LEGEND

PLATE 1

QUATERNARY GEOLOGY

Swamps and Bogs Dark brown to black accumulations of partially decayed plant debris, mainly peat, peaty silt and muck; local clay, silt, fine sand. Commonly formed in postglacial times in low-lying, poorly drained areas.

Flood Plains and Channels Moderately-to well-sorted sand, cobbles, or boulders lying along present stream courses. Also includes clay and silt over-bank deposits resulting from seasonal flooding.

Abandoned Beaches and Strandlines Moderately- to well-sorted sand and gravel associated with higher levels of Glacial Lake Duluth.

Lake Plain Red brown clay, laminated to massive, with occasional white to gray calcareous concretions; locally red-brown to yellow-brown silt. Local small cobbles or pebbles, occasional ice-rafted pebbles, cobbles and boulders.

Ice Disintegration Complex (excluding eskers) Medium to dark brown, locally mixed or interbedded sands, gravels, minor laminated silt, and silt-rich till.

Esker Dark brown, moderately- to well-sorted and rounded sand and gravel; occasional cobbles and interbedded silt. Cross-bedding evident locally. Deposits often capped by several feet of gravelly ablation till.

Deltas Thick, areally extensive deposits of well sorted sand and gravel found along former strandlines. Occasionally interbedded with flow tills or less well-sorted material. Cross-bedding common.

Ground Moraine Medium brown to dark brown or red-brown till; unsorted and unstratified stony deposits. Matrix is silt-rich, clasts vary in size from pebbles to boulders. Friable to very compact.

Bedrock Mainly basalt, gabbro, diabase and felsite of Late Precambrian age. Includes local areas of frost-riven rock and thin (less than 5 feet) surficial cover. Bedrock surface is weathered in some areas.

Sample numbers and measured glacial striations are shown in fine print.