

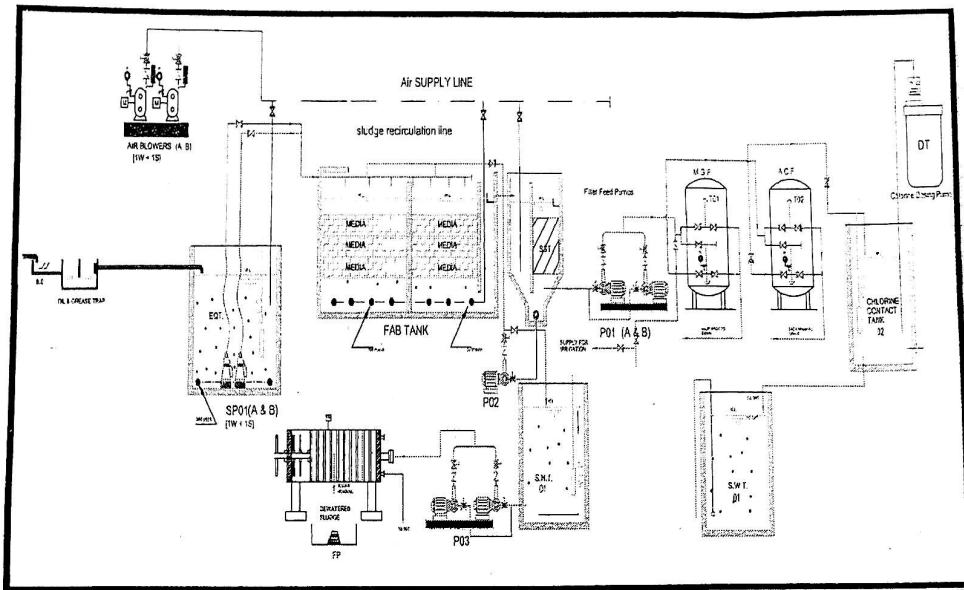
e.	Indicate waste water and sludge characteristics, before and after treatment-(Physical/Chemical)	<b>Sewage Treatment Plant</b> <table border="1"> <thead> <tr> <th>Parameters</th><th>Influent</th><th>Treated effluent</th></tr> </thead> <tbody> <tr> <td>pH</td><td>6.5 -8.5</td><td>6.5 -8.5</td></tr> <tr> <td>BOD</td><td>250-300 mg/l</td><td>&lt; 30 mg/l</td></tr> <tr> <td>Suspended solids</td><td>300-350 mg/l</td><td>&lt; 10 mg/l</td></tr> <tr> <td>COD</td><td>350-450 mg/l</td><td>&lt; 250 mg/l</td></tr> <tr> <td>Oil &amp; Grease</td><td>20-25 mg/l</td><td>&lt; 10 mg/l</td></tr> </tbody> </table> <p>STP sludge: Semisolid organic nature</p>	Parameters	Influent	Treated effluent	pH	6.5 -8.5	6.5 -8.5	BOD	250-300 mg/l	< 30 mg/l	Suspended solids	300-350 mg/l	< 10 mg/l	COD	350-450 mg/l	< 250 mg/l	Oil & Grease	20-25 mg/l	< 10 mg/l
Parameters	Influent	Treated effluent																		
pH	6.5 -8.5	6.5 -8.5																		
BOD	250-300 mg/l	< 30 mg/l																		
Suspended solids	300-350 mg/l	< 10 mg/l																		
COD	350-450 mg/l	< 250 mg/l																		
Oil & Grease	20-25 mg/l	< 10 mg/l																		
f.	Type of treatment proposed to be adopted (enclose details, design and schematic diagram).	STP based on FAB technology of capacity 150 KLD will be installed for domestic waste water treatment.																		
g.	How do you propose to discharge the waste water (specify mode of disposal).	Treated waste water will be reused/ recycled for Flushing- 35 KLD, landscaping & general washing- 40 KLD while about 33 KLD of excessive treated water will be drained.																		

For Neemrana Estate Pvt. Ltd.

Page | 4

06

Director



## PROCESS DESCRIPTION

The Sewage Treatment Plant will be designed to treat a sewage quantity of 120 KLD.

Here the raw sewage effluent from different sources shall be collected in the equalization tank from where it will be pumped into the fluidized aerobic bed reactor for secondary biological treatment using nitrifying and denitrifying bacteria. Fluidized bed reactor shall be fitted with tubular diffusers for supplying air (oxygen) through twin lobe roots air blower. From here, effluent will be taken into the secondary settling tank for settling of bio-sludge.

The settled sludge will be dewatered using filter press and the cake can be used as soil conditioner / bio-fertilizer for plantation after vermi composting . Effluent from the secondary settling tank will be taken in the filter feed pump sump from where it will be pumped in the pressure sand filter and activated carbon filter for tertiary treatment.

In the tertiary treatment, pressure sand filter removes suspended particles from the effluent while activated carbon filter removes colour and odour producing substances from the effluent. On line hypochlorite dosing will be done to ensure proper disinfection.

## Civil Units for the proposed sewerage treatment system:

The various civil units shall be as under:

### 1. Equalization tank:

The equalization tank is proposed to collect raw sewage generated from the plots and pumps the same at a uniform rate to the subsequent treatment units. It will also act as