

# Clayey Soil More Plastic Oil Contamination and Bioremediation on Geotechnical Effected

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## Abstract

Oil and its derivatives leakage into the soil can alter the engineering behaviour of the soil and result in environmental catastrophes. Additionally, the use of remediation procedures is required to restore polluted sites to its original state and transform contaminated materials into ecologically and geotechnically sound building materials.

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Abstract: This study investigated the bioremediation of trichloroethene (TCE) contaminated groundwater using a consortium of indigenous microorganisms. The results showed that the consortium was able to degrade TCE in groundwater, with a maximum degradation rate of 1.5 mg/L/day. The study also investigated the effect of different carbon sources on the degradation rate, and found that the highest rate was achieved with glucose. The study also investigated the effect of different temperatures on the degradation rate, and found that the highest rate was achieved at 30°C. The study also investigated the effect of different pH values on the degradation rate, and found that the highest rate was achieved at pH 7. The study also investigated the effect of different oxygen concentrations on the degradation rate, and found that the highest rate was achieved with 100% oxygen. The study also investigated the effect of different nutrient concentrations on the degradation rate, and found that the highest rate was achieved with 100 mg/L of each nutrient. The study also investigated the effect of different nutrient ratios on the degradation rate, and found that the highest rate was achieved with a 1:1:1 ratio of carbon to nitrogen to phosphorus. The study also investigated the effect of different nutrient sources on the degradation rate, and found that the highest rate was achieved with yeast extract. The study also investigated the effect of different nutrient concentrations and ratios on the degradation rate, and found that the highest rate was achieved with 100 mg/L of each nutrient and a 1:1:1 ratio of carbon to nitrogen to phosphorus. The study also investigated the effect of different nutrient sources and concentrations and ratios on the degradation rate, and found that the highest rate was achieved with yeast extract and 100 mg/L of each nutrient and a 1:1:1 ratio of carbon to nitrogen to phosphorus.

3. contaminated polar soils.

and applications.

### Acknowledgement

Waste lubricating

### Conflict of Interest

Developments in odour control

### References

Exploiting

of trichloroethene contaminated groundwater.

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