

Michael W. Sole
Secretary



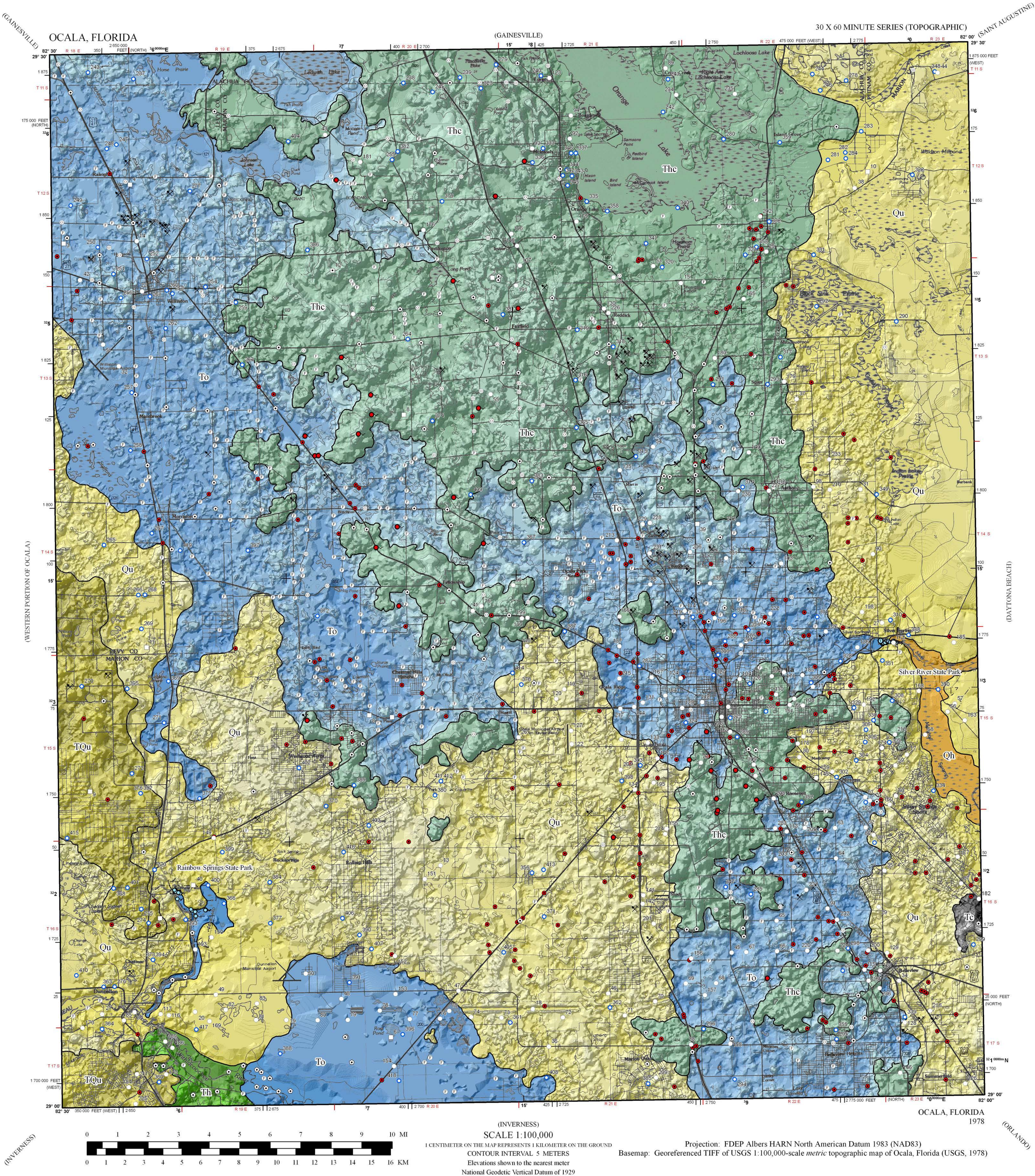
OPEN-FILE MAP SERIES 100, Plate 1
GEOLOGIC MAP OF THE EASTERN PORTION OF THE USGS
OCALA 30 X 60 MINUTE QUADRANGLE, NORTH-CENTRAL FLORIDA

2009

BY
RICHARD C. GREEN, P.G. #1776, CHRISTOPHER P. WILLIAMS,
DAVID T. PAUL, P.G., CLINTON KROMHOUT, P.G., AND THOMAS M. SCOTT, P.G.



Jonathan D. Arthur
State Geologist and Director



(INVERNESS)

SCALE 1:100,000

1 CENTIMETER ON THE MAP REPRESENTS 1 KILOMETER ON THE GROUND
CONTOUR INTERVAL 5 METERS
Elevations shown to the nearest meter
National Geodetic Vertical Datum of 1929

Projection: FDEP Albers HARN North American Datum 1983 (NAD83)

Basemap: Georeferenced TIFF of USGS 1:100,000-scale metric topographic map of Ocala, Florida (USGS, 1978)

OCALA, FLORIDA
1978

(ORLANDO)

Undifferentiated Holocene

Qh
Sediments include quartz sands, marls, organics, and minor carbonate sands and mud. May include fresh-water gastropods.

Undifferentiated Quaternary Sediments

Qu
Light brown to tan, medium to fine quartz sand with variable admixtures of clay and organics, unconsolidated to poorly indurated. This unit may contain significant amounts of clay and organics.

