASA-822 3rd Edition	ng/m <sup>3</sup>	≤ 06	BDL
Nickel (Ni)	MASA-822 3rd Edition	ng/m <sup>3</sup>	≤ 20	BDL
Lead (Pb)	MASA-822 3rd Edition	µg/m <sup>3</sup>	≤1.0	BDL
<b>Remark-</b>				
<ul style="list-style-type: none"> <li>➤ All above results are within National Ambient Air Quality standards.</li> <li>➤ BDL-Below Detectable Limit.</li> </ul>				
				
		 <b>Mr. Vinod Hande</b> (Technical Manager) Reviewed & Authorized By		



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TEST REPORT				
Test Report No: -	GESEC/PRO/AAQM/2022-23/02/182		Report Date	19.02.2023
Sample ID: -	GESEC/PRO/AAQM/2022-23/02/182			
Name & Address of the Customer	M/s.Pad.Dr.D.Y.Patil Sahakari Sakhar Karkhana Ltd, Dnyanshanti Nagar, Vesaraf Palsambe, Tal-Gaganbawada, Dist-Kolhapur, Maharashtra			
Ambient Air Sample Details				
Type	Sampling Location		Sampling done by	
Ambient Air	Saitawade Village		GESEC	
Sampling Time				
Start Time	Stop Time		Total Hrs.	
11.00 am	11.00 am		24 Hrs.	
Meteorological Data/Environmental Conditions				
Ambient Temperature °C	29	Wet Bulb Temperature °C	19	
Dry Bulb Temperature °C	29	Relative Humidity % RH	48.4	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
08.02.2023 to 09.02.2023	10.02.2023	10.02.2023	18.02.2023	
Name of Instrument	Ambient Fine Dust Sampler	Date of Calibration	15/03/2022	
Calibration Certificate No.	TECH/CAL/2022/03.B/19	Due Date of Calibration	14/03/2023	
Parameters	Method	Unit	NAAQ Standards	Result
Sulphur Dioxide (SO <sub>2</sub> )	IS:5182 (PART 2):2017	µg/m <sup>3</sup>	≤ 80	18.06
Nitrogen Dioxide (NO <sub>2</sub> )	IS:5182 (PART 6):2018	µg/m <sup>3</sup>	≤ 80	20.31
Particulate Matter PM <sub>10</sub>	IS:5182 (PART 4):2019	µg/m <sup>3</sup>	≤ 100	47.98
Particulate Matter PM <sub>2.5</sub>	IS:5182 (PART 24):2019	µg/m <sup>3</sup>	≤ 60	17.16
Ozone(O <sub>3</sub> ) For 1 Hrs.	Method 411, Air Sampling and Analysis 3 <sup>rd</sup> Edition ,2013	µg/m <sup>3</sup>	≤ 180	9.07
Ammonia (NH <sub>3</sub> ) For 24 Hrs.	Method 401, Air Sampling and Analysis 3 <sup>rd</sup> Edition ,2013	µg/m <sup>3</sup>	≤400	3.61
Carbon Monoxide (CO)	MASA-822 3rd Edition	mg/m <sup>3</sup>	≤ 04	BDL
Benzene (C <sub>6</sub> H <sub>6</sub> )	IS 5182 (Part 11) :2006 (RA 2017)	µg/m <sup>3</sup>	≤ 05	BDL
Benzo(a)Pyrene (BaP)	CPCB Manual Vol 1 2011	ng/m <sup>3</sup>	≤ 01	BDL
Arsenic (As)	MASA-822 3rd Edition	ng/m <sup>3</sup>	≤ 06	BDL
Nickel (Ni)	MASA-822 3rd Edition	ng/m <sup>3</sup>	≤ 20	BDL
Lead (Pb)	MASA-822 3rd Edition	µg/m <sup>3</sup>	≤1.0	BDL
<b>Remark-</b>				
<ul style="list-style-type: none"> <li>➤ All above results are within National Ambient Air Quality standards.</li> <li>➤ BDL-Below Detectable Limit.</li> </ul>				
		 Mr. Vinod Hande (Technical Manager) Reviewed & Authorized By		

