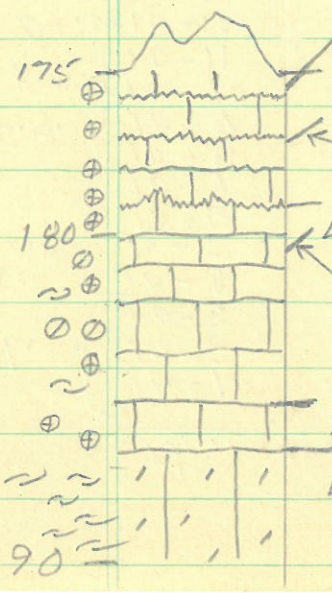
IGS-10 084 09W 28 DBcc

across Rd from Parker's Grove Cemetery

Cored 175

Box #	Interval	Box #	Interval
1	175 - 185	20	
2	185 - 195.1	21	
3	195.1 - 205.1	22	
4	205.1 - 211.9	23	
5	211.9 - 221.9	24	401.6 - 411.7
6	221.9 - 232.1	25	- 421.8
7	232.1 - 242.1	26	- 431.8
8	242.1 - 252.0	27	441.7
9	252.0 - 262	28	451.8
10	262 - 272	29	461.8
11	272 - 282	30	461.8 - 471.6
12	282 - 292	31	474.5 - 485
13	292 - 302.1	32	- 494.9
14	311.9	33	- 505.3
15	321.8	34	- 515.4
16	331.8	35	- 525.3
17	341.9	36	535.3
18	351.9	37	545.3
19	361.8	38	555.5
		39	567.4
Cuttings 0 - 175		40	577.2
"		41	587.3
		42	587.3 - 589.8



Ls, yel-gr (5Y 7.5/1), f, mott. w/ abund. v. pale yel-brn, crin. fraps 175-179

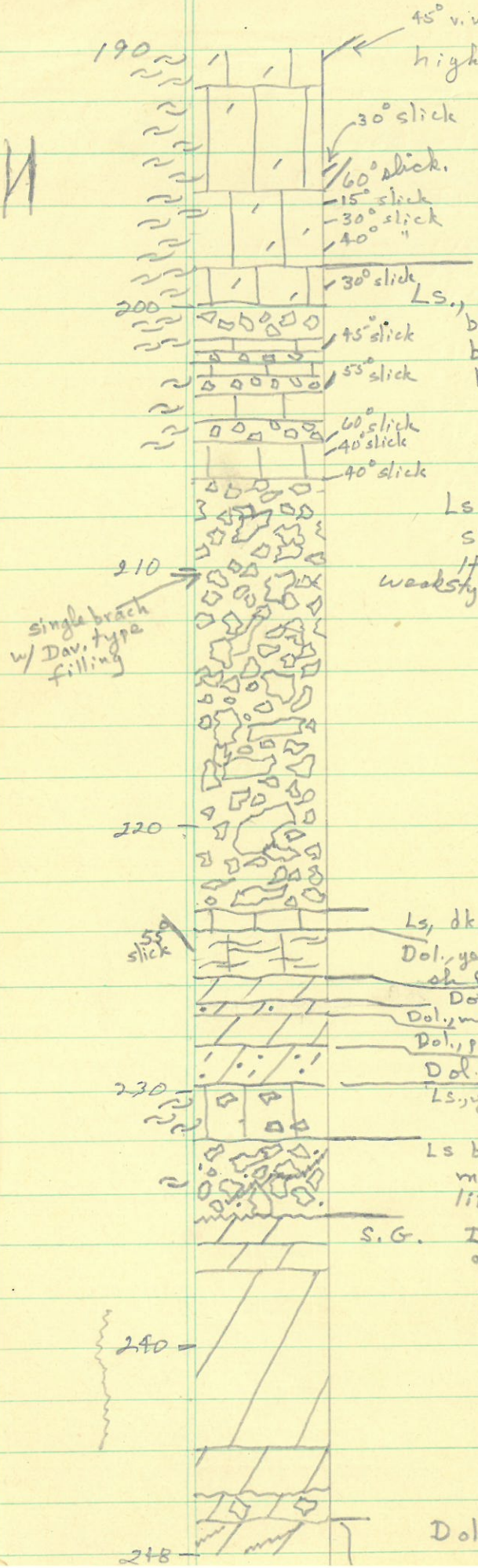
Ls, pale yel-brn (5Y 7/2) to gr-org, f, mod. fossilif w/ crin, brachs + sm. corals 179-185

Ls, pale yel-brn. (5Y 6.5/2) w/ mod dk. gr. mott. zones, f, mod fos. 185 - 186.5

Ls, yel-gr. v. f, v. arg.; broken brachs w/ abund, few whole brachs; dom. lt. olive gr ls below 189.8, w/ scatt. dk. olive gr clay partings, and less arg.; breaks are all

