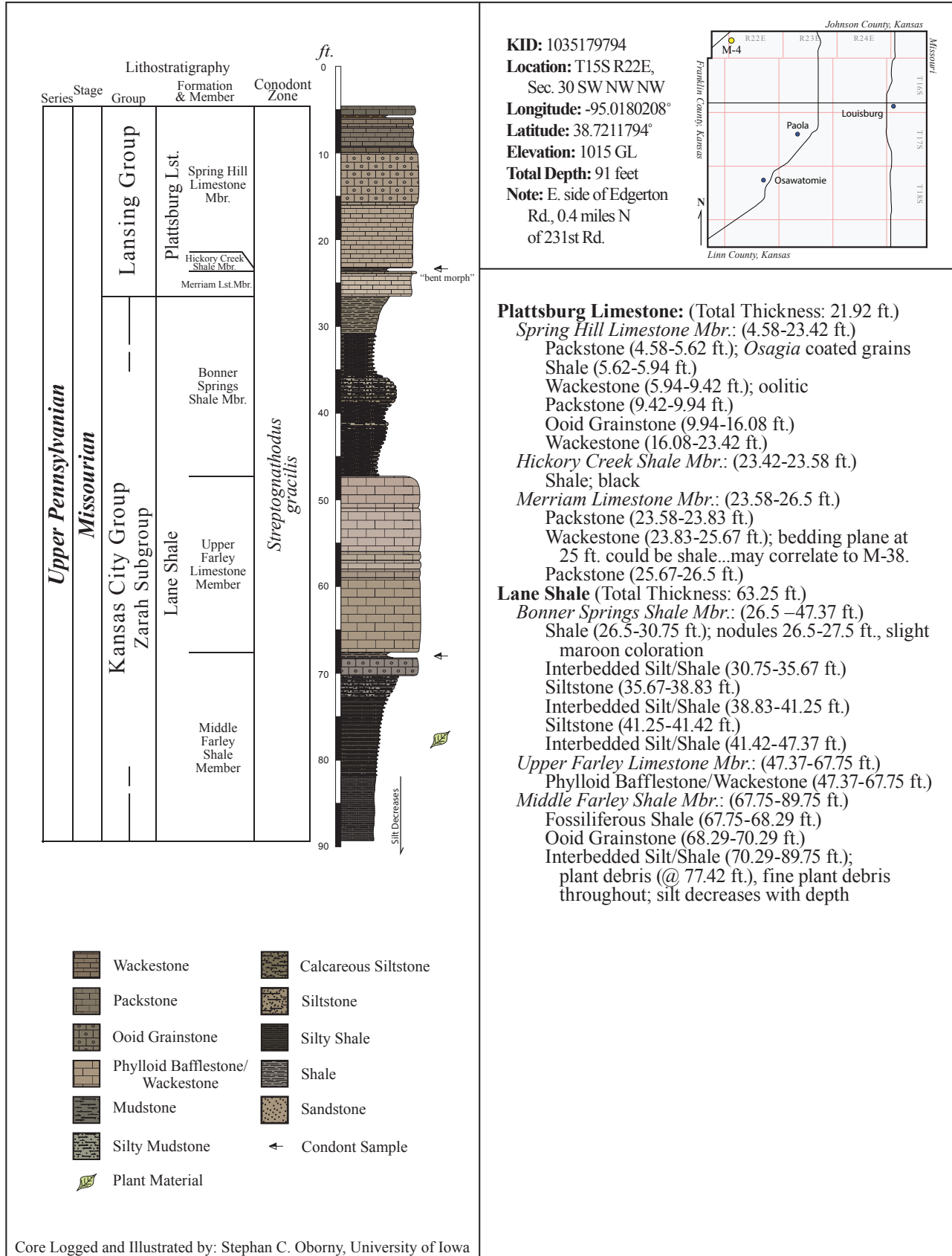
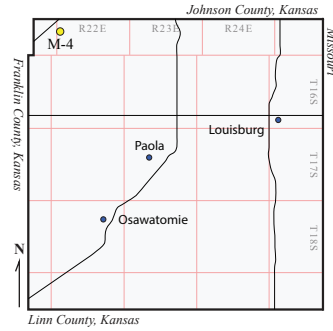


KDOT: M-4 Core, Miami County, NE Kansas

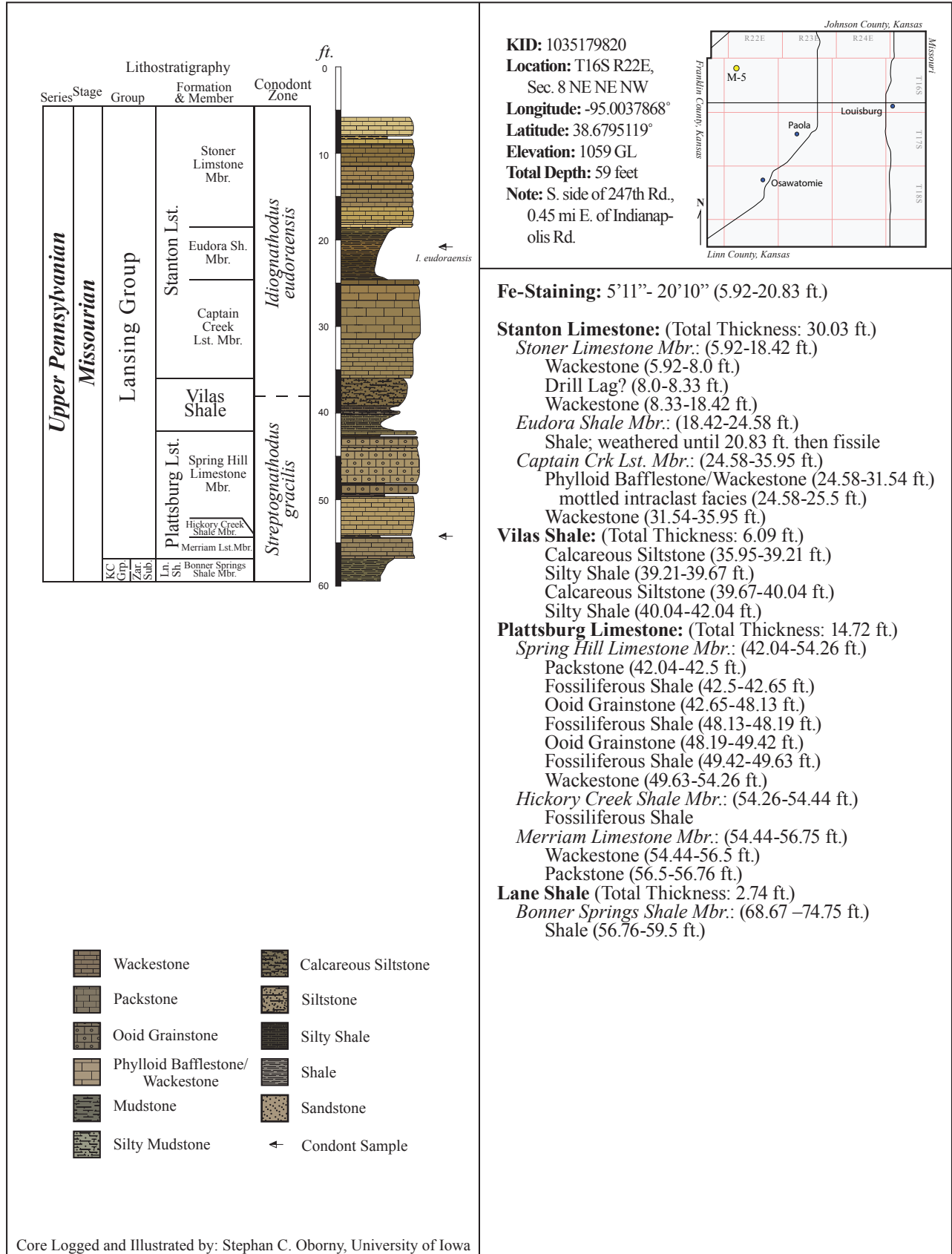


KID: 1035179794
Location: T15S R22E,
 Sec. 30 SW NW NW
Longitude: -95.0180208°
Latitude: 38.7211794°
Elevation: 1015 GL
Total Depth: 91 feet
Note: E. side of Edgerton
 Rd., 0.4 miles N
 of 231st Rd.

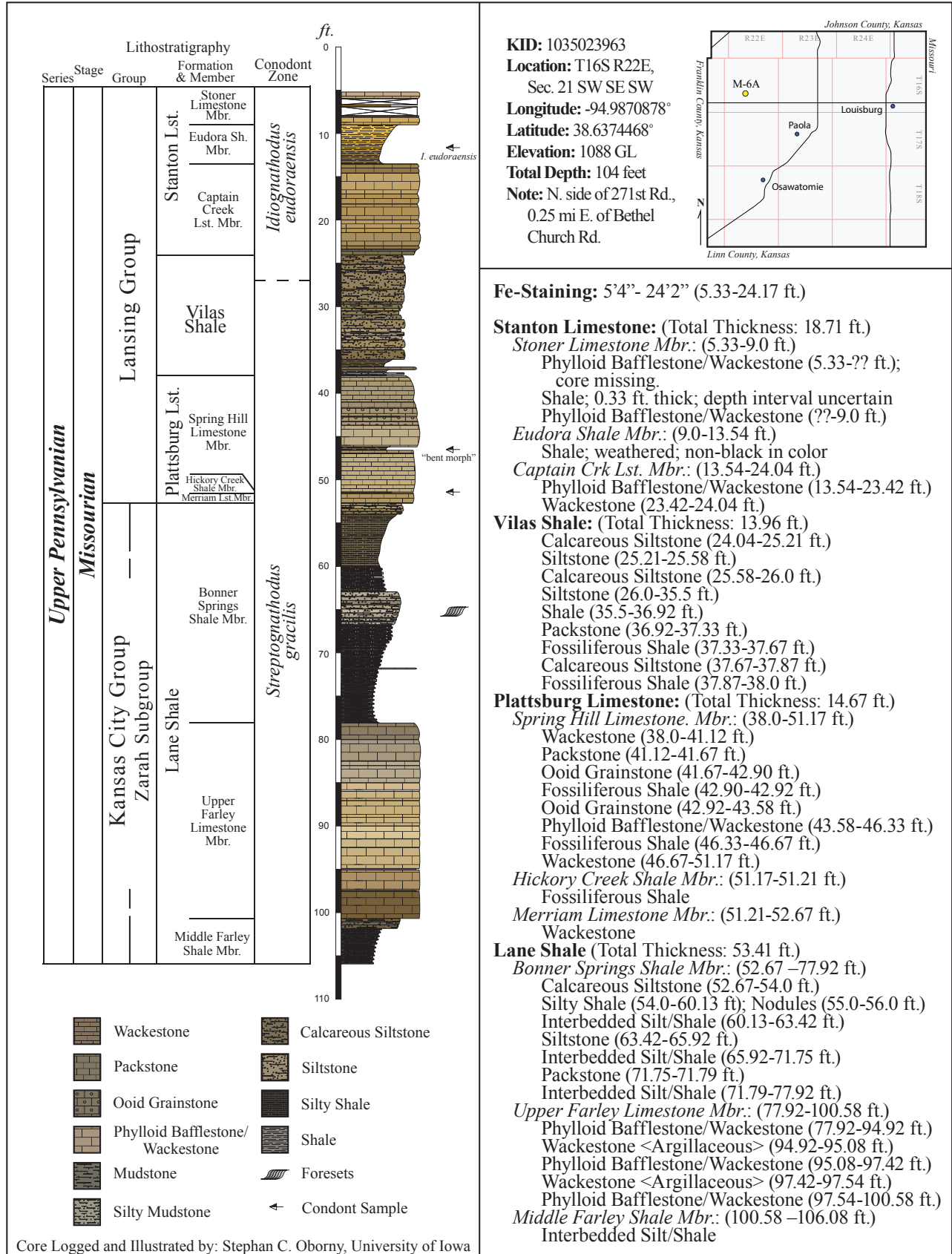


Plattsburg Limestone: (Total Thickness: 21.92 ft.)
Spring Hill Limestone Mbr.: (4.58-23.42 ft.)
 Packstone (4.58-5.62 ft.); *Osagia* coated grains
 Shale (5.62-5.94 ft.)
 Wackestone (5.94-9.42 ft.); oolitic
 Packstone (9.42-9.94 ft.)
 Ooid Grainstone (9.94-16.08 ft.)
 Wackestone (16.08-23.42 ft.)
Hickory Creek Shale Mbr.: (23.42-23.58 ft.)
 Shale; black
Merriam Limestone Mbr.: (23.58-26.5 ft.)
 Packstone (23.58-23.83 ft.)
 Wackestone (23.83-25.67 ft.); bedding plane at
 25 ft. could be shale...may correlate to M-38.
 Packstone (25.67-26.5 ft.)
Lane Shale (Total Thickness: 63.25 ft.)
Bonner Springs Shale Mbr.: (26.5-47.37 ft.)
 Shale (26.5-30.75 ft.); nodules 26.5-27.5 ft., slight
 maroon coloration
 Interbedded Silt/Shale (30.75-35.67 ft.)
 Siltstone (35.67-38.83 ft.)
 Interbedded Silt/Shale (38.83-41.25 ft.)
 Siltstone (41.25-41.42 ft.)
 Interbedded Silt/Shale (41.42-47.37 ft.)
Upper Farley Limestone Mbr.: (47.37-67.75 ft.)
 Phylloid Bafflestone/Wackestone (47.37-67.75 ft.)
Middle Farley Shale Mbr.: (67.75-89.75 ft.)
 Fossiliferous Shale (67.75-68.29 ft.)
 Ooid Grainstone (68.29-70.29 ft.)
 Interbedded Silt/Shale (70.29-89.75 ft.);
 plant debris (@ 77.42 ft.), fine plant debris
 throughout; silt decreases with depth