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TEST REPORT				
Test Report No: -	GESEC/PRO/AAQM/2022-23/02/183		Report Date	19.02.2023
Sample ID: -	GESEC/PRO/AAQM/2022-23/02/183			
Name & Address of the Customer	M/s.Pad.Dr.D.Y.Patil Sahakari Sakhar Karkhana Ltd, Dnyanshanti Nagar, Vesaraf Palsambe, Tal-Gaganbawada, Dist-Kolhapur, Maharashtra			
Ambient Air Sample Details				
Type	Sampling Location		Sampling done by	
Ambient Air	Upale Village		GESEC	
Sampling Time				
Start Time	Stop Time		Total Hrs.	
12.30 pm	12.30 pm		24 Hrs.	
Meteorological Data/Environmental Conditions				
Ambient Temperature °C	29	Wet Bulb Temperature °C	19	
Dry Bulb Temperature °C	29	Relative Humidity % RH	48.4	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
08.02.2023 to 09.02.2023	10.02.2023	10.02.2023	18.02.2023	
Name of Instrument	Ambient Fine Dust Sampler	Date of Calibration	15/03/2022	
Calibration Certificate No.	TECH/CAL/2022/03.B/19	Due Date of Calibration	14/03/2023	
Parameters	Method	Unit	NAAQ Standards	Result
Sulphur Dioxide (SO <sub>2</sub> )	IS:5182 (PART 2):2017	µg/m <sup>3</sup>	≤ 80	18.64
Nitrogen Dioxide (NO <sub>2</sub> )	IS:5182 (PART 6):2018	µg/m <sup>3</sup>	≤ 80	21.04
Particulate Matter PM <sub>10</sub>	IS:5182 (PART 4):2019	µg/m <sup>3</sup>	≤ 100	50.79
Particulate Matter PM <sub>2.5</sub>	IS:5182 (PART 24):2019	µg/m <sup>3</sup>	≤ 60	20.31
Ozone(O <sub>3</sub> ) For 1 Hrs.	Method 411, Air Sampling and Analysis 3 <sup>rd</sup> Edition ,2013	µg/m <sup>3</sup>	≤ 180	9.56
Ammonia (NH <sub>3</sub> ) For 24 Hrs.	Method 401, Air Sampling and Analysis 3 <sup>rd</sup> Edition ,2013	µg/m <sup>3</sup>	≤400	3.89
Carbon Monoxide (CO)	MASA-822 3rd Edition	mg/m <sup>3</sup>	≤ 04	BDL
Benzene (C <sub>6</sub> H <sub>6</sub> )	IS 5182 (Part 11) :2006 (RA 2017)	µg/m <sup>3</sup>	≤ 05	BDL
Benzo(a)Pyrene (BaP)	CPCB Manual Vol 1 2011	ng/m <sup>3</sup>	≤ 01	BDL
Arsenic (As)	MASA-822 3rd Edition	ng/m <sup>3</sup>	≤ 06	BDL
Nickel (Ni)	MASA-822 3rd Edition	ng/m <sup>3</sup>	≤ 20	BDL
Lead (Pb)	MASA-822 3rd Edition	µg/m <sup>3</sup>	≤1.0	BDL
<b>Remark-</b>				
<ul style="list-style-type: none"> <li>➤ All above results are within National Ambient Air Quality standards.</li> <li>➤ BDL-Below Detectable Limit.</li> </ul>				
			 Mr. Vinod Hande (Technical Manager) Reviewed & Authorized By	

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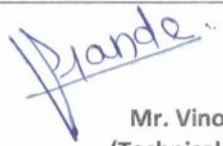
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- The test is done at the standard condition unless it is specified otherwise. If any special condition is required, it must be written in the report of laboratory. GESEC



