Surficial Geology of Worth County, Iowa

INTRODUCTION

Worth County lies within the Des Moines Lobe (DML) of Wisconsin glacial deposits. The DML was deposited during the Wisconsin glacial stage between 1000 yrs B.P. and the present. This is the most recent of the glacial stages in Iowa history, and the deposits were deposited under cold, arid conditions. The DML is a complex set of deposits, and it is not possible to describe the geology of the DML in detail in this report. However, the map units of the DML can be divided into two broad categories: glacial sediments and drift deposits. Glacial sediments are the deposits that were directly deposited by the ice, while drift deposits are the deposits that were transported by the ice and subsequently deposited by meltwater.

The Wisconsin Episode ended and the Illinoian Episode began about 750 yrs B.P. The Illinoian Episode was characterized by a decrease in temperature and an increase in precipitation, which led to the development of a lake in the interior of the United States. The lake extended into Iowa, and the lake waters spread across the state in the form of a series of small lakes and swamps. The lake waters eventually filled the valleys of the Des Moines Lobe, and the lake sediments were deposited in the valleys.

The lake sediments were deposited in two main stages: the low relief hummocky landforms and the high relief hummocks. The low relief hummocky landforms were deposited during the Wisconsin Episode, and they are characterized by gentle relief and a complex landform pattern. The high relief hummocks were deposited during the Illinoian Episode, and they are characterized by high relief and a simple landform pattern.

The lake sediments were later eroded by meltwater, and the eroded sediments were deposited in the valleys. The eroded sediments were characterized by a thin mantle of loess, reworked till, and slopewash deposits. The eroded sediments were deposited in the valleys, and they are characterized by a thin mantle of loess, reworked till, and slopewash deposits.

The eroded sediments were later eroded by meltwater, and the eroded sediments were deposited in the valleys. The eroded sediments were characterized by a thin mantle of loess, reworked till, and slopewash deposits. The eroded sediments were deposited in the valleys, and they are characterized by a thin mantle of loess, reworked till, and slopewash deposits.

ACKNOWLEDGMENTS

Special thanks to the following people for their contributions to this report: Jason Vogelgesang, Chuck Gipp, and Brian Tweeten.

REFERENCES
