

County . . . WABASH
T . . . 28 N R . . . 7 E
Sec . . . NW 34
Other Survey

Quarry or Pit Core ☒ Dim Other

Name .. Survey Drill Hole #288, Richard Gray Farm

Former Names

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Operator

Former Operators

COAL AND INDUSTRIAL MINERALS SECTION
INDIANA GEOLOGICAL SURVEY
DEPARTMENT OF NATURAL RESOURCES
611 NORTH WALNUT GROVE
BLOOMINGTON, INDIANA 47401

MEMORANDUM REPORTS BY:

Name

Date _____

	Curtis H. Ault	June 28, 1978
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REMARKS

	REMARKS

Survey Drill Hole 288
150' FNL x 650' FWL NW1/4 sec. 34, T. 28 N., R. 7 E.
Wabash County, Indiana

BACKGROUND

This test was drilled as part of a study of reefs in northern Indiana by Curtis Ault and Robert Shaver. The test was to be drilled near the center of a well-exposed reef on the west edge of Lagro, Wabash County, to determine the total thickness of the reef, the stratigraphic position of the base of the reef, and the chemical composition and lithology of the reef. The test was to be drilled to a recognizable stratigraphic marker, probably the Waldron Shale. Knowledge of the thickness, shape, and lithology of the reef would help in the prediction of the stratigraphic position and morphology of other reefs in the Wabash Valley.

RESULTS

The hole was drilled somewhat west of the center of the reef because of difficulty in placing the drilling rig. The reef at the drill site is 51 feet thick with its base high in the Mississinewa Shale Member. Apparently reef-derived limestone deposited deeper in the Mississinewa indicates that reefing began deeper in the Mississinewa. The chemical composition of the reef varied between dolomite and dolomitic limestone. The Waldron Shale was drilled at a depth of 251 feet and total depth of the test hole was at 296 feet in the Limberlost Dolomite.

Survey Drill Hole 288
 150' FNL x 650' FWL NW1/4 sec. 34, T. 28 N., R. 7 E.
 Farm: Richard Gray
 Wabash County, Indiana
 Elevation: 725 feet
 Started: June 20, 1978
 Completed: June 28, 1978
 Driller: John Helms

Driller's log 0-20' clay plus 2" of reef

Core description by Curtis H. Ault

<u>Unit</u>	<u>Description</u>	<u>Thick- ness</u>	<u>Depth to top of unit</u>	<u>Sample No.</u>
SILURIAN				
<u>Huntington Lithofacies (reef), Wabash Formation, 50.8 feet.</u>				
1.	Dolomite, skeletal, light buff-yellow weathered, very fine-grained matrix, many fossil molds of fossil fragments--crinoids, small horn coral(?), yellow staining by iron compounds; bedding indistinct and slightly inclined.	2.6	20.0	CA78-210
2.	Dolomite, similar to above, calcareous, less weathered than above, calcite-filled fractures and vugs, pyrite(?) in one fracture; inclined bedding.	3.6	22.6	CA78-211
3.	Dolomite, as above, weathered yellow coatings, considerable pyrite.	0.9	26.2	CA78-212
4.	Dolomite, skeletal, calcareous to very calcareous, light gray buff, fine grained, indistinct fossil fragments, may be slightly silty; inclined bedding.	1.8	27.1	CA78-213
5.	Limestone, dolomitic to very calcareous dolomite, skeletal, light gray to light buff, fossils mostly fragments--shells, crinoids, and possibly a few coral fragments.	2.1	28.9	CA78-214
6.	Dolomite, skeletal, calcareous to very calcareous, may be dolomitic limestone in a few crystalline zones, light gray to buff, fine- to medium-grained, fossil fragments--shells, crinoid fragments, some stylolitic development, trace pyrite, inclined bedding.	8.2	31.0	CA78-215 31.0-35.0 CA78-216 35.0-39.2
7.	Dolomite, skeletal, calcareous in part, some zones of light buff-colored dolomitic limestone, fossiliferous with fossil fragments of crinoids and shells among others; dolomitic rock is fossiliferous with calcite vug fillings; inclined bedding.	6.5	39.2	CA78-217