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**TEST REPORT**

<b>Test Report No: -</b>	GESEC/PRO/ANLM/2022-23/02/184	<b>Report Date</b>	19.02.2023
<b>Sample ID: -</b>	GESEC/PRO/ANLM/2022-23/02/184		
<b>Name &amp; Address of the Customer</b>	M/s.Pad.Dr.D.Y.Patil Sahakari Sakhar Karkhana Ltd, Dnyanshanti Nagar, Vesaraf Palsambe, Tal-Gaganbawada, Dist-Kolhapur, Maharashtra		
<b>Ambient Noise Sample Details</b>			
<b>Type</b>	Ambient Noise		
<b>Sampling done by</b>	GESEC		
<b>Standard method</b>	As Per IS: 9989:2020		
<b>Date of Sampling</b>	<b>Sample Receipt Date</b>	<b>Analysis Start Date</b>	<b>Analysis End Date</b>
08.02.2023	-	-	-
<b>Name of Instrument</b>	Sound Level Meter	<b>Date Of Calibration</b>	07/10/2022
<b>Calibration Certificate No.</b>	SSEC/ME/259	<b>Due Date of Calibration</b>	06/10/2023
<b>Test Location</b>	<b>Unit</b>	<b>Noise Level Readings</b>	<b>CPCB Standards</b>
		<b>Day</b>	<b>dB(A)</b>
Palsambe Village	dB (A)	54.1	During Day time = 55 dB (A)
Asalaj Village	dB (A)	53.6	
Saitawade Village	dB (A)	53.9	
Upale Village	dB (A)	54.1	
sangshi Village	dB (A)	52.9	
<b>Remark-</b>			
<ul style="list-style-type: none"> <li>➤ All above Noise level results are within Central Pollution Control Board Standards limit.</li> <li>➤ Day/ -55 dB.(A)</li> </ul>			
		 <b>Mr. Vinod Hande</b> <b>(Technical Manager)</b> <b>Reviewed &amp; Authorized By</b>	


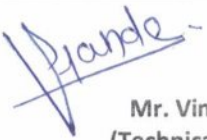
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**TEST REPORT**

<b>Test Report No: -</b>	GESEC/PRO/ANLM/2022-23/02/185	<b>Report Date</b>	19.02.2023	
<b>Sample ID: -</b>	GESEC/PRO/ANLM/2022-23/02/185			
<b>Name &amp; Address of the Customer</b>	M/s.Pad.Dr.D.Y.Patil Sahakari Sakhar Karkhana Ltd, Dnyanshanti Nagar, Vesaraf Palsambe, Tal-Gaganbawada, Dist-Kolhapur, Maharashtra			
<b>Ambient Noise Sample Details</b>				
<b>Type</b>	Ambient Noise			
<b>Sampling done by</b>	GESEC			
<b>Standard method</b>	As Per IS: 9989:2020			
<b>Date of Sampling</b>	<b>Sample Receipt Date</b>	<b>Analysis Start Date</b>	<b>Analysis End Date</b>	
08.02.2023	-	-	-	
<b>Name of Instrument</b>	Sound Level Meter	<b>Date Of Calibration</b>	07/10/2022	
<b>Calibration Certificate No.</b>	SSEC/ME/259	<b>Due Date of Calibration</b>	06/10/2023	
<b>Test Location</b>	<b>Unit</b>	<b>Noise Level Readings</b>		<b>CPCB Standards dB(A)</b>
		<b>Night</b>		
Palsambe Village	dB (A)	42.1		During Night time = 45 dB (A)
Asalaj Village	dB (A)	43.6		
Saitawade Village	dB (A)	40.8		
Upale Village	dB (A)	42.9		
sangshi Village	dB (A)	43.6		
<b>Remark-</b>				
<ul style="list-style-type: none"> <li>➤ All above Noise level results are within Central Pollution Control Board Standards limit.</li> <li>➤ Night -45 dB. (A)</li> </ul>				
		 <b>Mr. Vinod Hande</b> (Technical Manager) Reviewed & Authorized By		