Thin sections

C.V.	10-1	180.8	
	10-2	193.2	
	10-3	202.2	glauc. grains
Fayette breccia	10-4	209.5	breccia
	10-5	216.1	"
	10-6	225.5	S.G. interval in Fayette breccia
	10-7	234	Fayette breccia
S.G.	10-8	240.5	S.G.
	10-9	251.2	S.G.
Ken.	10-10	255.6	emb sd.
	10-11	274.5	emb sd.
Otis	10-12	282.1	
Coggon	10-13	302	
Bertram	10-14	314	
	10-15	321.5	
Sil	10-16	325 sli. sdy	
	10-17	352	331.7; sty seam for SEM
	10-18	361.5	
	10-19	377.2	
	10-20	384.3	
	10-21	402	
	10-22	419.1	
	10-23	429.7	
	10-24	440	
	10-25	471	
	10-26	481	
	10-27	496	
	10-28	517	
	10-29	536.7	
	10-30	575.7	
Edge?	10-31	577	
	10-32	580.3	



high-angle slickensided surfaces
186.5 - 198.5

Ls., olive gr. (5Y 5/1), med., scatt. glauc.; scatt. brachs; brecciated zones, w/ olive gr. to olive blk shaly matrix; breaks are high-angle slickensided surfaces; scatt. brachs in ls & breccia matrix.
198.5 - 206.5

Ls. breccia; olive gr, yel-gr, pale org. & (pale yel-brn, ang. to subrounded frags (frags are c.v. & Dav.); (possibly some s.G.) matrix is lt. olive gr. to olive blk calc. clay w/ tr. of qtz. & cht. sd grains. weak stylolitic penetration where breccia frags are in contact
206.5 - 223.3

Ls, dk. yel-brn, med., rext., sli. dolo., v. hd 223.3 - 224

Dol., yel-gr., f. silt grde., v. calc., arg. closely spaced wavy olive gr shale partings
224 - 225.8

Dol., pale to v. pale yel-brn, med., petrolif - S.G. block 225.8 - 226.6

Dol., med gr., sli. silty, emb. f. qtz sd. 226.6 - 227

Dol., pale org. to pale yel-brn., med silt grde, petrolif; S.G. type?; banded zones; 227 - 228.3

Dol., yel-gr. & lt. gr., mott., f silt

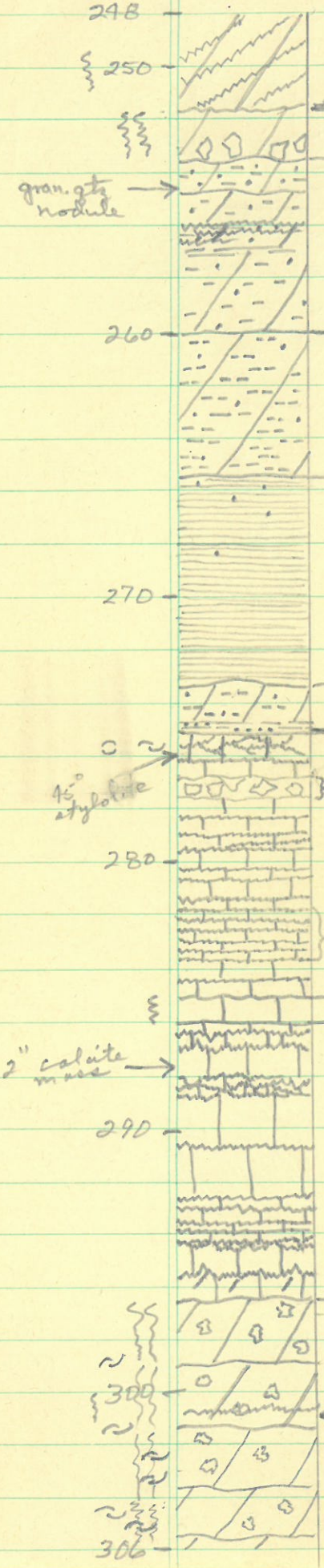
Ls., yel-gr. & gray, arg., silty emb. f-med. qtz sd.; wavy shale zones in lower 1'; 228.3 - 229.8

lt. olive gr., mott., f., brecciated zones, shaly, abund. brachs; 99% L.V. lith; 229.8 - 232

Ls breccia, 1" to 3" frags, mixed w/ micro breccia, in matrix of sli. sdy olive gr wavy clay; stylolitic contact of breccia frags (frags L.V., Dav. & S.G. (?)
232 - 235

Dol., lt. gr.-org to v. pale yel-brn and lt. olive-gr, med. silt grdes, subsac.; banded zones, scatt. dusky yel-brn clay partings; sli. calc.; brecciated in lower 1'; strong petrolif. odor
235 - 246.8

Dol, v. pale org & lt. gr-org., mott, med., v. calc.; 1/4" to 1/8" spaced stylolites w/ dusky yel-brn clay; all



at 45°; strong petrolif. odor; 246.8–251.8

45° closely spaced stylolites

Dol., pale org. to lt. gy.-org.; med-crse silt grde, calc., porous; strong petroliff odor; brecciated in lower 0.6'; 251.8 – 253.6

Kenwood

Dol., lt. yel-gr. & lt. olive gr., motl, mod. to v. arg.; f-med., scatt. emb. qtz & cht sd; shaly zones (med. gr., sdy); 253–260

Dol., lt. gr. to med. gr., motl.; v. arg; scatt. emb. qtz sd; grada. below to sh 260–265.5

