

**Analisis Indeks Kualitas Tanah Pada Lahan Penambangan Emas Rakyat di
Dusun Plampang II, Desa Kalirejo, Kecamatan Kokap Kabupaten Kulon Progo**

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ABSTRAK

Proses pengolahan bijih emas di Dusun Plampang II, Kulon Progo menggunakan proses amalgamasi dengan alat gelondong yang menghasilkan *Tailing*. Limbah lumpur (*tailing*) tersebut membentuk sedimen yang dapat berpengaruh pada fungsi-fungsi tanah seperti aktivitas biologi, pengaturan air serta penyaring dan penyangga. Tujuan dari penelitian ini adalah untuk menentukan indeks kualitas tanah dilokasi *waste dump tailing* sedimen dengan kurun waktu tertentu dari hasil produksi penambangan emas serta mengetahui karakteristik tanah di Dusun Plampang II. Penelitian ini menggunakan metode pengambilan sampel tanah pada lokasi penelitian menggunakan survey lapangan dengan pengambilan sampel tanah secara *purposive sampling*. Lokasi yang dipilih yaitu 1) lokasi yang belum terkena *waste dump tailing* sedimen (kontrol), 2) lokasi yang terkena *waste dump tailing* sedimen umur 5 bulan, 3) lokasi yang terkena *waste dump tailing* sedimen umur 3 tahun dan 4) aliran permukaan. Parameter penelitian ini terdiri dari kedalaman akar, berat volume, berat jenis, porositas, C-organik, pH aktual, N-total, P tersedia, K tersedia, tekstur tanah dan jumlah mikroba. Analisis data yaitu dengan analisis kualitas tanah secara kualitatif dengan identifikasi dilapangan dan secara kuantitatif dengan Indeks Kualitas menurut Mausbach and Seybold (1998). Hasil penelitian menunjukkan bahwa nilai Indeks Kualitas Tanah (IKT) pada lokasi kontrol bernilai 0,51; pada lokasi *waste dump tailing* sedimen umur 5 bulan bernilai 0,48; pada lokasi *waste dump tailing* sedimen umur 3 tahun bernilai 0,48 dan pada lokasi aliran permukaan bernilai 0,53. Kriteria kelas indeks kualitas tanah pada keempat lokasi termasuk kedalam kriteria sedang.

Kata kunci : Indeks, Kualitas Tanah, Penambangan Emas Rakyat

The Analysis of Soil Quality Index on the People's Gold Mining Land at the Village of Plampang II, Kalirejo, Kokap, Kulon Progo

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ABSTRACT

The processing of gold ore at the Village of Plampang II, Kulon Progo, uses an amalgamation process with a spindle tool that produces tailing. Those tailing waste forms sediments that can affect the soil functions such as the biological activity, the water regulation, as well as the filter and the buffer. This research aims to determine the soil quality index at the location of sediment tailing waste dump in a certain period of time from the production of gold mining, and also to determine the characteristics of the land at the Village of Plampang II. This research used the method of soil sampling at the research site using the field survey with purposive sampling. The selected locations were: 1) the location that had not been exposed to the sediment tailing dump control, 2) the location affected by the 5-month-old sediment tailing dump, 3) the location affected by the 3-year-old sediment tailing dump waste, and 4) the surface flow. The parameters of this research consisted of: root depth, volume weight, specific gravity, porosity, organic C, actual pH, total N, available P, available K, soil texture, and number of microbes. The data analysis was done by qualitatively analyzing the soil quality with identification in the field, and quantitatively with Quality Index according to Mausbach and Seybold (1998). The results showed that the value of the Soil Quality Index (IKT) at the control location was 0.51; at the location of the 5-month-old sediment tailing waste dump was 0.48; at the location of the 3-year-old sediment tailing waste dump was 0.48; and at the surface flow location was 0.53. The criteria for the soil quality index at the four locations were included in the criteria of moderate.

Keywords: Index, Soil Quality, People's Gold Mining