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| 8. | Limestone, skeletal, dolomitic in part to dolomite, calcareous, gray-yellow weathered surfaces, calcite-filled vugs, many molds and vugs, numerous fossil fragments; inclined bedding. | 12.5 | 45.7 | CA78-218
45.7-52.0
CA78-219
52.0-58.2 |
| 9. | Dolomite, skeletal, light gray, slightly calcareous in part, fine grained, some pyrite and calcite-filled fractures and vugs, indistinct dolomitized fossil fragment outlines; inclined bedding, some stylolites. | 8.1 | 58.2 | CA78-220
58.2-62.0
CA78-221
62.0-66.3 |

Mississinewa shale lithology in flank of reef

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| 10. | Dolomite, greenish gray, very fine-grained to fine-grained, slightly argillaceous and silty; inclined bedding. | 2.4 | 66.3 | CA78-222 |
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Reef-affected limestone

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| 11. | Limestone, dolomitic, skeletal, light gray, very fine grained, indistinct shell fragments, crinoids(?), small coral(?), some calcite-filled vugs; slightly inclined bedding. | 2.1 | 68.7 | CA78-223 |
|-----|--|-----|------|----------|

Mississinewa Shale Member, Wabash Formation, 112.2 feet

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|-----|--|------|-------|--|
| 12. | Dolomite, greenish gray, fine grained, silty, argillaceous, thin gray-colored laminae showing inclined bedding becoming nearly horizontal at base, some zones slightly lighter in color--probably higher carbonate content. | 13.3 | 70.8 | CA78-224
70.8-77.0
CA78-225
77.0-84.1 |
| 13. | Limestone, dolomitic to calcareous dolomite, fossiliferous, light greenish gray, fine grained, much higher carbonate content than above, shell fragments, crinoid(?) fragments, coral(?) fragments, fine-grained pyrite; unit may be reef detritus from nearby reef. | 5.2 | 84.1 | CA78-226 |
| 14. | Dolomite, calcareous to dolomitic limestone, green gray, silty, argillaceous, fine grained, indistinct fossil fragments, fine-grained pyrite; higher carbonate content than typical Mississinewa. | 8.5 | 89.3 | CA78-227
89.3-94.0
CA78-228
94.0-97.8 |
| 15. | Dolomite, green gray, fine grained, silty, argillaceous, fine-grained pyrite. | 2.5 | 97.8 | CA78-229 |
| 16. | Dolomite, calcareous to very calcareous, green gray but somewhat lighter in color than above unit, fine grained, indistinct fossil fragments, less silty and argillaceous than above, becoming higher in carbonate content towards unit below. | 7.9 | 100.3 | CA78-230
100.3-104.0
CA78-231
104.0-108.2 |

17.	Limestone, light buff, fine- to coarse-grained crystals in vugs and fractures, fossil fragments--shells and other fragments, stylolites gradational in upper and lower 1.5 feet with adjacent units; may be reef-derived carbonate; irregular bedding.	15.4	108.2	CA78-232 108.2-116.0 CA78-233 116.0-123.6
18.	Dolomite, green gray, fine grained, argillaceous, silty, pyrite; has finely worm-burrowed appearance.	24.4	123.6	CA78-234 123.6-130.0 CA78-235 130.0-136.0 CA78-236 136.0-142.0 CA78-237 142.0-148.0
19.	Dolomite, green gray but lighter in color than above, fine grained, calcite blebs in small vugs, pyrite, some fossil fragments, higher carbonate content than above unit; some dark colored laminations in zones, calcite-filled vertical fracture.	25.9	148.0 (see note below) (5' of extra core included in this sample.)	CA78-238 148.0-154.0 CA78-239 154.0-160.0
Note: approximately 5 feet of extra core in interval 140-160 feet.				CA78-240 160.0-166.0 CA78-241 166.0-173.9
20.	Dolomite, calcareous to very calcareous, buff-brown, fine grained, becoming mostly carbonate gradational from above, some fossil fragments, slightly silty, some fine-grained darker colored laminations, gradational into below unit.	9.1	173.9	CA78-242 173.9-179.0 CA78-243 179.0-183.0
<u>Louisville Limestone, 68.2 feet</u>				
21.	Limestone, brown and gray brown, mottled, fine- to medium-grained crystalline, slightly silty, some fossil fragments.	4.4	183.0	CA78-244
22.	Dolomite, calcareous to very calcareous, brown, slightly mottled, some fossil fragments, vugs, fine grained, slightly silty, two chert nodules, irregular fracture.	14.6	187.4	CA78-245 187.4-195.0 CA78-246 195.0-202.0
23.	Limestone, brown, slightly mottled in part, silty, fine-grained crystalline, some small vug (fossil fragments(?)) with calcite, stylolites, small white specks.	6.2	202.0	CA78-247
24.	Limestone, light buff to gray, strongly mottled, fine grained, some blurred fossil fragments, slightly silty.	7.5	208.2	CA78-248 208.2-212.0 CA78-249 212.0-215.7