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TEST REPORT				
Test Report No - GESEC/PRO/W/2022-23/02/186	Report Date	19.02.2023		
Sample ID - GESEC/PRO/W/2022-23/02/186	Sample Details	Vesaraf Village		
Name & Address of the Customer - M/s.Pad.Dr.D.Y.Patil Sahakari Sakhar Karkhana Ltd, Dnyanshanti Nagar, Vesaraf Palsambe, Tal- Gaganbawada, Dist-Kolhapur, Maharashtra	Type of Sample	Water		
	Volume Of Sample	2 Lit plastics Can		
	Sample Status	Sealed		
	Sample Collected By	GESEC		
	Date of Sample Collection	08.02.2023		
	Date of Sample received in lab	10.02.2023		
	Analysis start Date	10.02.2023		
	Analysis End Date	18.02.2023		
WATER ANALYSIS REPORT				
Parameter	Result	Limits as per IS 10500:2012	Unit(s)	Standard Method
Physical Parameter				
Turbidity	<0.1	Max 1	NTU	IS:3025 part-10:2019
TDS	278.01	Max 500	mg/l	IS :3025 part-16 :2017
Color	<5	Max 5	Hazen	IS:3025 part-4 :2021
Chemical Parameter				
pH	7.17	6.5 to 8.5	--	APHA 4500, 23 <sup>rd</sup> Edition:2017
Total Hardness	74.25	Max 200	mg/l	IS:3025 Part-21:2019
Total Alkalinity	68	Max 200	mg/l	IS:3025 Part-23:2019
Sulphate	10.77	Max 200	mg/l	IS:3025 Part-24:2019
Residual Chlorine	0.26	Min 0.2	mg/l	IS:3025 Part 26:2019
Chloride	20.74	Max 250	mg/l	IS:3025 Part-32:2019
Calcium (as Ca)	24.04	Max 75	mg/l	IS:3025 Part-40:2019
Magnesium (as Mg)	13.43	Max 30	mg/l	APHA 3500- Mg, B, 23 <sup>rd</sup> Edition:2017
Elemental Analysis				
Iron as Fe	0.018	Max 0.3	mg/l	IS:3025 Part-2:2019
Microbiological Parameter				
Total Coliform	Absent	Absent	MPN/100ml	IS 1622:1981
<i>E.coli.</i>	Absent	Absent	per/100ml	IS 1622:1981
<b>Remark(s):</b>				
<ul style="list-style-type: none"> <li>➤ The above water sample is Comply with required limit as per IS 10500:2012.</li> <li>➤ For Total Coliform &amp; <i>E.coli.</i> Absent can be consider as Zero [ Refer IS:1622 (R.A.1996), Table No.-4].</li> </ul>				
			 <b>Mr. Vinod Hande</b> (Technical Manager) Reviewed & Authorized By	

\*\*\* END OF REPORT \*\*\*


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TEST REPORT		
Test Report No - GESEC/PRO/W/2022-23/02/187	Report Date	19.02.2023
Sample ID - GESEC/PRO/W/2022-23/02/187	Sample Details	Ainari Village
Name & Address of the Customer - M/s.Pad.Dr.D.Y.Patil Sahakari Sakhar Karkhana Ltd, Dnyanshanti Nagar, Vesaraf Palsambe, Tal- Gaganbawada, Dist-Kolhapur, Maharashtra	Type of Sample	Water
	Volume Of Sample	2 Lit plastics Can
	Sample Status	Sealed
	Sample Collected By	GESEC
	Date of Sample Collection	08.02.2023
	Date of Sample received in lab	10.02.2023
	Analysis start Date	10.02.2023
	Analysis End Date	18.02.2023

WATER ANALYSIS REPORT				
Parameter	Result	Limits as per IS 10500:2012	Unit(s)	Standard Method
<b>Physical Parameter</b>				
Turbidity	<0.1	Max 1	NTU	IS:3025 part-10:2019
TDS	267.12	Max 500	mg/l	IS :3025 part-16 :2017
Color	<5	Max 5	Hazen	IS:3025 part-4 :2021
<b>Chemical Parameter</b>				
pH	7.11	6.5 to 8.5	--	APHA 4500, 23 <sup>rd</sup> Edition:2017
Total Hardness	69.87	Max 200	mg/l	IS:3025 Part-21:2019
Total Alkalinity	61.0	Max 200	mg/l	IS:3025 Part-23:2019
Sulphate	11.32	Max 200	mg/l	IS:3025 Part-24:2019
Residual Chlorine	0.26	Min 0.2	mg/l	IS:3025 Part 26:2019
Chloride	19.78	Max 250	mg/l	IS:3025 Part-32:2019
Calcium (as Ca)	22.66	Max 75	mg/l	IS:3025 Part-40:2019
Magnesium (as Mg)	10.14	Max 30	mg/l	APHA 3500- Mg, B, 23 <sup>rd</sup> Edition:2017
<b>Elemental Analysis</b>				
Iron as Fe	0.020	Max 0.3	mg/l	IS:3025 Part-2:2019
<b>Microbiological Parameter</b>				
Total Coliform	Absent	Absent	MPN/100ml	IS 1622:1981
<i>E.coli.</i>	Absent	Absent	per/100ml	IS 1622:1981

**Remark(s):**

- The above water sample is Comply with required limit as per IS 10500:2012.
- For Total Coliform & *E.coli.* Absent can be consider as Zero [ Refer IS:1622 (R.A.1996), Table No.-4].