Sh., lt. gr. to med gr., motl., silty, mod. to v. dolo. 265.5–273.4

Dol., lt. gr., v. f., sli. arg., scatt. emb. sd.; 0.4' of med. gr. sh w/ v. sdy laminae at base 273.4–275

Otis

Ls., yel-gr. to v. pale yel-brn, L–SL, wide to closely spaced sty.

brecciated zone w/ mass of pale yel calcite

275–285

3" to 1/8" spaced stylolites

Ls., pale org, sli. vext., dolo, sub-pellotal, motl w/ xtalline calcite; sli. vuggy; weak vert frac. 285–286

Ls., v. pale yel-brn. to lt. gr-org; S.L–L, scatt. sty.; v. dolo. in lower 1'. 286–296.5

Coggon

Dol., pale yel-brn (10YR 6.5/2), f–med. sd grde, subhed., vuggy porous; sphalerite in vug @ 301; mod. petrolif odor; scatt. brach molds 296.5–310.5

IGS -10

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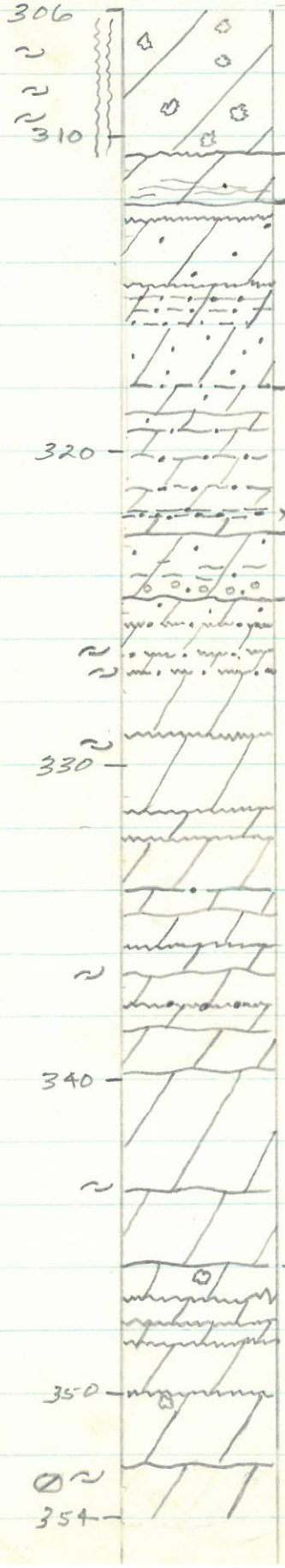


dusky yel-brn clay partings in lower 0.5';

Dol., yel-gr (5Y 6.5/2) f-med. silt grde; ∧ gradn. w/ subjacent unit (break made at v. weak bedding plane & color change).

Bertram

310.5 – 312.1

Dol., med. lt. gr. in top 0.4', changing to mott. lt. gr. & med lt. gr.; v. f-med silt grde; scatt. emb. med. qtz sd.; zones w/ v. sdy lt grn clay as marked 312.1 – 317.8

Dol., v. lt. olive gr (5Y 7/1) to lt.-gr., ∧ S.L.-L., some scatt. emb. qtz sd; concentration of calcite & sm. nods & swirls of pyrite 320.–320.5'; zones w/ mixed lt. grn waxy clay below 320.5'; v. pyritic, sdy grn shale 321.9–322.1 317.8 – 322.6

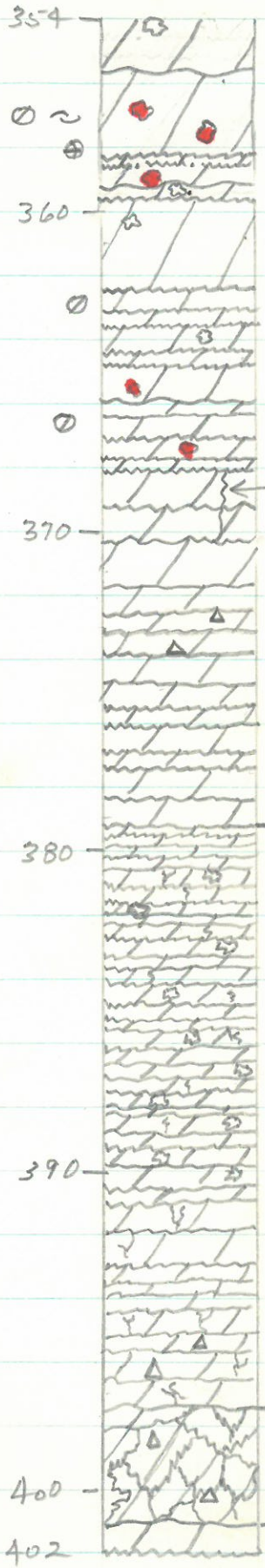
Dol., med dk gr & med lt. gr., mott.), w/ pale yel-brn, L-S.L., scatt. emb. qtz sd.; lower 0.6 has mixed grn. sdy clay and carbonate has abund rounded clasts of granule gravel. 322.6 – 324.6

