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

MEMORANDUM REPO	RTS BY:	
Name	Date	
1 Gary Yoder & Robert Shaver	July 17, 1982	
2Nelson Shaffer	Jan. 15, 1986	
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	REMARKS	
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Survey Drill Hole 318 1667' FSL x 1038' FWL SW¼ sec. 16, T. 29 N., R. 4 W. Pulaski County, Indiana Elevation 579 feet (floor of quarry) drilling completed June 17, 1982 Core described by Gary Yoder and Robert Shaver

Unit	Description	Depth		Thick- ness	Sample
	Silurian System,				
	Wabash and upper Pleasant Mills Formations, reef facies, 353 ft.				
1	No samples	0.0	20.0		
2	Dolomite, light-gray to white, slightly tan-stained (in part), medium- to coarse- grained; has abundant vuggy and intercrystalline and lesser moldic porosity; is highly weathered; is highly fractured at base	20.0	22.5	2.5	CA86-0001
3.1	Dolomite, as above, becoming significantly blue gray to gray mottled; has abundant crinoid columnals, rare favositid debris, rare brachiopod fragments; is extensively fractured; contains numerous vugs with palisadecement linings	22.5	32.5	37.0	CA86-0002
3.2	Dolomite, as above, becoming significantly blue gray to gray mottled; has abundant crinoid columnals, rare favositid debris, rare brachiopod fragments; is extensively fractured; contains numerous vugs with palisadecement linings	42.5	42.5		CA86-0003
3.3	Dolomite, as above, becoming significantly blue gray to gray mottled; has abundant crinoid columnals, rare favositid debris, rare brachiopod fragments; is extensively fractured; contains numerous vugs with palisadecement linings	42.5	52.5		CA86-0004
3.4	Dolomite, as above, becoming significantly blue gray to gray mottled; has abundant crinoid columnals, rare favositid debris, rare brachiopod fragments; is extensively fractured; contains numerous vugs with palisadecement linings	52.5	59.5		CA86-0005
4	Dolomite, light-gray to slightly blue gray, less mottled than above, medium-to coarse- grained; very vuggy, abundant intergranular porosity; has abundant crinoid columnals and favositid debris, rare Fletcheria and possible brachiopod debris	59.5	10.5		CA86-0006
5.1	Dolomite, mottled light-gray, to blue-gray to slightly tan-gray, predominately medium-grained with lesser amounts of fine- and coarse-grained; has very abundant crinoid columnals, rare Fletcheria and brachiopod debris; vugs with palisade-cement linings; grades into unit below	70.0	80.0	27.0	CA86-0007

CA86-0008
C+0< 0000
CA86-0009
CA86-0010
CA86-0011
CA86-0012
CA86-0013
CA86-0014
CA86-0015
CA86-0016
CA86-0017
CA86-0018
CA86-0019