  
**Mr. Vinod Hande**  
 (Technical Manager)  
 Reviewed & Authorized By

\*\*\* END OF REPORT \*\*\*

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TEST REPORT		
Test Report No - GESEC/PRO/W/2022-23/02/188	Report Date	19.02.2023
Sample ID - GESEC/PRO/W/2022-23/02/188	Sample Details	Saitawade Village
Name & Address of the Customer - M/s.Pad.Dr.D.Y.Patil Sahakari Sakhar Karkhana Ltd, Dnyanshanti Nagar, Vesaraf Palsambe, Tal- Gaganbawada, Dist-Kolhapur, Maharashtra	Type of Sample	Water
	Volume Of Sample	2 Lit plastics Can
	Sample Status	Sealed
	Sample Collected By	GESEC
	Date of Sample Collection	08.02.2023
	Date of Sample received in lab	10.02.2023
	Analysis start Date	10.02.2023
	Analysis End Date	18.02.2023

WATER ANALYSIS REPORT				
Parameter	Result	Limits as per IS 10500:2012	Unit(s)	Standard Method
<b>Physical Parameter</b>				
Turbidity	<0.1	Max 1	NTU	IS:3025 part-10:2019
TDS	245.56	Max 500	mg/l	IS :3025 part-16 :2017
Color	<5	Max 5	Hazen	IS:3025 part-4 :2021
<b>Chemical Parameter</b>				
pH	7.63	6.5 to 8.5	--	APHA 4500, 23 <sup>rd</sup> Edition:2017
Total Hardness	72.98	Max 200	mg/l	IS:3025 Part-21:2019
Total Alkalinity	65	Max 200	mg/l	IS:3025 Part-23:2019
Sulphate	10.02	Max 200	mg/l	IS:3025 Part-24:2019
Residual Chlorine	0.26	Min 0.2	mg/l	IS:3025 Part 26:2019
Chloride	19.31	Max 250	mg/l	IS:3025 Part-32:2019
Calcium (as Ca)	21.49	Max 75	mg/l	IS:3025 Part-40:2019
Magnesium (as Mg)	8.02	Max 30	mg/l	APHA 3500- Mg, B, 23 <sup>rd</sup> Edition:2017
<b>Elemental Analysis</b>				
Iron as Fe	0.020	Max 0.3	mg/l	IS:3025 Part-2:2019
<b>Microbiological Parameter</b>				
Total Coliform	Absent	Absent	MPN/100ml	IS 1622:1981
<i>E.coli.</i>	Absent	Absent	per/100ml	IS 1622:1981

**Remark(s):**

- The above water sample is Comply with required limit as per IS 10500:2012.
- For Total Coliform & *E.coli.* Absent can be consider as Zero [ Refer IS:1622 (R.A.1996), Table No.-4].




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TEST REPORT		
Test Report No - GESEC/PRO/W/2022-23/02/189	Report Date	19.02.2023
Sample ID - GESEC/PRO/W/2022-23/02/189	Sample Details	Upale Village
Name & Address of the Customer - M/s.Pad.Dr.D.Y.Patil Sahakari Sakhar Karkhana Ltd, Dnyanshanti Nagar, Vesaraf Palsambe, Tal- Gaganbawada, Dist-Kolhapur, Maharashtra	Type of Sample	Water
	Volume Of Sample	2 Lit plastics Can
	Sample Status	Sealed
	Sample Collected By	GESEC
	Date of Sample Collection	08.02.2023
	Date of Sample received in lab	10.02.2023
	Analysis start Date	10.02.2023
	Analysis End Date	18.02.2023