Silurian

Dol., yel-gr (5Y 7.5/1), f., scatt. emb. f-med. qtz sd. in top 0.8'; qtz sd in sty. seams as shown

324.6 – 346

Dol., yel gr (5Y 8/1) f-v.f.; few scatt 1/4" to 1" vugs (vugs lined w/ euhed qtz indicated w/ red); Traces of ish., T, wispy cht in lower part.; dk gr. clay in sty seams 346 379.3

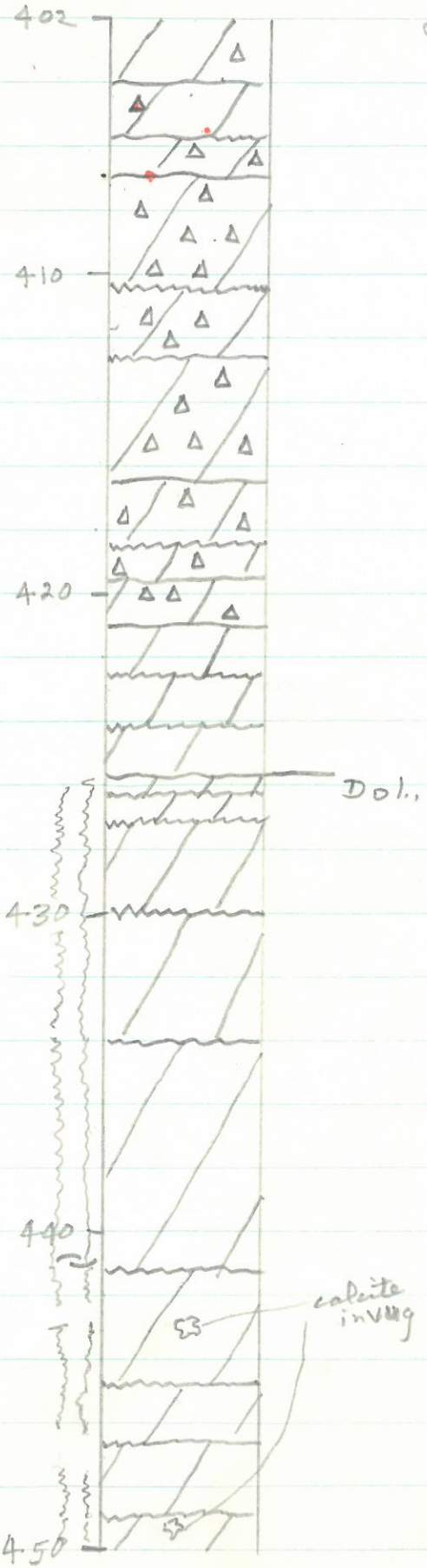


vert frac filled w/ med gr. clay and calcite

Dol., yel-gr., f-v.f.; abund irreg. 1/8" - 1½" vugs; irreg. dessication (?) fracs; lt grn clay in sty seams and some frac. zones; 0.2 to 0.7' beds
379.3 - 397.5

Dol; med. lt. gr; med, pyritic, brecciated (?) w sty contact of breccia frags; scatt, wh, T. chd. frags
397.5 - 401

Dol., yel-gr, f.; scatt. nod, wispy, and bedded(?). wh.

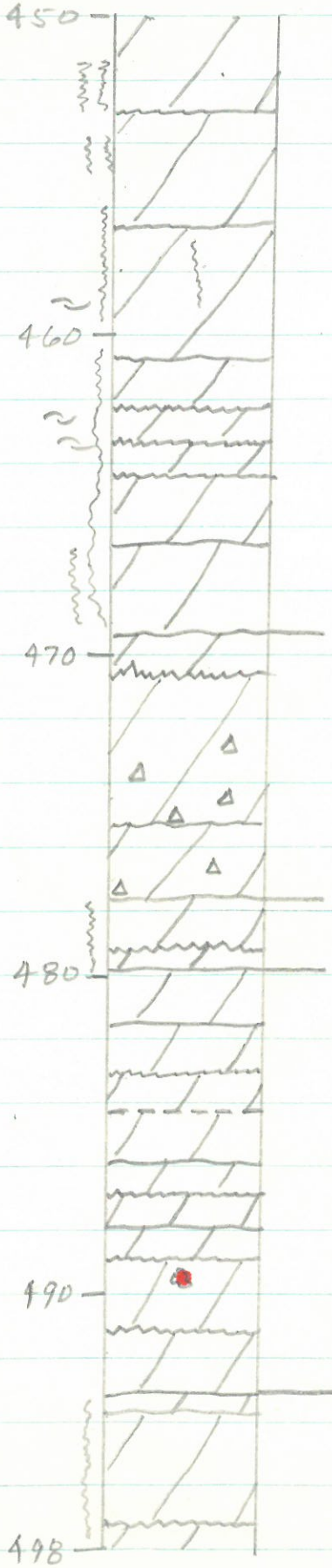


and lt. gr. T. & S cht.; most of breaks are at cht-dol contacts.

401 – 425.8

Dol., gal-gr. to med. lt. gr., f-med, v. por. (~~dom~~ sm. crin. molds), friable zones; scatt. small vugs, some lined w/ euhed. calcite; zones of lt. gr., f. dol w/ v. little por.

