IDENTIFIKASI PENCEMARAN AIR SUNGAI BATANG OMBILIN DARI NILAI *TOTAL DISOLVED SOLID* (TDS) DAN KONDUKTIVITAS LISTRIK

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ABSTRAK

Penelitian identifikasi pencemaran air Sungai Batang Ombilin di Kecamatan Talawi Kota Sawahlunto telah dilakukan. Pengambilan sampel dilakukan pada delapan lokasi dengan jarak antara lokasi adalah 500 m. Pada setiap lokasi diambil sampel pada tiga titik, yaitu dua di pinggir dan satu di tengah. Identifikasi dilakukan berdasarkan parameter nilai *Total Disolved Solid* (TDS) dan konduktivitas listrik, dan didukung dengan parameter temperatur, derajat keasaman (pH) dan kandungan logam berat Pb, Cu dan Cr. Hasil penelitian menunjukkan bahwa nilai rata-rata temperatur air Sungai Batang Ombilin adalah 29,0˚C. Nilai ini lebih tinggi dari temperatur udara di sekitarnya yaitu 28,0˚C. Hal ini mengindikasikan bahwa air Sungai Batang Ombilin sudah mulai mengalami pencemaran. Nilai rata-rata pH sampel adalah 7,39. Nilai rata-rata TDS sampel adalah 65,17 mg/L. Nilai rata-rata konduktivitas listrik sampel adalah 114,4 µS/cm. Konsentrasi tertinggi kandungan logam berat Pb, Cu dan Cr berturut-turut adalah 0,142 mg/L, 0,009 mg/L dan 0,060 mg/L. Berdasarkan parameter tersebut dapat dikatakan bahwa air Sungai Batang Ombilin di Kecamatan Talawi Kota Sawahlunto tercemar karena nilai-nilai parameter tersebut berada di atas nilai standar baku mutu air sungai kelas II menurut Peraturan Pemerintah Nomor 82 Tahun 2001.

Kata kunci: Sungai Batang Ombilin, TDS, konduktivitas listrik, temperatur, pH, kandungan logam berat.

THE INDENTIFICATION OF WATER POLLUTION OF BATANG OMBILIN RIVER FROM TOTAL DISOLVED SOLID (TDS) AND THE CONDUCTIVITY OF ELECTRICITY

ABSTRACT

The research of the identification of water pollution of Batang Ombilin River in the subdistrict of Talawi, Sawahlunto has been done. Sampling was done in 8 locations which the distance among the locations are 500 m. at each locations samples are taken at three points, two at the edge and one in the middle. The identification is based on Total Disolved Solid (TDS) parameters and electrical conductivity and supported by temperatur parameters, acidity degree (pH) and heavy metal content of Pb, Cu and Cr. The results showed that the average value of Batang Ombilin River was 29,0˚C. This value was higher than the ambient air temperature, it was 28,0˚C. it indicates that the water of Batang Ombilin River has begun to get contamination. The average value of the sample pH was 7,39. The average value of sample TDS was 65,17 mg/L and the average value of the conductivity of electricity of the sample was 114,4 µS/cm. The highest concentrations of heavy metals Pb, Cu and Cr were 0,036 mg/L, 0,002 mg /L and 0,036 mg/L, respectively. Based on the parameters it can be said that the water of Batang Ombilin River in the Subdistrict of Talawi, Sawahlunto is polluted because the values of these parameters were under the standard value of the river water quality standard II according to Government Regulation No. 82 year 2001.

Key words: Batang Ombilin River, TDS, Conductivity Of Electricity, temperatur, pH, Content of Heavy Metals.