WATER ANALYSIS REPORT				
Parameter	Result	Limits as per IS 10500:2012	Unit(s)	Standard Method
<b>Physical Parameter</b>				
Turbidity	<0.1	Max 1	NTU	IS:3025 part-10:2019
TDS	242.22	Max 500	mg/l	IS :3025 part-16 :2017
Color	<5	Max 5	Hazen	IS:3025 part-4 :2021
<b>Chemical Parameter</b>				
pH	6.98	6.5 to 8.5	--	APHA 4500, 23 <sup>rd</sup> Edition:2017
Total Hardness	72.31	Max 200	mg/l	IS:3025 Part-21:2019
Total Alkalinity	60	Max 200	mg/l	IS:3025 Part-23:2019
Sulphate	12.97	Max 200	mg/l	IS:3025 Part-24:2019
Residual Chlorine	0.26	Min 0.2	mg/l	IS:3025 Part 26:2019
Chloride	23.48	Max 250	mg/l	IS:3025 Part-32:2019
Calcium (as Ca)	18.31	Max 75	mg/l	IS:3025 Part-40:2019
Magnesium (as Mg)	10.64	Max 30	mg/l	APHA 3500- Mg, B, 23 <sup>rd</sup> Edition:2017
<b>Elemental Analysis</b>				
Iron as Fe	0.019	Max 0.3	mg/l	IS:3025 Part-2:2019
<b>Microbiological Parameter</b>				
Total Coliform	Absent	Absent	MPN/100ml	IS 1622:1981
<i>E.coli.</i>	Absent	Absent	per/100ml	IS 1622:1981

**Remark(s):**

- The above water sample is Comply with required limit as per IS 10500:2012.
- For Total Coliform & *E.coli.* Absent can be consider as Zero [ Refer IS:1622 (R.A.1996), Table No.-4].



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TEST REPORT		
Test Report No: GESEC/PRO/SW/2022-23/02/190	Report Date	19.02.2023
Sample ID - GESEC/PRO/SW/2022-23/02/190	Sample Details	Sludge
Name & Address of the Customer - M/s.Pad.Dr.D.Y.Patil Sahakari Sakhar Karkhana Ltd, Dnyanshanti Nagar, Vesaraf Palsambe, Tal- Gaganbawada, Dist-Kolhapur, Maharashtra	Type of Sample	Solid
	Sample Collected By	GESEC
	Date of Sample Collection	08.02.2023
	Date of Sample received in lab	10.02.2023
	Analysis start Date	10.02.2023
	Analysis End Date	18.02.2023

Analysis Report			
Parameter	Result	Unit	Standard Method
pH	7.92	--	IS :10158.2019
Phosphorus	174.31	Mg/kg	IS :10158.2019
Potassium	301.56	Mg/kg	IS :10158.2019
Total Nitrogen	698.3	Mg/kg	IS :10158.2019
Organic Carbon	24.78	%	IS 2720-P22
Organic Matter	39.16	%	IS:2720 part 22:2022
Water Soluble Chloride (Cl)	1105.45	Mg/kg	IS:2720
Water Soluble Sulphate (SO4)	745.36	Mg/kg	IS:2720