425.8 – 469.9

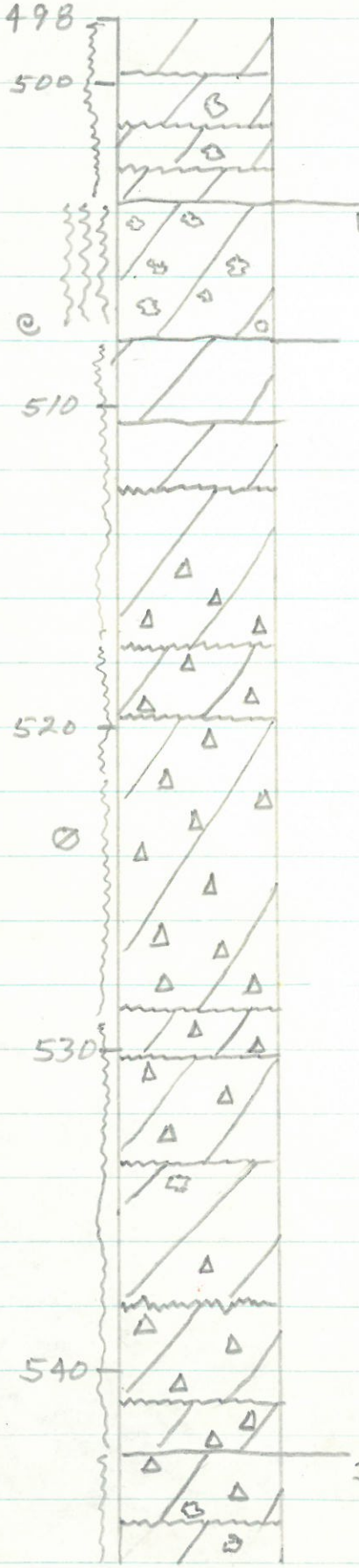


Dol., yel-gr. + lt. gr., mott., f.; scatt. nod. T., wh & lt. gr. chT
469.4 477.7

Dol., med. lt. gr. + yel-gr; mott; v.f- med. ock. grde.; sli. por.
477.7 – 479.8

Dol., yel-gr., f. silt grde.; 0.03' parting of med. dk gr., silty, dolo. sh at 484.2
479.8 – 493

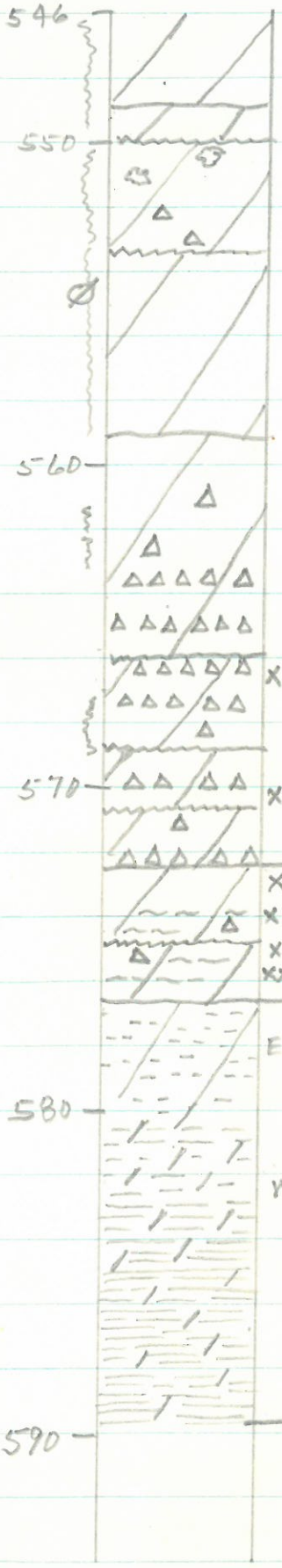
Dol., yel-gr. + v. lt. gr., weakly mott., med-crse silt grde., mod por (dom. crinoid solution molds; calcite-lined vugs in lower part. 493 – 503.8



Dol., med. gr. & lt. gr., mott., med. silt - f. sd. grde, v. por, vuggy; few calcite-lined vugs in upper part
503.8 – 508

Dol., v. pale org. & yel-gr., mott., med silt - f. sd. grde, por.; nod. wh & lt. gr., T & S cht. below 515;
508 – 542.5

Dol. v. pale org, pale yel-org & lt. gr., mott, med silt - f. sd. grde., variable por.; vuggy zones; scatt. nod. & bedded wh & lt gr. cht w/ T rind
542.5 – 572.5



Dol., yel-gr. to v. lt. olive gr., med-crse. silt grde; sli. arg.; scatt. sli. wavy lt. olive gr clay partings; minor scatt. nod. wh. chrt.; pyritic zones
572.5 – 576.6

Dol., lt. grn-gr (5 GY 7/1), med. silt grde., v. arg., silty, "salt & pepper" specks; becoming more arg. at depth, grading imperceptibly to Sh., dolo., silty, and becoming less dolo. at depth.

