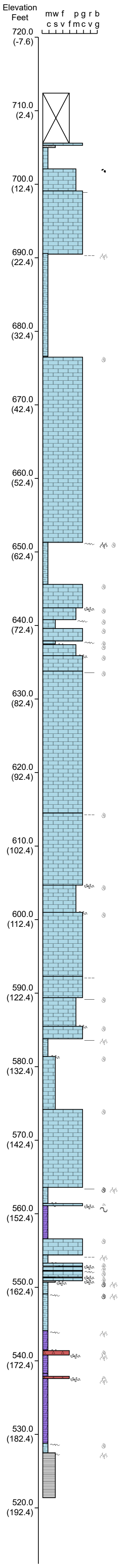
ID Number:	165157	Date:	7/30/2007
Site Name:	SDH408 (Guthrie Quarry)	By:	Todd A. Thompson and Brian D. Keith
Location:	NE¼NW¼NW¼ sec. 6, T. 6 N., R. 1 W. UTMX: 540472.70, UTMY: 4314270.00, Zone: 16	Notes:	Oolitic quadrangle, Lawrence County Core collected on north side of quarry along edge of field accessed by dirt road.
Elevation:	712.4000 Feet		



(0) Not recovered

(6.8) BLUE RIVER GROUP, St. Louis Limestone
Horizontal-bedded grainstone; very fine grained; unknown grains; dark-gray to dark-brownish-gray

(7.1) Massive mudstone; tan

(7.4) Horizontal-bedded lime mudstone; medium-brownish-gray

(10.3) Peloidal horizontal-bedded packstone, sharp basal contact; black pellets; light- to medium-gray

(13.3) Salem Limestone
Massive grainstone, gradational basal contact; very fine grained; unknown grain types; argillaceous at 18.5-19.65 ft to base; tannish-brown

(21.85) Bioturbated horizontal-bedded argillaceous limestone, gradational basal contact; miscellaneous bioturbation types; crinoids and brachiopods in lower 1 ft of unit; dark-gray to greenish-brown

(35.9) Fossiliferous horizontal-bedded and cross-bedded grainstone, irregular basal contact; bryozoans and coated grains; buff

(61.1) Bioturbated and fossiliferous horizontal-bedded argillaceous limestone, gradational basal contact; fenestrate bryozoans with minor small crinoid debris; organic-rich; medium-brown

(66.8) Fossiliferous massive grainstone, stylolitic basal contact; crinoids, brachiopods, and bryozoans; medium-brownish-gray

(70.05) Fossiliferous horizontal-bedded packstone, irregular basal contact; brachiopods and bryozoans; medium-brownish-gray

(71.6) Fossiliferous interbedded or interlaminated wackestone and packstone; crinoids, brachiopods, and minor amounts of fenestrate bryozoans; medium-brownish-tan

(72.85) Fossiliferous horizontal-bedded grainstone, irregular basal contact; bryozoans, gastropods, crinoids, and brachiopods; medium-brownish-tan

(74.55) Fossiliferous massive wackestone, stylolitic basal contact; brachiopods and possibly bryozoans; tan

(75) Fossiliferous massive packstone, stylolitic basal contact; brachiopods and bryozoans; light-tannish-gray

(76.5) Fossiliferous massive grainstone, sharp basal contact; bryozoans, brachiopods, and crinoids; medium-tannish-gray

(78.6) Fossiliferous cross-bedded and massive grainstone, gradational basal contact; crinoids, bryozoans and gastropods; unit coarsens and becomes more crinoidal-rich upward; medium-gray to light-tannish-gray

(97.9) Harrodsburg Limestone
Fossiliferous horizontal-bedded grainstone, stylolitic basal contact; fenestrate bryozoans with small amount of crinoids; thick stylolite with organics and clay at base of unit; medium gray

(107.7) Fossiliferous horizontal-bedded packstone and grainstone, stylolitic basal contact; variable grain size from very fine grained to coarse-grained; primarily bryozoan-rich with coarse crinoidal horizons; several stylolites; medium-greenish-gray

(111.4) Fossiliferous horizontal-bedded and massive grainstone, gradational basal contact; very coarse grained; crinoids, brachiopods, bryozoans, and glauconite pellets; light-gray to light-tannish-gray

(120.1) Massive grainstone, sharp basal contact; very fine grained fossil debris mostly of fenestrate bryozoans and thin-walled brachiopods; light-tannish-gray

(123) Fossiliferous massive packstone, stylolitic basal contact; brachiopods; crinoids, and bryozoans; light- to medium-tannish-gray