8.5	Dolomite, as above with large palisade-cement lined vugs; has possible bedding plane fractures at 0 to 15 degree dips, slight amount green mud vug fill at 180 feet; unit becoming stylolitic in lower half	185.0	195.0		CA86-0020
8.6	Dolomite, as above with large palisade-cement lined vugs; has possible bedding plane fractures at 0 to 15 degree dips, slight amount green mud vug fill at 180 feet; unit becoming stylolitic in lower half	195.0	205.0		CA86-0021
8.7	Dolomite, as above with large palisade-cement lined vugs; has possible bedding plane fractures at 0 to 15 degree dips, slight amount green mud vug fill at 180 feet; unit becoming stylolitic in lower half	205.0	210.0		CA86-0022
9.1	Dolomite, as above, with decreasing mottling, rock becoming banded into lighter medium- to coarse-grained and darker bluish gray finer grained layers; noticeable increase in large botryoidal palisade cement lined vugs; less fractures; has fossils as above with some Halysites debris	210.0	220.0	58.0	CA86-0023
9.2	Dolomite, as above, with decreasing mottling, rock becoming banded into lighter medium- to coarse-grained and darker bluish gray finer grained layers; noticeable increase in large botryoidal palisade cement lined vugs; less fractures; has fossils as above with some Halysites debris	220.0	230.0		CA86-0024
9.3	Dolomite, as above, with decreasing mottling, rock becoming banded into lighter medium- to coarse-grained and darker bluish gray finer grained layers; noticeable increase in large botryoidal palisade cement lined vugs; less fractures; has fossils as above with some Halysites debris	230.0	240.0		CA86-0025
9.4	Dolomite, as above, with decreasing mottling, rock becoming banded into lighter medium- to coarse-grained and darker bluish gray finer grained layers; noticeable increase in large botryoidal palisade cement lined vugs; less fractures; has fossils as above with some Halysites debris	240.0	250.0		CA86-0026
9.5	Dolomite, as above, with decreasing mottling, rock becoming banded into lighter medium- to coarse-grained and darker bluish gray finer grained layers; noticeable increase in large botryoidal palisade cement lined vugs; less fractures; has fossils as above with some Halysites debris	250.0	260.0		CA86-0027
9.6	Dolomite, as above, with decreasing mottling, rock becoming banded into lighter medium- to coarse-grained and darker bluish gray finer grained layers; noticeable increase in large botryoidal palisade cement lined vugs; less fractures; has fossils as above with some Halysites debris	260.0	268.0		CA86-0028
10.1	Dolomite, as above, with vugs grading into "stromatactis" like structures; increasing amounts of finer grained blue-gray dolomite with depth; has crinoid debris becoming prominent near base	268.0	278.0	25.0	CA86-0029
10.2	Dolomite, as above, with vugs grading into "stromatactis" like structures; increasing amounts of finer grained blue-gray dolomite with depth; has crinoid debris becoming prominent near base	278.0	288.0		CA86-0030

10.3	Dolomite, as above, with vugs grading into "stromatactis" like structures; increasing amounts of finer grained blue-gray dolomite with depth; has crinoid debris becoming prominent near base	288.0	293.0		CA86-0031
11.1	Dolomite, medium- to dark-gray to blue-gray, medium- to coarse-grained; rock composed primarily of crinoid columnals; stylolitic; has abundant moldic, vuggy, and intercrystalline porosity	293.0	303.0	30.0	CA86-0032
11.2	Dolomite, medium- to dark-gray to blue-gray, medium- to coarse-grained; rock composed primarily of crinoid columnals; stylolitic; has abundant moldic, vuggy, and intercrystalline porosity	303.0	313.0		CA86-0033
11.3	Dolomite, medium- to dark-gray to blue-gray, medium- to coarse-grained; rock composed primarily of crinoid columnals; stylolitic; has abundant moldic, vuggy, and intercrystalline porosity	313.0	323.0		CA86-0034
	Pleasant Mills Formation, nonreef facies, (Salina Group) 26 ft:				
12	Dolomite, light-gray to medium-gray, medium-grained; has abundant green shale laminations; has slight amount vuggy porosity; retains some of the bioclastic texture of above unit; probable Waldron equivalent	323.0	328.4	5.4	CA86-0035
13	Dolomite, very light-gray to light-gray, with dark-gray mottling, medium-grained; has common intercrystalline and vuggy porosity; has slight amount shaly material on fracture surfaces	328.4	329.9	1.5	CA86-0036
14	Dolomite, light- to medium-gray, medium-grained; abundant crinoid debris; has abundant intercrystalline, vuggy, and moldic porosity; reef facies of Limberlost dolomite Member	329.9	332.1	2.2	CA86-0037
15.1	Dolomite, light-gray to tan-gray to brown-gray, with dark-gray mottling, medium-grained; with irregularly spaced shaly laminations and horsetail structures; has abundant crinoid and brachiopod debris; occasional stylolites; becomes lighter, less mottled with depth; abundant intercrystaline and vuggy porosity; grades into unit below; nonreef Limberlost Dolomite Member	332.1	342.1	16.9	CA86-0038
15.2	Dolomite, light-gray to tan-gray to brown-gray, with dark-gray mottling, medium-grained; with irregularly spaced shaly laminations and horsetail structures; has abundant crinoid and brachiopod debris; occasional stylolites; becomes lighter, less mottled with depth; abundant intercrystaline and vuggy porosity; grades into unit below; nonreef Limberlost Dolomite Member	342.1	349.0		CA86-0039
	Salamonie Dolomite, 99.8 ft:				
16.1	Dolomite, very light-gray to light-gray to clear-white, generally medium-grained, very clean; bioclastic in texture, with rare clay seams and stylolites, slightly calcareous in part; abundant porosity; becomes banded in medium-gray and coarse-grained clear-gray layers; occasional crinoid debris, rare corals near base	349.0	359.0	62.2	CA86-0040

