

Key section B. Composite of sections exposed at localities 12, 16, 17, and 27 along Smoky Hill River valley T: 15S R: 20W S: 21
 Latitude: 38.732861 Longitude: -99.550881 Elevation (GL): 2160.0 Depth: 292.0

Depth	Stratigraphic Units					Lithology		Fossils	Remarks
	Members	Formations	Subgroup	Group	System	Color	Rock Column		
0	Codell Sandstone	Carlile Shale							64. Sandstone argillaceous 63. Sandstone calcareous light olive gray (5Y6/1) weathers
	Blue Hills Shale								62. Shale arenaceous and sandstone argillaceous shale dark gray weathers medium gray blocky to fissile weathers blocky to flaky streaks and patches of light-olive-gray (5Y6/1) very fine grained 61. Shale clayey finely arenaceous dark gray weathers medium gray blocky to fissile weathers mostly blocky or flaky unit moderately silty at base becoming sandy upward mottled by laminae and minute lentils of very fine terrigenous sand unit very selenitic toward base stained throughout by ferruginous matter 0.3 foot hard sandstone calcareous light olive gray (5Y6/1) weathers dark yellowish orange containing worm? or gastropod? trails lies 3 feet above base
20									60. Concretions calcareous septarian matrix olive gray (5F4/1) weathers grayish orange to light gray lowest concretions weather conspicuous 59. Shale clayey dark gray weathers medium gray blocky to fissile weathers flaky slightly 58. Concretions calcareous 57. Shale clayey dark gray weathers medium gray blocky to fissile weathers flaky layer of widely scattered calcareous septarian concretions lies 7.6 feet above base 18.1
40									56. Concretions calcareous septarian matrix olive gray (5F4/1) weathers grayish orange to light gray lowest concretions weather conspicuous 55. Shale clayey dark gray weathers medium gray blocky to fissile weathers flaky very slightly silty throughout 54. Concretions calcareous septarian matrix olive gray 53. Shale clayey dark gray weathers medium gray blocky to fissile weathers flaky very slightly silty FOSSILS Inoceramus sp. 21.4
60									52. Concretions calcareous septarian matrix olive gray (5F4/1) weathers yellowish orange to dark yellowish orange septa grayish brown weather moderate yellowish brown 51. Shale clayey dark gray weathers medium gray blocky to fissile weathers flaky very slightly silty abundant small selenite crystals stained throughout by yellowish-gray and dark yellowish-orange ferruginous matter thin layer of very fine grained sandstone dusky red to dark yellowish orange lies 5.5 feet below top 37.2
80									50. small exposure 8 feet from top is clayey shale like that in unit 51 dark gray weathers medium gray blocky to fissile weathers flaky very slightly silty Covered FOSSILS Collignoniceras sp. telost scales and vertebrae 15.3
100									49. Shale clayey dark gray 48. Shale chalky to calcareous olive gray (5Y4/1) weathers medium gray fissile blocky and harder in lower 2 feet sparsely speckled in lower part grading upward to nonspeckled and only 47. Chalk marly silty olive
120									45. Bentonite nearly white
140									43. Bentonite yellowish gray
160									41. Chalk marly silty olive 39. Bentonite nearly white 37. Chalk marly silty olive
180	Fairport Chalk								35. Chalk marly silty olive 33. Chalk marly silty olive
200									31. Chalk marly silty olive
220									29. Chalk marly silty olive 24. Chalk marly silty olive 22. Chalk marly silty olive
240									20. Bentonite dark yellowish 18. Bentonite dark yellowish
260									14. Limestone chalky silty all 12. Limestone chalky all 10. Limestone chalky all
280									8. Bentonite pale yellowish 5. Shale chalky and chalk shaly all partly to deeply weathered very pale orange to dark yellowish orange or nearly white soft but tough evenly 1. Bentonite nearly white partly deeply weathered yellowish gray (5Y6/1) to very pale orange

Primary Rock Lithology

- Shale
- Sand, Sandstone
- Marly, marl
- Bentonite, Bentonitic
- Limestone
- Chalk
- Gypsum

Secondary Rock Lithology

- Clayey, Argillaceous, clay
- Shaly, shale
- Silty, Silt
- Sandy, sand
- Marly, marl
- Carbonaceous, Carbonized
- Pyritic, pyrite
- fossiliferous
- Chalky
- Calcareous
- Gypsiferous, gypsum

Fossils

- Fresh Water (Fresh Water)
- Brackish Water (Brackish Water)
- Marine (Marine)
- (F) Few
- (M) Many
- (B) Broken
- Macrofossils
- Annelids
- Crustaceans
- Ammonoids
- Gastropods
- Pelecypods
- Fish
- Wood

Sedimentary Structure Symbols

Depositional Structures

- Lamination
- Parallel Laminations
- Stratification
- Horizontal bedding
- Normal grading/fining upward

Deformational Structures

- Nodules
- Nodules - Carbonates
- Nodules - Pyrite, Ironstone
- Concretions, nodules, geodes in general
- Calcareous concretions