589.8 TD

completed 7-23-74

W23336

VH--Voehl (Parkers Grove), Benton Co., Iowa
NX core, IGS/USGS Carbonate Hydrology Project
SW SW NW SE sec. 28, T84, R9W
elev. 915 ft. (depths in feet)

Begin Box 15

WAPSIPINICON FM. (in part)

312.1-324.6 Limestone, v. dolomitic (grades to calcitic dolomite, especially top 5.3 ft.), v. lt. brown gray-v. lt. gray, silt-size to vf crystalline, sublithographic in lower 2 ft., slightly argillaceous; shale, m. gray, part sandy, argillaceous swirls, stylolites scattered in zones throughout, 0.1 ft shale at 322; 320.3-321 pyrite rinds in caliche-like fabric; thin sections (10-14, 10-15) from 314, 321.5.

SCOTCH GROVE FM.

324.6-366.3 Dol., v. sparse small fossil-moldic dolowackestone, pale-v. lt. gray, silt-size crystalline, dense, some calcite vug and fracture fill; stylolites at 327, 327.5, 327.8, 329.5, 332.5, 335.8, 336.4, 347.3, 358.4, 359.2, 259.9, 362.5, 364.4; 339 thin sandy dol. zone (probably karst fill), 340.2 clay fill; quartz-lined vugs at 354.1, 356.8, 357.5; 326 bryozoan, 326.3, 327.2 brachiopods, 327.6 ?Anastrophia, trilobite thoracic segment, 328.8 trilobite thoracic segment, 337.3 small brachiopod, 338 Meristina, 342.5 brachiopod, 343 trilobite fragment, 343.3 brachiopod, trilobite thoracic segment, 343.9 brachiopods, 344.8 orthid (part silicified), 344.9 silicified brachiopod, trilobite thoracic segment, 353 brachiopod, 353.5 trilobite thoracic segment, 353.6 cup coral, 353.7 silicified horn coral, 354.1 silicified cup coral, 354.5 cup coral, 354.6 brachiopod, trilobite thoracic segment, 355.4 Eoplectodonta, 355.7 brachiopods, 356.4 brachiopod, 356.6 Coolinia, strophomenid, other brachiopod, Calymene cranidium, Dalmanites pygidium, 356.7 cup coral, 357 brachiopods, 357.2 two Atrypa, 357.3 Dalmanites pygidium (nice caudal spine), 357.5 cup coral, Protomegastrophia, 357.7 bryozoan, 357.9 cup coral, trilobite thoracic segment, 358.4 Porpites, 359 cup coral, Porpites, 360.8 Porpites, 360.9 burrow traces, 361.1 cup coral, 361.6 three cup corals, 361.8 cup coral, resserellid, 362.1 cup coral, three Porpites, large orthid, 362.2 cup coral, 364.2 cup coral, triaxon sponge spicule; thin sections (10-16, 10-17, 10-18) from 325, 344, 361.3.

366.3-425.6 Dol., dense dolomudstone to very sparse small fossil-moldic dolowackestone (especially 371-381), pale brown gray-v. lt. gray, silt-size crystalline, scattered vugs 381-401, clay filled fractures 368.9-369.3, pyrite-lined fractures and breccia 398.1-399.2, quartz-lined vug 366.4 and 408.4; chert (white-lt. gray, S-T) nodules at 368.6, 369.5, 372.3, 372.6, 377.8, 373.1, 373.3, 373.7, 375.1, 375.5, 378.6, 388.5, 389.2, 393, 394.3, 395.2, 395.7, 395.8, 397.3, 405.3, 405.9, 406.8, 407, 407.2, 407.8,

408.1, 408.3, 408.4, 408.6-408.7, 408.8, 409, 409.2-409.3, 409.5, 409.8-410, 410.3, 410.5, 410.6, 410.9, 411.3, 412, 412.2, 412.3, 412.6, 414.1, 414.5, 414.7, 415.2, 415.5-415.7, 416.1, 416.8-416.9, 417.5, 417.7, 418.4, 419.5, 419.9, 420, 420.3, 420.4, 420.7; stylolites at 368.5, 371.4, 372.1, 374.5, 376.1, 376.5, 377.9, 378.3, 379.7, 380.1, 381, 382.3, 382.5, 382.7, 385.3, 386, 388.9, 389.5, 390.5, 391.5, 391.8, 395.5, 397.7, 397.9, 402.4, 402.8, 404.7, 405, 410.4, 422.4, 422.9, 423, 423.5, 423.8, 424.5, 424.9, 425.4; 371.9 cup coral, 375.4 two Porpites, small tabulate, 376.3 bryozoan, trilobite fragment, 376.7 Porpites, 380.2 trilobite hypostome, 397.6 cup coral, 403.1 silicified resserellid, 416.3 orthid, 418.8 Bumastus pygidium; thin sections (10-19, 10-20, 10-21, 10-22) from 377.2, 384.3, 402, 419.1.

425.6-429.1 Dol., sparse to abundant small crinoid-moldic dolowackestone, pale brown gray, silt-size crystalline; stylolites at 426.9, 427.6, 429; 425.8 brachiopod.

