ABSTRAK

Pemanfaatan lahan marginal seperti lahan pasang surut untuk pertanian menghadapi beberapa masalah diantaranya terdapat lapisan pirit dangkal, lahan terpengaruh oleh intrusi air laut (salinitas), sifat kemasaman tanah yang tinggi (pH rendah) serta tanah yang miskin akan unsur hara. Penelitian ini bertujuan untuk mengetahui dan mempelajari tentang sebaran kedalaman lapisan pirit, Daya Hantar Listrik (DHL) tanah dan air boring, pH air boring serta bahan organik tanah di Desa Pemusiran Kecamatan Nipah Panjang. Penelitian menggunakan metode survei, dimana penentuan titik-titik pengamatan ditetapkan dengan menggunakan metode grid. Pengamatan di lapangan untuk mendapatkan data sebaran kedalaman pirit, DHL tanah dan air boring, pH air boring serta pengamatan tinggi muka air kanal. Pengambilan sampel tanah terganggu dilapangan dianalisis untuk mendapatkan kandungan bahan organik. Hasil penelitian diperoleh bahwa bahwa lapisan bahan sulfidik (pirit) tanah di lokasi penelitian didominasi oleh kedalaman pirit 50-100 cm dengan luas 1.055,32 ha atau 45,73% dari total areal penelitian. Nilai DHL tanah lokasi penelitian berkisar antara 64-981 $\mu s.cm^{-1}$ kategori sangat rendah. Nilai DHL air boring tertinggi yaitu 8.863 $\mu s.cm^{-1}$ kategori buruk dan nilai terendah adalah 355 $\mu s.cm^{-1}$ kategori baik. Nilai pH air boring pada lokasi penelitian berkisar 3,47-7,5. Sedangkan sebaran bahan organik tanah pada area penelitian memiliki nilai 8,75-38,75% kategori tinggi hingga sangat tinggi. Topologi lahan pasang surut lokasi penelitian didominasi oleh lahan sulfat masam (SMP) yang terdiri dari SMP-1 dan SMP-2. Selanjutnya terdapat tipologi lahan gambut-dangkal bersulfat (G-1sf) dan lahan sulfat masam aktual (SMA-2).

Kata Kunci: lahan pasang surut, kedalaman pirit, salinitas, tipologi

ABSTRACT

The use of marginal land such as tidal land for agriculture faces several problems, including shallow pyrite layers, land affected by sea water intrusion (salinity), high soil acidity (low pH) and nutrient-poor soil. This research aims to determine and study the distribution of pyrite layer depth, Electrical Conductivity (EC) of soil and drill water, pH of drill water and soil organic matter in Pemusiran Village, Nipah Panjang District. This research uses a survey method, where observation points are determined using the grid method. Observations in the field to obtain data on the distribution of pyrite depth, EC of soil and drill water, pH of drill water and observations of channel water levels. Disturbed soil samples taken in the field are analyzed to determine the organic matter content. The research results show that the layer of sulfide material (pyrite) in the soil at the research location is dominated by pyrite with a depth of 50-100 cm with an area of 1.055,32 ha or 45,73% of the total research area. The soil EC value of the research location ranged from 64-981 $\mu s.cm^{-1}$ in the very low category. The highest EC value for drilled water was 8,863 $\mu s.cm^{-1}$ in the bad category and the lowest value was 355 $\mu s.cm^{-1}$ in the good category. The pH value of drill water at the research location ranges from 3,47 to 7,5. The distribution of soil organic matter in the research area has a value of 8,75-38,75% in the high to very high category. The topology of tidal land at the research location is dominated by potential acid sulfate soils (PASS) consisting of PASS-1 and PASS-2. Next there is the typology of shallow sulphate peat land (G-1sf) and actual acid sulphate soils (AASS).

Keywords: tidal land, pyrite depth, salinity, topology