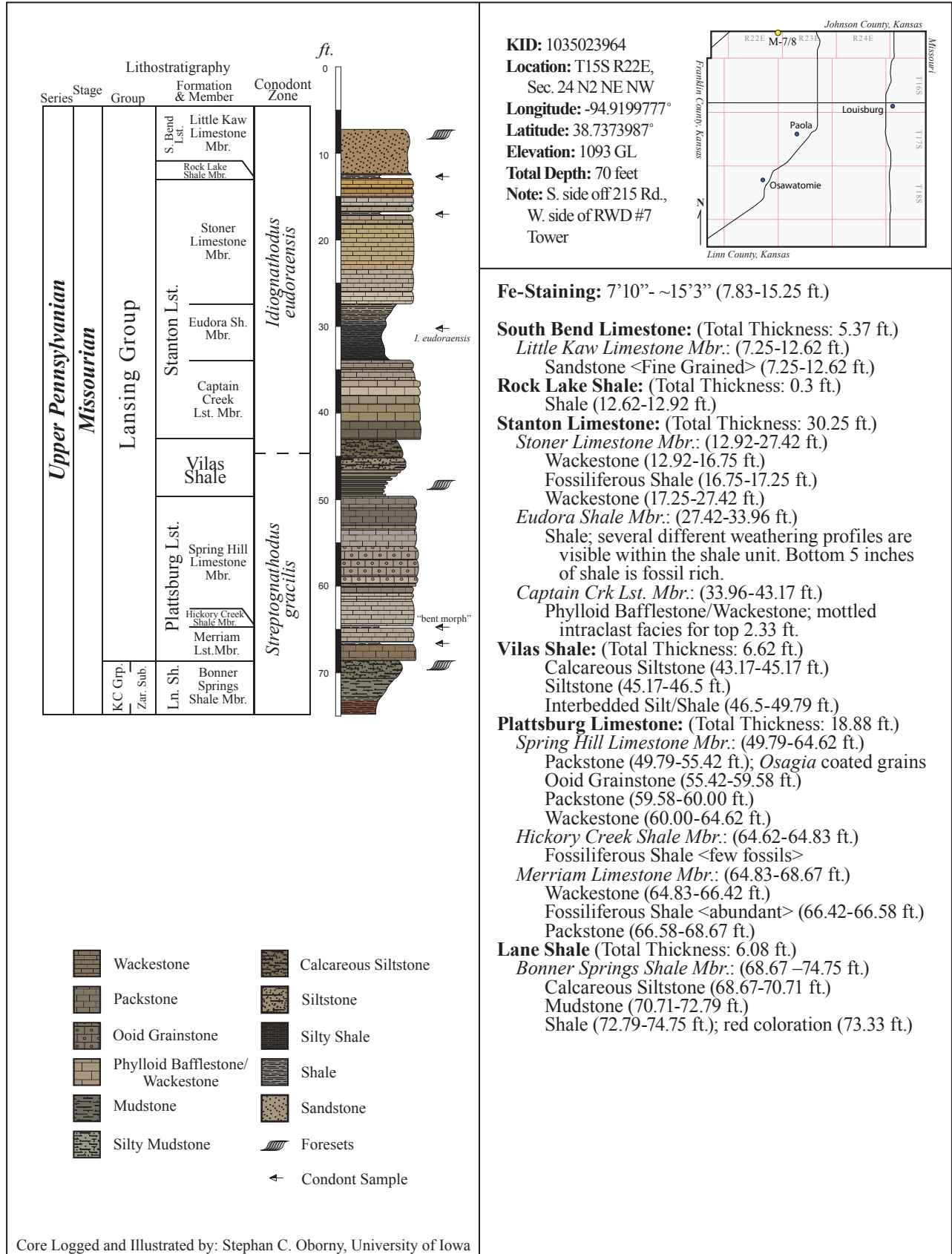
KDOT: M-5 Core, Miami County, NE Kansas



KDOT: M-6A Core, Miami County, NE Kansas

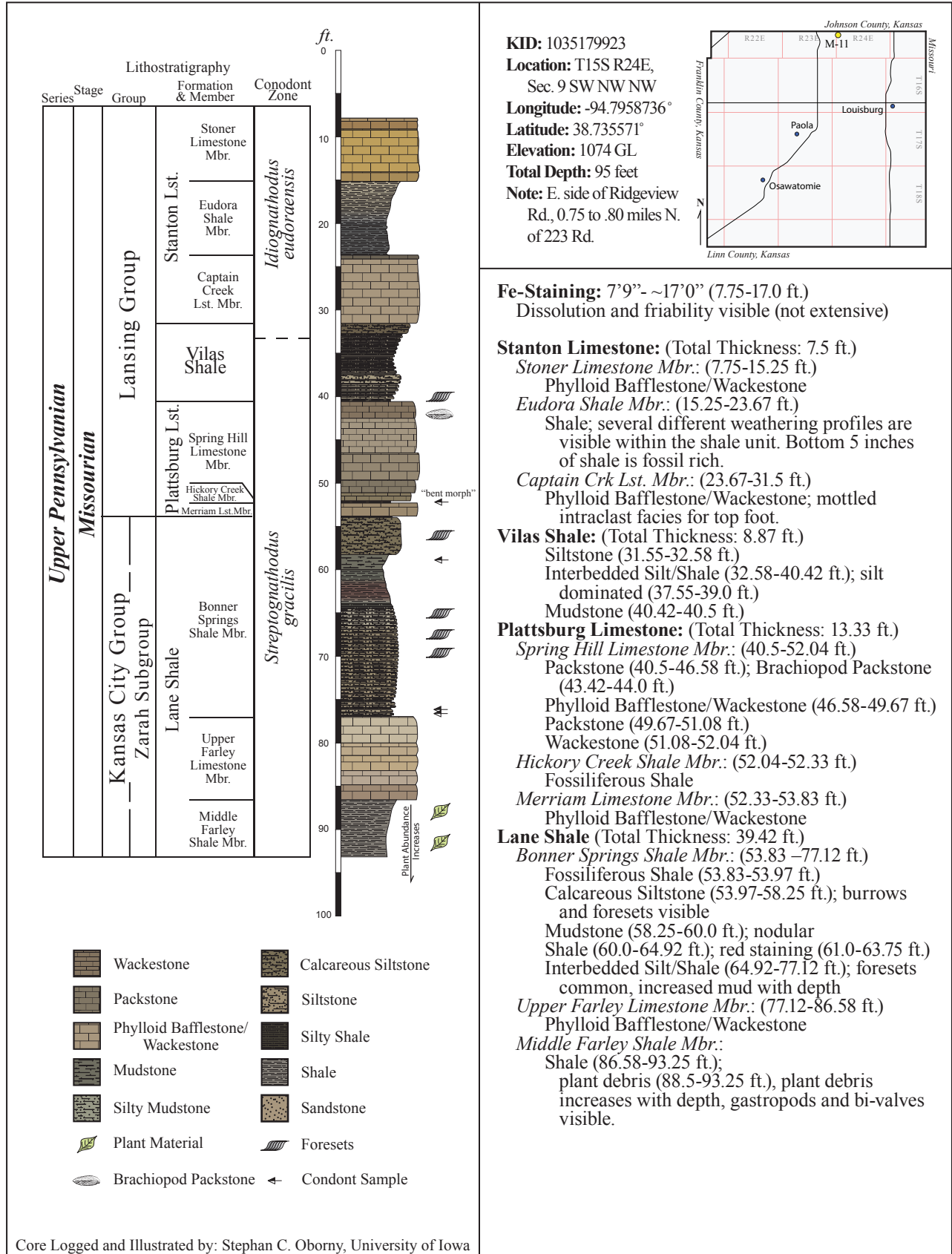


KDOT: M-7/8 Core, Miami County, NE Kansas

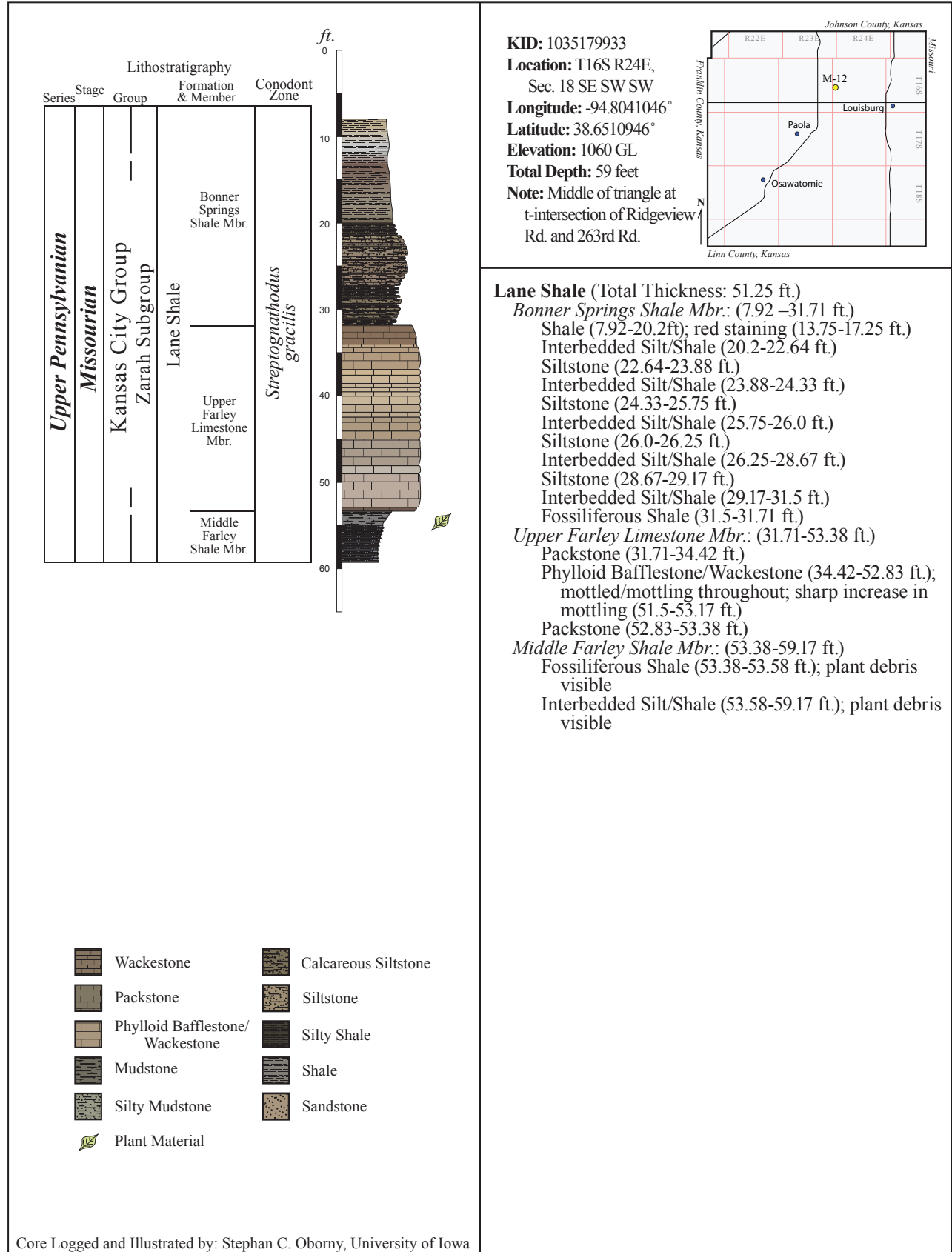


Core Logged and Illustrated by: Stephan C. Oborny, University of Iowa

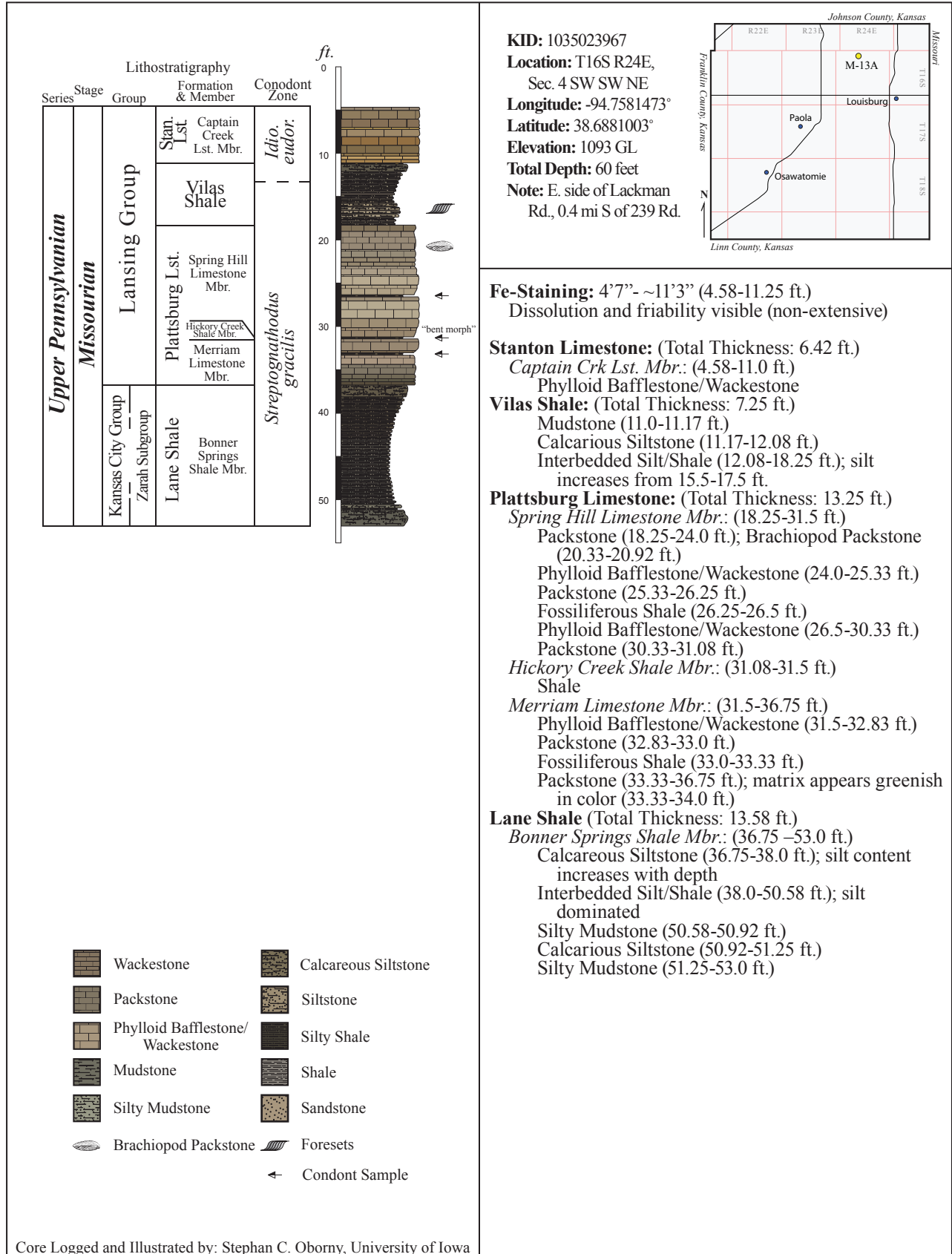
KDOT: M-11 Core, Miami County, NE Kansas



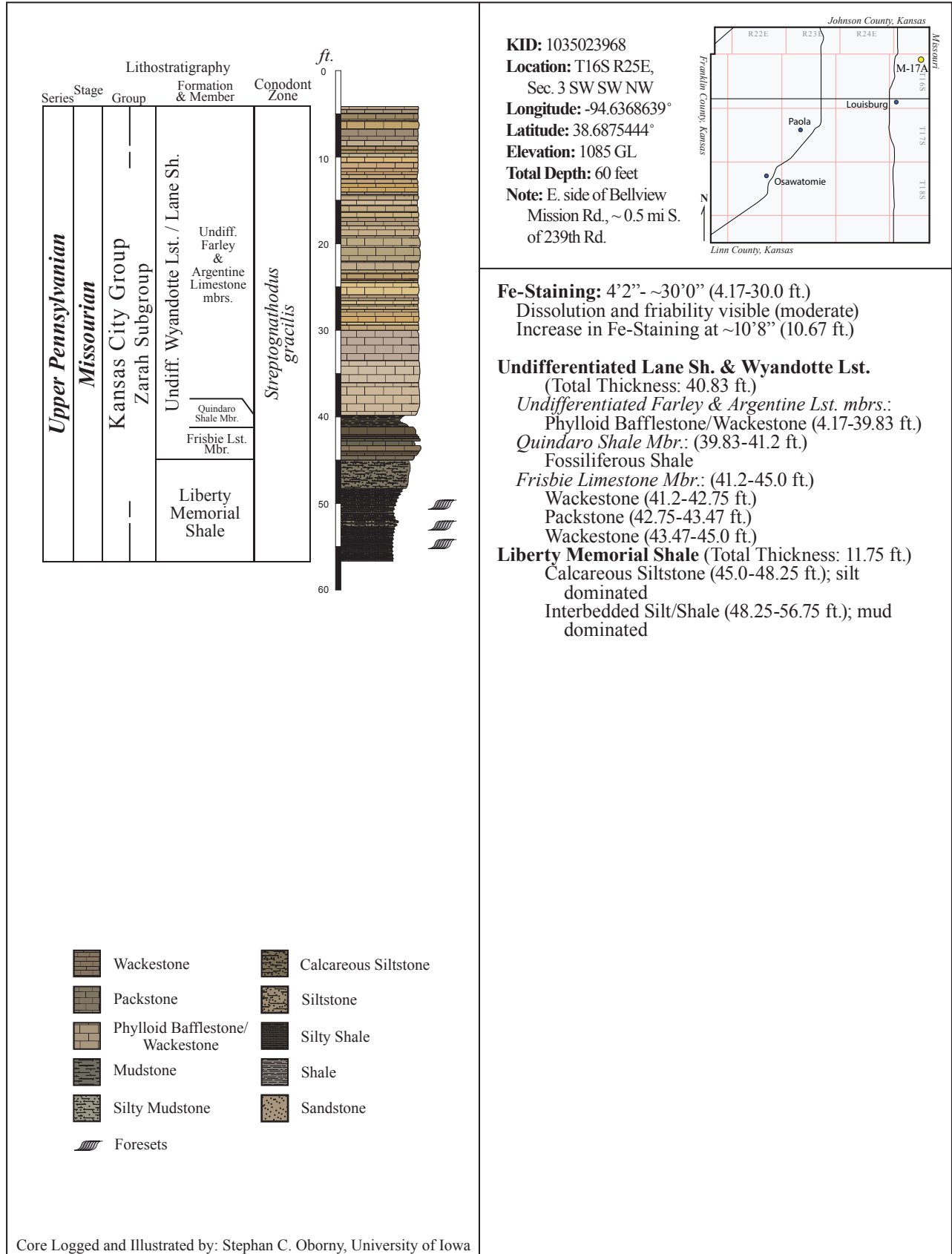
KDOT: M-12 Core, Miami County, NE Kansas



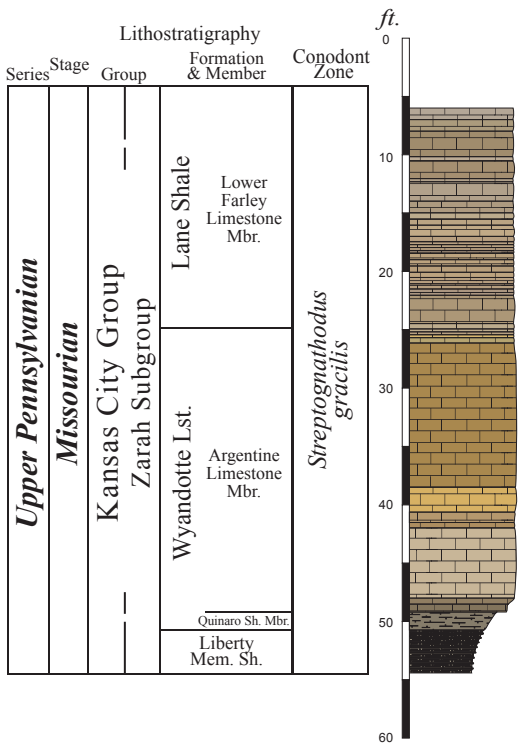
KDOT: M-13A Core, Miami County, NE Kansas



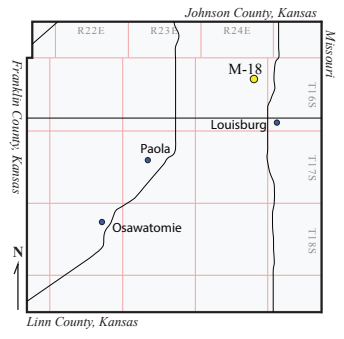
KDOT: M-17A Core, Miami County, NE Kansas



KDOT: M-18 Core, Miami County, NE Kansas



KID: 1035179986
Location: T16S R24E, Sec. 11 SE SE SE
Longitude: -94.7138771°
Latitude: 38.6658749°
Elevation: 1052 GL
Total Depth: 60 feet
Note: N. side of 225th Rd. 0.3 mi E. of Quivera Rd.

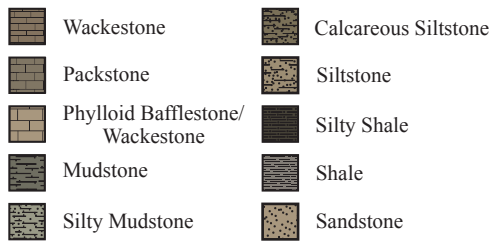


Fe-Staining: 6'0" - ~39'0" (6.0-39.0 ft.)
 Increase in Fe-Staining (24.58-39.0 ft.)

Lane Shale (Total Thickness: 18.58 ft.)
 Lower Farley Limestone Mbr.: (6.0-24.58 ft.)
 Phylloid Bafflestone/Wackestone
 Intraclast facies: (6.0-18.58 ft.; 19.92-21.58 ft.; 22.0-22.42 ft.; 23.0-24.58 ft.)
 Island Creek Shale Mbr.: (Absent)

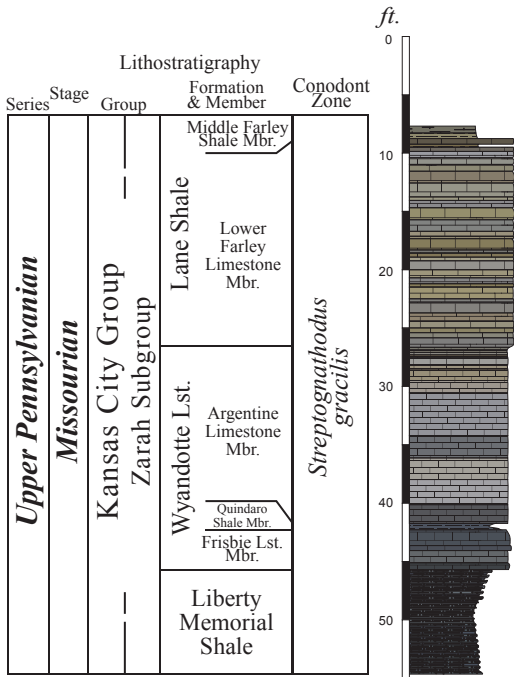
Wyandotte Limestone (Total Thickness: 26.17 ft.)
 Argentine Limestone Mbr.: (24.58-49.21 ft.)
 Phylloid Bafflestone/Wackestone (24.58-48.5 ft.)
 Osagia (47.25-48.08 ft.)
 Packstone (48.5-49.21 ft.)
 Quindaro Shale Mbr.: (49.21-50.75 ft.)
 Fossiliferous Mudstone
 Frisbie Limestone Mbr.: (Absent)

Liberty Memorial Shale (Total Thickness: 4.17 ft.)
 Silty Shale (50.75-54.92 ft.)

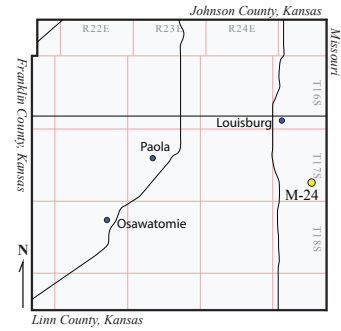


Core Logged and Illustrated by: Stephan C. Oborny, University of Iowa

KDOT: M-24 Core, Miami County, NE Kansas



KID: 1035180025
Location: T17S R25E, Sec. 27 SW NW NW
Longitude: -94.6379845°
Latitude: 38.5453254°
Elevation: 1132 GL
Total Depth: 60 feet
Note: E. side of Bellview Mission Rd., 0.2 mi S. of 319th Rd.



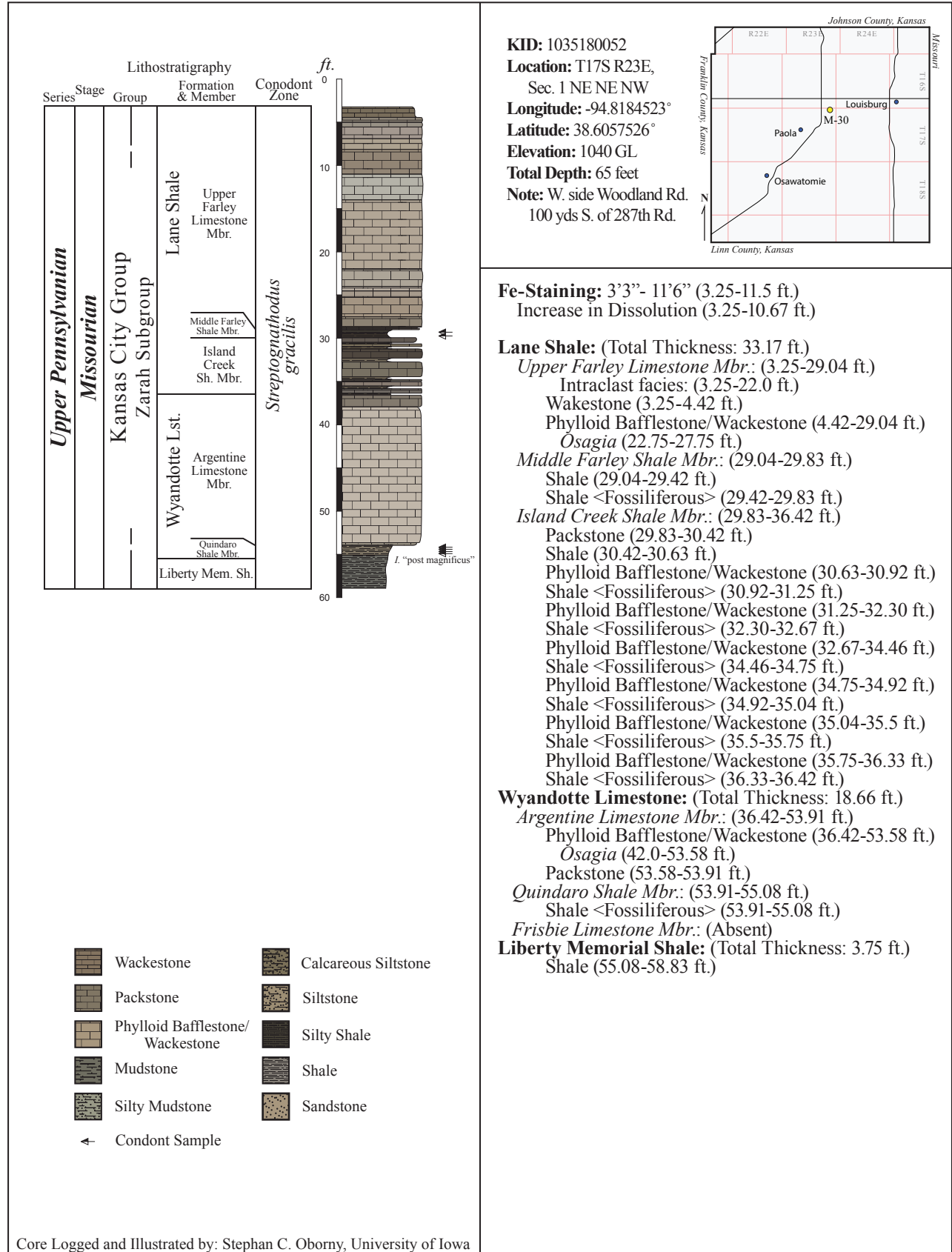
Fe-Staining: 7'9" - 30'6" (7.75-30.5 ft.)