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| 25. | Dolomite, calcareous to very calcareous, gray brown, slightly mottled, white specks in vug fillings--probably dolomite, fine grained, vug outlines of blurred fossil fragments--crinoids(?). | 6.6 | 215.7 | CA78-250 |
| 26. | Limestone, dolomitic, brown, very fine grained, silty, some calcite filling of small vugs, irregular nodular bedding contacts and very thin black curved laminae at contacts. | 6.0 | 222.3 | CA78-251 |
| 27. | Dolomite, calcareous to very calcareous, may be dolomitic limestone in part, brown-gray mottled, silty, some euhedral crystal development in small vugs, thin black laminae on bedding planes. | 9.4 | 228.3 | CA78-252
228.3-233.0
CA78-253
233.0-237.7 |
| 28. | Dolomite, gray brown, slightly mottled, fine-to medium-grained crystalline, probably slightly silty, dark carbonaceous(?) flecks in part, some small vugs with blurred outlines of fossil fragments; some nodular contacts within unit. | 3.7 | 237.7 | CA78-254 |
| 29. | Dolomite, calcareous in part, brown, slightly mottled, fine grained, some very thin dark laminae at nodular contacts, white dolomite in some fossil-fragment vug fillings, pyrite. | 3.4 | 241.4 | CA78-255 |
| 30. | Dolomite, slightly calcareous in part, brown and buff mottled, fine-grained crystalline, white dolomite filling of small vugs, may be slightly silty, thin black coatings on irregular bedding contacts, pyrite. | 2.5 | 244.8 | CA78-256 |
| 31. | Dolomite, brown, fine-grained crystalline, a few small vugs with fossil outlines, slightly silty; from 248.7 to 249.2 feet the core was split along a vertical fracture. Surface of the fracture is coated with mostly sparry calcite and much pyrite, but also present is purple and yellowish fluorite and possibly minor sphalerite. | 3.9 | 247.3 | CA78-257 |

Waldron Formation, 24.8 feet.

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| 32. | Dolomite, nodular, brown to brown-gray, calcareous to very calcareous in part, fine grained, thin black coatings on nodular surfaces. | 24.8 | 251.2 | CA78-258
251.2-258.0
CA78-259
258.0-264.0
CA78-260
264.0-270.0
CA78-261
270.0-276.0 |
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Limberlost Dolomite, 20 feet drilled

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| 33. | Dolomite, cream-buff to buff, very-fine-to fine-grained, speckled with small dark gray ovoids all showing two concentric dark-colored bands--may be fossil outlines in part, may be allogenic particles in part; small chert nodule. | 8.5 | 276.0 | CA78-262
276.0-282.7
CA78-263
282.7-284.5 |
| 34. | Dolomite, light buff with dark gray specks and some mottling with sharp outlines, fine grained crystalline, some specks may be included allogenic particles carried in from another source; some gray shading appears authogenic, some small vugs of fossil outlines. | 9.0 | 284.5 | CA78-264
284.5-289.0
CA78-265
289.0-293.5 |
| 35. | Dolomite, light buff with a few dark specks and gray shades--much less than above but similar lithology otherwise. | 2.5 | 293.5 | CA78-266 |

Total depth of core 296.0 feet
(Drillers total depth 295.0)

