



- EXPLANATION**
- HOLOCENE**
- Qal** ALLUVIUM (Flood-plain and terrace deposits of stream valleys. Clay, silt, and sand; some gravel; yellowish-brown to black; generally stratified.)
  - Qds** DUNE SAND (Sand, fine to medium, wind blown, grayish-brown to brownish-gray. Shown only where deposits are thick enough to form dune topography.)
  - Qwll** LACUSTRINE DEPOSITS (Deposits that occupy a low topographic position. Clay, silt, and sand; some gravel; usually varved; yellowish-brown to light-gray.)
  - Qwlp** PERCHED LACUSTRINE DEPOSITS (Deposits that occupy topographic highs. Deposited in lakes, supported or walled by dead ice. Clay and silt with some sand and gravel, usually varved, brown to gray. Stippled pattern indicates a predominance of sand and gravel.)
  - Qwls** STAGNATION OUTWASH (Glaciofluvial material deposited from stagnating or dead ice. Includes superimposed and collapsed outwash. Sand and gravel, poorly to well sorted.)
  - Qwlp** OUTWASH PLAIN (Glaciofluvial sediments deposited outward from an ice sheet by glacial streams. Sand and gravel, some silt and clay, poorly sorted to well sorted.)
  - Qwls** VALLEY OUTWASH (Deposits of glaciofluvial material restricted to the flood plain of a valley, overlain in places by alluvium. Sand and gravel, stratified.)
- PLEISTOCENE**
- LATE WISCONSIN**
- Qwfo** TERRACE OUTWASH (Glaciofluvial sediments that have been deposited as outwash plain or valley outwash after which downcutting of streams has left the deposits above the present valley floor. Sand and gravel, some silt and clay, stratified.)
  - Qwlm** GROUND MORAINE (Clay with heterogeneous mixtures of silt, sand, gravel, and boulders [chiefly till]. May have small areas of stratified drift. Topography is gently undulating.)
  - Qwlm** STAGNATION MORAINE (Clay with heterogeneous mixtures of silt, sand, gravel, and boulders [chiefly till]. Topography is rugged, consisting of knobs and kettles. Irregular depressions form lakes and marshes called "potholes". Glaciofluvial and glaciolacustrine sediments form perched lacustrine deposits and stagnation outwash.)
  - Qwlm** END MORAINE (Ridgelike accumulation of drift, mainly till. Topography is usually more rugged than that in areas of ground moraine. Land surface is more bouldery than ground moraine surface.)
  - Qwlm** OAKS MORAINE (Linear accumulation of drift, mainly till deposited as a recessional moraine.)
- UPPER CRETACEOUS**
- CRETACEOUS**
- Kp** PIERRE SHALE (Shale, calcareous, gray, contains bentonite.)
- End moraine crest.
- Geologic contact - dashed where approximately located.
- Esker
- Boulder pavement - Arrows point in direction of striations.
- Drainage ditch    ✕ Gravel pit    by N. C. Koch 1968, 1969

Plate 2. Geologic map of Marshall County.

