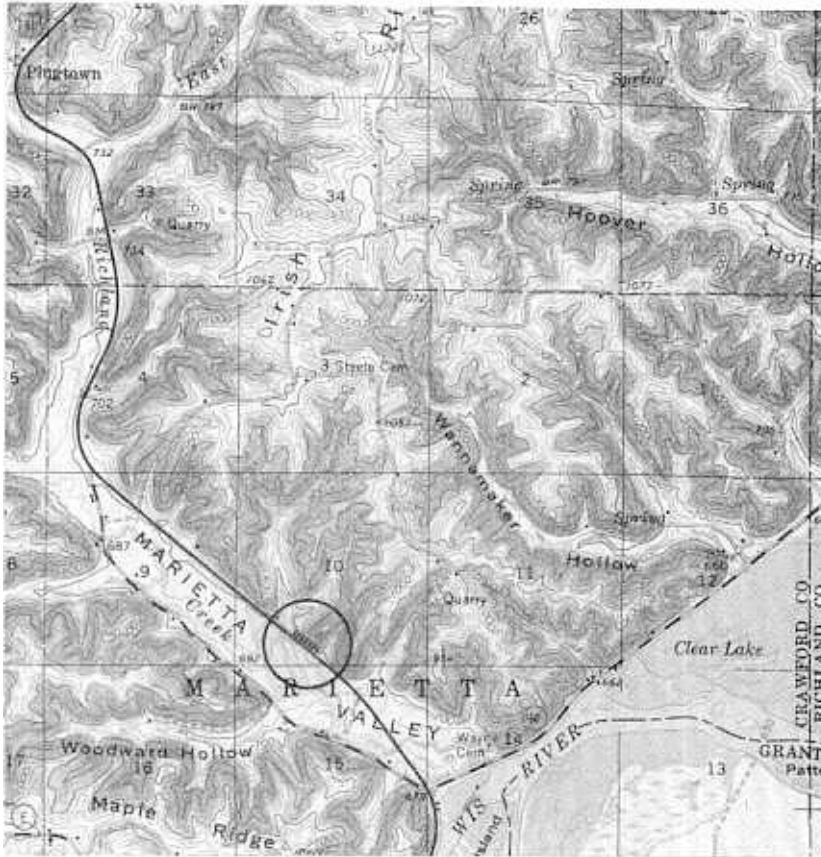


Title: Marietta Valley

Location: Exposures in roadcuts at east side of U. S. Highway 61 about 1.3 miles north of junction with State Highway 60 in the SE $\frac{1}{4}$, NW $\frac{1}{4}$, SW $\frac{1}{4}$, Sec. 10, T.8N., R.3W., Crawford County (Boaz 15-minute topographic quadrangle, 1966).



Author: M. E. Ostrom (modified from McGannon, 1960)

Description: Exposure of Jordan Sandstone, St. Lawrence Formation (Lodi Member and Black Earth Member), and Lone Rock Formation.

Description follows:

CAMBRIAN SYSTEM

Jordan Formation (+30.4 feet)

74.3' - 75.1'	0.8'	Dolomitic, clayey, gray to buff, thin-bedded, hard, conchoidal fracture.
73.9' - 74.3'	0.4'	Conglomerate, flat-pebbles; matrix brown, hard, coarsely crystalline, silty and sandy dolomite. Pebbles are sandstone, white, fine-grained, soft, glauconitic, dish-shaped, and up to 2 inches.

- 73.9'	1.3'	Dolomite, reddish brown, sandy, very hard, silty; forms ledge.
72.2' - 72.6'	0.4'	Conglomerate, flat-pebbles, matrix buff to brown, hard, dolomitic siltstone. Pebbles are sandstone, white to greenish, medium-to-coarse-grained, generally soft, small and dish-like, and locally edgewise.
72.2'	27.5'	Sandstone, buff to white, very fine-gravel, silty, generally friable and siltstone, sandy, with abundant burrows filled with brown clay. Some thin irregularly spaced, brown to green, dolomitic shale or shaly dolomite interbeds and laminae. Burrows most abundant in upper 10 feet. Appears massive on outcrop.

St. Lawrence Formation

Lodi Member (21.0 feet)

44.5' - 44.7'	0.2'	Siltstone, dolomitic, irregularly mottled buff and dolomite, green, and clayey.
36.5' - 44.5'	8.0'	Siltstone, white, sandy, regular to irregular interbeds, and generally friable and shale, dolomitic, green to brown and dolomite, clayey. Shale common in thin wavy laminae. Siltstone predominates. Some burrows. Massive outcrop.
36.0' - 36.5'	0.5'	Dolomite, clayey, gray to green-gray, hard, and fissile.
- 36.0'	1.7'	Siltstone, dolomitic, buff white, thin beds alternating regularly with dolomite, clayey, green-gray.

Black Earth Member (9.3 feet)

34.3'	0.4'	Dolomite, clayey, gray to green-gray, hard, and friable.
- 33.9'	0.4'	Dolomite, dark brown-gray, coarsely-crystalline, glauconitic, and hard. Very uneven bed.
- 33.5'	0.7'	Dolomite, clayey, green, thin-bedded, hard, with conchoidal fracture.
32.8'	3.9'	Dolomite, clayey, green-gray, hard, alternating with layers of siltstone, white to buff. Dolomite predominates.
26.1' - 28.9'	2.8'	Dolomite, clayey, mottled green and siltstone, dolomitic and silty. Ledge on outcrop. Crown 3" soft and friable siltstone.

25.0' - 26.1' 1.1' Shale, dolomitic, green, fissile, weak.

Lone Rock Formation

Reno Member (25.0 feet)

0.0' - 25.0' 25.0' Burrowed-stone, dolomitic, tan to light brown, thin-to-medium-bedded, very hard, forms ledge. Some glauconite below contact but very sparse or absent in most of unit. Burrow fillings light tan dolomite; matrix light brown dolomite. A few interbeds with mottled and burrowed light green, clayey dolomite and buff silty dolomite.

BASE OF EXPOSURE

Significance: This section should be compared to those seen at the Arcadia, Coon Valley, and Reads Creek stops.

How are the contact relationships of the Lone Rock/St. Lawrence and St. Lawrence/Jordan different from those seen at previous stops? How are they the same? What has caused the difference? Why is there glauconite in the Lone Rock and not in the Lodi? Is the lithology of the St. Lawrence Formation significantly different from that seen at previous stops? What is significant?

References: McGannon, 1960