429.1-446.9 Dol., abundant small crinoid-moldic dolowackestone, v. lt. gray-v. lt. brown gray, porous to v. porous, some vugs (calcite-lined at 443.2, 445.3, 445.9); 436.4 orthid, 438.3 brachiopod, 441.2 stylolite, 441.7 Atrypa, 442.4 bryozoan, spinose trilobite free cheek; thin sections (10-23, 10-24) from 429.7, 440.

446.9-448.4 Dol., sparse small fossil-moldic dolowackestone, v. lt. gray, silt-size crystalline, dense; 447.8 fenestellid bryozoan, 448.2 stylolite.

448.4-469.2 Dol., sparse to abundant small crinoid-moldic dolowackestone, v. lt.-lt. gray, abundant crinoid-moldic at 450.5-451, 460.7-461, 464-464.6, denser and less moldic in lower 2 ft., silt-size to vf crystalline; stylolites at 453.2, 453.4, 453.6, 454.4, 458.8, 462.3, 463.6, 464.1; 453.5 bryozoan, 454.7 Cyrtia, 454.9 bryozoan, 456.4 bryozoan, 457.4 Myelodactylus, 458.2 fenestellid bryozoan, 459.2 Costistricklandia, fenestellid bryozoan, 459.5 Leptaena, fenestellid bryozoan, 459.6 Atrypa, branching and fenestellid bryozoans, brachiopod, Encrinurus crandidium, 459.7 branching and fenestellid bryozoans, 459.8, 460 bryozoans, 466.9 brachiopod.

469.2-477.7 (471.6-474.5 no recovery) Dol., v. sparse small fossil-moldic dolowackestone, v. lt. gray, dense, slightly more fossil-moldic in lower 1.8 ft.; chert (white, S-T) nodules at 470.9, 471.2, 471.6, 474.5, 474.7, 474.9, 475, 475.1, 475.6, 476.4, 477.1, 477.3, 477.5, 477.6; stylolites at 469.6, 470, 470.8, 477.1, 477.3, 477.5, 477.6; 475.7 orthid, 476.7 burrow trace, 476.9 strophomenid.

477.7-479.9 Dol., sparse to abundant small crinoid-moldic dolowackestone, v. lt.-lt. gray, silt-size crystalline, porous to v. porous; 479 orthid, Calymene cranidium, 479.2 stylolite.

479.9-489.2 Dol., dense dolomudstone and v. sparse small fossil-moldic dolowackestone, pale gray-pale brown gray, dense, primarily unfossiliferous, slightly argillaceous in lower 7 ft.; 480.3 brachiopod, 480.4 branching and fenestellid bryozoans, 481.2 trilobite thoracic segment, ?leperditiid ostracode, 481.4 small tabulate,

fenestellid bryozoan, trilobite thoracic segment, 481.4 burrow traces, brachiopod, 482.3 burrow traces, 482.2 trilobite fragment (?illaenid pygidium fragment), 483.3 bryozoan, 484.1 thin shale seam, lt. gray, 485.9 stylolite, 487 large crinoid stem; thin section (10-26) from 481.

489.2-493.7 Dol., sparse to abundant small crinoid-moldic dolowackestone, pale gray, dense; 489.2 quartz-lined vug, 489.7 green burrow traces, 491.6 trilobite thoracic segment, 493.6 cup coral, Pisocrinus cup.

493.7-495.6 Dol., abundant small crinoid-moldic dolowackestone, pale-v. lt. gray, porous, v. lt. orange brown microporous mottling; 494.3 stylolite, 495 fenestellid bryozoan.

HOPKINTON FM. - HOPKINTON C

459.6-503.8 Dol., sparse to abundant small crinoid-moldic dolowackestone, v. lt. brown gray, v. lt. orange brown microporous mottling (496-497, 499.5-500.5, 502), silt-size to vf crystalline, dense to porous; stylolites at 497.3, 497.9, 500.2, 500.8, 502.6, 503.3; 501.1 calcite vug fill with sphalerite crystal; 498.7 silicified Favosites, 502.5 silicified ?stromatoporoid, 502.8 Favosites; thin section (10-27) from 496.

HOPKINTON FM. - HOPKINTON B (base uncertain)

503.8-507.7 Dol., abundant fossil-moldic dolowackestone, lt. gray, silt-size (trace vf) crystalline, very porous and permeable, very vuggy (some calcite-filled and pyrite-lined); 504.1 bryozoan, 504.5 orthid, crinoid cup, 504.7 orthid, bryozoan, 504.8 cup coral, brachiopod, 505.3 orthid, gastropod, bryozoan, 505.6 bryozoan, 505.9 orthid, bryozoan, 506.1 gastropod, 506.5 brachiopod, bryozoan, Cyclocrinites, 506.8 gastropod, 507.4 Kionoceras.