DRILLER'S RECORD
(Indiana Geological Survey)

SDH NUMBER: 288

FARM: Richard Gray

COMMENCED: 6/20/78

COMPLETED: 6/28/78

LOCATION: County Wabash Twp. 28N Rge. 7E Sec. 34

NW, NW, SW

ELEVATION: 722'

4" Casing - 10'

CORE				LOG			CORE LIBRARY	
			Run	Box	TO	DESCRIPTION (REMARKS)	NOTATIONS	
RUN NO.	FROM	TO	RECOVERY	FROM	TO			
	0'	20'	Rock	Bit	Clay 2"	Reef		
	20'	40'	1	1-2		Reef Porcel Limestone		
	40'	60'	2	3-4		Limestone		
	60'	80'	3	5-6		Limestone 69' Green siltstone		
	80'	100'	4	7-8		Green siltstone 82' Limestone		
	100'	120'	5	9-10		Limestone		
	120'	140'	6	11-12		Limestone 122' Siltstone		
	140'	160'	7	13-14		Siltstone		
	160'	180'	8	15-16		Siltstone 170' Limestone		
	180'	200'	9	17-18		Limestone 187' Brown Limestone		
	200'	220'	10	19-20		Brown Limestone w/shale spots		
	220'	240'	11	21-22		Limestone w/shale Bands		
	240'	260'	12	23-24		Limestone w/shale Bands 248' Brown Limestone		
	260'	280'	13	25-26		252' Lime w/shale Bands Limestone w/shale Bands 275' Dolstone w/Blue spots		
	280'	295'	14	27-28		Dolstone w/Blue spots		

Survey Drill Hole 288
 150' FNL x 650' FWL NW¼ sec. 34^ T. 28 N..^ R. 7 E.
 Farm: Richard Gray
 Wabash County^ Indiana
 Elevation: 725 feet
 Started: June 20^ 1978
 Completed: June 28^ 1978
 Driller: John Helms
 Core description by Curtis H. Ault

Unit	Description	Thick- ness	Depth		Sample
	Driller's log-20' clay plus 2" of reef				
	Silurian				
	Huntington Lithofacies (reef)^ Wabash Formation^ 50.8 feet.				
1	Dolomite^ skeletal^ light buff-yellow weathered^ very fine-grained matrix^ many fossil molds of fossil fragments--crinoids^ small horn coral(?)^ yellow staining by iron compounds; bedding indistinct and slightly inclined.	2.6	20.0		CA78-0210
2	Dolomite^ similar to above^ calcareous^ less weathered than above^ calcite-filled fractures and vugs^ pyrite(?) in one fracture; inclined bedding.	3.6	22.6		CA78-0211
3	Dolomite^ as above^ weathered yellow coatings^ considerable pyrite.	0.9	26.2		CA78-0212
4	Dolomite^ skeletal^ calcareous to very calcareous^ light gray buff^ fine grained^ indistinct fossil fragments^ may be slightly silty; inclined bedding.	1.8	27.1		CA78-0213
5	Limestone^ dolomitic to very calcareous dolomite^ skeletal^ light gray to light buff^ fossils mostly fragments--shells^ crinoids^ and possibly a few coral fragments.	2.1	28.9		CA78-0214
6	Dolomite^ skeletal^ calcareous to very calcareous^ may be dolomitic limestone in a few crystalline zones^ light gray to buff^ fine- to medium-grained^ fossil fragments--shells^ crinoid fragments^ some stylolitic development^ trace pyrite^ inclined bedding.	8.2	31.0	35.0	CA78-0215
6	Dolomite^ skeletal^ calcareous to very calcareous^ may be dolomitic limestone in a few crystalline zones^ light gray to buff^ fine- to medium-grained^ fossil fragments--shells^ crinoid fragments^ some stylolitic development^ trace pyrite^ inclined bedding.		35.0	39.2	CA78-0216
7	Dolomite^ skeletal^ calcareous in part^ some zones of light buff-colored dolomitic limestone^ fossiliferous with fossil fragments of crinoids and shells among others; dolomitic rock is fossiliferous with calcite vug fillings; inclined bedding.	6.5	39.2		CA78-0217
8	Limestone^ skeletal^ dolomitic in part to dolomite^ calcareous^ gray-yellow weathered surfaces^ calcite-filled vugs^ many molds and vugs^ numerous fossil fragments; inclined bedding.	12.5	45.7	52.0	CA78-0218

