ABSTRAK

Dalam menyusun rencana pembangunan gedung dan jalan akses di Politeknik Negeri Ketapang membutuhkan data primer berupa *soil test investigation.* Salah satunya yaitu untuk mengetahui nilai daya dukung lapisan tanah dasar (*subgrade*). Tujuan penelitian ini adalah untuk mengetahui besarnya nilai daya dukung lapisan tanah dasar di lingkungan Politeknik Negeri Ketapang. Penelitian ini merupakan penelitian eksperimental yang dilakukan di laboratorium dan lapangan. Pada penelitian ini dilakukan pengujian Kadar Air, Analisa Saringan, Batas Atterberg, Pemadatan Tanah Standar, Uji Sandcone, Uji CBR Laboratorium, dan Uji CBR Lapangan yang menggunakan tanah yang berasal dari Jalan Akses Gedung Laboratorium Jurusan Teknik Mesin Politeknik Negeri Ketapang. Berdasarkan klasifikasi USCS disimpulkan bahwa tanah di lokasi pengujian ini adalah tipe SP (pasir bergradasi buruk) dengan nilai kepadatan tanah maksimum adalah 1,64 gr/cm3 dan kadar air optimum (wopt) sebesar 15,05%. Nilai CBR laboratorium rata-rata sebesar 16.31% dan nilai rata-rata CBR lapangan sebesar 15.38%. Berdasarkan metode persamaan garis regresi linier sederhana, didapat kesimpulan bahwa kenaikan nilai CBR Konvensional diikuti oleh kenaikan nilai CBR Lapangan atau semakin besar nilai CBR Konvensional maka semakin besar pula nilai CBR Lapangan, dan dilihat dari nilai regresinya (r =0.9218) memiliki hubungan langsung positif baik.

Kata Kunci : *Soil Test Investigation*, CBR konvensional, CBR Lapangan

ABSTRACT

In preparing plans for the construction of buildings and access roads at the Ketapang State Polytechnic, primary data is needed in the form of soil test investigation. One of them is to determine the value of the bearing capacity of the subgrade. The purpose of this study was to determine the value of the bearing capacity of the subgrade in the Ketapang State Polytechnic environment. This research is experimental research conducted in the laboratory and the field. In this research, the water content test, sieve analysis, Atterberg limit, standard soil compaction, sand cone test, laboratory CBR test, and field CBR test were carried out using soil originating from the Access Road of the Laboratory Building, Department of Mechanical Engineering, State Polytechnic of Ketapang. Based on the USCS classification, it was concluded that the soil at the test site was SP type (poorly graded sand) with a maximum soil density value of 1.64 gr/cm3 and an optimum moisture content (w opt) of 15.05%. The average laboratory CBR value is 16.31% and the average field CBR value is 15.38%. Based on the simple linear regression equation method, it can be concluded that the increase in the Conventional CBR value is followed by an increase in the Field CBR value, or the greater the Conventional CBR value, the greater the Field CBR value, and seen from the regression value (r = 0.9218) has a positive direct relationshipeither.

Keywords: *Soil Test Investigation, conventional CBR, Field CBR*