

ABSTRAK

Verawaty. 811410006. 2014. Analisis Kadar BOD dan COD Pada Pengolahan Limbah Cair di Pabrik Kelapa Sawit PT. Lestari Tani Teladan (LTT) di Provinsi Sulawesi Tengah. Skripsi. Jurusan Kesehatan Masyarakat. Fakultas Ilmu-Ilmu Kesehatan dan Keolahragaan. Universitas Negeri Gorontalo. Pembimbing I Dian Saraswati S.Pd, M.Kes dan Pembimbing II Ramly Abudi, S.Psi M.Kes.

Karakteristik air limbah perlu dikenal karena hal ini akan menentukan cara pengolahan yang tepat, sehingga tidak mencemari lingkungan hidup. Pengolahan limbah cair yang kurang baik tidak dapat menurunkan parameter-parameter pencemar terutama parameter kimia yaitu kadar BOD dan COD yang terdapat pada limbah cair kelapa sawit.

Rumusan masalah dalam penelitian ini adalah apakah kadar BOD dan COD limbah cair sesudah pengolahan di Pabrik Kelapa Sawit PT. LTT di Provinsi Sulawesi Tengah melebihi nilai ambang batas sesuai Kep-51/MEN LH/1995. Tujuan penelitian yaitu untuk menganalisis kadar BOD dan COD sebelum dan sesudah pengolahan limbah cair. Penelitian ini merupakan desain Deskriptif dengan jenis penelitian Observasional. Populasi adalah semua limbah cair yang ada di pabrik. Sampel dalam penelitian ini sebanyak 2 liter pada kolam pendingin dan kolam *anaerobik*. Teknik pengambilan sampel menggunakan metode sesaat (*grab sampling*). Analisisnya menggunakan uji kandungan BOD₅ dan uji kandungan COD pada limbah cair.

Hasil penelitian membuktikan bahwa limbah cair pabrik kelapa sawit di PT. LTT yang belum memenuhi standar baku mutu kualitas limbah cair bagi kegiatan industri kelapa sawit sesuai Kep-51/MEN LH/1995, yaitu nilai BOD karena melebihi 100 mg/l. Sedangkan nilai COD sudah memenuhi standar baku mutu karena kurang dari 350 mg/l.

Saran bagi industri diharapkan dapat mengolah limbah cair dengan baik agar hasil pengolahan limbah cair yang dimanfaatkan sebagai *Land Application* tidak berdampak buruk bagi lingkungan atau pun bagi tanaman kelapa sawit yang ada diperkebunan.

Kata Kunci : Limbah Cair, Kelapa Sawit, Kadar BOD, Kadar COD

ABSTRACT

Verawaty. 811410006. 2014. The Analysis of BOD and COD in Liquid Waste at Oil Palm Factory PT. Lestari Tani Teladan (LTT) at Central Sulawesi Province. Skripsi. Department of Public Health. Faculty of Health and Sport Sciences. Universitas Negeri Gorontalo. The principal supervisor was Dian Saraswati, S.Pd., M.Kes and the co-supervisor was Ramly Abudi, S.Psi., M.Kes.

The characteristic of waste water should be known due to determining the way to manage the waste water properly in order to be not contaminating the life environment. The worse liquid waste management cannot decrease the parameters of contamination particularly chemistry parameters which were BOD and COD level in liquid waste of oil palm.

The problem statement of research was whether the level of BOD and COD in liquid waste after the processing at oil palm factory of PT. LTT at Center Sulawesi Province was exceeding the threshold value according to Kep-51/MEN LH/1995. The research aimed at analyzing the BOD and COD Level before and after the processing of liquid waste. The research was observational research by having descriptive design. The population of research were all liquid wastes in factory. The samples of research were 2 liters of coolant pond and anaerobic pond. The technique of sampling was grab sampling method. The data analysis was using BOD₅ level test and COD level test in liquid waste.

The research result showed that the liquid waste of oil palm factory at PT. LTT was not fulfilling the quality standard of liquid waste of oil palm industrial activity according to Kep-52/MEN LH/1995, it due to the value of BOD was exceeding 100 mg/l. However, the value of COD has been fulfilled the quality standard because it was less than 350 mg/l.

The suggestion for the industrial is to manage the liquid waste properly so that the result liquid waste processing which was utilized as land application did not give the bad impact to the environment as well as to the oil palm in the plantation.

Keywords: Liquid Waste, Oil Palm, BOD Level, COD Level

PERSETUJUAN PEMBIMBING

SKRIPSI

**ANALISIS KADAR BOD DAN COD PADA PENGOLAHAN LIMBAH CAIR
DI PABRIK KELAPA SAWIT LESTARI TANI TELADAN (LTT) DI
PROVINSI SULAWESI TENGAH**

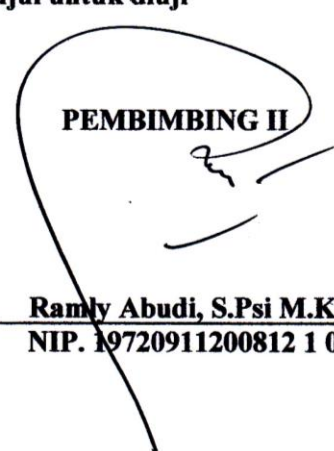
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Telah dipertahankan di depan dewan penguji

Hari/Tanggal : Jumat / 09 Januari 2015
Waktu : 09.30 – 11.00 WITA

Penguji :

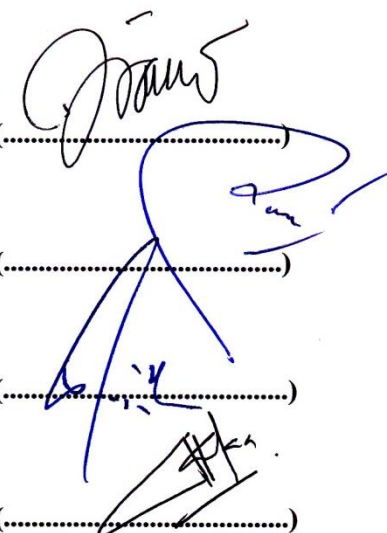
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