8	Limestone^ skeletal^ dolomitic in part to dolomite^ calcareous^ gray-yellow weathered surfaces^ calcite-filled vugs^ many molds and vugs^ numerous fossil fragments; inclined bedding.		52.0	58.2	CA78-0219
9	Dolomite^ skeletal^ light gray^ slightly calcareous in part^ fine grained^ some pyrite and calcite-filled fractures and vugs^ indistinct dolomitized fossil fragment outlines; inclined bedding^ some stylolites.	8.1	58.2	62.0	CA78-0220
9	Dolomite^ skeletal^ light gray^ slightly calcareous in part^ fine grained^ some pyrite and calcite-filled fractures and vugs^ indistinct dolomitized fossil fragment outlines; inclined bedding^ some stylolites.		62.0	66.3	CA78-0221
	Mississinewa shale lithology in flank of reef				
10	Dolomite^ greenish gray^ very fine-grained to fine-grained^ slightly argillaceous and silty; inclined bedding.	2.4	66.3		CA78-0222
	Reef-affected limestone				
11	Limestone^ dolomitic^ skeletal^ light gray^ very fine grained^ indistinct shell fragments^ crinoids(?)^ small coral(?)^ some calcite- filled vugs; slightly inclined bedding.	2.1	68.7		CA78-0223
	Mississinewa Shale Member^ Wabash Formation^ 112.2 feet				
12	Dolomite^ greenish gray^ fine grained^ silty^ argillaceous^ thin gray-colored laminae showing inclined bedding becoming nearly horizontal at base^ some zones slightly lighter in color--probably higher carbonate content.	13.3	70.8	77.0	CA78-0224
12	Dolomite^ greenish gray^ fine grained^ silty^ argillaceous^ thin gray-colored laminae showing inclined bedding becoming nearly horizontal at base^ some zones slightly lighter in color--probably higher carbonate content.		77.0	84.1	CA78-0225
13	Limestone^ dolomitic to calcareous dolomite^ fossiliferous^ light greenish gray^ fine grained^ much higher carbonate content than above^ shell fragments^ crinoid(?) fragments^ coral(?) fragments^ fine-grained pyrite; unit may be reef detritus from nearby reef.	5.2	84.1		CA78-0226
14	Dolomite^ calcareous to dolomitic limestone^ green gray^ silty^ argillaceous^ fine grained^ indistinct fossil fragments^ fine-grained pyrite; higher carbonate content than typical Mississinewa.	8.5	89.3	94.0	CA78-0227
14	Dolomite^ calcareous to dolomitic limestone^ green gray^ silty^ argillaceous^ fine grained^ indistinct fossil fragments^ fine-grained pyrite; higher carbonate content than typical Mississinewa.		94.0	97.8	CA78-0228
15	Dolomite^ green gray^ fine grained^ silty^ argillaceous^ fine-grained pyrite.	2.5	97.8		CA7-0229
16	Dolomite^ calcareous to very calcareous^ green gray but somewhat lighter in color than above unit^ fine grained^ indistinct fossil fragments^ less silty and argillaceous than above^ becoming higher in carbonate content towards unit below.	7.9	100.3	104.0	CA78-0230

