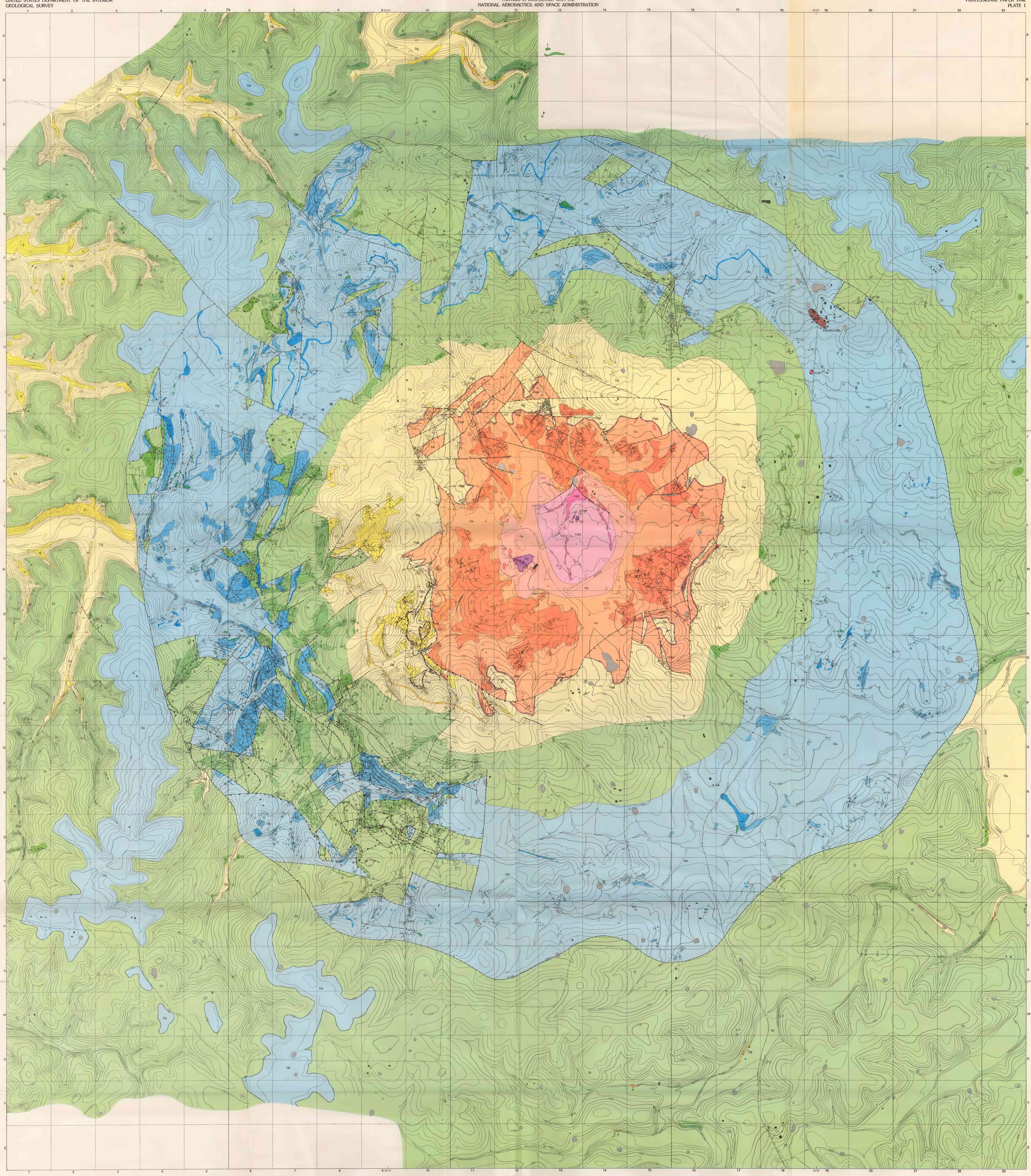

Topographic compilation by J. L. Derick, G. M. Nakata, and R. Jordan, 1968
Grid system lines are 305 meters apart on map