Lane Shale (Total Thickness: 19.0 ft.)
Middle Farley Shale Mbr.: (7.75-8.83 ft.)
 Mudstone (7.75-8.38 ft.)
 Fossiliferous Shale (8.38-8.83 ft.)
Lower Farley Limestone Mbr.: (8.83-26.75 ft.)
 Phylloid Bafflestone/Wackestone (8.83-9.42 ft.)
 Fossiliferous Shale (9.42-9.54 ft.)
 Phylloid Bafflestone/Wackestone (9.54-26.75 ft.)
 <Abundant Dissolution>
Island Creek Shale Mbr.: (Absent)
Wyandotte Limestone (Total Thickness: 18.83 ft.)
Argentine Limestone Mbr.: (26.75-41.67 ft.)
 Wackestone (26.75-41.67 ft.)
 <Disconformity at 26.75 ft.>
 <Abundant silicification & Friability>
 (26.75-28.25 ft.)
Quindaro Shale Mbr.: (41.67-42.25 ft.)
 Fossiliferous Shale
Frisbie Limestone Mbr.: (42.25-45.58 ft.)
 Packstone <Argillaceous> (42.25-43.60 ft.)
 Packstone (43.60-44.08 ft.)
 Wackestone (44.08-45.08 ft.)
 Packstone <Argillaceous> (45.08-45.58 ft.)
Liberty Memorial Shale (Total Thickness: 9.0 ft.)
 Interbedded Silt/Shale (45.58-54.58 ft.); increase in silt beneath 50.42 ft.

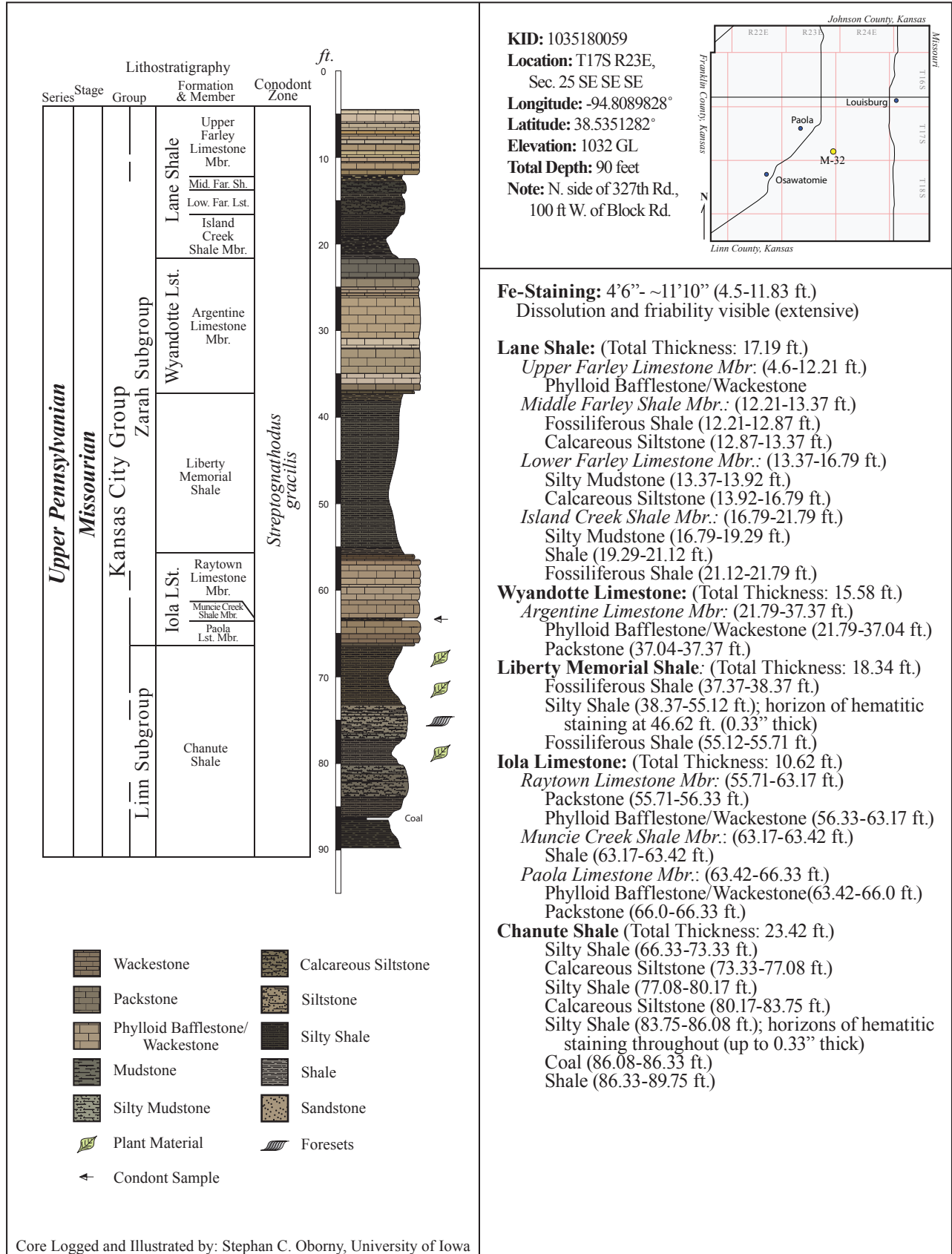


Core Logged and Illustrated by: Stephan C. Oborny, University of Iowa

KDOT: M-30 Core, Miami County, NE Kansas



KDOT: M-32 Core, Miami County, NE Kansas



KID: 1035180059
Location: T17S R23E, Sec. 25 SE SE SE
Longitude: -94.8089828°
Latitude: 38.5351282°
Elevation: 1032 GL
Total Depth: 90 feet
Note: N. side of 327th Rd., 100 ft W. of Block Rd.

Fe-Staining: 4'6" - ~11'10" (4.5-11.83 ft.)
 Dissolution and friability visible (extensive)

Lane Shale: (Total Thickness: 17.19 ft.)
 Upper Farley Limestone Mbr.: (4.6-12.21 ft.)
 Phylloid Bafflestone/Wackestone
 Middle Farley Shale Mbr.: (12.21-13.37 ft.)
 Fossiliferous Shale (12.21-12.87 ft.)
 Calcareous Siltstone (12.87-13.37 ft.)
 Lower Farley Limestone Mbr.: (13.37-16.79 ft.)
 Silty Mudstone (13.37-13.92 ft.)
 Calcareous Siltstone (13.92-16.79 ft.)
 Island Creek Shale Mbr.: (16.79-21.79 ft.)
 Silty Mudstone (16.79-19.29 ft.)
 Shale (19.29-21.12 ft.)
 Fossiliferous Shale (21.12-21.79 ft.)

Wyandotte Limestone: (Total Thickness: 15.58 ft.)
 Argentine Limestone Mbr.: (21.79-37.37 ft.)
 Phylloid Bafflestone/Wackestone (21.79-37.04 ft.)
 Packstone (37.04-37.37 ft.)

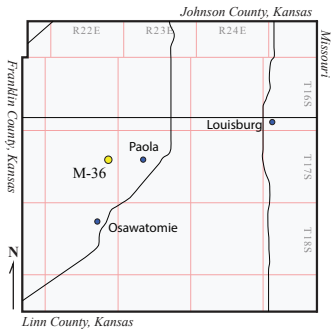
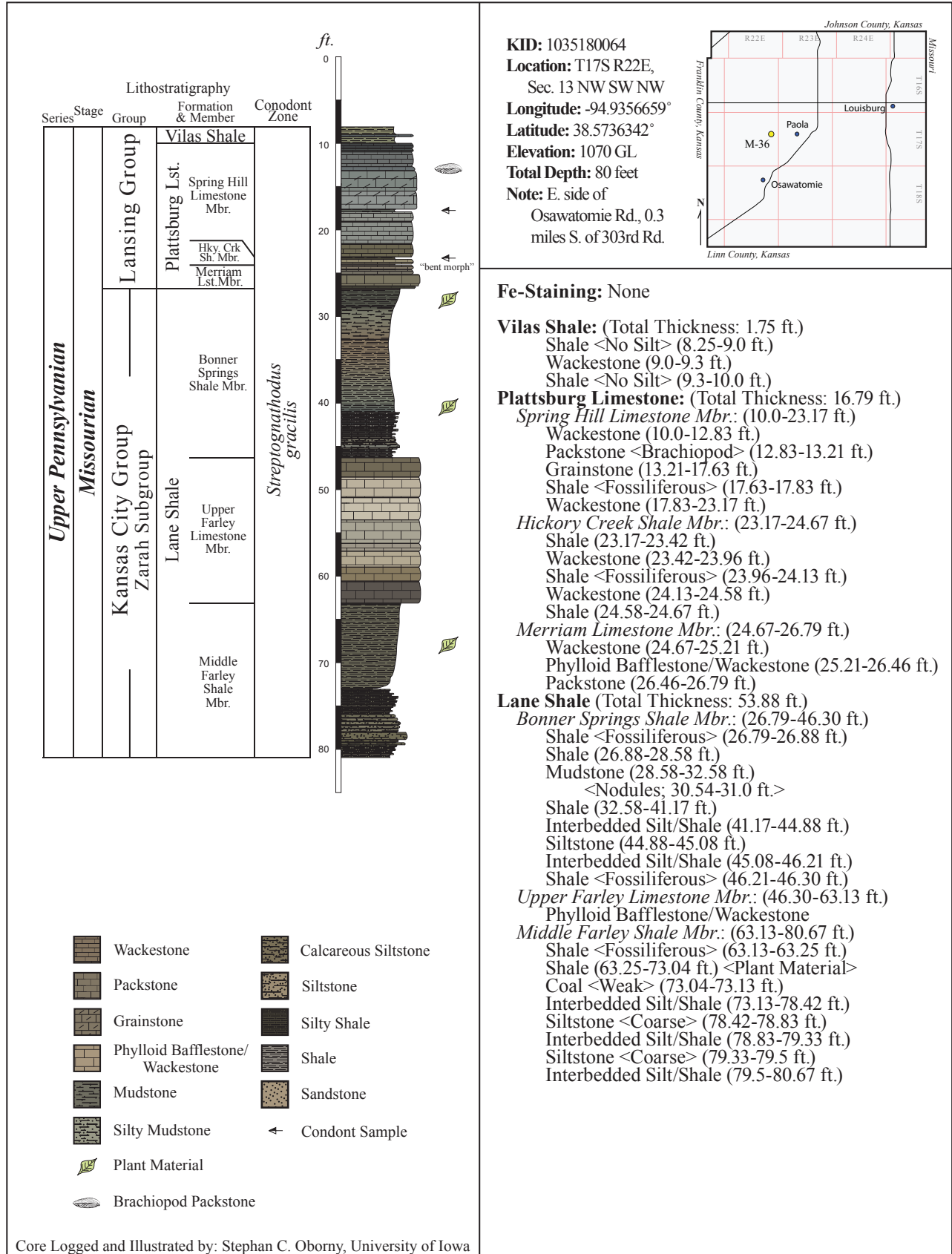
Liberty Memorial Shale: (Total Thickness: 18.34 ft.)
 Fossiliferous Shale (37.37-38.37 ft.)
 Silty Shale (38.37-55.12 ft.); horizon of hematitic staining at 46.62 ft. (0.33" thick)
 Fossiliferous Shale (55.12-55.71 ft.)

Iola Limestone: (Total Thickness: 10.62 ft.)
 Raytown Limestone Mbr.: (55.71-63.17 ft.)
 Packstone (55.71-56.33 ft.)
 Phylloid Bafflestone/Wackestone (56.33-63.17 ft.)
 Muncie Creek Shale Mbr.: (63.17-63.42 ft.)
 Shale (63.17-63.42 ft.)
 Paola Limestone Mbr.: (63.42-66.33 ft.)
 Phylloid Bafflestone/Wackestone (63.42-66.0 ft.)
 Packstone (66.0-66.33 ft.)

Chanute Shale (Total Thickness: 23.42 ft.)
 Silty Shale (66.33-73.33 ft.)
 Calcareous Siltstone (73.33-77.08 ft.)
 Silty Shale (77.08-80.17 ft.)
 Calcareous Siltstone (80.17-83.75 ft.)
 Silty Shale (83.75-86.08 ft.); horizons of hematitic staining throughout (up to 0.33" thick)
 Coal (86.08-86.33 ft.)
 Shale (86.33-89.75 ft.)

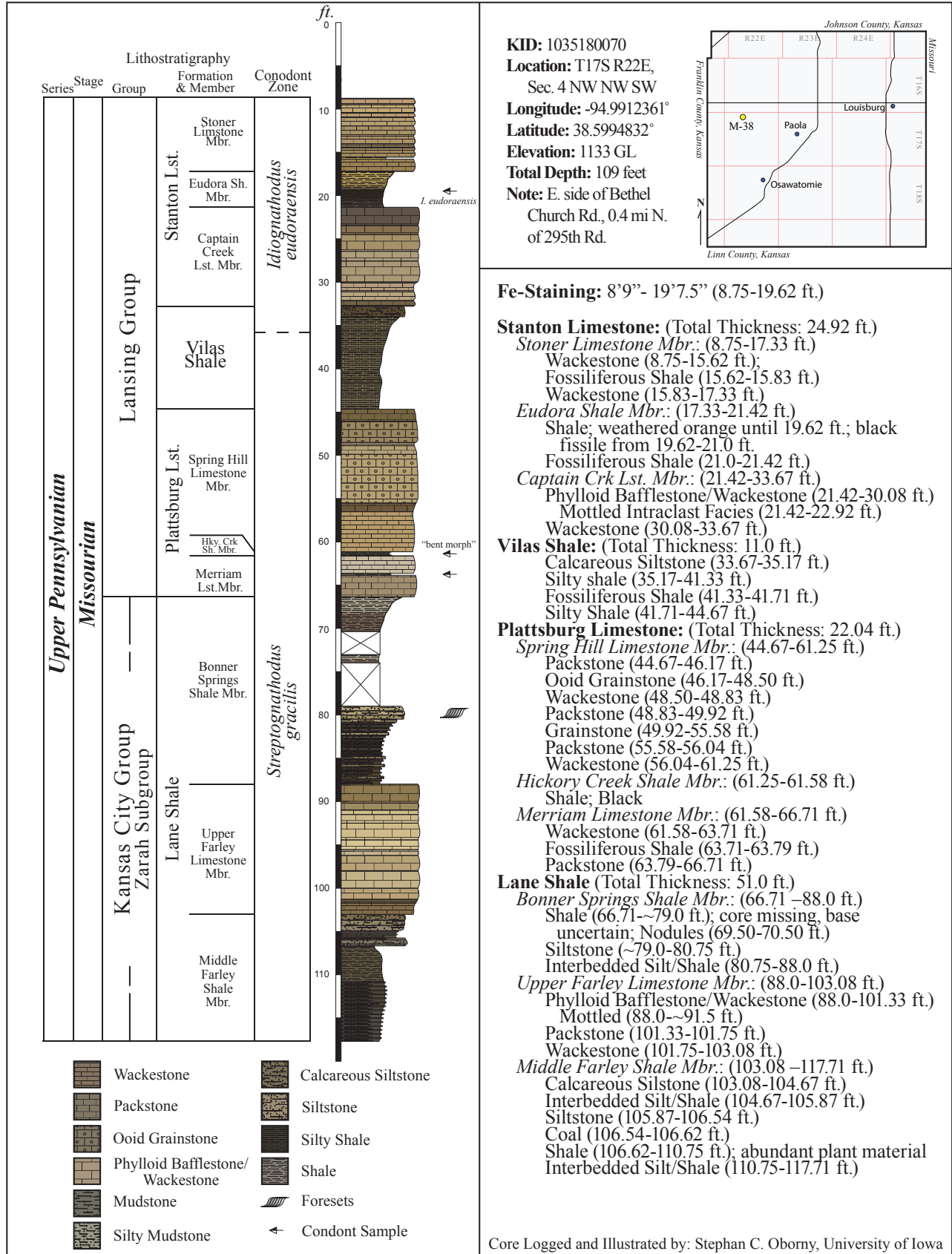
Core Logged and Illustrated by: Stephan C. Oborny, University of Iowa

KDOT: M-36 Core, Miami County, NE Kansas

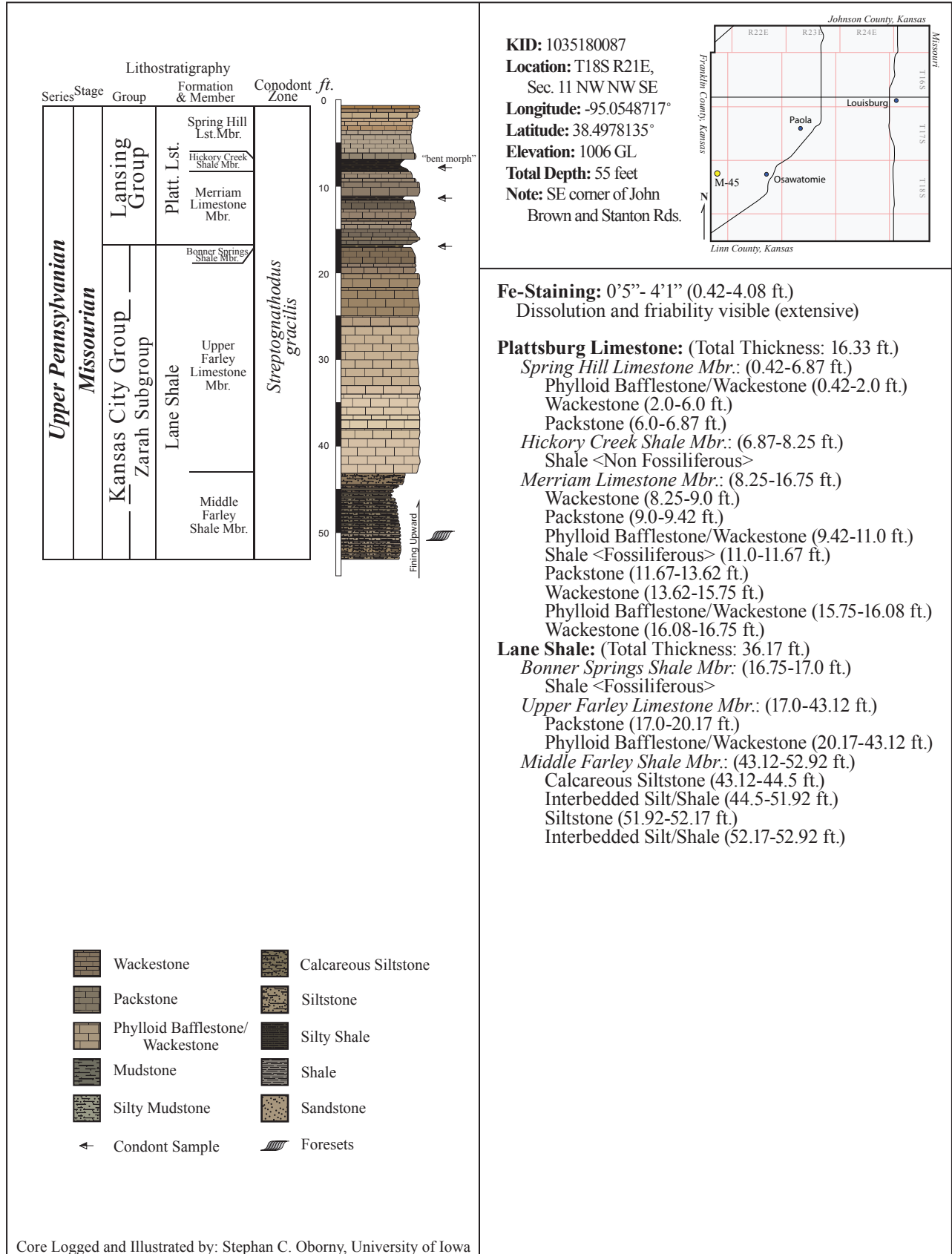


- Wackestone
- Packstone
- Grainstone
- Phylloid Bafflestone/Wackestone
- Mudstone
- Silty Mudstone
- Plant Material
- Brachiopod Packstone
- Calcareous Siltstone
- Siltstone
- Silty Shale
- Shale
- Sandstone
- Conodont Sample