507.7-519.7 Dol., sparse to abundant fossil-moldic dolowackestone (small crinoid-moldic predominates), pale gray-pale brown gray, silt-size crystalline, gradational contact below; chert (white, S-T) nodules at 515, 515.5, 515.8, 516.1, 516.3, 516.7, 516.8, 517.2, 517.9, 518.7, 519.1, 519.4, 519.6; stylolites at 509.6, 512.8, 517.6; 507.9 bryozoan, 508.1 gastropod, 508.3 bryozoan, silicified brachiopods, 508.7 brachiopod, 508.9, 509 Pentamerus, 510 strophomenid, two Cyclocrinites, 510.2 Cyclocrinites, 510.4 Cyclocrinites, 510.5 silicified Pentamerus, 510.9 Pentamerus, 511 orthid, 511.2 rhynchonellid, 511.3 orthid, 511.7 bryozoan, cup coral, nice strophomenid, 511.9 Cyclocrinites, gastropod, 512.4 bryozoan, 512.6 Cyclocrinites, 513.1 cup coral, 513.8 bryozoan, 513.9 horn coral, 514.5-516.1 abundant small Pentamerus (part silicified), 515 silicified Pentamerus, 516.4 Pentamerus, 517.3 Favosites, 518.1 two orthids, 518.3 Halysites, Pentamerus, 518.8-519.4 abundant Pentamerus, 519.5 orthid.

HOPKINTON FM. - HOPKINTON A

519.7-522.7 Dol., sparse to abundant small fossil-moldic dolowackestone, pale brown gray with v. lt. yellow orange microporous mottling; very cherty throughout, chert (white, S-T) nodules every

0.05-0.04 ft.; 520.8 stylolite, 522.1 cup corals, bryozoans, 522.2 small Halysites, bryozoan, 522.4 bryozoan, 522.7 silicified Favosites.

522.7-524 Dol., small fossil-moldic dolowackestone, v. lt. brown-gray, v. lt.-lt. gray, v. lt. yellow orange microporous mottling, vugs throughout (some pyrite-lined).

524-542.5 Dol., dense dolomudstone to sparse small fossil-moldic dolowackestone, some crinoid-replaced dolowackestone, pale-v. lt. brown gray, v. lt. yellow orange microporous mottling, dense to permeable, vf-m crystalline, vuggy, becomes lt. gray in lower 0.5 ft.; chert (white, S-T) nodules at 524.7, 525.3, 525.4, 525.6, 526.8, 527.1, 527.7, 527.8, 528.2, 529.4, 529.7, 529.8, 530.6-531, 531.3-531.9, 532.3, 532.5, 533.4, 537-537.2, 537.3, 538.3, 538.7-539.5 (abundant), 540.3, 540.5, 541.9, 542.4; stylolites at 528.6, 529.1, 530.3, 533.5, 536.7, 537.3, 538; 525.2 Pentamerus (brachial valve), 526.1 small Pentamerus, 529.3 Pentamerus, 529.4 bryozoan, 530.2 orthid, 531.2 cup coral, Pentamerus (part silicified), 533.2 silicified stromatoporoid, 534 Halysites, 534.1 Pentamerus, 534.6 silicified Pentamerus, 534.8 large Pentamerus, 535.4 bryozoan, 535.8 strophomenid, 535.9 Pentamerus, indeterminate segmented trilobite pygidium, 537.6, 540.3 fenestellid bryozoan, 541.6 cup coral, tabulate, 542.1 silicified Favosites; thin section (10-29) from 538.7.

542.5-561.5 Dol., dense dolomudstone to sparse small fossil-moldic dolowackestone, v. lt. brown gray, v. lt.-lt. gray, v. lt. yellow orange microporous mottling, silt-size to m crystalline, similar to above but less cherty, denser and darker in lower 3 ft.; chert (white, S-T) nodules at 542.5, 544.1, 552.5; stylolites at 543.2, 547.1, 548, 548.2, 548.7, 553.9, 555.2, 555.7, 555.9, 556.2; 551.6 burrow trace, 551.9 silicified Halysites, orthid, triaxon sponge spicule, 552.1 cup coral, 552.6 tabulate, 552.7, 552.8, 552.9 bryozoans, 553.8 chalcedony fill, Favosites, 554.7 chalcedony-replaced cup coral, 557.1 silicified Syringopora, 558 Favosites.

BLANDING FM.

561.5-572.5 Dol., pale gray, v. lt. brown gray, v. lt. yellow orange microporous mottling (567.5-568.6), silt-size to vf crystalline, dense, some vugs (pyrite-lined 570.9-571.3), slightly argillaceous 564.5-564.7 and 568.7-569; chert (white - v. lt. gray, S-T) nodules at 562.1, 562.9, 563.8, 565-565.2, 565.7-565.9, 566.1, 566.2-566.6, 566.8, 567.6, 567.8, 568.7, 569-569.3, 569.7, 569.9-570.1, 570.6-570.8, 571.9-572.2, 572.4-572.5; stylolites at 564, 564.4, 567.4, 568.7; 562.5 resserellid, cup coral, 562.7 cup coral.

572.5-576.7 Dol., dense, v. lt. gray-v. lt. brown gray, argillaceous throughout, pyritic throughout with pyrite-lined vugs; chert (white-v. lt. gray, S-T) nodules at 573.5, 574.6, 574.8.

MAQUOKETA FM.
576.7-589.8 (T.D.) Shale, lt. gray, dolomitic grading to dol., lt. gray, v. argillaceous, pyritic in part.