16	Dolomite^ calcareous to very calcareous^ green gray but somewhat lighter in color than above unit^ fine grained^ indistinct fossil fragments^ less silty and argillaceous than above^ becoming higher in carbonate content towards unit below.		104.0	108.2	CA78-0231
17	Limestone^ light buff^ fine- to coarse-grained crystals in vugs and fractures^ fossil fragments--shells and other fragments^ stylolites gradational in upper and lower 1.5 feet with adjacent units; may be reef-derived carbonate; irregular bedding.	15.4	108.2	116.0	CA78-0232
17	Limestone^ light buff^ fine- to coarse-grained crystals in vugs and fractures^ fossil fragments--shells and other fragments^ stylolites gradational in upper and lower 1.5 feet with adjacent units; may be reef-derived carbonate; irregular bedding.		116.0	123.6	CA78-0233
18	Dolomite^ green gray^ fine grained^ argillaceous^ silty^ pyrite; has finely worm-burrowed appearance.	24.4	123.6	130.0	CA78-0234
18	Dolomite^ green gray^ fine grained^ argillaceous^ silty^ pyrite; has finely worm-burrowed appearance.		130.0	136.0	CA78-0235
18	Dolomite^ green gray^ fine grained^ argillaceous^ silty^ pyrite; has finely worm-burrowed appearance.		136.0	142.0	CA78-0236
18	Dolomite^ green gray^ fine grained^ argillaceous^ silty^ pyrite; has finely worm-burrowed appearance.		142.0	148.0	CA78-0237
19	Dolomite^ green gray but lighter in color than above^ fine grained^ calcite blebs in small vugs^ pyrite^ some fossil fragments^ higher carbonate content than above unit; some dark colored laminations in zones^ calcite-filled vertical fracture. Note: approximately 5 feet of extra core in interval 140-160 feet.	25.9	148.0	154.0	CA78-0238
19	Dolomite^ green gray but lighter in color than above^ fine grained^ calcite blebs in small vugs^ pyrite^ some fossil fragments^ higher carbonate content than above unit; some dark colored laminations in zones^ calcite-filled vertical fracture. Note: approximately 5 feet of extra core in interval 140-160 feet.		154.0	160.0	CA78-0239
19	Dolomite^ green gray but lighter in color than above^ fine grained^ calcite blebs in small vugs^ pyrite^ some fossil fragments^ higher carbonate content than above unit; some dark colored laminations in zones^ calcite-filled vertical fracture. Note: approximately 5 feet of extra core in interval 140-160 feet.		160.0	166.0	CA78-0240
19	Dolomite^ green gray but lighter in color than above^ fine grained^ calcite blebs in small vugs^ pyrite^ some fossil fragments^ higher carbonate content than above unit; some dark colored laminations in zones^ calcite-filled vertical fracture. Note: approximately 5 feet of extra core in interval 140-160 feet.		166.0	173.9	CA78-0241

20	Dolomite^ calcareous to very calcareous^ buff-brown^ fine grained^ becoming mostly carbonate gradational from above^ some fossil fragments^ slightly silty^ some fine-grained darker colored laminations^ gradational into below unit.	9.1	173.9	179.0	CA78-0242
20	Dolomite^ calcareous to very calcareous^ buff-brown^ fine grained^ becoming mostly carbonate gradational from above^ some fossil fragments^ slightly silty^ some fine-grained darker colored laminations^ gradational into below unit.		179.0	183.0	CA78-0243
	Louisville Limestone^ 68.2 feet				
21	Limestone^ brown and gray brown^ mottled^ fine- to medium-grained crystalline^ slightly silty^ some fossil fragments.	4.4	183.0		CA78-0244
22	Dolomite^ calcareous to very calcareous^ brown^ slightly mottled^ some fossil fragments^ vugs^ fine grained^ slightly silty^ two chert nodules^ irregular fracture.	14.6	187.4	195.0	CA78-0245
22	Dolomite^ calcareous to very calcareous^ brown^ slightly mottled^ some fossil fragments^ vugs^ fine grained^ slightly silty^ two chert nodules^ irregular fracture.		195.0	202.0	CA78-0246
23	Limestone^ brown^ slightly mottled in part^ silty^ fine-grained crystalline^ some small vug (fossil fragments(?)) with calcite^ stylolites^ small white specks.	6.2	202.0		CA78-0247
24	Limestone^ light buff to gray^ strongly mottled^ fine grained^ some blurred fossil fragments^ slightly silty.	7.5	208.2	212.0	CA78-0248
24	Limestone^ light buff to gray^ strongly mottled^ fine grained^ some blurred fossil fragments^ slightly silty.		212.0	215.7	CA78-0249
25	Dolomite^ calcareous to very calcareous^ gray brown^ slightly mottled^ white specks in vug fillings-probably dolomite^ fine grained^ vug outlines of blurred fossil fragments--crinoids(?).	6.6	215.7		CA78-0250
26	Limestone^ dolomitic^ brown^ very fine grained^ silty^ some calcite filling of small vugs^ irregular nodular bedding contacts and very thin black curved laminae at contacts.	6.0	222.3		CA78-0251
27	Dolomite^ calcareous to very calcareous^ may be dolomitic limestone in part^ brown-gray mottled^ silty^ some euhedral crystal development in small vugs^ thin black laminae on bedding planes.	9.4	228.3	233.0	CA78-0252
27	Dolomite^ calcareous to very calcareous^ may be dolomitic limestone in part^ brown-gray mottled^ silty^ some euhedral crystal development in small vugs^ thin black laminae on bedding planes.		233.0	237.7	CA78-0253
28	Dolomite^ gray brown^ slightly mottled^ fine- to medium-grained crystalline^ probably slightly silty^ dark carbonaceous(?) flecks in part^ some small vugs with blurred outlines of fossil fragments; some nodular contacts within unit.	3.7	237.7		CA78-0254