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**TEST REPORT**

<b>Report No:</b> GESEC/PRO/SO/2022-23/02/191			<b>Date of Report</b>	19.02.2023
<b>Sample ID:</b> GESEC/PRO/SO/2022-23/02/191			<b>Date of Sampling</b>	09.02.2023
<b>Name &amp; Address of the Customer -</b> M/s.Pad.Dr.D.Y.Patil Sahakari Sakhar Karkhana Ltd, Dnyanshanti Nagar, Vesaraf Palsambe, Tal- Gaganbawada, Dist-Kolhapur, Maharashtra			<b>Start Date of Analysis</b>	10.02.2023
			<b>End Date of Analysis</b>	18.02.2023
			<b>Sample Details</b>	Bhuibawda Village soil
			<b>Nature of sample</b>	solid
<b>Sample Collected By</b>			GESEC	
<b>Parameter</b>	<b>Result</b>	<b>Unit</b>	<b>Standard Method</b>	
Colour	Brown	--	APHA : 22 <sup>nd</sup> edition-(2540-E)	
Iron as Fe	0.17	mg/Kg	Method manual, Soil testing in India (Department of agriculture and cooperation, Ministry of agri. Government of India, 17B Page No.107:2011)	
Available Potassium as K	192.3	mg/Kg	Method manual, Soil testing in India (Department of agriculture and cooperation, Ministry of agri. Government of India, Page No.149:2019)	
Available Phosphorous as PO4	71.24	Kg/ha	Method manual, Soil testing in India (Department of agriculture and cooperation, Ministry of agri. Government of India, Page No.95:2011)	
Magnesium as Mg	18.8	mg/Kg	Method manual, Soil testing in India (Department of agriculture and cooperation, Ministry of agri. Government of India, Page No.104:2011)	
Water Holding Capacity	42.36	%	Method manual, Soil testing in India (Department of agriculture and cooperation, Ministry of agri. Government of India, Page No.149:2019)	
Bulk Density	2.01	g/cm3	IS:2720(Part 14)2020	
Texture	Clay	--	APHA : 22 <sup>nd</sup> edition-(2540-E)	
Cation Exchangeable Capacity	41.32	meq/100gm	IS:2720	
Sodium Absorption Ratio	0.074	-	IS:2720	
Organic Carbon	0.39	%	IS 2720 (Part 22) 2020	
Organic Matter	0.64	%	IS 2720 (Part 22) 2020	
Water Soluble Chloride	231.21	mg/Kg	Soil testing in India	
Water Soluble Sulphate	134.5	mg/Kg	IS 2720 (Part 27)	
Boron	33.98	mg/Kg	Method manual, Soil testing in India (Department of agriculture and cooperation, Ministry of agri. Government of India, Page 17 B No.115:2011)	
Zinc	22.17	mg/Kg	Method manual, Soil testing in India (Department of agriculture and cooperation, Ministry of agri. Government of India)	
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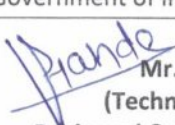
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TEST REPORT				
Report No: GESEC/PRO/SO/2022-23/02/192		Date of Report		19.02.2023
Sample ID: GESEC/PRO/SO/2022-23/02/192		Date of Sampling		09.02.2023
Name & Address of the Customer - M/s.Pad.Dr.D.Y.Patil Sahakari Sakhar Karkhana Ltd, Dnyanshanti Nagar, Vesaraf Palsambe, Tal- Gaganbawada, Dist-Kolhapur, Maharashtra		Start Date of Analysis		10.02.2023
		End Date of Analysis		18.02.2023
		Sample Details		Palasambe Village soil
		Nature of sample		solid
Sample Collected By		GESEC		
Parameter	Result	Unit	Standard Method	
Colour	Brown	--	APHA : 22 <sup>nd</sup> edition-(2540-E)	
Iron as Fe	0.10	mg/Kg	Method manual, Soil testing in India (Department of agriculture and cooperation, Ministry of agri. Government of India, 17B Page No.107:2011)	
Available Potassium as K	198.65	mg/Kg	Method manual, Soil testing in India (Department of agriculture and cooperation, Ministry of agri. Government of India, Page No.149:2019)	
Available Phosphorous as PO4	92.85	Kg/ha	Method manual, Soil testing in India (Department of agriculture and cooperation, Ministry of agri. Government of India, Page No.95:2011)	
Magnesium as Mg	20.36	mg/Kg	Method manual, Soil testing in India (Department of agriculture and cooperation, Ministry of agri. Government of India, Page No.104:2011)	
Water Holding Capacity	51.24	%	Method manual, Soil testing in India (Department of agriculture and cooperation, Ministry of agri. Government of India, Page No.149:2019)	
Bulk Density	1.26	g/cm <sup>3</sup>	IS:2720(Part 14)2020	
Texture	Clay	--	APHA : 22 <sup>nd</sup> edition-(2540-E)	
Cation Exchangeable Capacity	49.65	meq/100gm	IS:2720	
Sodium Absorption Ratio	0.073	-	IS:2720	
Organic Carbon	0.63	%	IS 2720 (Part 22) 2020	
Organic Matter	0.97	%	IS 2720 (Part 22) 2020	
Water Soluble Chloride	214.63	mg/Kg	Soil testing in India	
Water Soluble Sulphate	138.02	mg/Kg	IS 2720 (Part 27)	
Boron	37.06	mg/Kg	Method manual, Soil testing in India (Department of agriculture and cooperation, Ministry of agri. Government of India, Page 17 B No.115:2011)	
Zinc	42.30	mg/Kg	Method manual, Soil testing in India (Department of agriculture and cooperation, Ministry of agri. Government of India)	
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**TEST REPORT**

