



**GEOLOGICAL SURVEY
OF
MICHIGAN**
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SURFACE (PLEISTOCENE) GEOLOGY
COMPILED BY
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FROM NOTES OF F. LEVERETT AND F. B. TAYLOR
AND VARIOUS MEMBERS OF THE STATE SURVEY.
(WITH PERMISSION OF THE U. S. GEOLOGICAL SURVEY)

EXPLANATION.

NOTE: This map of the surface geology of the state is to be in nine sheets numbered thus:

1	2	3	4
5	6	7	8
9	10	11	12

Nos. 1, 2, 3 and 9 cover the Lower Peninsula. Fuller explanations of the recent geological history will be found in a report of the State Survey and the Ann Arbor Folio of the U. S. Geological Survey.

On this scale the attempt has not been made to map out the river bottoms and the smaller swamps that would break up the larger features.

Dunes, beaches, eskers and deltas, lightest soils, road cuttings, building sand and concrete gravel.

Glacial Outwash Apron, in gravelly plains, undrained hollows, and gentle slopes, gravelly sands, Clyde and Miami gravels.

Lake sand and glacial drainage, in valleys, plains, under peat swamps, light sands, Clyde and Miami sand.

Remains, direct deposit of the ice, hilly, soils varied, mainly Clyde and Miami loam and similar soil, generally a fair amount of clay.

Most clayey portions, solid red, gravelly or sandy, sloping.

Till plains, direct deposits under the ice, fat, unstratified, less hilly and more clayey than the above, similar soils.

Lake clay, very fat, Clyde, Saginaw and Superior clays, clay sometimes a little sandy at the surface, clay loam, brick clays.

Lime stone areas, good farm land.