UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

GEOLOGIC MAP OF THE BAT CAVE QUADRANGLE, TEXAS
BUREAU OF ECONOMIC GEOLOGY OPEN-FILE MAP
1993

BAT CAVE QUADRANGLE
TEXAS
7.5 MINUTE SERIES (TOPOGRAPHIC)

6343 IV SW (ANHALT)
6343 IV NW (BULVERDE)
6343 III SW (LONGHORN)
6343 III NW (BULVERDE)
6343 IV SE (SMITHSON VALLEY)
6343 III SE (SCHERTZ)
6343 I SW (SATTLER)
6343 II NW (NEW BRAUNFELS WEST)
6343 II SW (MARION)

Mapped, edited, and published by the Geological Survey
Revised in cooperation with the Texas Water Development Board

Control by USGS and NOS/NOAA

Topography by the Army Map Service by photogrammetric methods from aerial photographs taken 1952. Field checked 1953. Revised by USGS from aerial photographs taken 1986. Field checked 1987
Map edited 1988

Projection and 10,000-foot grid ticks: Texas coordinate system, south central zone (Lambert conformal conic)
1000-meter Universal Transverse Mercator grid, zone 14
1927 North American Datum
To place on the predicted North American Datum 1983 move the projection lines 20 meters south and 29 meters east as shown by dashed corner ticks

Fine red dashed lines indicate selected fence lines

Red tint indicates areas in which only landmark buildings are shown

Rev. 1, 8-1994

UTM GRID AND 1988 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET
MN
GN
0°21'
6 MILS
7°
124 MILS

SCALE 1:24 000

1 0 1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 .5 0 1 KILOMETER

CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

Bureau Economic Geology
Geology by E.W. Collins
1993

TEXAS
QUADRANGLE LOCATION

Part of geology modified from Newcomb (1971)
2998-424

ROAD CLASSIFICATION
Primary highway, hard surface
Secondary highway, hard surface
Light-duty road, hard or improved surface
Unimproved road
Interstate Route
U. S. Route
State Route

BAT CAVE, TEX.
29098–F3–TF–024
1988
DMA 6343 III NE-SERIES V882

QAd8784

INTERIOR-GEOLOGICAL SURVEY, RESTON, VIRGINIA-1988