<b>Report No:</b> GESEC/PRO/SO/2022-23/02/193			<b>Date of Report</b>	19.02.2023
<b>Sample ID:</b> GESEC/PRO/SO/2022-23/02/193			<b>Date of Sampling</b>	09.02.2023
<b>Name &amp; Address of the Customer -</b> M/s.Pad.Dr.D.Y.Patil Sahakari Sakhar Karkhana Ltd, Dnyanshanti Nagar, Vesaraf Palsambe, Tal- Gaganbawada, Dist-Kolhapur, Maharashtra			<b>Start Date of Analysis</b>	10.02.2023
			<b>End Date of Analysis</b>	18.02.2023
			<b>Sample Details</b>	Sanchi Village soil
			<b>Nature of sample</b>	solid
<b>Sample Collected By</b>			GESEC	
<b>Parameter</b>	<b>Result</b>	<b>Unit</b>	<b>Standard Method</b>	
Colour	Brown	--	APHA : 22 <sup>nd</sup> edition-(2540-E)	
Iron as Fe	0.11	mg/Kg	Method manual, Soil testing in India (Department of agriculture and cooperation, Ministry of agri. Government of India, 17B Page No.107:2011)	
Available Potassium as K	76.5	mg/Kg	Method manual, Soil testing in India (Department of agriculture and cooperation, Ministry of agri. Government of India, Page No.149:2019)	
Available Phosphorous as PO4	71.81	Kg/ha	Method manual, Soil testing in India (Department of agriculture and cooperation, Ministry of agri. Government of India, Page No.95:2011)	
Magnesium as Mg	22.8	mg/Kg	Method manual, Soil testing in India (Department of agriculture and cooperation, Ministry of agri. Government of India, Page No.104:2011)	
Water Holding Capacity	50.2	%	Method manual, Soil testing in India (Department of agriculture and cooperation, Ministry of agri. Government of India, Page No.149:2019)	
Bulk Density	1.46	g/cm3	IS:2720(Part 14)2020	
Texture	Clay	--	APHA : 22 <sup>nd</sup> edition-(2540-E)	
Cation Exchangeable Capacity	53.65	meq/100gm	IS:2720	
Sodium Absorption Ratio	0.060	-	IS:2720	
Organic Carbon	0.42	%	IS 2720 (Part 22) 2020	
Organic Matter	0.73	%	IS 2720 (Part 22) 2020	
Water Soluble Chloride	257.61	mg/Kg	Soil testing in India	
Water Soluble Sulphate	164.27	mg/Kg	IS 2720 (Part 27)	
Boron	41.21	mg/Kg	Method manual, Soil testing in India (Department of agriculture and cooperation, Ministry of agri. Government of India, Page 17 B No.115:2011)	
Zinc	37.65	mg/Kg	Method manual, Soil testing in India (Department of agriculture and cooperation, Ministry of agri. Government of India)	
				
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**TEST REPORT**

Test Report No: GESEC/PRO/SW/2021-22/02/536	Report Date	21.02.2022
Sample ID - GESEC/PRO/SW/2021-22/02/536	Sample Details	Sludge
Name & Address of the Customer - M/s.Pad.Dr.D.Y.Patil Sahakari Sakhar Karkhana Ltd, Dnyanshanti Nagar, Vesaraf Palsambe, Tal- Gaganbawada, Dist-Kolhapur, Maharashtra	Type of Sample	Solid
	Sample Collected By	GESEC
	Date of Sample Collection	14.02.2022
	Date of Sample received in lab	15.02.2022
	Analysis start Date	15.02.2022
	Analysis End Date	21.02.2022

**Analysis Report**

Parameter	Result	Unit	Standard Method
pH	7.04	--	IS :10158.2019
Phosphorus	156.12	Mg/kg	IS :10158.2019
Potassium	332.96	Mg/kg	IS :10158.2019
Total Nitrogen	632.47	Mg/kg	IS :10158.2019
Organic Carbon	20.10	%	IS 2720-P22
Organic Matter	31.16	%	IS:2720 part 22:2022
Water Soluble Chloride (Cl)	1098.52	Mg/kg	IS:2720
Water Soluble Sulphate (SO4)	796.32	Mg/kg	IS:2720



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