(126.9) Fossiliferous horizontal-bedded grainstone, sharp basal contact; crinoids, ground-up bryozoans, and brachiopods; medium gray

(128.6) Bioturbated horizontal-bedded argillaceous limestone, stylolitic basal contact; light- to medium-greenish-gray

(131) Fossiliferous interlaminated/interbedded wackestone and argillaceous limestone, sharp basal contact; varying grain size from argillaceous horizons to coarse crinoidal horizons; wackestones are fenestrate bryozoan-rich; medium-greenish-gray to medium-pinkish-gray

(138.2) Fossiliferous horizontal-bedded grainstone, sharp basal contact; abundant glauconite pellets, bryozoans, crinoids; scattered stylolites; light-greenish-gray

(148.8) Ramp Creek Formation
Fossiliferous and bioturbated horizontal-bedded argillaceous limestone, stylolitic basal contact; scattered fine and coarse crinoids; horizontal bioturbation; light- to medium-greenish-gray

(151) Fossiliferous massive grainstone, stylolitic basal contact; glauconite, crinoids, and thin-walled brachiopods; medium-greenish-gray

(151.3) Disturbed massive argillaceous dolostone; flattened horizontal and vertical bioturbation; scattered small geodes; medium-brownish-gray to greenish-gray at top

(155.8) Fossiliferous horizontal-bedded grainstone, gradational basal contact; glauconite, crinoids, brachiopods, and disseminated pyrite; medium-greenish-gray

(158.05) Bioturbated horizontal-bedded argillaceous limestone, stylolitic basal contact; very fine grained; bioturbated throughout; medium-greenish-gray

(159.15) Fossiliferous massive grainstone, stylolitic basal contact; crinoids, glauconite, and brachiopods; medium-gray

(159.55) Bioturbated horizontal-bedded siltstone, stylolitic basal contact; slightly calcareous; dark-gray to black

(159.6) Fossiliferous massive grainstone, irregular basal contact; medium to coarse, brachiopods, glauconite, and pyrite; medium-gray

(160.1) Fossiliferous horizontal-bedded argillaceous limestone, stylolitic basal contact; fine crinoidal debris especially in the upper part of the unit; dark-gray

(160.25) Fossiliferous horizontal-bedded grainstone, stylolitic basal contact; medium to fine crinoids and fossil debris; glauconite; medium-gray

(161) Fossiliferous horizontal-bedded siltstone, stylolitic basal contact; small crinoids; dark-gray

(161.1) Fossiliferous horizontal-bedded grainstone, stylolitic basal contact; fine crinoids and miscellaneous fossil debris that is probably thin-walled brachiopod; glauconite and pyrite; medium-gray

(161.55) Fossiliferous horizontal-bedded siltstone, stylolitic basal contact; crinoids, some crinoids silicified; dark-gray

(161.7) Fossiliferous and bioturbated horizontal-bedded argillaceous limestone, irregular basal contact; coarse at base with brachiopods and crinoid debris; thin-walled brachiopods at the top; horizontal bioturbation; light- to medium-gray, darker in the middle of the unit

(163.3) Fossiliferous and bioturbated horizontal-bedded argillaceous limestone and grainstone, irregular basal contact; five fining-upward packages ranging in thickness from 0.3-1.6 ft with erosive bases; crinoids, brachiopods, and bryozoans; light- to medium-gray

(168.35) Bioturbated horizontal-bedded argillaceous dolostone, stylolitic basal contact; flattened horizontal bioturbation; scattered large geodes; light- to medium-greenish-gray

(171) Fossiliferous massive chert, stylolitic basal contact; crinoids; consists of two units with a coarse top and fine basal unit; light- to medium-gray

(171.6) Bioturbated horizontal-bedded argillaceous dolostone; flattened horizontal burrows; medium-greenish-gray to light-gray

(174.1) Horizontal-bedded argillaceous dolostone, irregular basal contact; silica nodule at the top; medium- to light-greenish-gray

(174.5) Fossiliferous massive chert, stylolitic basal contact; coarse-grained crinoids at base; fine-grained at the top; medium- to light-green

(174.8) Bioturbated horizontal-bedded argillaceous dolostone, irregular basal contact; horizontal bioturbation and some vertical bioturbation; scattered geodes and silicified crinoidal nodules; light- to medium-greenish-gray

(183.6) Fossiliferous horizontal-bedded argillaceous limestone, irregular basal contact; coarse in the upper part with crinoids and brachiopods debris; occasional scattered pyrite and glauconite;; light- to medium-gray

(184.9) BORDEN GROUP, Edwardsville Formation
Bioturbated horizontal-bedded siltstone; primarily horizontal bioturbation with some vertical burrows; medium-gray