

TECHNICAL INSTITUTE  
CIVIL ENGINEERING DEPARTMENT

DIPLOMA PROJECT

SHIELD CUT EXCAVATIONS

by

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**Open - Cut Excavations**

**Project Report Submitted**

**by**

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**in part satisfaction of the award  
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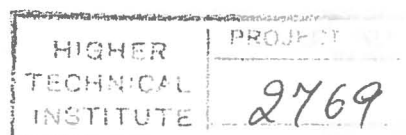
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## Summary

The purpose of this project is to give an account of open cut excavations, talk about geology of rocks with emphasis on the co-relation with excavation. Also to explain:

- a) ways by which quantities of excavated materials are calculated
- b) the mass haul diagram.

Furthermore, to make a survey of the equipment and machinery used to cut load and haul excavated material.

To cover these objectives:

- (a) various kinds of open - cut excavation were mentioned and discussed, giving examples accompanied with pictures.
- (b) The different kinds of rock were discussed with reference to their properties concerning excavations.
- (c) The various ways and formulas which are usually used for the valuation of excavated rock, have been shown along with examples.
- (d) the mass haul diagram was explained, with the help of examples and its properties, were mentioned.
- (e) Some of the equipment used in excavations was mentioned and discussed, with the help of pictures.