16.2	Dolomite, very light-gray to light-gray to clear-white, generally medium-grained, very clean; bioclastic in texture, with rare clay seams and stylolites, slightly calcareous in part; abundant porosity; becomes banded in medium-gray and coarse-grained clear-gray layers; occasional crinoid debris, rare corals near base	359.0	369.0		CA86-0041
16.3	Dolomite, very light-gray to light-gray to clear-white, generally medium-grained, very clean; bioclastic in texture, with rare clay seams and stylolites, slightly calcareous in part; abundant porosity; becomes banded in medium-gray and coarse-grained clear-gray layers; occasional crinoid debris, rare corals near base	369.0	379.0		CA86-0042
16.4	Dolomite, very light-gray to light-gray to clear-white, generally medium-grained, very clean; bioclastic in texture, with rare clay seams and stylolites, slightly calcareous in part; abundant porosity; becomes banded in medium-gray and coarse-grained clear-gray layers; occasional crinoid debris, rare corals near base	379.0	389.0		CA86-0043
16.5	Dolomite, very light-gray to light-gray to clear-white, generally medium-grained, very clean; bioclastic in texture, with rare clay seams and stylolites, slightly calcareous in part; abundant porosity; becomes banded in medium-gray and coarse-grained clear-gray layers; occasional crinoid debris, rare corals near base	389.0	399.0		CA86-0044
16.6	Dolomite, very light-gray to light-gray to clear-white, generally medium-grained, very clean; bioclastic in texture, with rare clay seams and stylolites, slightly calcareous in part; abundant porosity; becomes banded in medium-gray and coarse-grained clear-gray layers; occasional crinoid debris, rare corals near base	399.0	409.0		CA86-0045
16.7	Dolomite, very light-gray to light-gray to clear-white, generally medium-grained, very clean; bioclastic in texture, with rare clay seams and stylolites, slightly calcareous in part; abundant porosity; becomes banded in medium-gray and coarse-grained clear-gray layers; occasional crinoid debris, rare corals near base	409.0	411.2		CA86-0046
17	Dolomite, clear-white to light-gray with distinct darker gray mottling, fine-to medium-grained; with abundant crinoid columnals; has common highly weathered chert nodules which appear to replace fossil material; slightly calcareous; prominent saw tooth stylolites, occasional clay seams	411.2	420.2	9.0	CA86-0047
18.1	Dolomite, light-gray to clear-white, fine- to medium-grained; calcareous to very calcareous with coarse-grained calcite crystals; grading in part into generally medium grained limestone; common crinoid fragments; prominent stylolites with clay concentrations; trace pyrite; porous to nonporous; slightly argillaceous at base	420.2	430.2	17.8	CA86-0048