APPROXIMATE MEAN DECLINATION 1979

SCALE 1:7000

CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Geology mapped in 1987–89

☆U.S. GOVERNMENT PRINTING OFFICE: 1979—677-015/19

GEOLOGIC MAP OF DECATURVILLE IMPACT STRUCTURE, MISSOURI

EXPLANATION

KEY—Light color, covered interval; medium color, outcrop moderately well located to well located; dark color, marker bed, indicated by float between outcrops

SILURIAN

- **Middle Silurian**
  - Sb — Bainbridge Limestone

UNCONFORMITY

ORDOVICIAN

- **Upper Ordovician**
  - Onl — Leemon Formation of Thompson and Satterfield (1975) and Nois(?) Oolite

UNCONFORMITY

- **Middle Ordovician**
  - Kimmswick Limestone

Ordovician and Silurian limestones are shown in one color on the map. Unlabeled outcrops of limestone are Kimmswick; labels indicate outcrops of Nois(?) Oolite and Leemon Formation (Onl) and Bainbridge Limestone (Sb)

UNCONFORMITY

- **Lower Ordovician**
  - Ojc — 11, 10, 9 — Jefferson City Dolomite

Includes marker bed 11, a sandstone bed 0.6–3 m thick containing subangular to subrounded, glassy or frosted grains, about 37 m above the base of the formation; marker bed 10, a sandstone bed 0.15–0.3 m thick, or locally a chert bed or zone of alternating 2.5-cm layers of white dolomite and pink sandstone, about 23 m above the base of the section; and marker bed 9, a platy, mudcracked, ropy sandstone bed 0.08–0.3 m thick at the base of the formation

  - Or — 8, 7, 6 — Roubidoux Dolomite

Includes marker bed 8, a sandstone 1.2 m thick, locally a sandy chert layer, about 30 m above the base of the formation; marker bed 7, a chert breccia 0.3–0.6 m thick, 18 m above the base of the formation; and marker bed 6, a chert breccia layer 1.5–3 m thick, at the base of the section

ORDOVICIAN

- **Lower Ordovician**
  - Og, 5 — Gasconade Dolomite

Includes marker bed 5, a Cryptozoon chert layer 0.3–0.6 m thick, about 3 m below the Gasconade-Roubidoux contact; marker bed 4, a Cryptozoon chert bed 0.3–0.9 m thick 20–30 m below the top of the Gasconade; and marker bed 3, the Gunter Sandstone Member, a single bed 3–8 m thick, at the base of the formation

  - Ogg, 4, 3

CAMBRIAN

- **Upper Cambrian**
  - Ce, 2, 1 — Eminence Dolomite

Includes marker bed 2, a single bed of white porcelaneous chert as thick as 0.9 m approximately in the middle of the section; and marker bed 1, a single 8-cm bed of white porcelaneous chert in the lower half of the section

  - Cp — Potosi Dolomite
  - Cdd — Doe Run and Derby Dolomites
  - Cd — Davis Formation
  - Ꞓl — Lamotte Sandstone

UNCONFORMITY

PRECAMBRIAN

- pCgs — Granite, pegmatite, and schist

CONTACT

FAULT

NORMAL—Dashed where inferred, queried where probable. Bar and ball, where present, on downthrown side

THRUST—Dashed where inferred, queried where probable. Sawteeth on upper plate

R — REVERSE—R on upthrown side

FAULT BRECCIA

ANTICLINE—Showing crestline

OVERTURNED ANTICLINE—Showing crestline and direction of limbs

SYNCLINE—Showing troughline

OVERTURNED SYNCLINE—Showing troughline and direction of limbs

STRIKE AND DIP OF BEDS

70 — Inclined

80 — Overturned

Vertical

Horizontal

FORM LINE—Showing trace and apparent dip of bed