

EXPLANATION

Recent

Quaternary

Qal
Alluvium
Sand, white to light-gray, silty, poorly sorted, and yellowish-orange to bluish-gray sandy clay. Yields small supplies of water of good quality to shallow wells.

Qt
Terrace deposits
Sand, pale-yellowish-orange, crossbedded, medium- to very coarse-grained, poorly sorted, ferruginous, quartzose; dark-red-brown sandy clay, and lenses of well-rounded gravel. Yields moderate to large supplies of water of good quality to wells; highly permeable sand and gravel.

Midway group

Tertiary

Tcl
Clayton formation
Chalk, gray, sandy; grayish-white fossiliferous limestone, and gray sandy clay. Not an aquifer.

Upper Cretaceous

Selma group

Ksu
Kpp
Providence sand
Ksu, upper member, sand, pale-yellowish-orange, crossbedded, fine- to coarse-grained, poorly sorted; interbedded with white, pale-red-purple, and moderate-red-brown massive clay. Not used as a source of water supply; probably would yield small supplies of water to shallow wells.
Kpp, Proter member, sand, dark-gray to yellowish-orange, very fine to fine-grained, micaceous, carbonaceous, ferruginous, calcareous-cemented, fossiliferous, thinly laminated with clayey silt and thin beds of hard limonitic sandstone. Yields small supplies of water of good quality to wells.

Kpb
Prairie Bluff chalk
Chalk, light-olive-gray to yellowish-gray, massive, silty to finely sandy, micaceous, glaucomitic, fossiliferous, becomes increasingly sandy towards top. Relatively impermeable, not an aquifer.

Krc
Ripley formation
Kru, upper member, sand, greenish-gray to yellowish-gray, cross-laminated, fine to very coarse grained, poorly to well sorted, micaceous, ferruginous, limonitic, glaucomitic, calcareous, fossiliferous, greenish-gray to pale-olive, silty to sandy, fissile, micaceous, calcareous, fossiliferous clay, and thin beds of hard, gray to yellowish-gray, fine- to medium-grained, argillaceous, micaceous, ferruginous, glaucomitic, calcareous-cemented fossiliferous sandstone. Yields small supplies of soft to moderately hard water to dug wells from the upper weathered zone and to a few drilled wells from the basal sand. Sands have relatively low permeabilities.
Krc, Cusseta sand member, sand, light-gray to pale-yellowish-orange, fine- to medium-grained, micaceous, glaucomitic, fossiliferous, light-gray to white, calcareous-cemented fossiliferous sandstone; and greenish-gray to white sandy chalk. Yields small supplies of soft to hard water to wells. Sands have relatively low permeabilities.

Kd
Demopolis chalk
Upper and lower parts are chalk, light-greenish-gray to yellowish-gray, silty to finely sandy, argillaceous, micaceous, fossiliferous, separated by a bed of relatively pure fossiliferous chalk. Contains limonitic clay in southwestern part of county. Relatively impermeable, not an aquifer.

Km
Mooreville chalk
Aroca limestone member: 2 to 4 beds, 6 inches to 1 foot thick, of impure light-gray thin-bedded hard dense fossiliferous limestone; beds are separated by 4 to 6 feet of gray to pale-olive calcareous clay. Lower member: chalk, light-greenish-gray to yellowish-gray, silty to finely sandy, argillaceous, ferruginous, fossiliferous, grades laterally into gray to yellowish-orange sandy calcareous clay in eastern part of the county.
Aroca limestone and lower members not differentiated. Relatively impermeable, not an aquifer.

Kd
Eutaw formation
Sand, light-greenish-gray, cross-laminated, fine- to medium-grained, well-sorted, micaceous, glaucomitic, fossiliferous; interbedded with greenish-gray micaceous glaucomitic fossiliferous clay and sandy clay. Upper part contains several hard beds, 6 inches to 1 foot thick, of light-gray to white medium-grained quartzose glaucomitic calcareous-cemented fossiliferous sandstone. Yields moderate to large supplies of water from massive sands in upper and lower parts of formation. Water from upper sands is locally high in iron content.

Contact
Dashed where inferred; dotted where concealed.