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18.2	Dolomite, light-gray to clear-white, fine- to medium-grained; calcareous to very calcareous with coarse-grained calcite crystals; grading in part into generally medium grained limestone; common crinoid fragments; prominent stylolites with clay concentrations; trace pyrite; porous to nonporous; slightly argillaceous at base	430.2	438.0		CA86-0049
19	Limestone, green-gray to green to brown, generally fine-grained, calcareous dolomite at top; very argillaceous, abundant shaly laminations and stylolites; occasional coarse-grained calcite crystals	438.0	449.2	11.2	CA86-0050
	Sexton Creek Limestone, 82.2 ft:				
20	Limestone, medium-gray to brown-gray, often darkly iron stained, sublithographic to medium-grained with thin coarse-grained layers; argillaceous, glauconitic; intermittent concentrations of fossil fragments including trilobites and clams; with basal 0.2 ft thick green shale seam	449.2	454.2	5.0	CA86-0051
21.1	Limestone, light brown gray to tan to tan-gray, fine- to coarse-grained becoming generally fine-grained at depth; abundant white to gray highly weathered chert less common at depth; limestone and chert with abundant fossil debris including clams, trilobites, corals, brachiopods, gastropods, and possible crinoid and bryozoan fragments; becoming dolomitic, with decreasing glauconite at depth; with trace pyrite	454.2	464.2	50.1	CA86-0052
21.2	Limestone, light brown gray to tan to tan-gray, fine- to coarse-grained becoming generally fine-grained at depth; abundant white to gray highly weathered chert less common at depth; limestone and chert with abundant fossil debris including clams, trilobites, corals, brachiopods, gastropods, and possible crinoid and bryozoan fragments; becoming dolomitic, with decreasing glauconite at depth; with trace pyrite	464.2	474.2		CA86-0053
21.3	Limestone, light brown gray to tan to tan-gray, fine- to coarse-grained becoming generally fine-grained at depth; abundant white to gray highly weathered chert less common at depth; limestone and chert with abundant fossil debris including clams, trilobites, corals, brachiopods, gastropods, and possible crinoid and bryozoan fragments; becoming dolomitic, with decreasing glauconite at depth; with trace pyrite	474.2	494.2		CA86-0054
21.4	Limestone, light brown gray to tan to tan-gray, fine- to coarse-grained becoming generally fine-grained at depth; abundant white to gray highly weathered chert less common at depth; limestone and chert with abundant fossil debris including clams, trilobites, corals, brachiopods, gastropods, and possible crinoid and bryozoan fragments; becoming dolomitic, with decreasing glauconite at depth; with trace pyrite	494.2	504.3		CA86-0055
22.1	Dolomite, medium-gray to brown-gray to brown, fine- to medium-grained; with abundant interbedded dolomitic brown-gray shale increasing with depth; calcareous, fossiliferous; dolomite becoming very argillaceous and silty with depth; Schweizer Member	504.3	514.2	27.1	CA86-0057

22.2	Dolomite, medium-gray to brown-gray to brown, fine- to medium-grained; with abundant interbedded dolomitic brown-gray shale increasing with depth; calcareous, fossiliferous; dolomite becoming very argillaceous and silty with depth; Schweizer Member	514.2	524.2		CA86-0058
22.3	Dolomite, medium-gray to brown-gray to brown, fine- to medium-grained; with abundant interbedded dolomitic brown-gray shale increasing with depth; calcareous, fossiliferous; dolomite becoming very argillaceous and silty with depth; Schweizer Member	524.2	531.4		CA86-0059
	Ordovician System				
	Brainard Shale (Maquoketa Group) 23.9 ft:				
23.1	Shale, green-gray to green, silty, non-calcareous; occasional pyrite; becoming darker with depth	531.4	541.4	23.9	CA86-0060
23.2	Shale, green-gray to green, silty, non-calcareous; occasional pyrite; becoming darker with depth	541.4	551.4		CA86-0061
23.3	Shale, green-gray to green, silty, non-calcareous; occasional pyrite; becoming darker with depth	551.4	555.3		CA86-0062
	Fort Atkinson Limestone (Maquoketa Group) 4.7 ft:				
24	Limestone, dark-gray to brown to white; argillaceous, with interbedded calcareous shale; contains blue phosphatic material, pyrite; commonly iron stained; very abundant fossil material including large coral fragments and brachiopods	555.3	560.0	4.7	CA86-0063

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Survey Drill Hole 318 NE¼NW¼SW¼ (560 ft. NL, 300 ft. EL) sec 16, T. 29 N., R. 4 W Pulaski County Elev. approx. 590 ft. Logged by Gary Yoder August, 1982