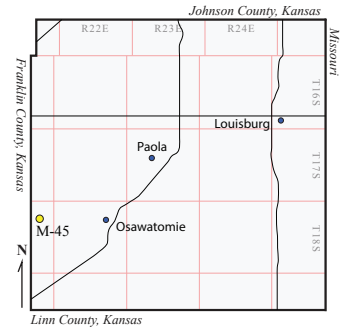
KDOT: M-38 Core, Miami County, NE Kansas



KDOT: M-45 Core, Miami County, NE Kansas



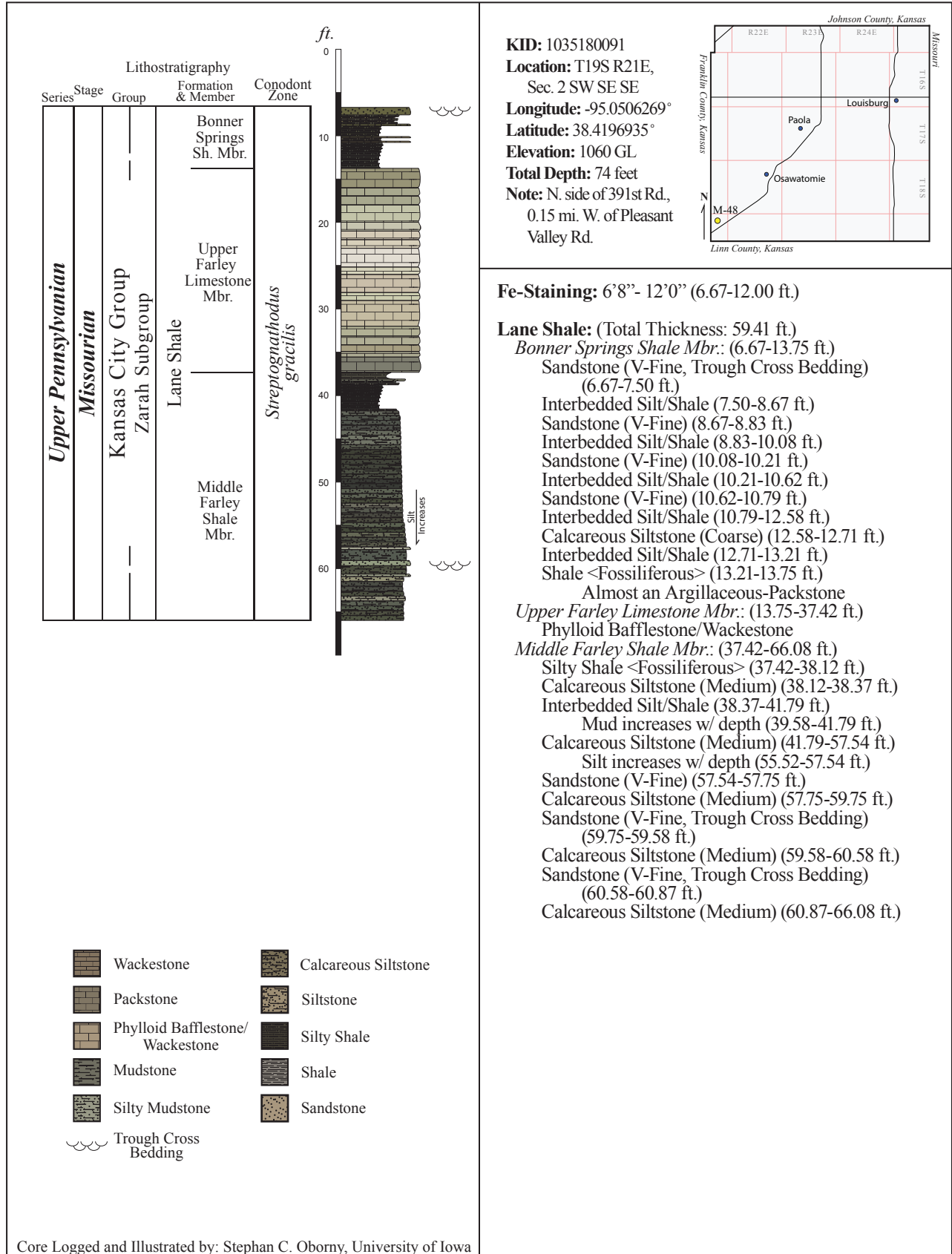
KID: 1035180087
Location: T18S R21E, Sec. 11 NW NW SE
Longitude: -95.0548717°
Latitude: 38.4978135°
Elevation: 1006 GL
Total Depth: 55 feet
Note: SE corner of John Brown and Stanton Rds.



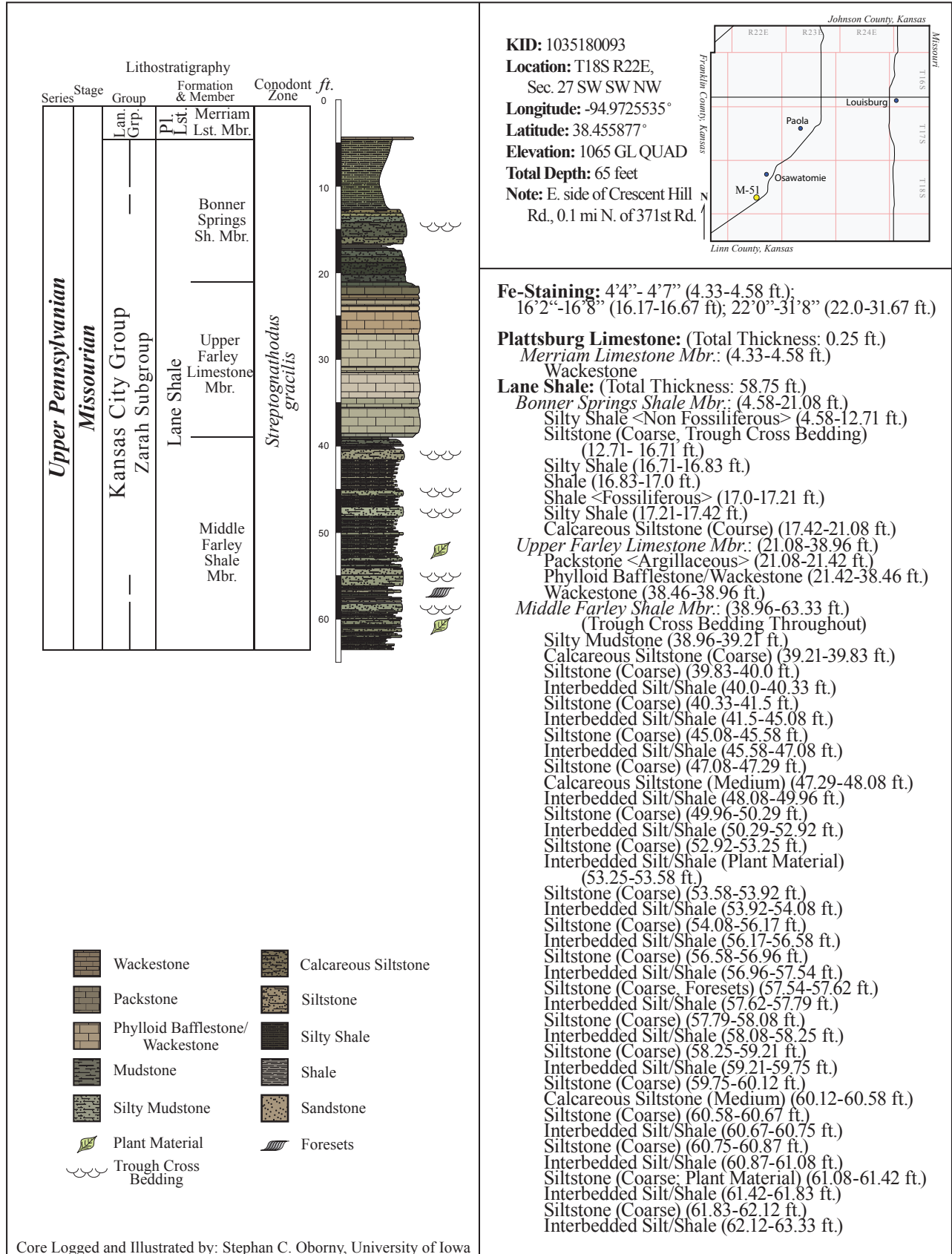
Fe-Staining: 0'5" - 4'1" (0.42-4.08 ft.)
 Dissolution and friability visible (extensive)

- Plattsburg Limestone:** (Total Thickness: 16.33 ft.)
Spring Hill Limestone Mbr.: (0.42-6.87 ft.)
 Phylloid Bafflestone/Wackestone (0.42-2.0 ft.)
 Wackestone (2.0-6.0 ft.)
 Packstone (6.0-6.87 ft.)
Hickory Creek Shale Mbr.: (6.87-8.25 ft.)
 Shale <Non Fossiliferous>
Merriam Limestone Mbr.: (8.25-16.75 ft.)
 Wackestone (8.25-9.0 ft.)
 Packstone (9.0-9.42 ft.)
 Phylloid Bafflestone/Wackestone (9.42-11.0 ft.)
 Shale <Fossiliferous> (11.0-11.67 ft.)
 Packstone (11.67-13.62 ft.)
 Wackestone (13.62-15.75 ft.)
 Phylloid Bafflestone/Wackestone (15.75-16.08 ft.)
 Wackestone (16.08-16.75 ft.)
- Lane Shale:** (Total Thickness: 36.17 ft.)
Bonner Springs Shale Mbr.: (16.75-17.0 ft.)
 Shale <Fossiliferous>
Upper Farley Limestone Mbr.: (17.0-43.12 ft.)
 Packstone (17.0-20.17 ft.)
 Phylloid Bafflestone/Wackestone (20.17-43.12 ft.)
Middle Farley Shale Mbr.: (43.12-52.92 ft.)
 Calcareous Siltstone (43.12-44.5 ft.)
 Interbedded Silt/Shale (44.5-51.92 ft.)
 Siltstone (51.92-52.17 ft.)
 Interbedded Silt/Shale (52.17-52.92 ft.)

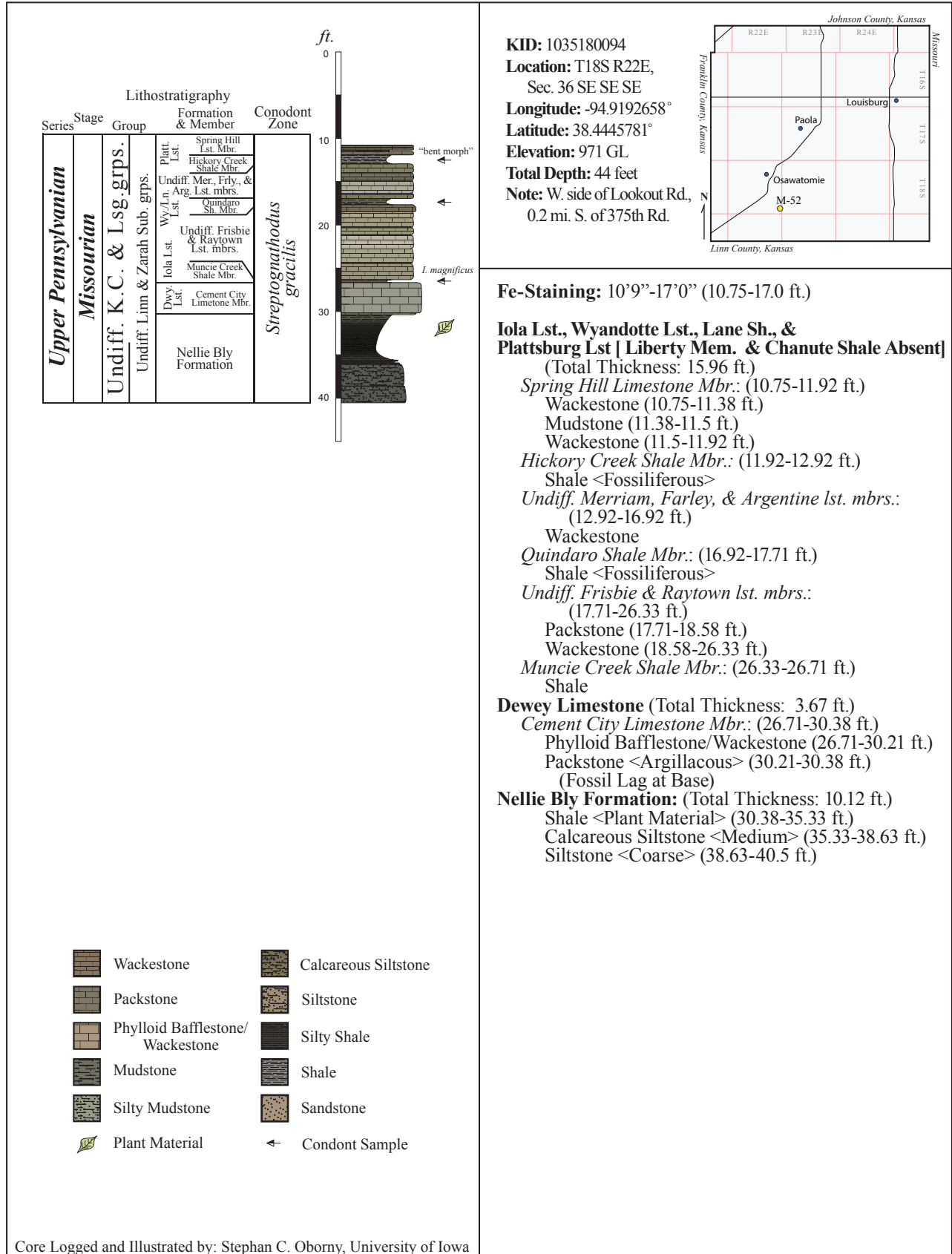
KDOT: M-48 Core, Miami County, NE Kansas



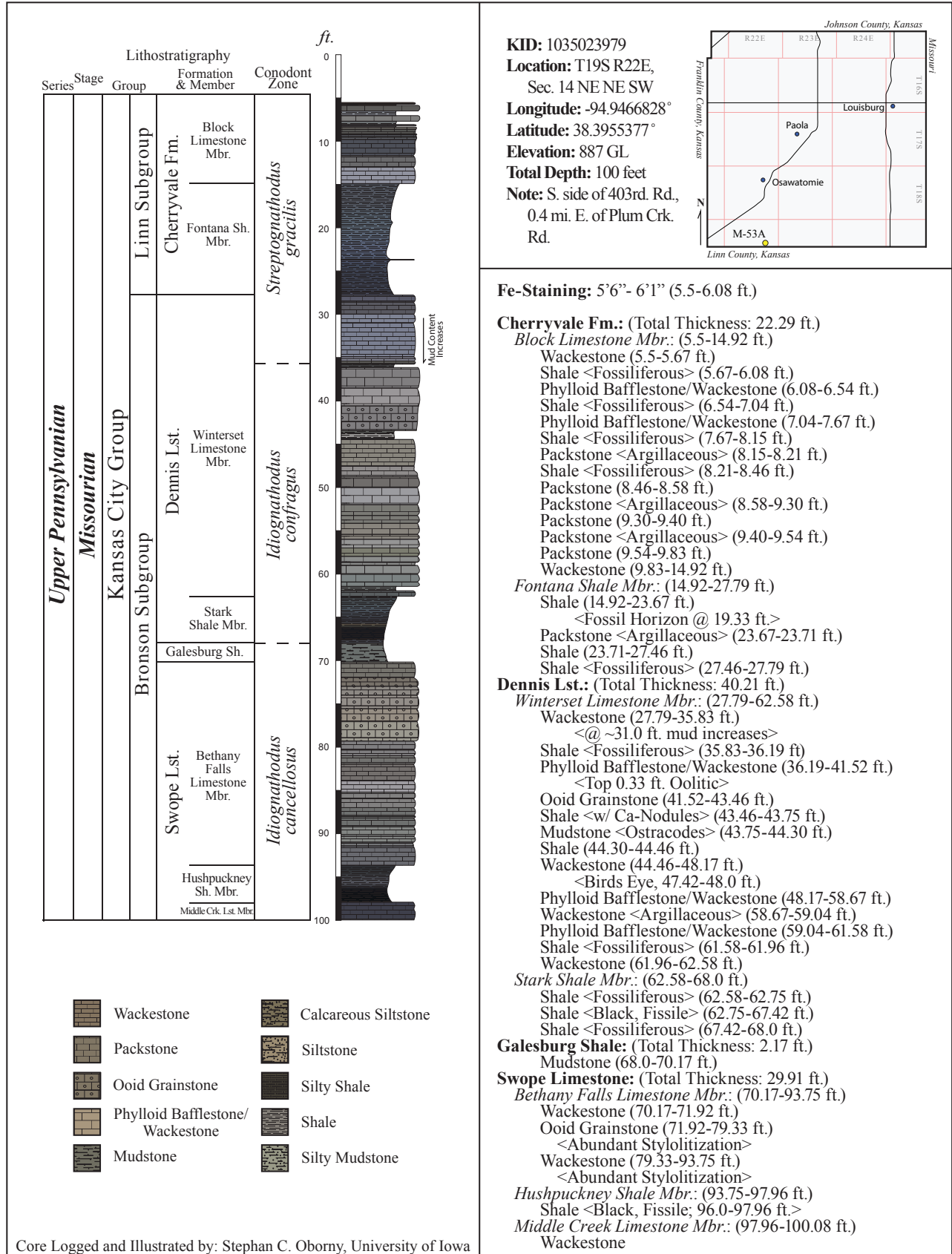
KDOT: M-51 Core, Miami County, NE Kansas