29	Dolomite^ calcareous in part^ brown^ slightly mottled^ fine grained^ some very thin dark laminae at nodular contacts^ white dolomite in some fossil-fragment vug fillings^ pyrite.	3.4	241.4		CA78-0255
30	Dolomite^ slightly calcareous in part^ brown and buff mottled^ fine-grained crystalline^ white dolomite filling of small vugs^ may be slightly silty^ thin black coatings on irregular bedding contacts^ pyrite.	2.5	244.8		CA78-0256
31	Dolomite^ brown^ fine-grained crystalline^ a few small vugs with fossil outlines^ slightly silty; from 248.7 to 249.2 feet the core was split along a vertical fracture. Surface of the fracture is coated with mostly sparry calcite and much pyrite^ but also present is purple and yellowish fluorite and possibly minor sphalerite.	3.9	247.3		CA78-0257
	Waldron Formation^ 24.8 feet.				
32	Dolomite^ nodular^ brown to brown-gray^ calcareous to very calcareous in part^ fine grained^ thin black coatings on nodular surfaces.	24.8	251.2	258.0	CA78-0258
32	Dolomite^ nodular^ brown to brown-gray^ calcareous to very calcareous in part^ fine grained^ thin black coatings on nodular surfaces.		258.0	264.0	CA78-0259
32	Dolomite^ nodular^ brown to brown-gray^ calcareous to very calcareous in part^ fine grained^ thin black coatings on nodular surfaces.		264.0	270.0	CA78-0260
32	Dolomite^ nodular^ brown to brown-gray^ calcareous to very calcareous in part^ fine grained^ thin black coatings on nodular surfaces.		270.0	276.0	CA78-261
	Limberlost Dolomite^ 20 feet drilled				
33	Dolomite^ cream-buff to buff^ very-fine- to fine-grained^ speckled with small dark gray ovoids all showing two concentric dark- colored bands--may be ^fossil outlines in part^ may be allogenic particles in part; small chert nodule.	8.5	276.0	282.7	CA78-0262
33	Dolomite^ cream-buff to buff^ very-fine- to fine-grained^ speckled with small dark gray ovoids all showing two concentric dark- colored bands--may be ^fossil outlines in part^ may be allogenic particles in part; small chert nodule.		282.7	284.5	CA78-0263
34	Dolomite^ light buff with dark gray specks and some mottling with sharp outlines^ fine grained crystalline^ some specks may be included allogenic particles carried in from another source; some gray shading appears authogenic^ some small vugs of fossil outlines.	9.0	284.5	289.0	CA78-0264
34	Dolomite^ light buff with dark gray specks and some mottling with sharp outlines^ fine grained crystalline^ some specks may be included allogenic particles carried in from another source; some gray shading appears authogenic^ some small vugs of fossil outlines.		289.0	293.5	CA78-0265
35	Dolomite^ light buff with a few dark specks and gray shades--much less than above but similar lithology otherwise.		293.5		CA78-0266
	Total depth of core 296.0 feet				

	(Drillers total depth 295.0)				
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