Unit	Description	Depth	
	Silurian System		
20. 1000	Wabash and upper Pleasant Mills Formations, reef facies (Salina Group), 353 ft		
1	No samples	0.0	20.0
2	Dolomite, light-gray to white, slightly tan-stained (in part), medium- to coarse-grained has abundant vuggy and intercrystalline and lesser moldic porosity; is highly weathered; is highly fractured at base	20.0	22.5
3	Dolomite, as above, becoming significantly blue gray to gray mottled; has abundant crinoid columnals, rare favositid debris, rare brachiopod fragments; is extensively fractured; contains numerous vugs with palisade-cement linings	22.5	59.5
4	Dolomite, light-gray to slightly blue gray, less mottled than above, medium- to coarse-grained; very vuggy, abundant intergranular porosity; has abundant crinoid columnals and favosited debris, rare Fletcheria and possible brachiopod debris	59.5	70.0
5	Dolomite, mottled light-gray, to blue-gray to slightly tan-gray, predominately medium-grained with lesser amounts of fine- and coarse-grained; has very abundant crinoid columnals, rare Fletcheria and brachiopod debris vugs with palisade-cement linings; grades into unit below	70.0	97.0
6	Dolomite, as above becoming much lighter in color; mottled (in part); has, abundant Fletcheria debris, rare Arachnophlyum debris	97.0	109.5
7	Dolomite, light-gray medium- to coarse-grained, alternating in bands with blue-gray fine- to medium-grained; very vuggy; has abundant crinoid and common tabulate coral debris	109.5	145.0
8	Dolomite, as above with large palisade-cement lined vugs; has possible bedding plane fractures at 0 to 15 degree dips, slight amount green mud vug fill at 180 feet; unit becoming stylolitic in lower half	145.0	210.0
9	Dolomite, as above, with decreasing mottling, rock becoming banded into lighter medium- to coarse-grained and darker bluish gray finer grained layers; noticeable increase in large botryoidal palisade cement lined vugs; less fractured; has fossils as above with some Halysites debris	210.0	268.0
10	Dolomite, as above, with vugs grading into "stromotactis" like structures increasing amounts of finer grained blue-gray dolomite with depth; has crinoid debris becoming prominent near base	268.0	293.0
11	Dolomite, medium- to dark-gray to blue-gray, medium- to coarse-grained; rock composed primarily of crinoid columnals: stylolitic; has abundant moldic, vuggy, and intercrystalline porosity	293.0	323.0
	Pleasant Mills Formation, nonreef facies, (Salina group) 26 ft		
12	Dolomite, light-gray to medium-gray, medium-grained; has abundant green shale laminations; has slight amount vuggy porosity; retains some of the bioclastic texture of above unit; probable Waldron equivalent	323.0	328.4

		127.00	
13	Dolomite, very light-gray to light-gray, with dark-gray mottling, medium-grained; has common intercrystalline and vuggy porosity; has slight amount shaly material on fracture surfaces	328.4	329.9
14	Dolomite, light- to medium-gray, medium-grained: abundant crinoid debris; has abundant intercrystalline; vuggy and moldic porosity; reef facies of Limberlost Dolomite Member	329.9	332.1
15	Dolomite, light-gray to tan-gray to brown-gray, with dark-gray mottling, medium-grained; with irregularly spaced shaly laminations and horsetail structures; has abundant crinoid and brachiopod debris; occasional stylolites; becomes lighter, less mottled with depth; abundant intercrystalline and vuggy porosity; grades into unit below; nonreef Limberlost Dolomite Member	332.1	349.0
	Salamonie Dolomite, 99.8 ft:		
16	Dolomite, very light-gray to light-gray to clear-white, generally medium-grained, very clean bioclastic in texture, with rare clay seams and stylolites, slightly calcareous in part; abundant porosity; becomes banded in medium-gray and coarse-grained clear-gray layers; occasional crinoid debris, rare corals near base	349.0	411.2
17	Dolomite, clear-white to light-gray with distinct darker gray mottling, fine- to medium-grained with abundant crinoid columnals; has common highly weathered chert nodules which appear to replace fossil material; slightly calcareous prominent saw tooth stylolites, occasional clay seams	411.2	420.2
18	Dolomite, light-gray to clear-white, fine- to medium-grained calcareous to very calcareous with coarse-grained calcite crystals; grading in part into generally medium grained limestone; common crinoid fragments prominent stylolites with clay concentrations; trace pyrite; porous to nonporous; slightly argillaceous at base	420.2	438.0
19	Limestone, green-gray to green to brown, generally fine-grained, calcareous dolomite at top very argillaceous, abundant shaly laminations and stylolites; occasional coarse-grained calcite crystals	438.0	449.2
	Sexton Creek limestone, 82.2 ft:		
20	Limestone, medium-gray to brown-gray, often darkly iron stained, sublithographic to medium-grained with thin coarse-grained layers; argillaceous, glauconitic; intermittent concentrations of fossil fragments including trilobites and clams; with basal 0.2 ft thick green shale seam	449.2	454.2
21	Limestone, light brown-gray to tan to tan-gray, fine- to coarse-grained becoming generally fine-grained at depth; abundant white to gray highly weathered chert less common at depth; limestone and chert with abundant fossil debris including clams, trilobites, corals, brachiopods, gastropods, and possible crinoid and bryozoan fragments; becoming dolomitic, with decreasing glauconite at depth; with trace pyrite	454.2	504.2
22	Dolomite, medium-gray to brown-gray to brown, fine- to medium-grained with abundant interbedded dolomitic brown-gray shale increasing with depth; calcareous, fossiliferous dolomite becoming very argillaceous and silty with depth Schweizer Member	504.2	531.4
	Ordovician System		
	Brainard Shale (Maquoketa Group) 23.9 ft:		
23	Shale, green-gray to green, silty, noncalcareous occasional pyrite becoming darker with depth	531.4	555.3
	Fort Atkinson Limestone (Maquoketa Group) 4.7 ft:		