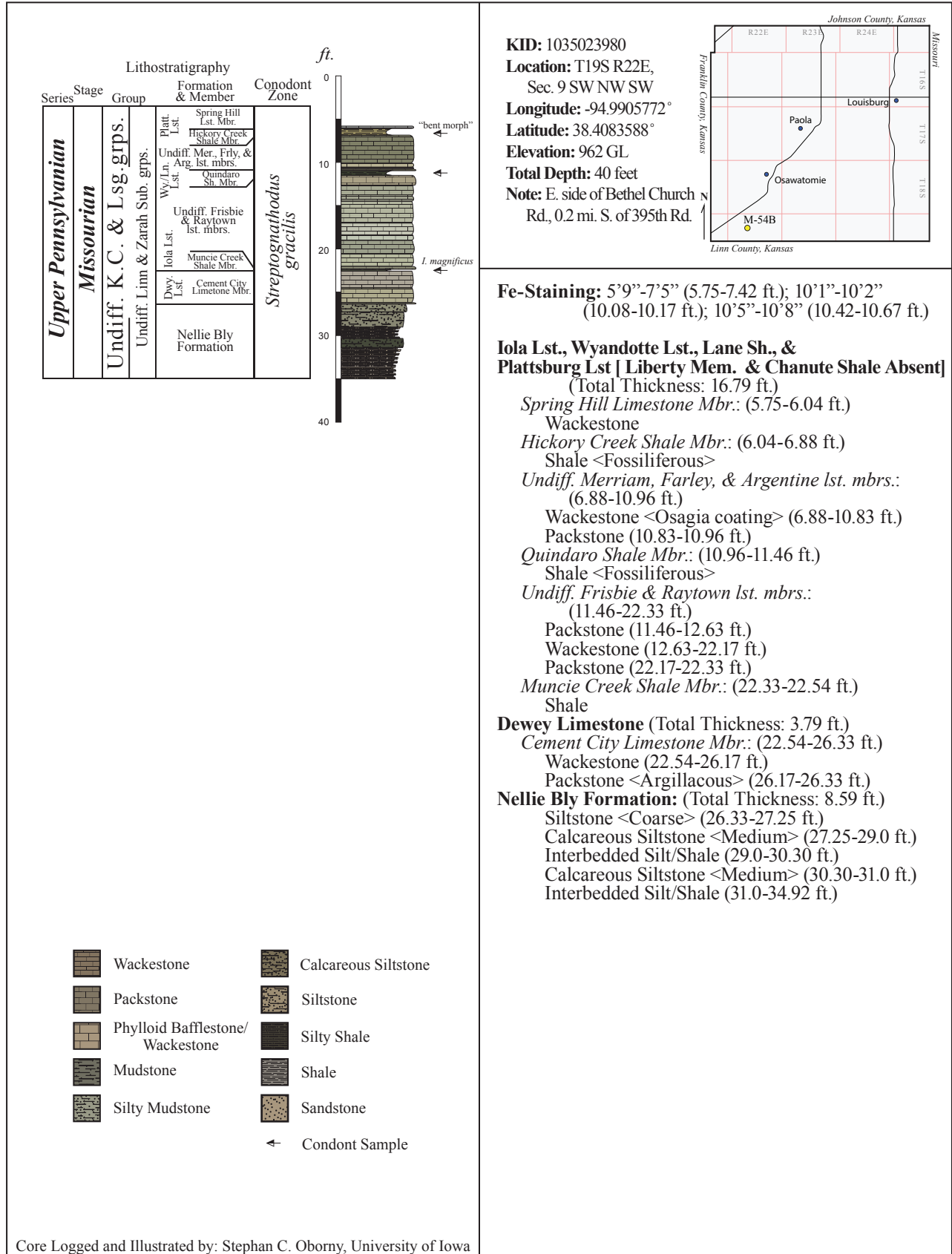
KDOT: M-52 Core, Miami County, NE Kansas



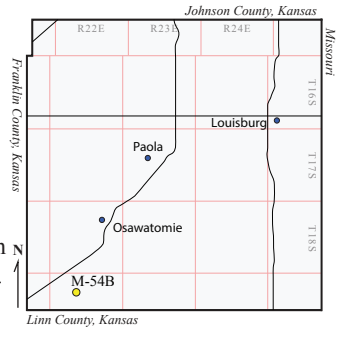
KDOT: M-53A Core, Miami County, NE Kansas



KDOT: M-54B Core, Miami County, NE Kansas



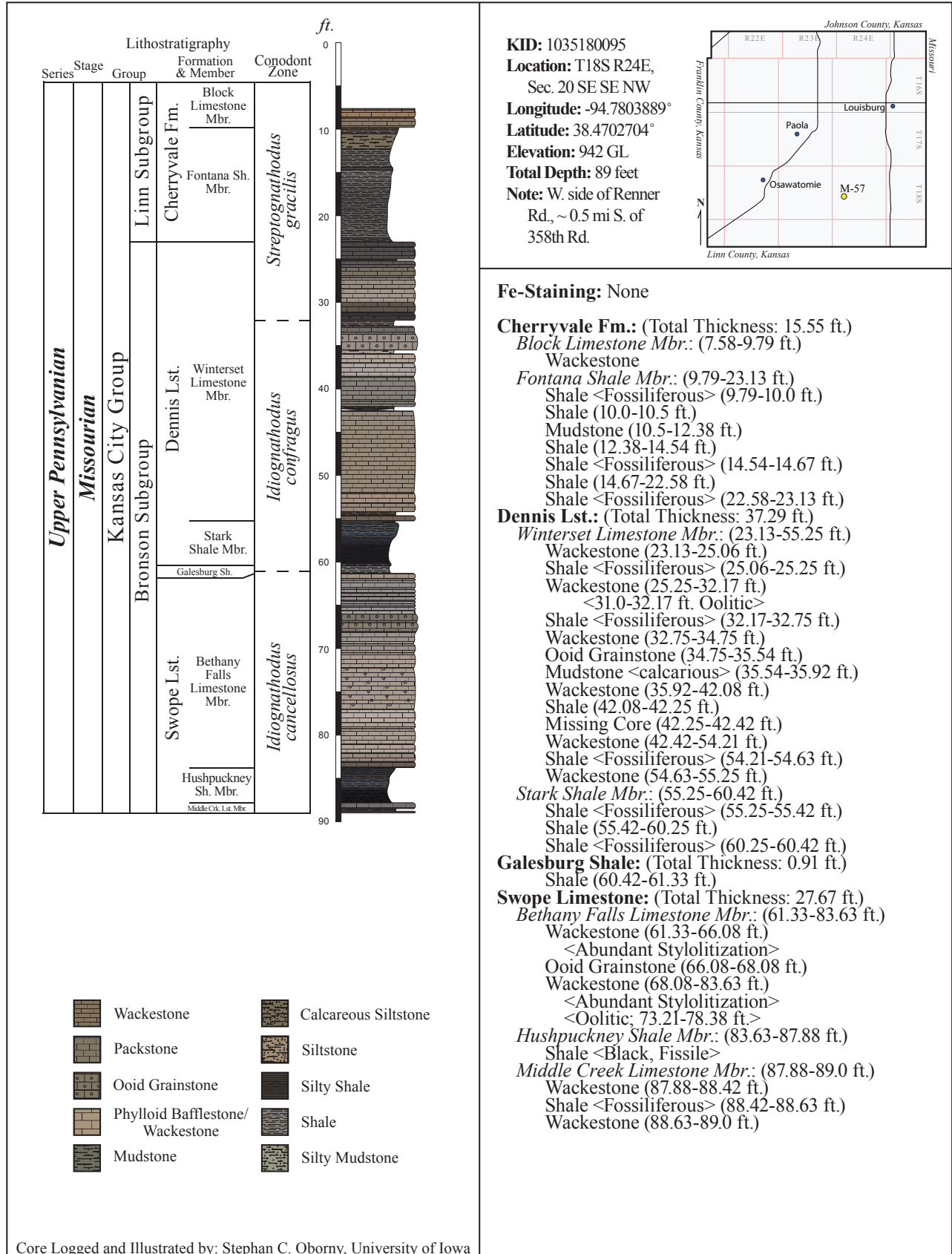
KID: 1035023980
Location: T19S R22E, Sec. 9 SWNW SW
Longitude: -94.9905772°
Latitude: 38.4083588°
Elevation: 962 GL
Total Depth: 40 feet
Note: E. side of Bethel Church Rd., 0.2 mi. S. of 395th Rd.



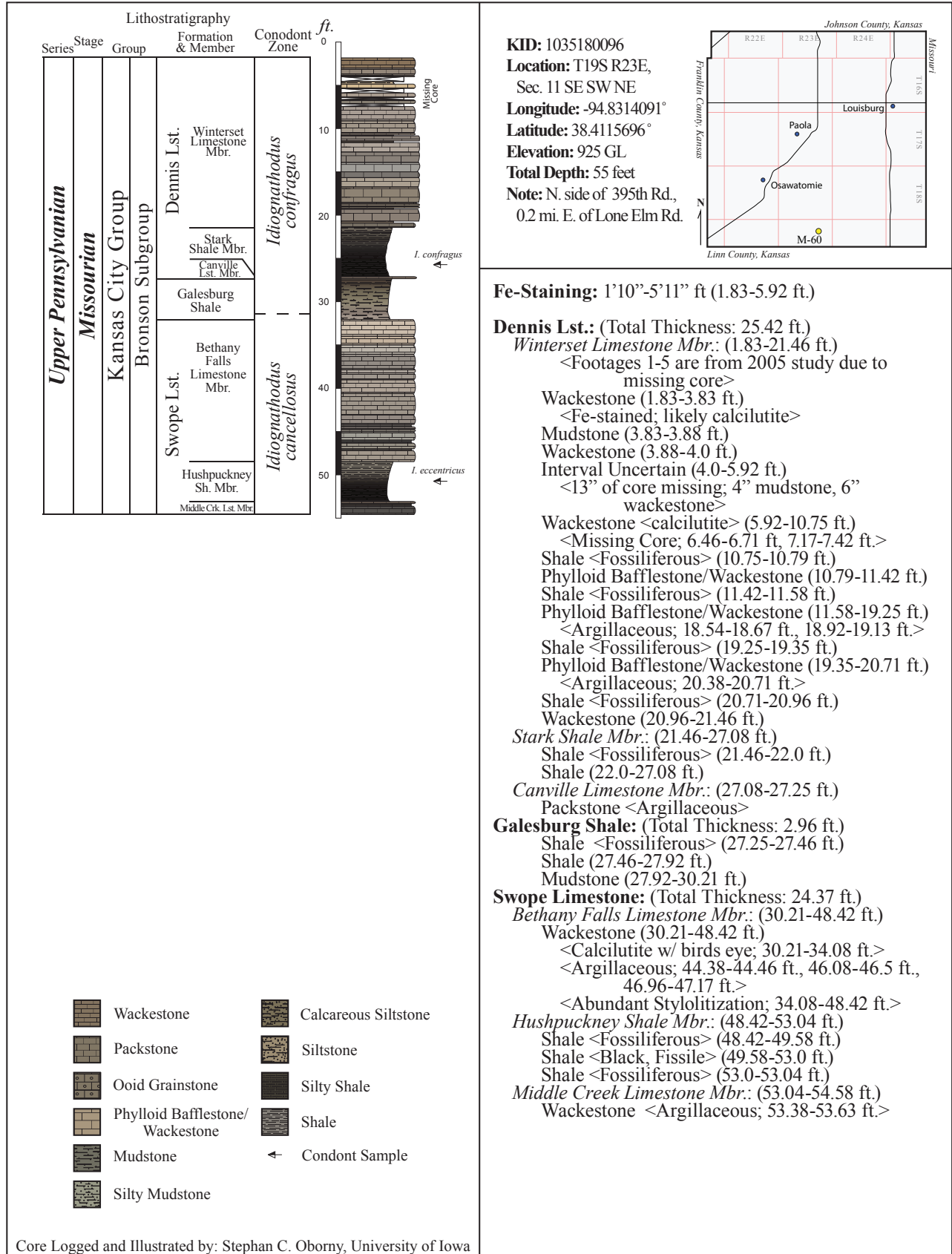
Fe-Staining: 5'9"-7'5" (5.75-7.42 ft.); 10'1"-10'2" (10.08-10.17 ft.); 10'5"-10'8" (10.42-10.67 ft.)

Iola Lst., Wyandotte Lst., Lane Sh., & Plattsburg Lst [Liberty Mem. & Chanute Shale Absent]
 (Total Thickness: 16.79 ft.)
Spring Hill Limestone Mbr.: (5.75-6.04 ft.)
 Wackestone
Hickory Creek Shale Mbr.: (6.04-6.88 ft.)
 Shale <Fossiliferous>
Undiff. Merriam, Farley, & Argentine lst. mbrs.: (6.88-10.96 ft.)
 Wackestone <Osagia coating> (6.88-10.83 ft.)
 Packstone (10.83-10.96 ft.)
Quindaro Shale Mbr.: (10.96-11.46 ft.)
 Shale <Fossiliferous>
Undiff. Frisbie & Raytown lst. mbrs.: (11.46-22.33 ft.)
 Packstone (11.46-12.63 ft.)
 Wackestone (12.63-22.17 ft.)
 Packstone (22.17-22.33 ft.)
Muncie Creek Shale Mbr.: (22.33-22.54 ft.)
 Shale
Dewey Limestone (Total Thickness: 3.79 ft.)
Cement City Limestone Mbr.: (22.54-26.33 ft.)
 Wackestone (22.54-26.17 ft.)
 Packstone <Argillaceous> (26.17-26.33 ft.)
Nellie Bly Formation: (Total Thickness: 8.59 ft.)
 Siltstone <Coarse> (26.33-27.25 ft.)
 Calcareous Siltstone <Medium> (27.25-29.0 ft.)
 Interbedded Silt/Shale (29.0-30.30 ft.)
 Calcareous Siltstone <Medium> (30.30-31.0 ft.)
 Interbedded Silt/Shale (31.0-34.92 ft.)

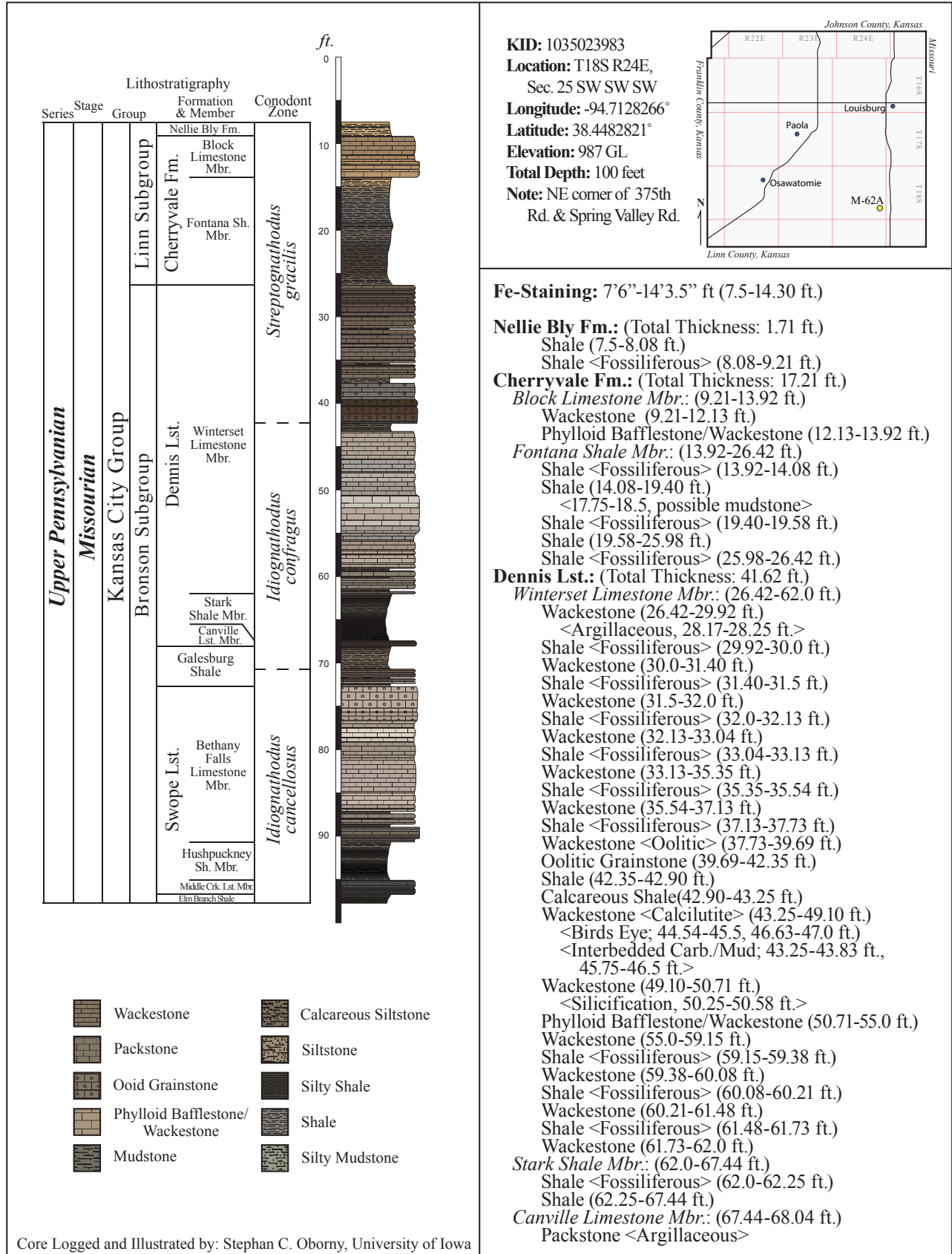
KDOT: M-57 Core, Miami County, NE Kansas



KDOT: M-60 Core, Miami County, NE Kansas



KDOT: M-62A Core, Miami County, NE Kansas



KDOT: M-62A Core, Miami County, NE Kansas

Galesburg Shale: (Total Thickness: 4.63 ft.)

Shale <Fossiliferous> (68.04-68.30 ft.)

Shale (68.30-70.67 ft.)

Wackestone Intraclast (70.67-71.60 ft.)

<Birds Eye within Intraclast>

Mudstone (71.60-71.85 ft.)

Interbedded Carb Intraclast/Mud (71.85-72.44 ft.)

<Birds Eye within Intraclast>

Mudstone (72.44-72.67 ft.)

Swope Limestone: (Total Thickness: 24.08 ft.)

Bethany Falls Limestone Mbr.: (72.67-90.63 ft.)

Oolitic Grainstone (72.67-76.71 ft.)

Wackestone (76.71-87.25 ft.)

<Abundant Stylolitization>

Shale <Fossiliferous> (87.25-87.42 ft.)

Wackestone (87.42-88.0 ft.)

Shale <Fossiliferous> (88.0-88.08 ft.)

Wackestone (88.08-88.67 ft.)

Shale <Fossiliferous> (88.67-89.0 ft.)

Phylloid Bafflestone/Wackestone (89.0-90.33 ft.)

Wackestone (90.33-90.63 ft.)

Hushpuckney Shale Mbr.: (90.63-95.15 ft.)

Shale <Fossiliferous> (90.63-91.0 ft.)

Shale <Black, Fissile> (91.0-94.90 ft.)

Shale <Fossiliferous> (94.90-95.15 ft.)

Middle Creek Limestone Mbr.: (95.15-96.75 ft.)

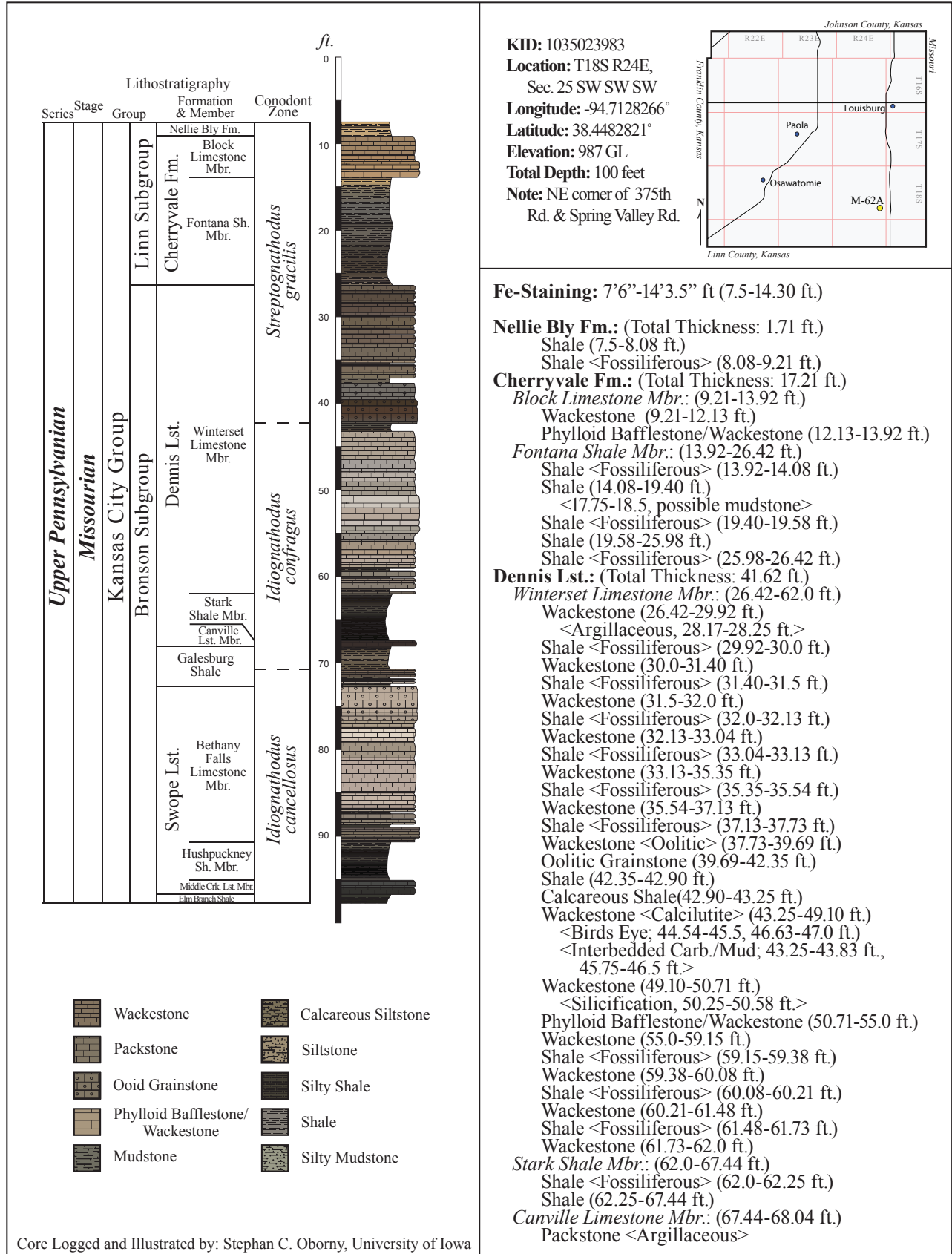
Wackestone

Elm Branch Shale: (Total Thickness: 0.92 ft.)

