

REMOVAL OF OIL AND GREASE FROM INDUSTRIAL WASTEWATER BY ADSORPTION METHOD

A PROJECT REPORT

Submitted to

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Abstract

Oil and Grease is that component which is found in wastewater from the industries, vehicle service stations, hotels etc. This is to be removed before disposing of wastewater to the sewage. It may stick to the sides of sewer thus reducing the capacity of sewer. It may also add to the possibilities of explosions and also it is objectionable from the point of view of treatment of sewage. The layer of Oil and Grease does not allow oxygen to penetrate and hence the aerobic bacteria will not survive and thus organic matter will not be decomposed. So the proper treatment of removing this Oil and Grease should be carried out.

In present days, there are many methods being used for the removal of Oil and Grease from the wastewater like Oil and Grease traps, skimming tanks etc. However these prove to be uneconomical and difficult to maintain. In this project work an attempt is made to remove the Oil and Grease from wastewater using adsorption technique with the help of Laterite Stone.

In this method synthetically prepared waste water containing Oil and Grease will be passed through a laterite channel in a zig-zag path. The laterite acts as an absorbent material which will help in the removal of Oil and Grease from the wastewater.

A study will be made on this adsorbent material by considering various parameters such as flow rate, length of the channel, and the baffle wall spacing. The results of removal efficiency will be monitored for all this conditions and optimum results will be determined for the maximum removal efficiency and an attempt will be made to make this method more efficient and economical than any other existing method.