fragments and brachiopods	24	Limestone, dark-gray to brown to white; argillaceous, with interbedded calcareous shale contains blue phosphatic material, pyrite; commonly iron stained; very abundant fossil material including large coral fragments and brachiopods	555.3	560.0
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Survey Drill Hole 318 Pulaski County 1/15/86 Nelson Shaffer

Unit	Description	Depth		Thick- ness	Sample
	Wabash Reef			,	
		0.0	20.0	20.0	
1	Dol, lt gr-white	20.0	22.5	2.5	CA86-0001
2	Dol lt gr to blue gray - mottled	22.5	32.5	10.0	CA86-0002
3	Dol lt gr to blue gray - mottled	32.5	42.5	10.0	CA86-0003
4	Dol lt gr to blue gray - mottled	42.5	52.5	10.0	CA86-0004
5	Dol lt gr to blue gray - mottled	52.5	59.5	7.0	CA86-0005
6	Dol lt gr less mottled	59.5	70.0	10.5	CA86-0006
7	Dol mottled lt gray	70.0	80.0	10.0	CA86-0007
8	Dol mottled lt gray	80.0	90.0	10.0	CA86-0008
9	Dol mottled lt gray	90.0	97.0	7.0	CA86-0009
10	Dol lt gray	97.0	104.0	7.0	CA86-0010
11	Dol lt gray	104.0	109.5	5.5	CA86-0011
12	Vuggy lt gray dol	109.5	119,5	10.0	CA86-0012
13	Vuggy lt gray dol	119.5	129.5	10.0	CA86-0013
14	Vuggy lt gray dol	129.5	139.5	10.0	CA86-0014
15	Vuggy lt gray dol	139.5	145.0	5.5	CA86-0015
16	Vuggy lt gray dol	145.0	155.0	10.0	CA86-0016
17	Vuggy lt gray dol	155.0	165.0	10.0	CA86-0017
18	Vuggy lt gray dol	165.0	175.0	10.0	CA86-0018
19	Vuggy lt gray dol	175.0	185.0	10.0	CA86-0019
20	Vuggy lt gray dol	185.0	195.0	10.0	CA86-0020
21	Vuggy lt gray dol	195.0	205.0	10.0	CA86-0021
22	Vuggy lt gray dol	205.0	210.0	5.0	CA86-0022
23	Vuggy banded in part lt gray dol	210.0	220.0	10.0	CA86-0023