Shale <Fossiliferous> (96.75-97.22 ft.)

Shale (97.22-97.67 ft.)

KDOT: M-62A Core, Miami County, NE Kansas



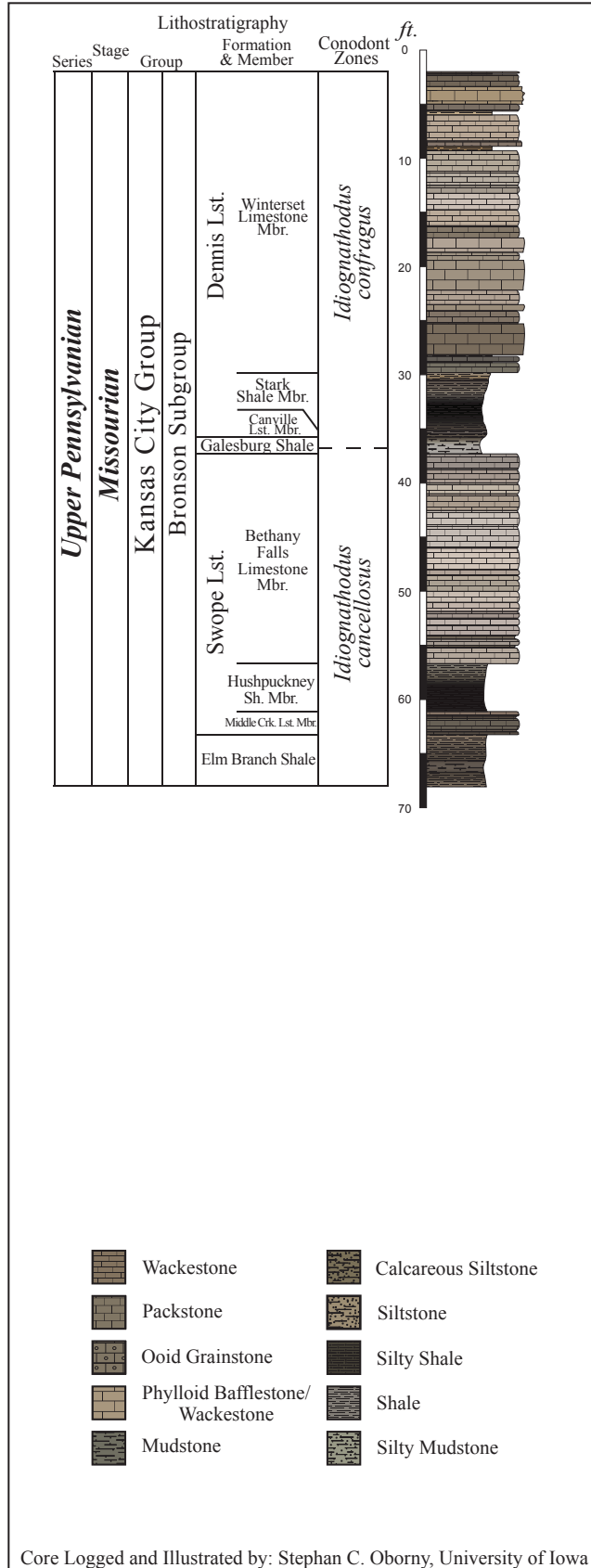
KDOT: M-62A Core, Miami County, NE Kansas

Galesburg Shale: (Total Thickness: 4.63 ft.)
Shale <Fossiliferous> (68.04-68.30 ft.)
Shale (68.30-70.67 ft.)
Wackestone Intraclast (70.67-71.60 ft.)
<Birds Eye within Intraclast>
Mudstone (71.60-71.85 ft.)
Interbedded Carb Intraclast/Mud (71.85-72.44 ft.)
<Birds Eye within Intraclast>
Mudstone (72.44-72.67 ft.)

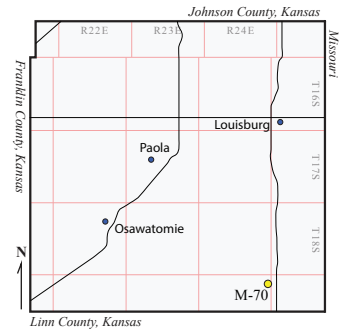
Swope Limestone: (Total Thickness: 24.08 ft.)
Bethany Falls Limestone Mbr.: (72.67-90.63 ft.)
Oolitic Grainstone (72.67-76.71 ft.)
Wackestone (76.71-87.25 ft.)
<Abundant Stylolitization>
Shale <Fossiliferous> (87.25-87.42 ft.)
Wackestone (87.42-88.0 ft.)
Shale <Fossiliferous> (88.0-88.08 ft.)
Wackestone (88.08-88.67 ft.)
Shale <Fossiliferous> (88.67-89.0 ft.)
Phylloid Bafflestone/Wackestone (89.0-90.33 ft.)
Wackestone (90.33-90.63 ft.)
Hushpuckney Shale Mbr.: (90.63-95.15 ft.)
Shale <Fossiliferous> (90.63-91.0 ft.)
Shale <Black, Fissile> (91.0-94.90 ft.)
Shale <Fossiliferous> (94.90-95.15 ft.)
Middle Creek Limestone Mbr.: (95.15-96.75 ft.)
Wackestone

Elm Branch Shale: (Total Thickness: 0.92 ft.)
Shale <Fossiliferous> (96.75-97.22 ft.)
Shale (97.22-97.67 ft.)

KDOT: M-70 Core, Miami County, NE Kansas

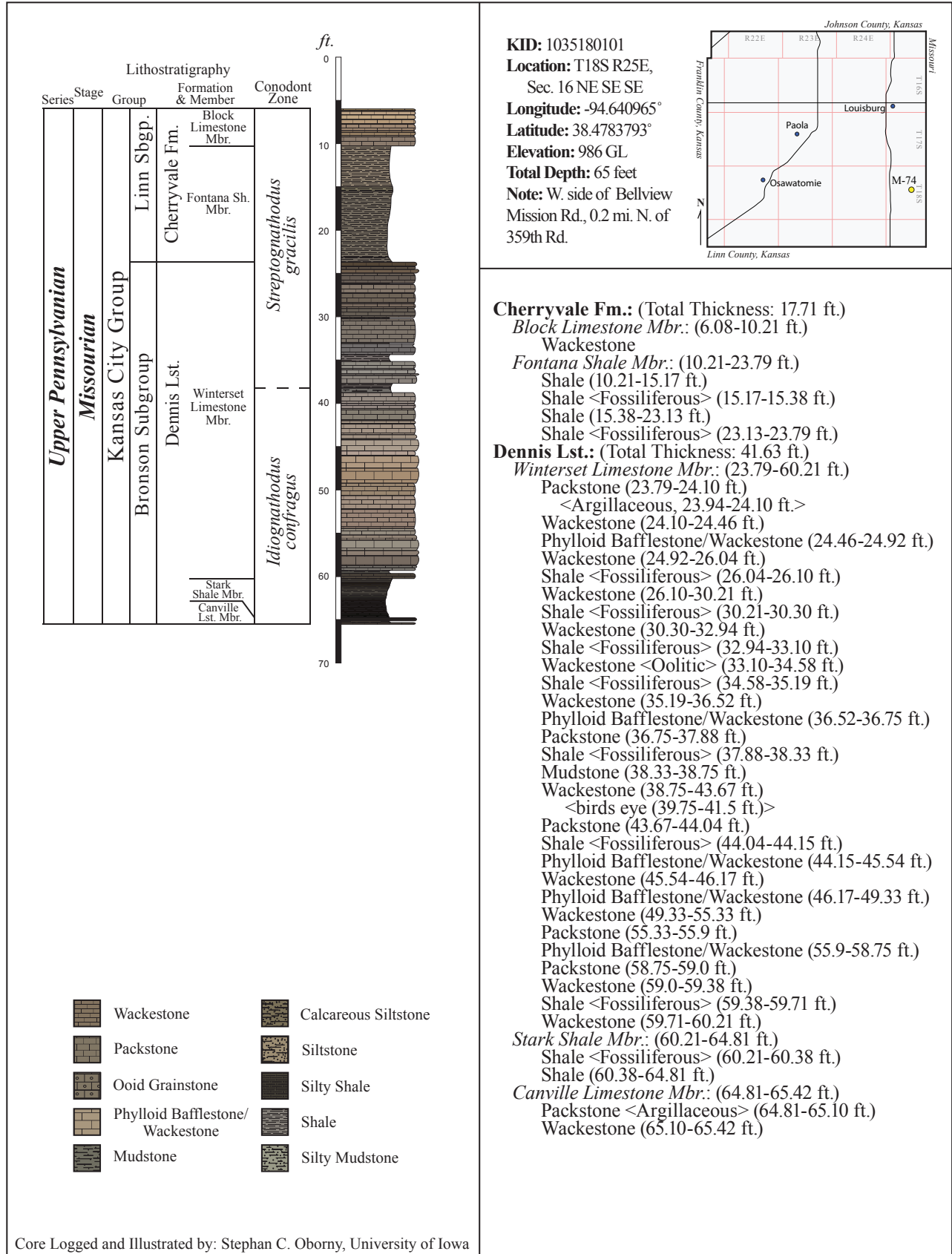


KID: 1035180100
Location: T19S R24E, Sec. 1 SE SW SE
Longitude: -94.7014965°
Latitude: 38.4190457°
Elevation: 973 GL
Total Depth: 69 feet
Note: N. side of 391st Rd., 0.3 mi W. of Jingo Rd.



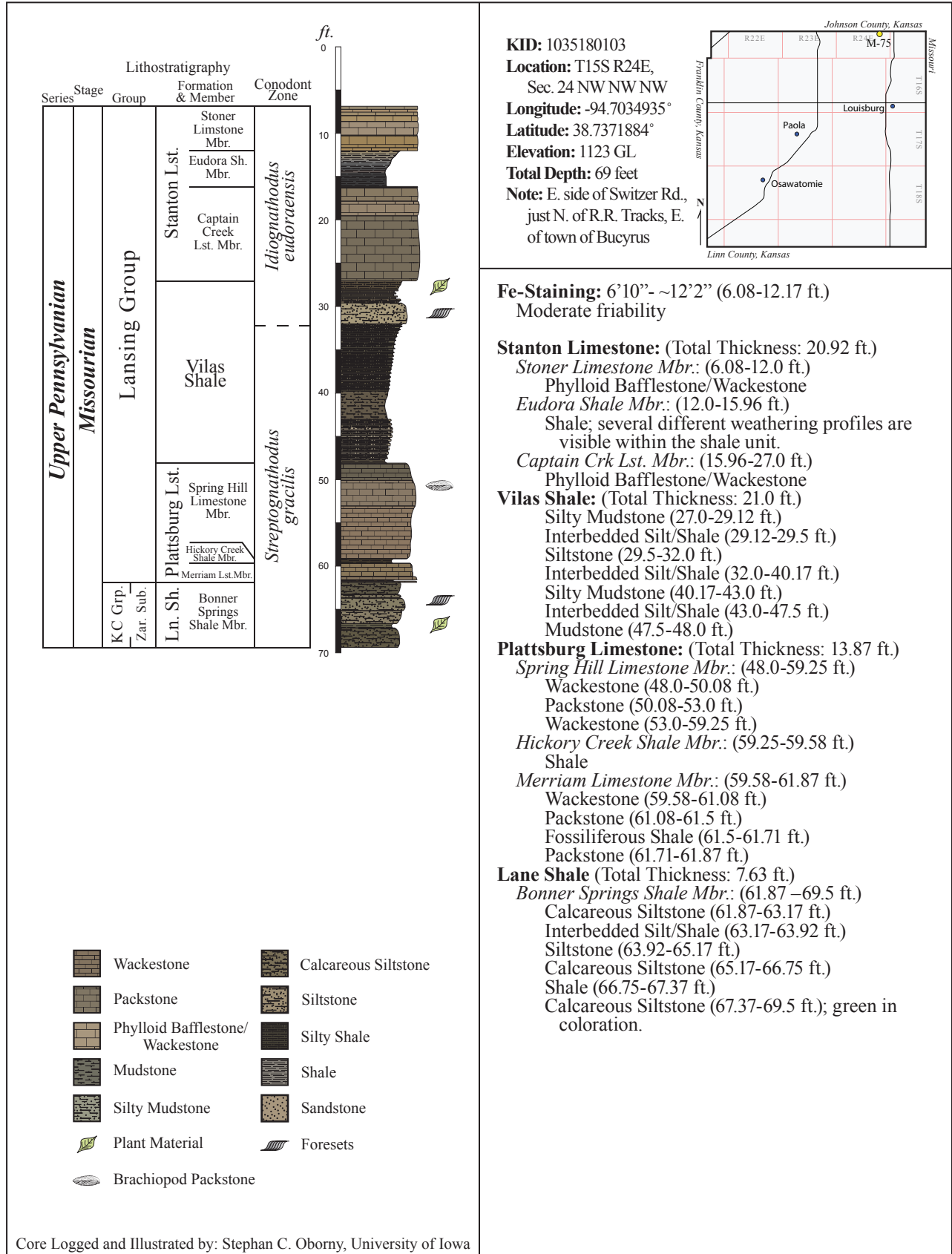
Dennis Lst.: (Total Thickness: 33.67 ft.)
Winterset Limestone Mbr.: (2.0-29.83 ft.)
 Wackestone (2.0-2.08 ft.)
 Shale <Fossiliferous> (2.08-2.21 ft.)
 Wackestone (2.21-3.35 ft.)
 <Argillaceous; 2.42-2.58 ft., 3.17-3.35 ft.>
 Phylloid Bafflestone/Wackestone (2.35-5.0 ft.)
 <Argillaceous; 3.65-3.75 ft., 4.10-4.35 ft., 4.63-4.75 ft., 4.90-5.0 ft.>
 Wackestone (5.0-5.65 ft.)
 Shale <Fossiliferous> (5.65-6.0 ft.)
 Wackestone (6.0-8.42 ft.)
 <Argillaceous; 6.67-6.73 ft.>
 Grainstone <oolitic> (8.42-8.92 ft.)
 Wackestone (8.92-17.42 ft.)
 <Argillaceous; 9.42-9.83 ft.)
 Phylloid Bafflestone/Wackestone (17.42-18.58)
 <oolitic>
 Wackestone (18.58-19.42 ft.) <oolitic>
 Phylloid Bafflestone/Wackestone (19.42-22.23 ft.)
 <oolitic; 20.38-21.33 ft., 22.08-22.17 ft.>
 Wackestone (22.23-23.54 ft.)
 Phylloid Bafflestone/Wackestone (23.54-24.13 ft.)
 Wackestone (24.13-26.38 ft.)
 Phylloid Bafflestone/Wackestone (26.38-28.04 ft.)
 Shale <Fossiliferous> (28.04-28.32 ft.)
 Wackestone (28.32-28.63 ft.)
 Shale <Fossiliferous> (28.63-28.71 ft.)
 Wackestone (28.71-29.83 ft.)
Stark Shale Mbr.: (29.83-35.19 ft.)
 Shale <Fossiliferous> (29.83-30.46 ft.)
 Shale (30.46-35.19 ft.)
Canville Limestone Mbr.: (35.19-35.67 ft.)
 Shale <Fossiliferous; Calcareous> (35.19-35.33 ft.)
 Shale <Fossiliferous> (35.33-35.67 ft.)
Galesburg Shale: (Total Thickness: 1.65 ft.)
 Mudstone <Greenish Coloration> (35.67-37.32 ft.)
Swope Limestone: (Total Thickness: 25.93 ft.)
Bethany Falls Limestone Mbr.: (37.32-56.83 ft.)
 Wackestone
 <Abundant Stylolitization throughout>
 <Oolitic, 39.83-42.1 ft.; Birds eye, 39.75-42.0 ft.)>
 <Argillaceous, 53.19-53.30 ft., 54.30-54.75 ft., 54.85-55.17 ft., 55.33-55.54 ft.>
Hushpuckney Shale Mbr.: (56.83-61.25 ft.)
 Shale <Black, Fissile> (56.83-61.19 ft.)
 Shale <Fossiliferous> (61.19-61.25 ft.)
Middle Creek Limestone Mbr.: (61.25-63.25 ft.)
 Wackestone
 <Argillaceous; 62.25-62.38 ft.>
Elm Branch Shale: (Total Thickness: 5.0 ft.)
 Shale <blocky>(63.25-65.58 ft.)
 Mudstone <Green Coloration> (65.58-66.88 ft.)
 Shale (66.88-68.25 ft.)

KDOT: M-74 Core, Miami County, NE Kansas

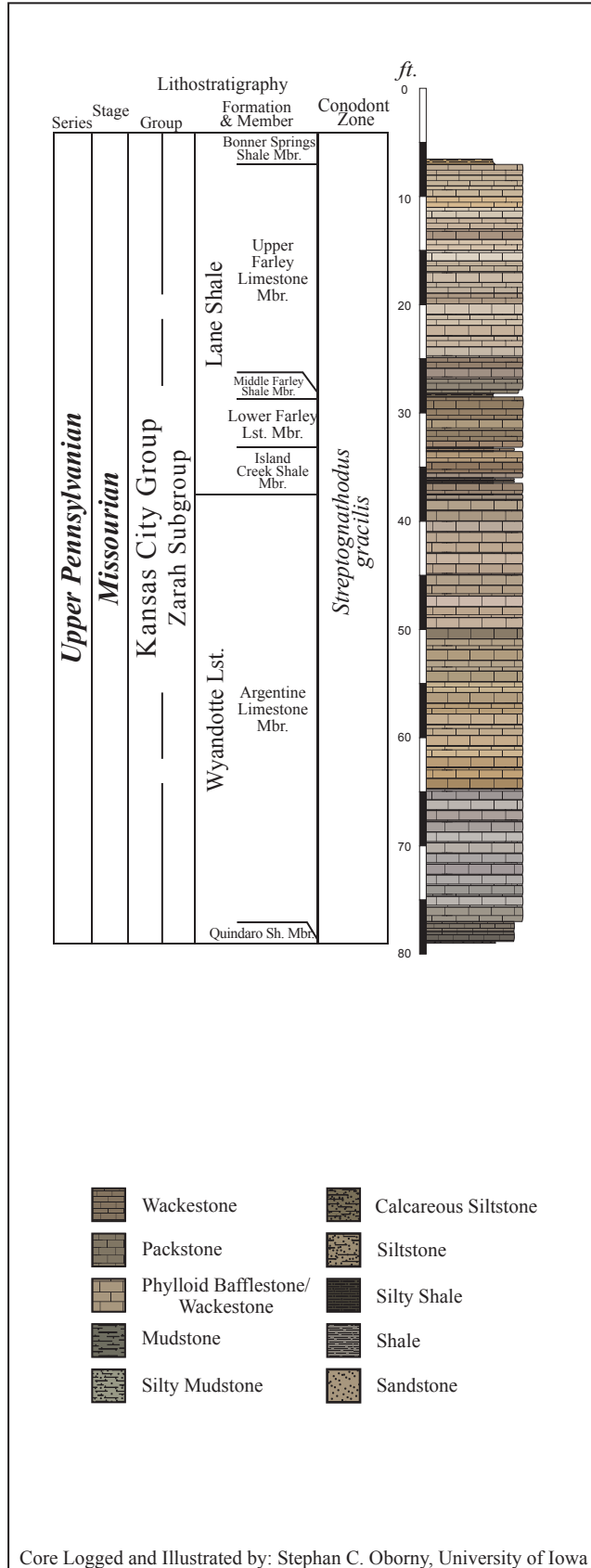


Core Logged and Illustrated by: Stephan C. Oborny, University of Iowa

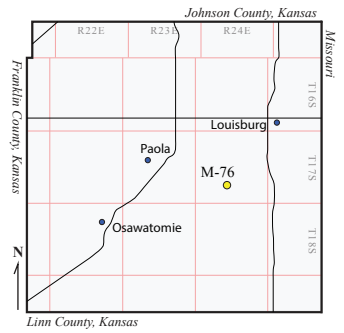
KDOT: M-75 Core, Miami County, NE Kansas



KDOT: M-76 Core, Miami County, NE Kansas

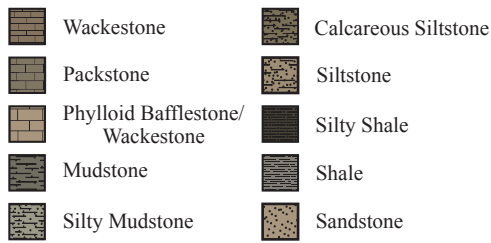


KID: 1035180104
Location: T17S R24E, Sec. 28 SW SW NE
Longitude: -94.7587194°
Latitude: 38.5426234°
Elevation: 1104 GL
Total Depth: 79 feet
Note: N. side of 323rd Rd. 0.4 mi W. of Beaver Creek Rd.



