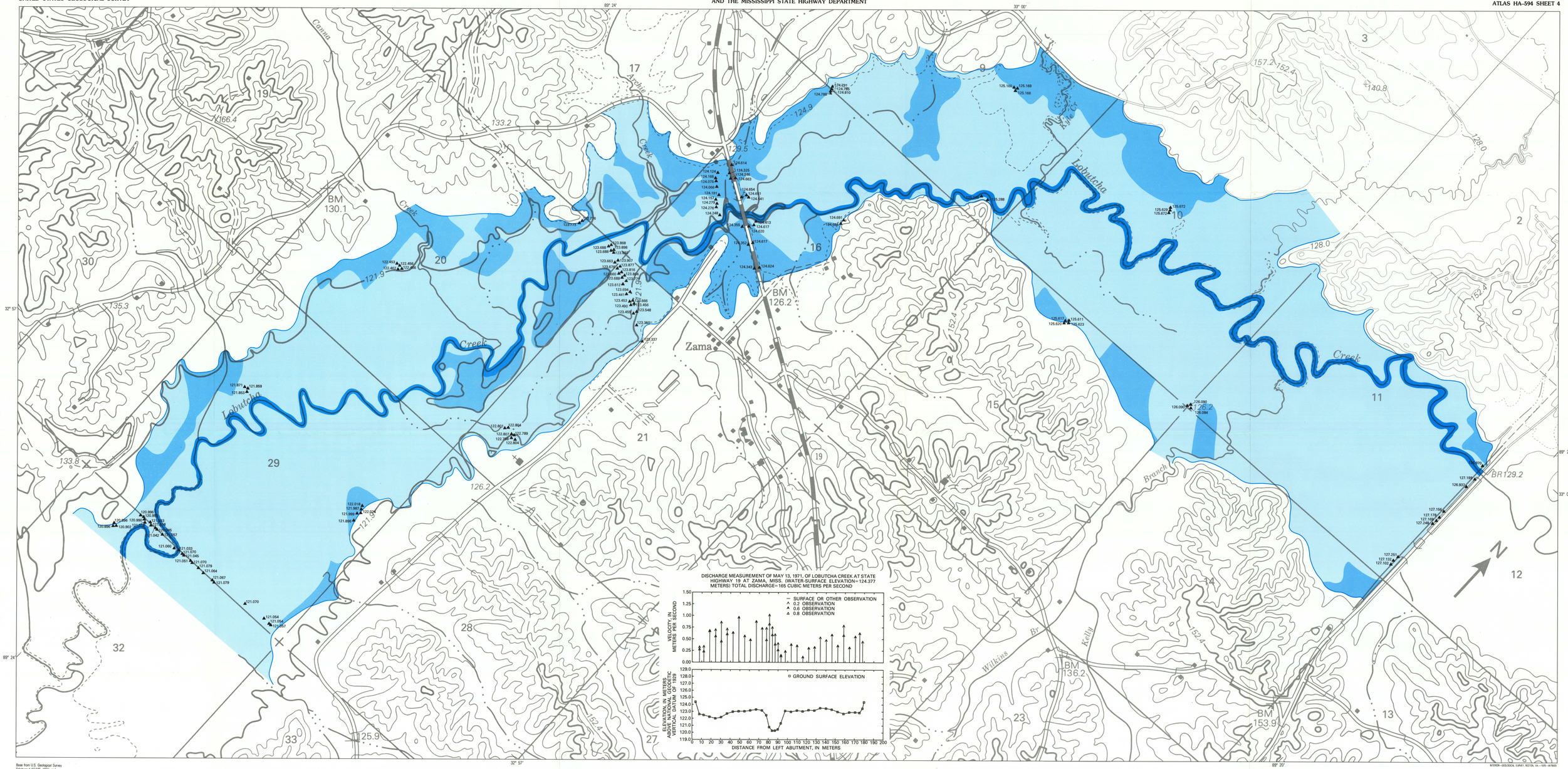
DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

Prepared in cooperation with the
DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION
AND THE MISSISSIPPI STATE HIGHWAY DEPARTMENT

HYDROLOGIC INVESTIGATIONS
ATLAS HA–594 SHEET 4



Base from U.S. Geological Survey
Edinburg 1:62,500, 1962, and
Ethel SE, 1:24,000, 1972

SCALE 1:8 000

0 100 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 METERS

CONTOUR INTERVAL ABOUT 4 METERS
NATIONAL GEODETIC VERTICAL DATUM OF 1929

EXPLANATION

▲127.102 Elevation of water surface

Flood boundary

Manning Roughness Coefficient

Low water channel n=0.060–0.080

Open land, pasture n=0.080–0.110

Dense woods n=0.110–0.200

EXAMPLE: If water depth is less than 0.6 meter, n=0.200. If water depth is greater than 1.0 meter, n=0.110. (Assume linear variation of n for water depths between 0.6 and 1.0 meter.)

BACKWATER AT BRIDGES AND DENSELY WOODED FLOOD PLAINS, LOBUTCHA CREEK AT ZAMA, MISSISSIPPI

By
B. E. Colson, C. O. Ming and George J. Arcement

1979