

ILLINOIS PETROLEUM GEOLOGISTS  
 FIELD CONFERENCE ON  
 CHESTER SERIES AND STE. GENEVIEVE FORMATION

June 25 and 26, 1938

Sponsored by  
 Illinois State Geological Survey  
 and  
 Department of Geology, University of Illinois

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Saturday, June 25

Start from Harrisburg, 9:00 A.M. Take Route 34, south.

Stop 1. Degonia sandstone and Clore formation in bed of Gibbons Creek,  
 SE 1/4 SW 1/4 sec. 32, T. 10 S., R. 7 E., Saline County.

	<u>Approximate Thickness (feet)</u>
Degonia sandstone:	
Sandstone, cross-bedded, rippled . . . . .	17
Sandstone, shaly, thin-bedded . . . . .	6
Shale, silty, dark gray . . . . .	0.1
Clore formation:	
Clay, dark gray, structureless . . . . .	0.1
Shale, dark gray, fossiliferous, containing some limestone beds . . . . .	9
Limestone, heavy-bedded, pyramidal, weathered . . . . .	3
Shale, black, fossiliferous . . . . .	10
Interbedded limestone and shale . . . . .	25

Stop 2. Renault limestone and shale in old road 1/2 mile south of  
 Eichorn, E edge SE 1/4 SW 1/4 sec. 11, T. 12 S., R. 7 E., Hardin  
 County.

	<u>Approximate Thickness (feet)</u>
Renault formation:	
Limestone, heavy-bedded . . . . .	3
Shale, dark, shattery . . . . .	10
Interbedded shale and limestone, very fossiliferous . . . . .	10

Stop 3. Renault formation to Fredonia member of Ste. Genevieve formation in Shetlerville Quarry, NE 1/4 SW 1/4 sec. 35, T. 12 S., R. 7 E., Hardin County.

	<u>Approximate Thickness (feet)</u>
Renault formation:	
Heavy beds of limestone with interbedded shale . . . . .	10
Shale, with thin beds limestone and single 2-foot bed of limestone . . . . .	12
Limestone, heavy-bedded (Chester at least 4 feet below top) . . . . .	12
Limestone, sandy, conglomeratic at base (may be Ste. Genevieve) . . . . .	4
Ste. Genevieve formation:	
Lower Ohara member	
Limestone, oolitic, pink crinoids, cross-bedded . . . . .	7
Same, but in heavy, horizontal beds . . . . .	3
Rosiclare member	
Sandstone, grading to siltstone, calcareous, red to gray . . . . .	15
Fredonia member	
Limestone, oolitic, heavy-bedded . . . . .	2

Stop 4. Fredonia limestone in Bean Quarry, NE 1/4 SE 1/4 sec. 35, T. 12 S., R. 7 E., Hardin County.

	<u>Approximate Thickness (feet)</u>
Ste. Genevieve formation:	
Fredonia member - limestone massive, 1-foot beds of shale at about 15 and 25 feet below top . . . . .	65

Stop 5. Renault formation to Fredonia member of Ste. Genevieve formation, 1/2 mile SW of Rosiclare, NW 1/4 SE 1/4 sec. 5, T. 13 S., R. 8 E., Hardin County. Following is a summary of Stuart Weller's section of formations exposed at Rosiclare, Downeys, and Fairview bluffs, having about one mile lateral extent, in Geology of Hardin County, Illinois Geological Survey Bull. 41, p. 113:

	<u>Thickness (feet)</u>
Bethel sandstone . . . . .	50
(Covered) . . . . .	40
Renault-Shetlerville limestone and shale . . . . .	66
(Unconformity)	
Ste. Genevieve formation:	
Lower Ohara limestone . . . . .	35
Rosiclare sandstone . . . . .	10
(Covered) . . . . .	10
Fredonia limestone . . . . .	105

Stop 6. Fredonia limestone and Rosiclare sandstone in two quarries at T-road intersection 2 miles north of Cave in Rock, SW 1/4 SW 1/4 sec. 1, T. 12 S., R. 9 E., Hardin County.

Stop 7. Cave in Rock in St. Louis limestone.

Stop 8. Renault limestone, Rosiclare sandstone, and Lower Ohara limestone in roadside ditch, road cut, and valley to east of road, SE cor. NW 1/4 SW 1/4 sec. 1, T. 12 S., R. 9 E., Hardin County.

Stop 9. Glen Dean formation in hillside and on old road near NW cor. sec. 15, T. 11 S., R. 9 E., Hardin County. Section given by Stuart Weller in Geology of Hardin County, Illinois Geological Survey Bull. 41, p. 194:

	<u>Thickness (feet)</u>
Tar Springs sandstone, basal portion	
Glen Dean formation:	
Limestone, coarsely crinoidal, weathering shaly and crumbly . . . . .	40
Interbedded limestone and shale . . . . .	20
Limestone with <u>Lyopora</u> , <u>Prismopora</u> , and <u>Pentremites pyramidatus</u> . . . . .	10

Return to Harrisburg. Banquet at Masonic Temple, 7:00 P.M.

Sunday, June 26

Start from Harrisburg, 8:30 A.M. Line up on Route 34, south.

Stop 10. Lower Kinkaid and upper Degonia in railroad cut at Robbs, S 1/2 sec. 19, T. 12 S., R. 5 E., Pope County.

