

Between the *stratum* last mentioned (*supra*) and the next mentioned, there are a few inches of bituminous limestones and shales which connect them without break, and the section is thus continued in descending order:

Dark, impure, bituminous limestone band, holding <i>Leptæna sericea</i> , Sowerby; and other fossil remains.	Bituminous limestone, 9 inches.
Soft, friable, purplish black, disintegrating, fossiliferous shales—very characteristic in its mode of occurrence and distributed in other portions of Ottawa City and elsewhere—holding abundance of white weathering fossil remains, amongst which were recognized: <i>Orthis testudinaria</i> , Dalman; <i>Leptæna sericea</i> , Sowerby, and <i>Asaphus Canadensis</i> , Chapman.	Soft, friable shale, 8 inches.
Band of unevenly bedded, impure, bituminous limestone with <i>Asaphus Canadensis</i> and <i>Orthis testudinaria</i> .	unevenly bedded limestone, 7 inches.
Soft, friable shales, holding abundance of fossils; very similar to and evidently deposited under exactly similar conditions as the one-and-a-half inch band below: <i>Leptæna sericea</i> , Sowerby, and varieties with elongate-mucronate lateral extremities, also <i>Orthis testudinaria</i> , Dalman, are present in large numbers.	Soft, friable shales, 2½ inches.
Band of light-gray, impure limestone, bituminous, and holding: <i>Orthis testudinaria</i> , Dalman; <i>Leptæna sericea</i> , Sowerby; <i>Conularia Trentonensis</i> .	Bituminous limestone, 4 inches.
Thin, irregular and unevenly bedded, soft, friable, earthy shales, disintegrating rapidly, when exposed, and teeming with fossil remains. These fossils often appear on the unearthened surfaces white in colour on the brownish-gray shales. <i>Orthis testudinaria</i> , Dalman, and <i>Leptæna sericea</i> , Sowerby, seem to be the two forms most prevalent, and are often so preserved as to show characteristic internal and external markings.	Soft, earthy shales, 1½ inches.
Black, bituminous, impure limestone band, with <i>Leptæna sericea</i> , Sowerby; <i>Orthis emucrata</i> , Meek, and <i>Asaphus Canadensis</i> , Chapman.	Bituminous limestone, 8 inches.
Black and bituminous shales, holding abundance of organic remains, especially those of the characteristic <i>Asaphus Canadensis</i> , Chapman, of which the numbers present are exceedingly great.	Bituminous shales, 14 inches.
Band of impure, highly bituminous limestone, yielding a strong odour of petroleum, when struck with a hammer; black in colour, with irregular, sharp, splintery and conchoidal fractures, in which occur the remains of <i>Asaphus Canadensis</i> , Chapman; <i>Strophomena alternata</i> , Conrad, &c.	Impure, bituminous limestone, 11 inches.
Black, bituminous and somewhat splintery brittle shales, holding the following fossils: <i>Leptograptus flaccidus</i> , Hall; (?) <i>Sagenella ambigua</i> , Walcott; <i>Leptobolus insignis</i> , Hall; <i>Schizocrania filosa</i> , Hall; <i>Leptæna sericea</i> , Sowerby; <i>Conularia Trentonensis</i> , Hall; <i>Eudoceras Proteiforme</i> , var <i>tenuistriatum</i> , Hall; <i>Asaphus Canadensis</i> , Chapman; <i>Leperditia</i> , sp. allied to <i>L. cylindrica</i> , Hall.	Bituminous shales, 7 inches.

These sections taken together give a total thickness of *fourteen feet ten inches*, so far as examined in 'Rideau,' which, with the fair