Undifferentiated Tertiary-Quaternary Sediments

TQu
White to gray to orange to blue-green, fine to coarse grained, clean to clayey unfossiliferous sands, sandy clays, and clays with variable admixtures of organics. Undifferentiated Tertiary-Quaternary sediments are siliciclastics that are separated from the Undifferentiated Quaternary Sediments solely on the basis of elevation (Scott, 2001). Pleistocene sea levels reached a maximum of approximately 100 feet (30.5 meters) above MSL (Colquhoun, 1969). These sediments are predominantly older than Pleistocene but include sediments reworked during the Pleistocene. This unit may include fluvial and aeolian deposits.

Cypresshead Formation

Tc
The Cypresshead Formation is a mottled reddish-brown to reddish-orange to white, unconsolidated to poorly consolidated, fine to very coarse grained, variably clayey to clean quartz sand. Cross-bedded sands are common within this formation. Discoid quartzite pebbles, mica, and ghosts of nearshore mollusks are often present.

Hawthorn Group, Undifferentiated

Th
The undifferentiated Hawthorn Group sediments are typically light olive gray and blue gray in unweathered sections and reddish brown in weathered sections. They consist of poorly- to moderately-consolidated, clayey sands to silty clays and relatively pure clays with little to no phosphate (Scott, 2001).

Hawthorn Group, Coosawhatchie Formation

Thc
The Coosawhatchie Formation consists of gray to bluish-gray sandy clay or clayey sand with phosphate grains, and limestone to dolostone. Lenses of relatively pure quartz sands, clays, or carbonate are uncommon. This unit is lithologically variable and units may pinch out and interfinger both laterally and vertically. Outcrops of Coosawhatchie Formation in the study area are typically very weathered and the lithology consists of reddish-brown to white, clayey, calcareous quartz sands to sandy clays with leached phosphate grains and limonitic and calcareous pebbles.

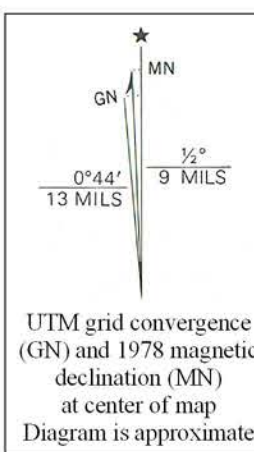
Ocala Limestone

To
The upper Ocala Limestone unit is typically a white to cream, fine- to coarse-grained, poorly- to well-indurated, poorly-sorted, fossiliferous limestone (wackestone, packstone, and grainstone). Fossils commonly include foraminifera, bryozoans, mollusks, and a rich diversity of echinoids. The lower unit is typically a white to cream, fine- to medium-grained, poorly- to moderately-indurated limestone (grainstone to packstone). Fossils include foraminifera (*Lepidocyclina ocalana*, *Nannulites* [*Camerina*] *vanderstoki*, *Amphistegina pinarensis cosdeni*, *Nannulites* [*Operculinoides*] *ocalana*), bryozoans, algae, mollusks, echinoids, and crabs.

LEGEND

- Route marker:
 - Interstate: U.S.; State
- Primary highway
- Secondary highway
- Light duty road, principal street
- Railroad
- County Boundary
- Power Transmission Line
- National or State reservation boundary
- Contours: 5 Meter Interval
 - Intermediate
- River or Stream
- Lake or Pond
- Wetland
- U.S. Public Lands Survey

- 11" Core
- 12" Core chips
- 27" Cuttings
- 147" Water Well
- First Magnitude Spring
- Second, Third, or Forth Magnitude Spring
- Swallet
- Sinkhole
- Archived M-Series Sample
- Flood
- Outcrop / Exposure
- Quarry or Borrow Pit
- Wells numbered 1 - 38 are used in cross-sections on OFMS 100, Plate 2



ADJOINING MAPS		
1	2	3
4	5	6
7	8	

1 Cross City
2 Gainesville
3 Saint Augustine
4 Cedar Keys
5 Daytona Beach
6 Inverness
7 Orlando



Basemap Coordinate Explanation

40 = 400,000 E 10,000-meter grid, zone 17
Universal Transverse Mercator
25,000-foot grid ticks based on Florida coordinate system, west and north zones
1927 North American Datum

This map was created using FDEP databases and data obtained from the Florida Geological Survey. It was completed August 31, 2009, by the Florida Department of Environmental Protection, Florida Geological Survey, Geological Investigations Section. This document was prepared for the presentation of the geologic information shown and is not intended to replace site-specific or use-specific investigations. The Florida Geological Survey does not guarantee this document to be free from errors or inaccuracies and disclaims any responsibility or liability for inappropriate change of scale, interpretations, or decisions based thereon. Cooperatively funded by the Florida Geological Survey and the U.S. Geological Survey, National Cooperative Geologic Mapping Program, under USGS assistance award number 08HQPA003. The views and conclusions in this document are those of the authors and should not be interpreted as necessarily representing the official policies, either expressed or implied, of the U.S. Government.

For more information or to order maps contact Librarian:
Florida Geological Survey
903 W. Tennessee Street
Tallahassee, FL 32304-7716
850/488-9380
<http://www.dep.state.fl.us/geology/statemap/>