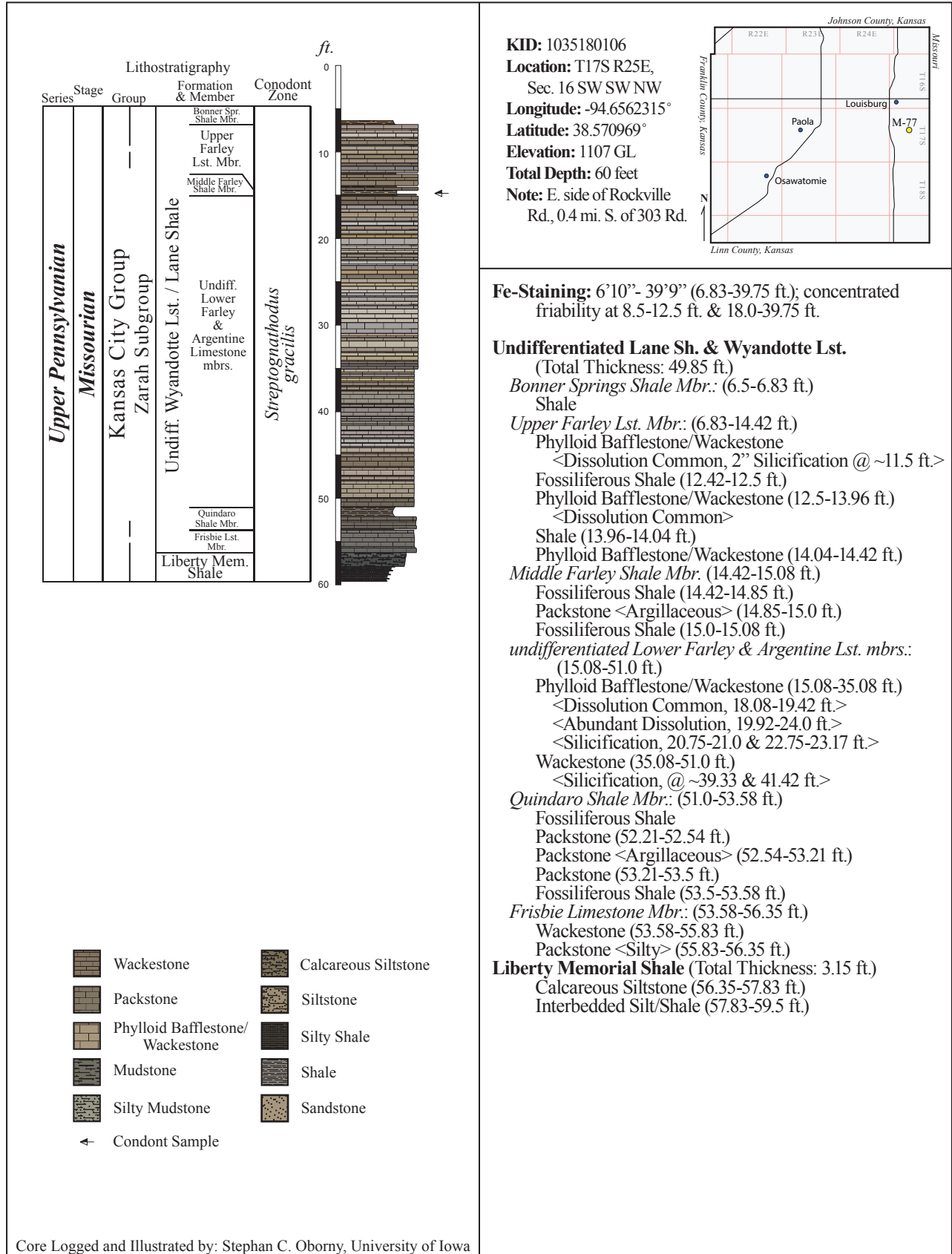
Fe-Staining: 6'8" - ~26'5" (6.67-26.42 ft.)

- Lane Shale** (Total Thickness: 30.87 ft.)
 - Bonner Springs Shale Mbr.: (6.67-33.17 ft.)
 - Upper Farley Limestone Mbr.: (7.08-27.92 ft.)
 - Phylloid Bafflestone/Wackestone (7.08-27.92 ft.)
 - Packstone (27.92-28.25 ft.)
 - Middle Farley Shale Mbr.: (28.25-28.42 ft.)
 - Shale <fossiliferous> (28.25-28.42 ft.)
 - Lower Farley Shale Mbr.: (28.42-33.17 ft.)
 - Phylloid Bafflestone/Wackestone (28.42-33.17 ft.)
 - Island Creek Shale Mbr.: (33.17-37.54 ft.)
 - Shale <fossiliferous> (33.17-33.25 ft.)
 - Wackestone (33.25-33.42 ft.)
 - Shale <fossiliferous> (33.42-33.54 ft.)
 - Phylloid Bafflestone/Wackestone (33.54-37.5 ft.)
 - Shale <fossiliferous> (37.5-37.54 ft.)
- Wyandotte Limestone** (Total Thickness: 41.46 ft.)
 - Argentine Limestone Mbr.: (37.54-78.92 ft.)
 - Phylloid Bafflestone/Wackestone (37.54-77.0 ft.)
 - Wackestone (77.0-78.92 ft.)
 - Osagia (78.0-78.5 ft.)
 - Quindaro Shale Mbr.: (78.92-79.0 ft.)
 - Calcareous Siltstone



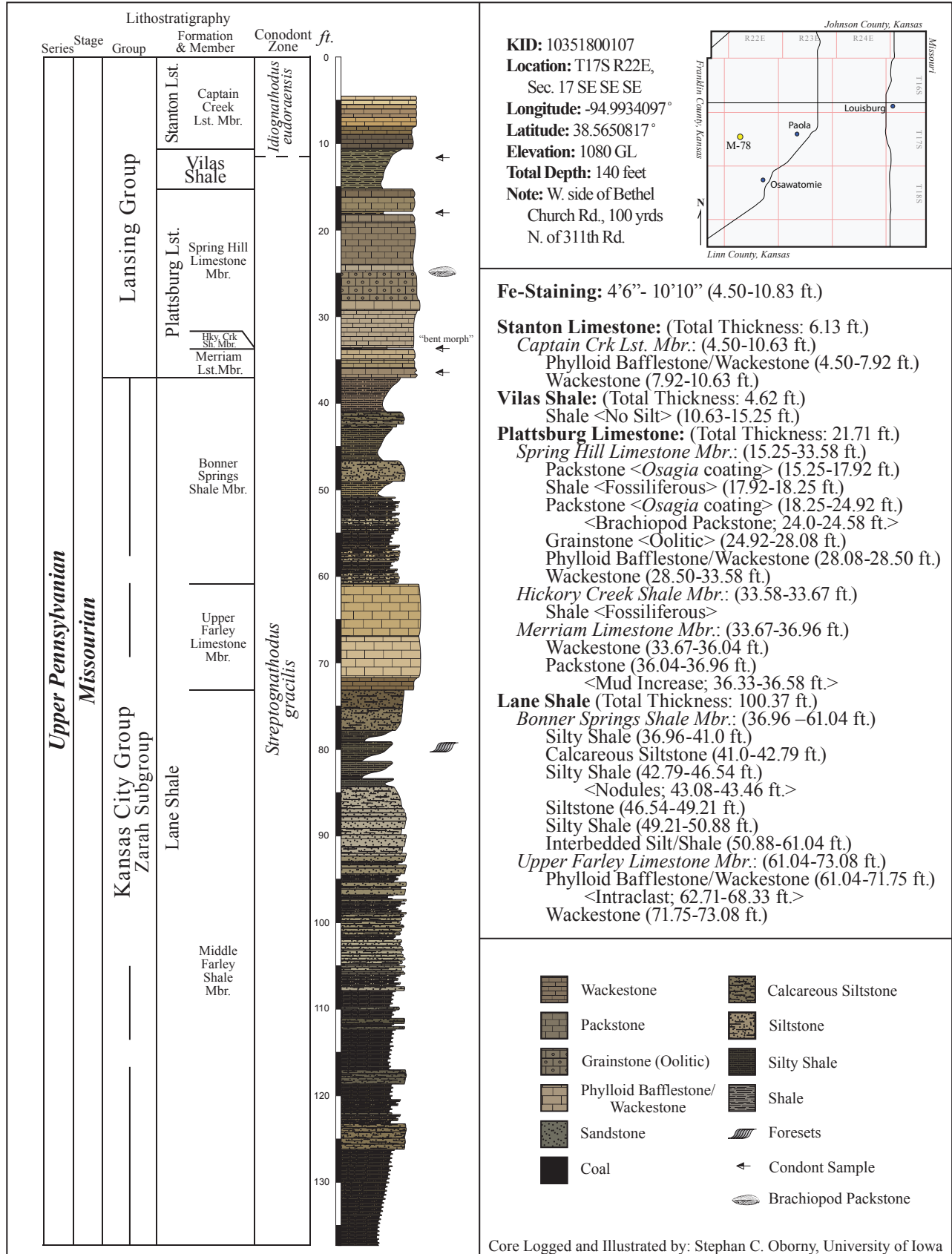
Core Logged and Illustrated by: Stephan C. Oborny, University of Iowa

KDOT: M-77 Core, Miami County, NE Kansas



Core Logged and Illustrated by: Stephan C. Oborny, University of Iowa

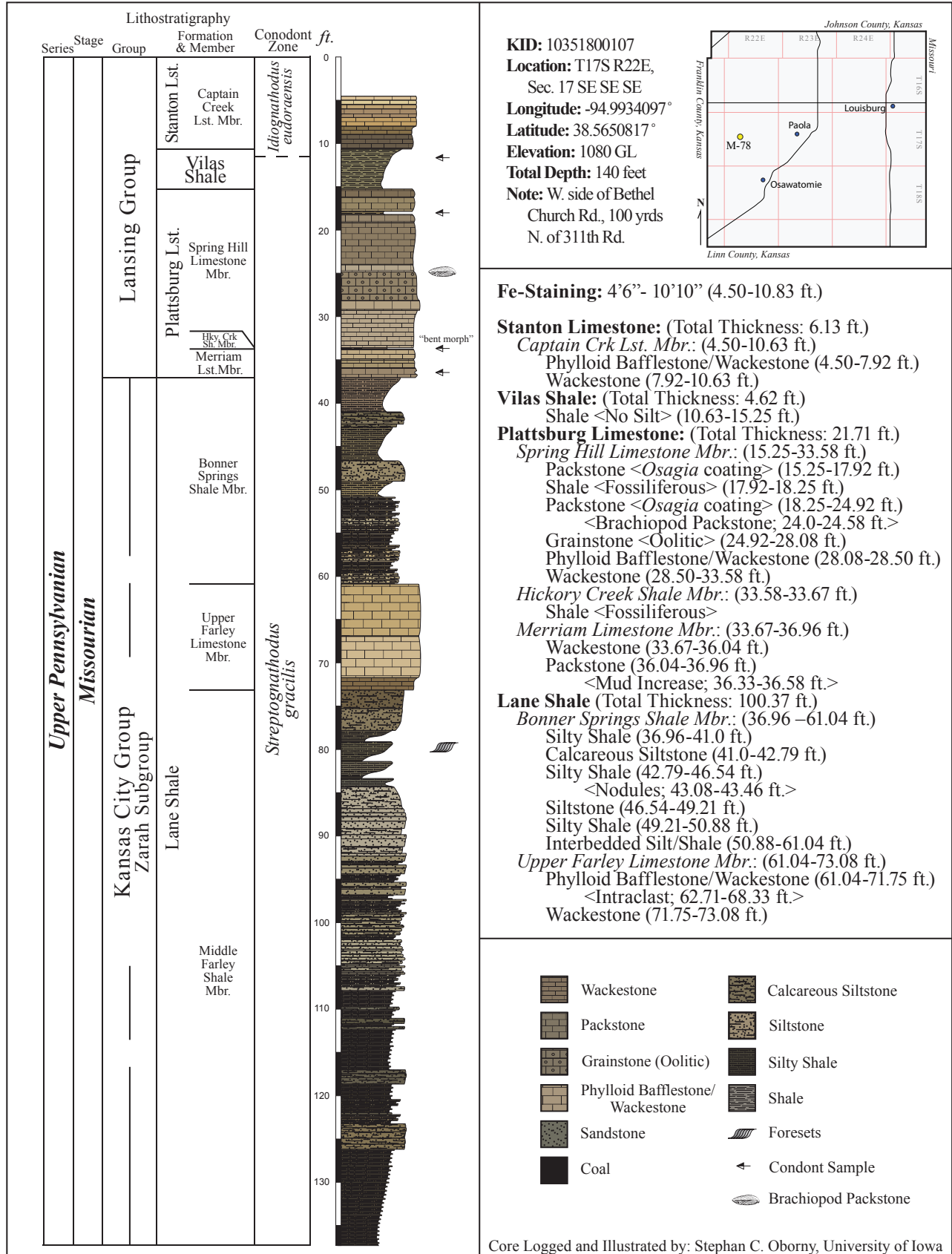
KDOT: M-78 Core, Miami County, NE Kansas



KDOT: M-78 Core, Miami County, NE Kansas

Middle Farley Shale Mbr.: (73.08 –137.33 ft.)
Siltstone (73.08-77.83 ft.)
Silty Shale (77.83-78.88 ft.)
Coal (78.88-79.08 ft.)
Silty Shale (79.08-81.34 ft.)
Coal <Most Developed Coal> (81.34-81.50 ft.)
Silty Shale (81.34-83.19 ft.)
Coal (83.19-83.33 ft.)
Silty Shale <Coaly> (83.33-84.33 ft.)
Calcareous Siltstone (84.33-86.58 ft.)
Sandstone <Fine> (86.58-89.30 ft.)
Calcareous Siltstone (89.30-89.88 ft.)
Sandstone <Fine> (89.88-91.33 ft.)
Calcareous Siltstone (91.33-92.0 ft.)
Interbedded Fine Sand/Shale (92.0-107.5 ft.)
Calcareous Siltstone (107.5-107.75 ft.)
Interbedded Silt/Shale (107.75-111.21 ft.)
Calcareous Siltstone (111.21-111.58 ft.)
Interbedded Silt/Shale (111.58-111.88 ft.)
Calcareous Siltstone (111.88-112.25 ft.)
Interbedded Silt/Shale (112.25-116.96 ft.)
Calcareous Siltstone (116.96-118.67 ft.)
Interbedded Silt/Shale (118.67-123.33 ft.)
Calcareous Siltstone (123.33-126.08 ft.)
Interbedded Silt/Shale (126.08-137.33 ft.)

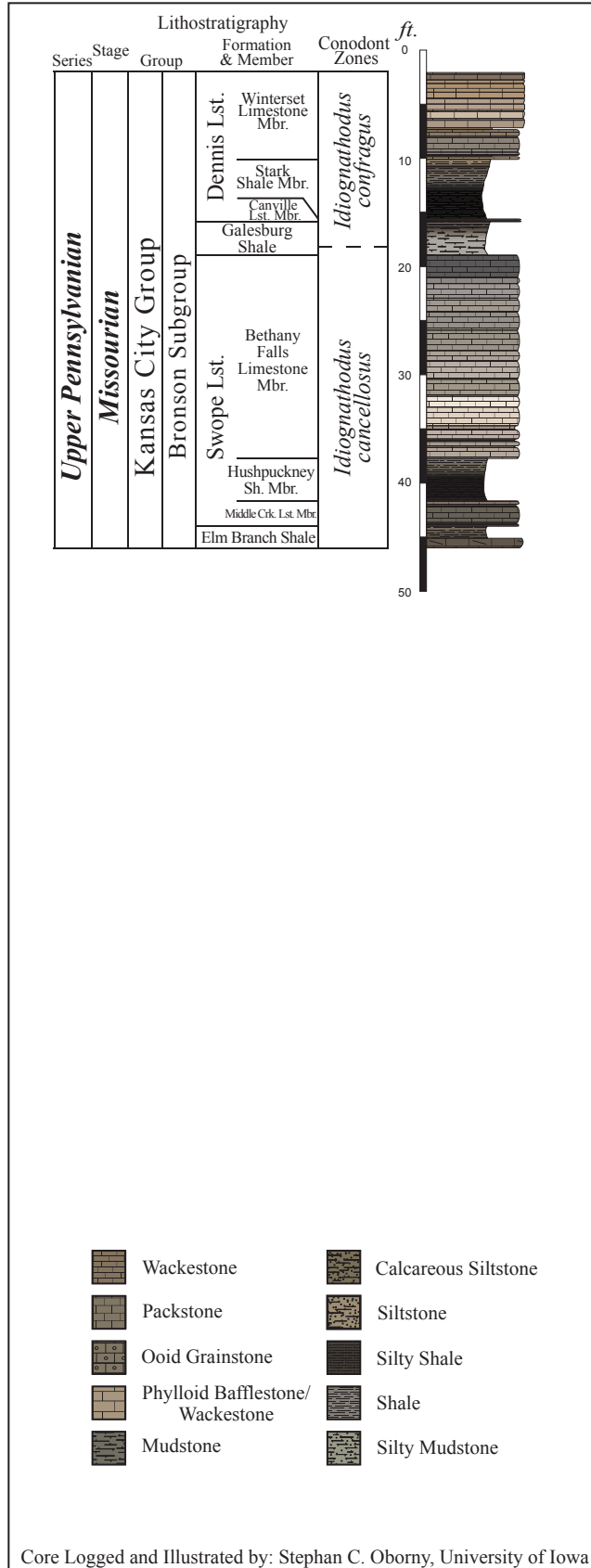
KDOT: M-78 Core, Miami County, NE Kansas



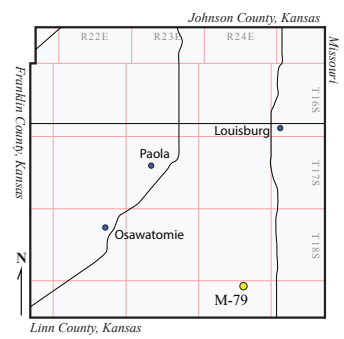
KDOT: M-78 Core, Miami County, NE Kansas

Middle Farley Shale Mbr.: (73.08 –137.33 ft.)
Siltstone (73.08-77.83 ft.)
Silty Shale (77.83-78.88 ft.)
Coal (78.88-79.08 ft.)
Silty Shale (79.08-81.34 ft.)
Coal <Most Developed Coal> (81.34-81.50 ft.)
Silty Shale (81.34-83.19 ft.)
Coal (83.19-83.33 ft.)
Silty Shale <Coaly> (83.33-84.33 ft.)
Calcareous Siltstone (84.33-86.58 ft.)
Sandstone <Fine> (86.58-89.30 ft.)
Calcareous Siltstone (89.30-89.88 ft.)
Sandstone <Fine> (89.88-91.33 ft.)
Calcareous Siltstone (91.33-92.0 ft.)
Interbedded Fine Sand/Shale (92.0-107.5 ft.)
Calcareous Siltstone (107.5-107.75 ft.)
Interbedded Silt/Shale (107.75-111.21 ft.)
Calcareous Siltstone (111.21-111.58 ft.)
Interbedded Silt/Shale (111.58-111.88 ft.)
Calcareous Siltstone (111.88-112.25 ft.)
Interbedded Silt/Shale (112.25-116.96 ft.)
Calcareous Siltstone (116.96-118.67 ft.)
Interbedded Silt/Shale (118.67-123.33 ft.)
Calcareous Siltstone (123.33-126.08 ft.)
Interbedded Silt/Shale (126.08-137.33 ft.)