Well symbols:
Well used for municipal, industrial, or irrigation supply
Well used for domestic or stock supply
Unused well
Solid center indicates flowing well
Test well
Oil-test well
Water analyzed

EXPLANATION

Sand or sandstone Sand and gravel Clay Clayey sand or sandy clay Chalk

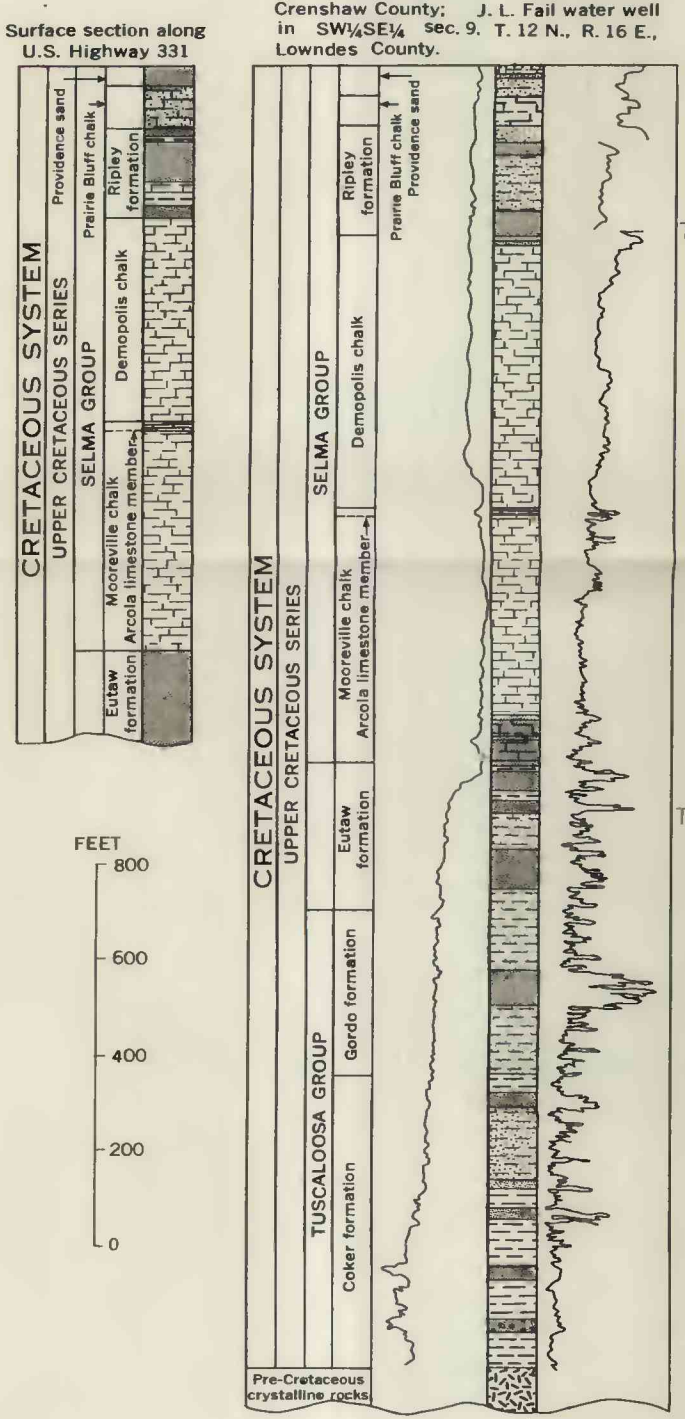
Silty chalk Sandy chalk Limestone Crystalline rocks

Stratigraphic sections on plates 3-7; surface section on plate 9

APPROXIMATE MEAN DECLINATION, 1963

COLUMNAR SECTIONS

Composite subsurface section based on electric logs and samples from well L-36 (city of Montgomery test well 109) in NE¼NW¼ sec. 29, T. 16 N., R. 16 E., Montgomery County; Modern Drilling Company-Alexander No. 1 oil-test well in SW¼NE¼ sec. 33, T. 17 N., R. 15 E., Autauga County; radio station WSH water-test well in NW¼SE¼ sec. 15, T. 12 N., R. 17 E., Crenshaw County; J. L. Fall water well in SW¼SE¼ sec. 9, T. 12 N., R. 16 E., Lowndes County.



Base compiled from maps of the Alabama Highway Department and the city of Montgomery, field notes, and aerial photography

GEOLOGIC MAP SHOWING LOCATION OF WELLS OF MONTGOMERY COUNTY, ALABAMA

