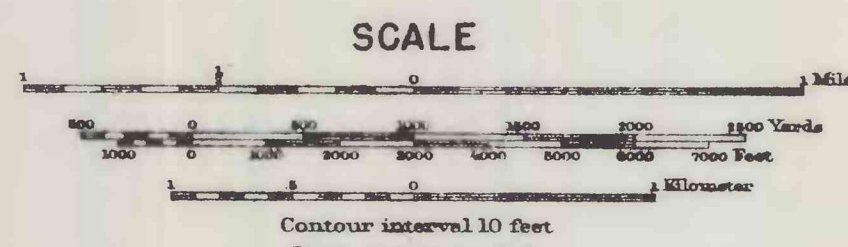
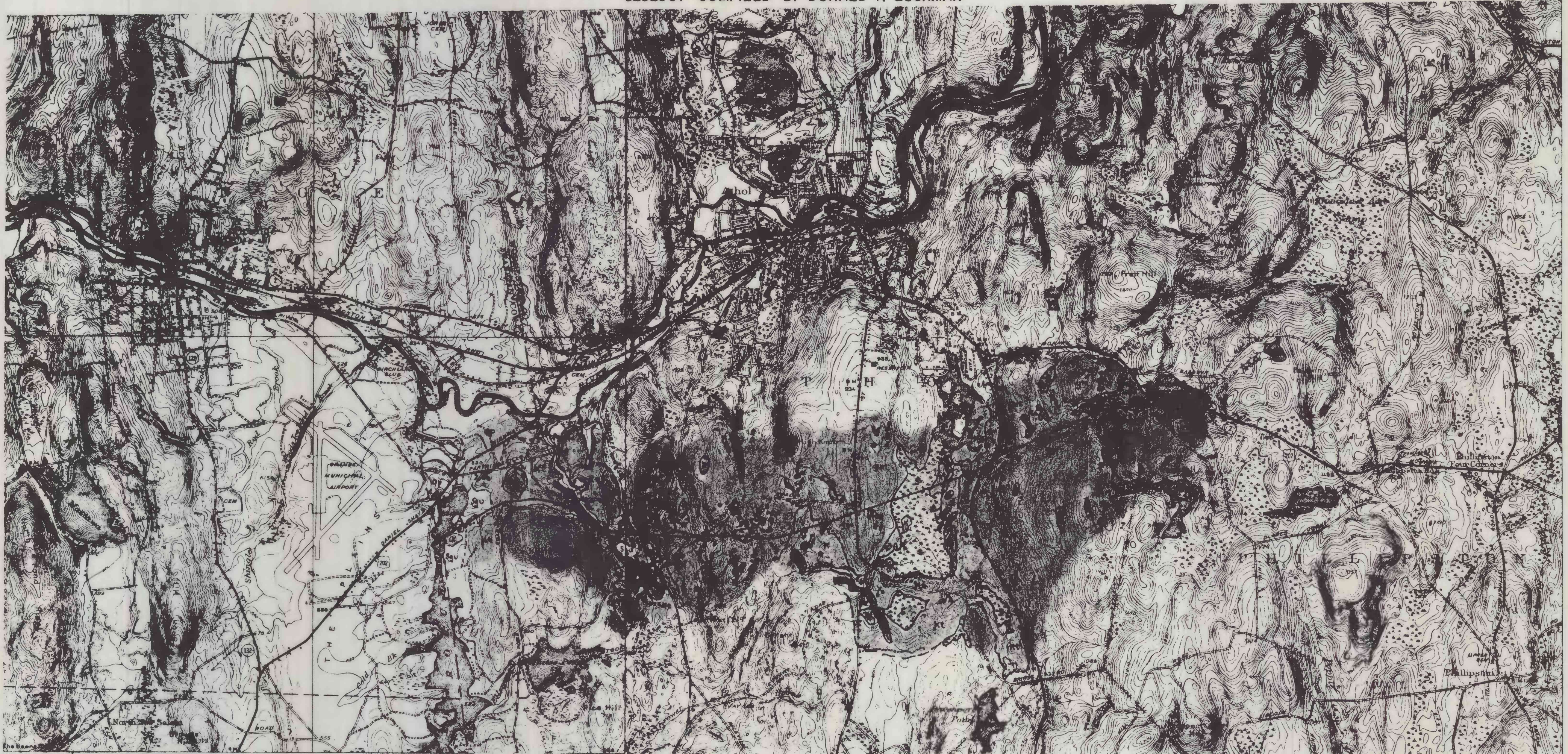


SURFICIAL GEOLOGIC MAP
OF
PARTS OF ORANGE AND ATHOL QUADRANGLES
SHOWING
DISTRIBUTION OF SOIL MATERIALS, BEDROCK EXPOSURES AND
SAND AND GRAVEL PITS
ALONG AND ADJACENT TO PROJECTED RELOCATION OF ROUTE 2



GEOLOGY COMPILED BY DONALD F. ESCHMAN



EXPLANATION

- | | | | |
|---|---|--|---------------------------------|
| Generally unsuitable as source of granular material | { | [] | SAND AND SILT; UNDIFFERENTIATED |
| | | sgu - undifferentiated silt, sand, and fine gravel. | |
| Chief source of fine grained granular material | { | [] | SAND PREDOMINANT |
| | | op - outwash; medium to fine <u>grained</u> sands at lower levels. | |
| | | kt - kame terrace; moderately flat topped area of coarse to fine sand; few beds of gravel, especially at top. | |
| Chief source of coarse granular material | { | [] | GRAVEL PREDOMINANT |
| | | ic - ice-channel filling, an elongated ridge (esker) with steep sides; composed mostly of coarse to medium gravels, with numerous cobbles and boulders. | |
| | | k - kame; a series of hillocks of dominantly coarse to medium gravel. | |
| Possible source of material for fill | { | [] | TILL |
| | | gm - ground moraine, a heterogeneous deposit of mixed boulders, cobbles, pebbles, sand, and clay; known locally as "hardpan"; in many places covered by a thin layer of fine-textured sand, possibly wind-borne. | |
| | | [] | BEDROCK DOMINANT |
| | | dark red shows areas where surface is completely bedrock; lined areas show where till mantles the surface, with bedrock discontinuously exposed. | |
| | | [] | SWAMP |
| | | s - swamps are composed of peat and silty to sandy peat at the surface and are underlain by clay, silt, sand, gravel, or till. | |
| | | [] | FILL (af) |

--- approximate unit boundary

--- probable unit boundary

--- centerline of projected highway

X
sand and gravel pits
active and inactive

Commonwealth of Massachusetts
Department of Public Works
U. S. Department of the Interior
Geological Survey
Cooperative Geologic Project

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