Annual Meeting

Carolina Geological Society

Field Trip Guidebook

ROAD LOG OF

THE GEOLOGY OF MOORE COUNTY

NORTH CAROLINA[1]

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N. C. Division of Mineral Resources

1.Retyed from the original and reformatted, November 1999
NOTE: As I recall this Road Log was used with NCGS Bull. 76, Geology and Mineral Resources of Moore County, North Carolina with Geologic Map, scale 1:62000 by James F. Conley. DH

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ROAD LOG

General Instructions:

1. Participants should have provided themselves with tickets for Saturday lunch and Saturday night banquet before assembling.
2. Cars should have full gas tanks before starting on Saturday morning. The total mileage for both the Saturday and Sunday trip is 158 miles and one tank of gas should be enough for both days.
3. The field trip on both days will assemble on the parking strip of highway U. S. 1 South, in front of the Charlton

Motel. Both field trips will begin promptly at 8:00 A.M. Cars and participants should reach the assembly point each morning in ample time to be in line and ready to go at 8:00 A.M. Those who arrive after the party has left can catch up with the caravan by following the road log.

4. Please keep same position in line throughout each day. Stay as close behind car in front as safely possible. At road intersections, do not turn off until car behind is in sight.
5. An average of 15 minutes is allowed at most excursion stops due to the crowded schedule. On arrival, please assemble promptly with excursion leader.

Saturday Field Trip:

Stop 0: Travel south on U. S. 1.

.8 Turn right on routes N. C. 211 and U. S. 15-501.

4.9 Traffic Circle at Pinehurst. Remain on N. C. 211 West.

7.1 Turn right on county road 1209.

9.2 Stop 1: Basal part of the lower member of the Tuscaloosa formation, carbonaceous clays overlain by cross-bedded unconsolidated sand and gravel.

Continue northward on county road 1209.

9.3 Turn left on county road 1217.

10.3 Turn right on county road 1210.

16.7 Stop 2: Basal part of the upper member of the Tuscaloosa formation overlying Triassic Pekin formation.

Continue northward on county road 1210.

21.9 Turn left, southwest, on county road 1265.

23.4 **Stop 3:** McKennis clay pit. Pit contains out-crop of (Carolina Slate Belt) slate weathered to kaolinite, overlapped by the upper member of the Tuscaloosa formation.

Continue southwest on county road 1265.

23.7 Turn right on county road 1261.

24.9 Turn left on N. C. 705

25.5 Turn left on dirt road.

25.8 Turn left on county road 1270.

26.4 **Stop 4:** Pinehurst formation exposed in abandoned sand pit.

Turn around and continue northwestward on county road 1270

27.2 Turn left, southwest, on N. C. 705.

31.5 Turn right on N. C. 211.

35.8 Turn left on county road 1146.

36.9 **Stop 5:** Possible Carolina bay developed in upper wind blown fraction of the Pinehurst formation.

36.9 Turn left on county road 1143.

37.3 Turn left, west, on N. C. 211.

37.5 Cross rim of bay.

38.4 Cross county line into Montgomery County.

39.4 Turn right, northwest, on county road 1573.

40.9 Turn right, northeast, on county road 1509.

42.6 Cross county line into Moore County.

44.2 Turn right, east, on N. C. 27.

45.9 **Stop 6:** Crystal tuff on the Lower Volcanic sequence.

Continue northeastward on N. C. 27.

48.5 Turn left, north, on county road 1275.

50.1 **Stop 7:** Andesitic tuff downfaulted against felsic tuff.

Continue northward on county road 1275.

51.6 Turn right on county road 1002.

53.3 Lunch: Providence Church.

55.8 Stop 8: Sheared felsic tuff of the Lower Volcanic sequence.

Continue southeastward on county road 1002.

56.0 Intersect county road 1434, turn left to continue on county road 1002.

57.6 Intersect N. C. 705 at Robbins, continue straight ahead, north, on N. C. 705.

57.9 Traffic light at northern city limits of Robbins, turn left, northwest, to continue on N. C. 705.

59.7 Turn right on county road 1452.

62.3 **Stop 9:** Mafic lithic tuff of the andesitic tuff unit.

Continue southeastward on county road 1452.

63.5 Turn left, northeast, on county road 1470.

66.8 Turn left, north, on N. C. 22.

67.5 Village of High Falls

68.4 Turn right, east, on county road 1600.

70.9 **Stop 10:** Graywackle interbeds in the andesitic tuff unit.

Continue northeastward on county road 1600.

72.6 **Stop 11:** Andesitic tuff.

Continue by turning left, southeast, on county road 1600.

75.3 Turn right, south, on county road 1006.

76.4 Turn left onto White pyrophyllite mine road.

76.0 **Stop 12:** White pyrophyllite mine.

Turn around and return to county road 1006.

76.7 Turn left, south, on county road 1006.

78.4 **Stop 13:** Western Border fault.

Continue southward on county road 1006.

78.8 Village of Glendon, turn right, southwest, on county road 1629.

85.4 Turn left, south, on N. C. 22.

86.2 **Stop 14:** Millstone Grit member of the Pekin formation.

Continue southward on N. C. 22.

88.5 Intersect N. C. 27, turn left, southeast, on N. C. 22-27.

93.7 Traffic circle at Carthage. Remain on N. C. 22-27.

93.8 Turn right, south, at traffic light to remain on N. C. 22 South.

96.0 Turn right on U. S. 15-501 South.

104.9 Pinehurst traffic circle, remain on U. S. 15-501 South.

109.3 Turn left on U. S. 1 North.

110.2 Charlton Motel.

Sunday Field Trip:

Stop 0: Travel south on U. S. 1.

0.7 Turn right on N. C. 211 and U. S. 15-501.

Traffic circle at Pinehurst. Remain on U. S. 15-501 North.

7.7 **Stop 15:** Disconformable contact between Triassic Pekin formation and Cretaceous lower member of the Tuscaloosa formation.

Continue northward on U. S. 15-501.

15.1 **Stop 16:** Disconformable contact between the upper member of the Tuscaloosa formation and Pinehurst formation

Continue northward on U. S. 15-501.

18.3 Turn right on N. C. 27 East.

20.1 **Stop 17:** Jonesboro fault.

Continue southeast on N. C. 27.

23.3 Turn right on county road 1825.

25.8 Turn right on U. S. 1 South.

28.4 Turn left, southeast, on county road 1001.

28.45 Turn right, south, onto main street of town on Vass.

28.48 **Stop 18:** Type locality of lower member of Tuscaloosa formation. Exposure is located in Seaboard Air Line Railroad cut in the center of the townof Vass.

Turn around and return to county road 1001.

28.5 Turn right, southeast, on county road 1001.

35.0 Village of Lobelia, turn right on county road 2021.

36.9 **Stop 19:** Morrison's Bridge. Exposure of lower member of the Tuscaloosa formation along south bank of Little River.

Turn around and continue northwest on county road 2021.

39.1 Village of Lobelia turn left, southeast, on county road 2022.

39.5 Junction of county roads 2022 and 2023, continue on paved county road 2023.

46.3 **Stop 20:** Hog Island intersection. Contact between lower and upper members of the Tuscaloosa formation.

Continue by turning right onto county road 2026.

48.8 Intersection with highway U. S. 1, at the village of Skyline. This is the end of field trip. Those wishing to travel north may turn right onto U. S. 1. Those wishing to travel south may turn left onto U. S. 1.