

ANALYSIS OF SUPPORT CAPACITY OF PILE TOWARD PILE DRIVING ANALYZER (PDA)

(Study Case of Construction Project of Pipe Rack and Pipe Line at Gaung Teluk Bayur's Deck)

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This research was held on the construction project of Pipe Rack and Pipe Line at Gaung Teluk Bayur's Deck. The materials of the pile foundation that were used consist of spun pile with diameter 400 mm, steel pile with diameter 600 mm, and Diesel Hammer as equipment. This research was an analysis of the support capacity of Pile with static and dynamic methods. Then, it was also about the comparison of the calculation result of those methods with Pile Driving Analyzer (PDA). The researcher concluded that the calculation using static method based on Nspt Value from Luciano Decourt and Mayerhof has differences, which is different classification according to type of soil and characteristic of soil. That thing made range of differences but it was not too far. In static method based on Nspt Value, Luciano Decourt's method was bigger than Mayerhof's method. In dynamic method, it can be concluded that the application of dynamic formula of data importing according to material, diameter, embedded pole, and based on the hammer tool that had been used, the weight of the hammer, type of the hammer, and accelorometer sensor reading and strain transducer. The data of support capacity of pile with static method from SPT result compare to support capacity of pole with dynamic method from PDA result. The result is static is smaller than diyamic.

Key Words: pile, static, dynamic, PDA

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