KDOT: M-79 Core, Miami County, NE Kansas

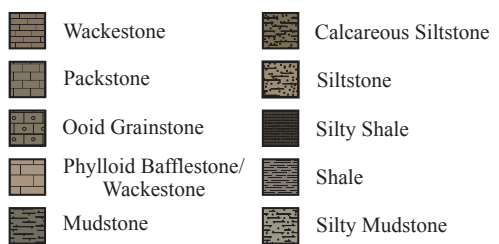


KID: 1035180108
Location: T19S R24E,
 Sec. 3 NW NE SE
Longitude: -94.7362138°
Latitude: 38.4245023°
Elevation: 963 GL
Total Depth: 50 feet
Note: S. side of 387th Rd.,
 0.2 mi W. of New
 Lancaster Rd.



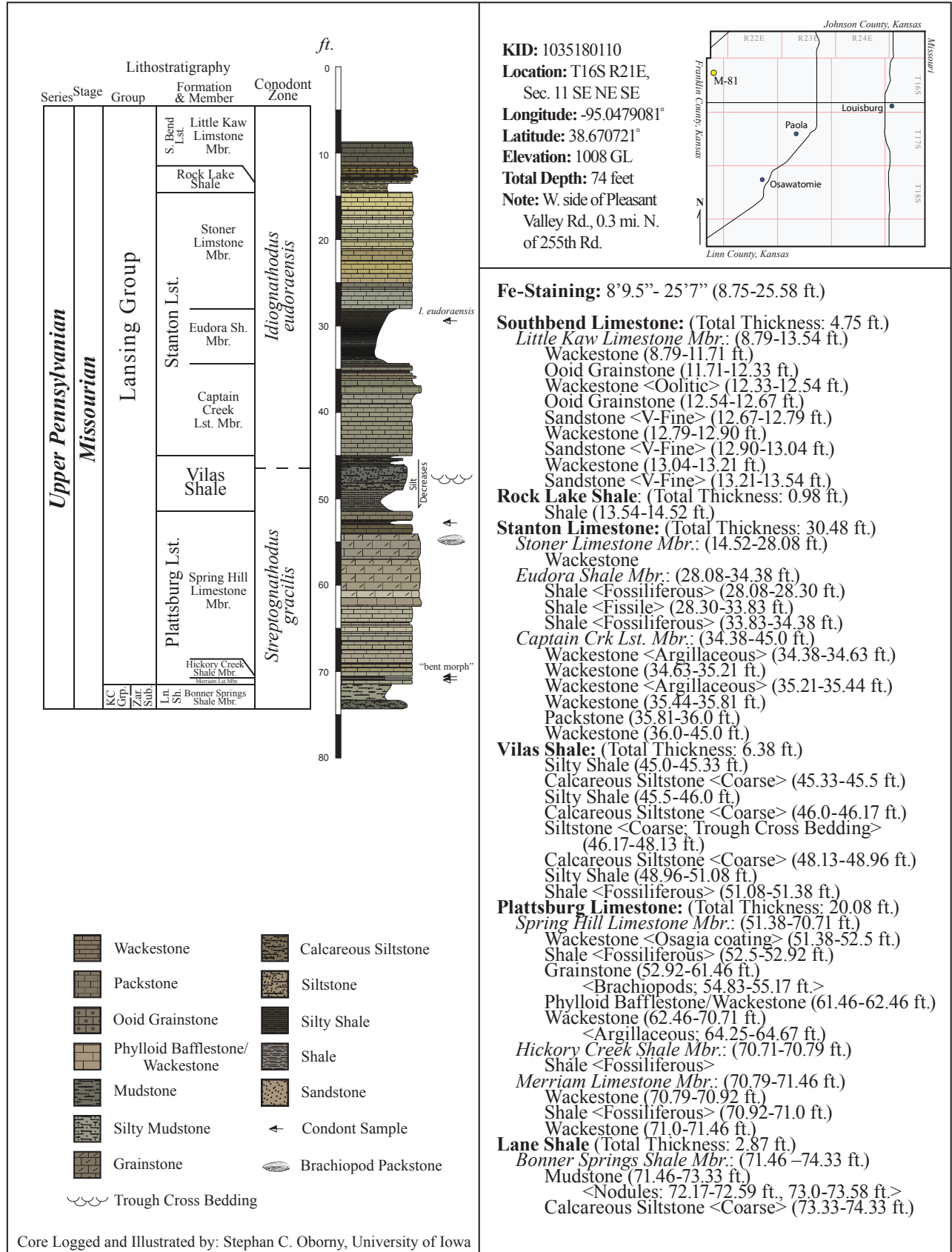
Fe-Staining: 2'2"-10'7.75" ft (2.17-10.65 ft.)

- Dennis Lst.:** (Total Thickness: 13.73 ft.)
 - Winterset Limestone Mbr.:* (2.17-10.13 ft.)
 - Phylloid Bafflestone/Wackestone (2.17-7.30 ft.)
 - Shale <Fossiliferous> (7.30-7.38 ft.)
 - Wackestone (7.38-9.75 ft.)
 - <Argillaceous; 7.38-7.44 ft.>
 - Shale <Fossiliferous> (9.75-9.83 ft.)
 - Wackestone (9.83-10.13 ft.)
 - Stark Shale Mbr.:* (10.13-15.58 ft.)
 - Shale <Fossiliferous> (10.13-10.81 ft.)
 - Shale (10.81-15.58 ft.)
 - Canville Limestone Mbr.:* (15.58-15.90 ft.)
 - Packstone <Argillaceous> (15.58-15.71 ft.)
 - Shale <Fossiliferous> (15.71-15.83 ft.)
 - Packstone <Argillaceous> (15.83-15.90 ft.)
- Galesburg Shale:** (Total Thickness: 3.04 ft.)
 - Shale <Fossiliferous> (15.90-16.15 ft.)
 - Shale (16.15-16.40 ft.)
 - Mudstone (16.40-18.94 ft.)
- Swope Limestone:** (Total Thickness: 25.04 ft.)
 - Bethany Falls Limestone Mbr.:* (18.94-37.73 ft.)
 - Wackestone <Oolitic> (18.94-23.25 ft.)
 - Wackestone <Calcilutite> (23.25-24.79 ft.)
 - <Abundant Stylolitization>
 - Wackestone (24.79-37.73 ft.)
 - <Argillaceous; 34.88-35.04 ft, 35.94-36.21 ft., 36.54-36.88 ft.>
 - <Abundant Stylolitization; 34.08-48.42 ft.>
 - Hushpuckney Shale Mbr.:* (37.73-41.68 ft.)
 - Shale <Black, Fissile> (37.73-41.42 ft.)
 - Shale <Fossiliferous> (41.42-41.69 ft.)
 - Middle Creek Limestone Mbr.:* (41.69-43.98 ft.)
 - Wackestone
 - <Argillaceous; 41.92-42.15 ft., 43.67-43.88 ft.>
- Elm Branch Shale:** (Total Thickness: 2.02 ft.)
 - Shale <vf fossils>(43.98-45.13 ft.)
 - Grainstone (45.13-46.0 ft.)

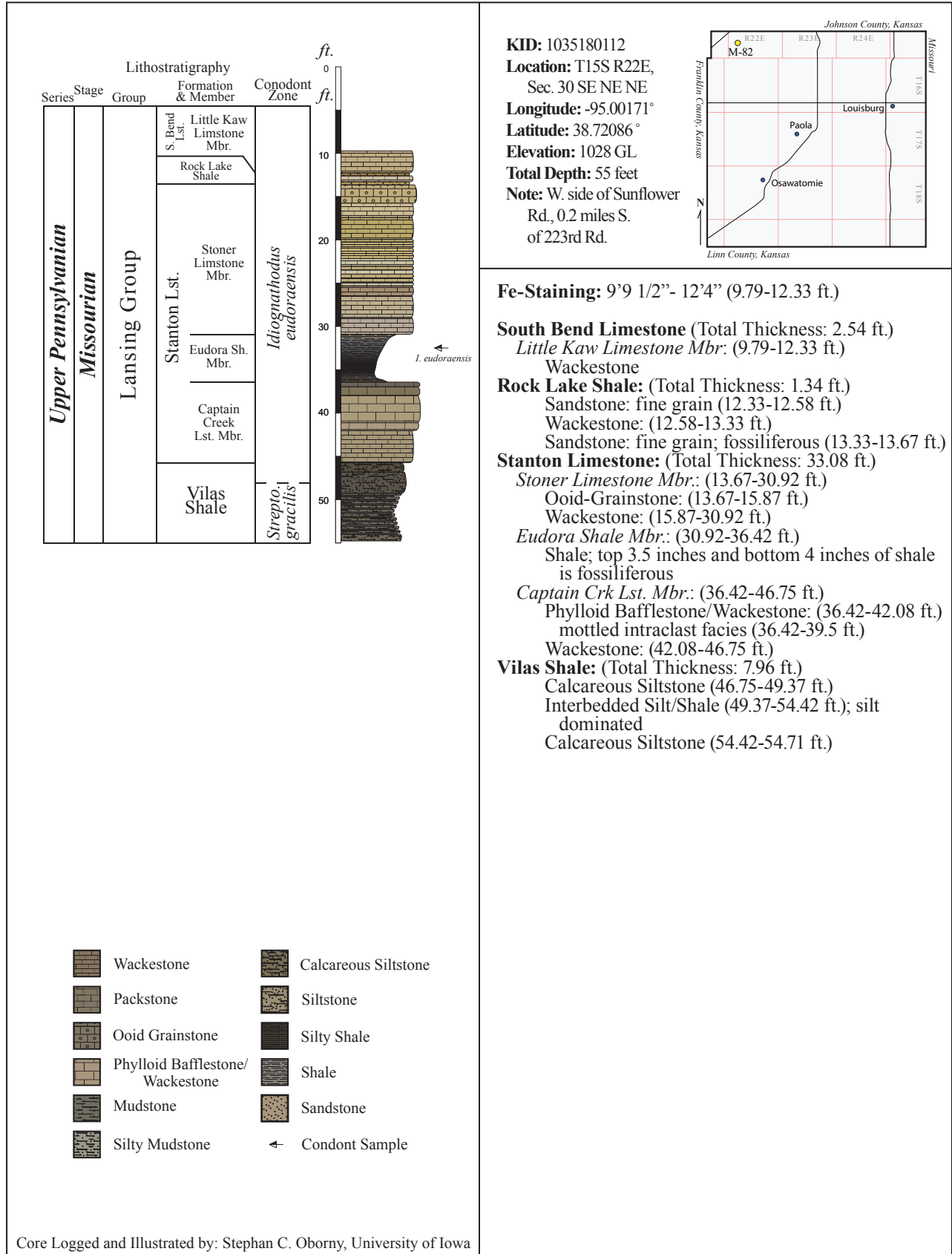


Core Logged and Illustrated by: Stephan C. Oborny, University of Iowa

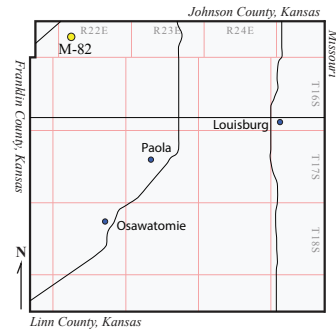
KDOT: M-81 Core, Miami County, NE Kansas



KDOT: M-82 Core, Miami County, NE Kansas



KID: 1035180112
Location: T15S R22E,
 Sec. 30 SE NE NE
Longitude: -95.00171°
Latitude: 38.72086°
Elevation: 1028 GL
Total Depth: 55 feet
Note: W. side of Sunflower
 Rd., 0.2 miles S.
 of 223rd Rd.



Fe-Staining: 9'9 1/2" - 12'4" (9.79-12.33 ft.)

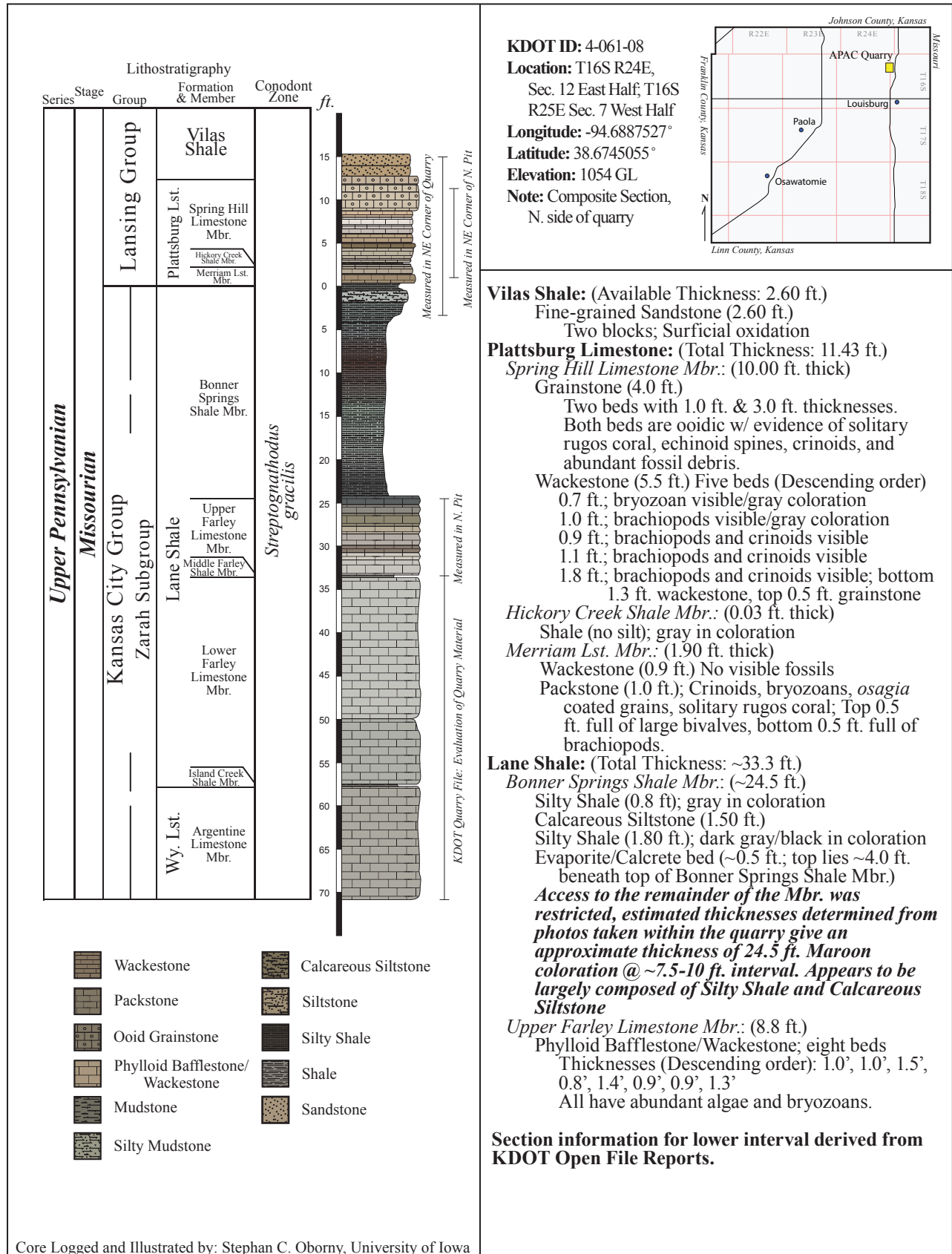
South Bend Limestone (Total Thickness: 2.54 ft.)
Little Kaw Limestone Mbr.: (9.79-12.33 ft.)
 Wackestone

Rock Lake Shale: (Total Thickness: 1.34 ft.)
 Sandstone: fine grain (12.33-12.58 ft.)
 Wackestone: (12.58-13.33 ft.)
 Sandstone: fine grain; fossiliferous (13.33-13.67 ft.)

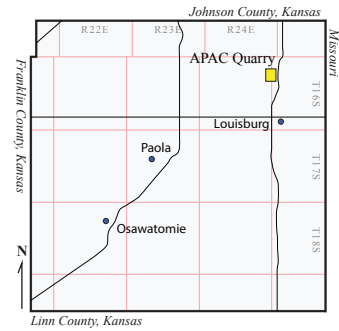
Stanton Limestone: (Total Thickness: 33.08 ft.)
Stoner Limestone Mbr.: (13.67-30.92 ft.)
 Ooid-Grainstone: (13.67-15.87 ft.)
 Wackestone: (15.87-30.92 ft.)
Eudora Shale Mbr.: (30.92-36.42 ft.)
 Shale; top 3.5 inches and bottom 4 inches of shale is fossiliferous
Captain Crk Lst. Mbr.: (36.42-46.75 ft.)
 Phylloid Bafflestone/Wackestone: (36.42-42.08 ft.)
 mottled intraclast facies (36.42-39.5 ft.)
 Wackestone: (42.08-46.75 ft.)

Vilas Shale: (Total Thickness: 7.96 ft.)
 Calcareous Siltstone (46.75-49.37 ft.)
 Interbedded Silt/Shale (49.37-54.42 ft.); silt dominated
 Calcareous Siltstone (54.42-54.71 ft.)

APAC: Louisburg Quarry, Composite Section, Miami County, NE Kansas



KDOT ID: 4-061-08
Location: T16S R24E, Sec. 12 East Half, T16S R25E Sec. 7 West Half
Longitude: -94.6887527°
Latitude: 38.6745055°
Elevation: 1054 GL
Note: Composite Section, N. side of quarry



Vilas Shale: (Available Thickness: 2.60 ft.)
 Fine-grained Sandstone (2.60 ft.)
 Two blocks; Surficial oxidation

Plattsburg Limestone: (Total Thickness: 11.43 ft.)
Spring Hill Limestone Mbr.: (10.00 ft. thick)
 Grainstone (4.0 ft.)
 Two beds with 1.0 ft. & 3.0 ft. thicknesses. Both beds are ooidic w/ evidence of solitary rugos coral, echinoid spines, crinoids, and abundant fossil debris.
Wackestone (5.5 ft.) Five beds (Descending order)
 0.7 ft.; bryozoan visible/gray coloration
 1.0 ft.; brachiopods visible/gray coloration
 0.9 ft.; brachiopods and crinoids visible
 1.1 ft.; brachiopods and crinoids visible
 1.8 ft.; brachiopods and crinoids visible; bottom 1.3 ft. wackestone, top 0.5 ft. grainstone

Hickory Creek Shale Mbr.: (0.03 ft. thick)
 Shale (no silt); gray in coloration

Merriam Lst. Mbr.: (1.90 ft. thick)
 Wackestone (0.9 ft.) No visible fossils
 Packstone (1.0 ft.); Crinoids, bryozoans, *osagia* coated grains, solitary rugos coral; Top 0.5 ft. full of large bivalves, bottom 0.5 ft. full of brachiopods.

Lane Shale: (Total Thickness: ~33.3 ft.)
Bonner Springs Shale Mbr.: (~24.5 ft.)
 Silty Shale (0.8 ft); gray in coloration
 Calcareous Siltstone (1.50 ft.)
 Silty Shale (1.80 ft.); dark gray/black in coloration
 Evaporite/Calcrete bed (~0.5 ft.; top lies ~4.0 ft. beneath top of Bonner Springs Shale Mbr.)
Access to the remainder of the Mbr. was restricted, estimated thicknesses determined from photos taken within the quarry give an approximate thickness of 24.5 ft. Maroon coloration @ ~7.5-10 ft. interval. Appears to be largely composed of Silty Shale and Calcareous Siltstone

Upper Farley Limestone Mbr.: (8.8 ft.)
 Phylloid Bafflestone/Wackestone; eight beds
 Thicknesses (Descending order): 1.0', 1.0', 1.5', 0.8', 1.4', 0.9', 0.9', 1.3'
 All have abundant algae and bryozoans.

Section information for lower interval derived from KDOT Open File Reports.

RWD2 Core, Miami County, NE Kansas