	<u>Thickness (feet)</u>
Surface loess and broken rock . . . . .	10
Kinkaid formation:	
Sandstone, broken weathered . . . . .	1
Shale, red and green, waxy . . . . .	9
Sandstone and sandy shale . . . . .	9
Shale, with limestone and chert beds . . . . .	11
Limestone, with interbedded shale . . . . .	8
Shale, containing limestone beds, sandy toward bottom . . . . .	10
Sandstone, containing 2-foot layer of fire clay in middle . . . . .	16
Sandy shale, grading to sandstone . . . . .	7
Limestone, more or less shaly, fossiliferous . . . . .	9
Degonia sandstone:	
Sandstone, containing plant fossils, shaly, grading to clay at top . . . . .	8

Stop 10, (continued)

Nearby well at Robb reveals the following continued section:

Degonia (continued):	
Sandstone . . . . .	7
Clore formation:	
Shale containing limestone beds . . . . .	40
Sandstone and siltstone . . . . .	9
Interbedded shale and limestone . . . . .	30
Palestine sandstone . . . . .	65
Menard limestone and shale . . . . .	17

Stop 11. Menard limestone and shale at south entrance of Illinois Central R.R. tunnel, SE 1/4 NW 1/4 sec. 1, T. 13 S., R. 4 E., Johnson County.

	<u>Thickness (feet)</u>
Palestine sandstone: Section exposed in ravine and on trail above cut.	
Menard formation:	
Interbedded shale and limestone, beds 1/2 to 2 feet thick . . . . .	8
Limestone, dark, fine grained . . . . .	7
Shale, black, fossiliferous, with 2-foot limestone bed in middle . . . . .	6
Limestone, medium to dark, shaly partings . . . . .	14
Interbedded shale and limestone . . . . .	24
Shale, dark bluish-gray and green . . . . .	5
Limestone, heavy-bedded . . . . .	9
Shale . . . . .	2
Limestone, heavy-bedded . . . . .	5
Shale, gray, very fossiliferous . . . . .	1.5
Limestone, argillaceous, heavy bed . . . . .	1.5
Shale, dark, non-calcareous . . . . .	3
Limestone, dark, fine to medium . . . . .	3
Total . . . . .	89

Stop 12. Waltersburg sandstone in road cut, SW 1/4 SW 1/4 sec. 4, T. 13 S., R. 5 E., Pope County.

Stop 13. Vienna formation in Illinois Central R.R. cut 1 1/2 miles E-NE of Grantsburg, W 1/2 SE 1/4 sec. 12, T. 13 S., R. 4 E., Johnson County.

	<u>Thickness (feet)</u>
Vienna formation:	
Shale, dark, micaceous . . . . .	33
Limestone, cherty, fine to coarse . . . . .	20
Shale, calcareous, weak . . . . .	0.3
Coal . . . . .	0.3
Underclay, grading down to sandy shale . . . . .	6
Limestone, nodular, pelecypods . . . . .	0.2
Shale, green, waxy . . . . .	8

Stop 13, (continued)

The following beds occur below, but are no longer exposed:

	<u>Thickness (feet)</u>
Sandstone, brown and green, grading in the middle to sandy shale . . . . .	3
Shale, smooth, greasy, sandy at top . . . . .	4.5
Shale, carbonaceous, soft, greasy . . . . .	0.3
Underclay, light gray, flaky . . . . .	1

Stop 14. Tar Springs sandstone in Illinois Central R.R. cut 1 1/2 miles east of Grantsburg, NE 1/4 sec. 13, T. 13 S., R. 4 E., Johnson County.

Stop 15. Kinkaid red and green shales with some limestone beds producing badlands, south of Highway 146, NE 1/4 NW 1/4 sec. 22, T. 13 S., R. 5 E., Pope County.

Stop 16. Upper Kinkaid limestone in quarry, SW 1/4 NE 1/4 sec. 14, T. 13 S., R. 5 E., Pope County.

In Golconda, note high water marks on stones set in brick building nearest river, north side of main street.

Stop 17. Cypress and Paint Creek formations above Government Dam at Golconda, SE 1/4 NW 1/4 sec. 30, T. 13 S., R. 7 E., Pope County. The following section given by Stuart Weller in Geology of Hardin County, Illinois Geological Survey Bull. 41, p. 168:

	<u>Thickness (feet)</u>
<u>Cypress formation:</u>	
Sandstone, fine-grained, only basal portion exposed . . . . .	60
Sandstone and shale . . . . .	36
<u>Paint Creek formation:</u>	
Shale, greenish, argillaceous or somewhat sandy; near middle are some thin, lenticular arenaceous limestone beds, commonly one to two inches thick, with fossils . . . . .	30
Unexposed, talus largely sandstone slabs . . . . .	24
Bethel sandstone, similar to top Cypress beds . . . . .	10

Stop 18. Golconda formation in steep ravine 1/2 mile east of Rock Quarry school. SE cor. sec. 5, T. 13 S., R. 7 E., Pope County.

Hardinsburg sandstone in road and capping bluff.

Stop 18, (continued)

Thickness (feet)

Golconda formation:

Shale, dark gray and brown . . . . .	11
Limestone, fine to coarse . . . . .	7
(Covered) . . . . .	10
Shale and limestone, interbedded . . . . .	22
Limestone, gray, coarse . . . . .	3
Shale, brown, fossiliferous . . . . .	2
(Covered) . . . . .	5
Shale, dark, gray . . . . .	6
Interbedded shale and shaly limestone . . . . .	5
Limestone, gray, coarse, heavy beds . . . . .	7
(Covered) . . . . .	4
Limestone, brown, fine . . . . .	1
Shale, green and brown . . . . .	7
(Covered) . . . . .	9
Shale, dark, very fossiliferous . . . . .	4
Limestone, shaly at top, very coarse, pink below . . . . .	3
Shale, gray to brown, silty . . . . .	3
Total . . . . .	<u>109</u>