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24	Vuggy banded in part lt gray dol	220.0	230.0	10.0	CA86-0024
25	Vuggy banded in part lt gray dol	230.0	240.0	10.0	CA86-0025
26	Vuggy banded in part lt gray dol	240.0	250.0	10.0	CA86-0026
27	Vuggy banded in part lt gray dol	250.0	260.0	10.0	CA86-0027
28	Vuggy banded in part lt gray dol	260.0	268.0	8.0	CA86-0028
29	Similar dol	268.0	278.0	10.0	CA86-0029
30	Similar dol	278.0	288.0	10.0	CA86-0030
31	Similar dol	288.0	293.0	5.0	CA86-0031
32	Similar vuggy dol	293.0	303.0	10.0	CA86-0032
33	Similar vuggy dol	303.0	313.0	10.0	CA86-0033
34	Similar vuggy dol	313.0	323.0	10.0	CA86-0034
	Pleasant Mills Fm				
35	Dol Waldron equivalent - green shale lam	323.0	328.4	5.4	CA86-0035
36	Dol - slightly shaly	328.4	329.9	1.5	CA86-0036
	Limberlost reef member				
37	Dol	329.9	332.1	2.2	CA86-0037
38	Dol - lt gray - some shaly lam	332.1	342.1	10.0	CA86-0038
39	Dol - It gray - some shaly	342.1	349.0	6.9	CA86-0039
40	Dol - very lt gray	349.0	359.0	10.0	CA86-0040
41	Dol - very lt gray	359.0	369.0	10.0	CA86-0041
42	Dol - very lt gray	369.0	379.0	10.0	CA86-0042
43	Dol - very lt gray	379.0	389.0	10.0	CA86-0043
44	Dol - very lt gray	389.0	399.0	10.0	CA86-0044
45	Dol - very lt gray	399.0	409.0	10.0	CA86-0045
46	Dol - rare corals	409.0	411.2	2.2	CA86-0046
47	Dol - white to lt gray	411.2	420.2	9.0	CA86-0047
48	Dol - white to lt gray	420.2	430.2	10.0	CA86-0048
49	Dol - white to lt gray	430.2	438.0	7.8	CA86-0049
50	Limestone - green gray lt br	438.0	449.0	11.2	CA86-0050
	Sexton Creek		,		

51	Limestone - med gray to brown gray	449.2	454.2	5.0	CA86-0051
52	Limestone, w/weathered chert	454.2	464.2	10.0	CA86-0052
53	Limestone, w/weathered chert	464.2	474.2	10.0	CA86-0053
54	Limestone, w/weathered chert	474.2	484.2	10.0	CA86-0054
55	Limestone, w/weathered chert	484.2	494.2	10.0	CA86-0055
56	Limestone, w/weathered chert	494.2	504.2	10.0	CA86-0056
	Schweiger Member				
57	Dol - med gray - brown gray - brown	504.2	514.2	10.0	CA86-0057
58	Dol - med gray - brown gray - brown	514.2	524.2	10.0	CA86-0058
59	Dol - med gray - brown gray - brown	524.2	531.0	7.0	CA86-0059
	Ordovician		3 25. 3		
	Brainard Sh				
60	Shale	531.4	541.4	10.0	CA86-0060
61	Shale	541.4	551.4	10.0	CA86-0061
62	Shale	551.4	555.3	3.9	CA86-0062
	Fort Atkinson Ls				
63	Ls	555.3	560.0	4.7	CA86-0063

SDH 318

Sampled 1/15/86 By Nelson Shaffer

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Description of core recovered from Indiana State Geological Survey drill hole 318 in the NE1/4 NW1/4 SW1/4 (560 ft. NL, 300ft. EL) sec 16 T29N-R4W Pulaski County, Indiana. Elev. approx. 590 ft.

Logged by Gary Yoder, August, 1982; supervised by Michel Suaven Field Clacked, 19

Swy
1667'SL 1038'C

feet ELEU. 57

Wabash and upper Pleasant Mills Formations, reef facies (Salina Group), 353 ft: 1. No samples......

CA86-1

2.Colomite, light-gray to white, slightly tan-sta(ined (in part), medium- to coarse- grained; has abundant vuggy and intercrystalline and lesser moldic porosity; is highly weathered; is highly fractured at base

CASLI

CA86-2 (10') -4 (10) -5(7)

3. Dotomite, as above, becoming significantly blue gray to gray mottled; has abundant crimoid columnals, rare favositid debris, rare brachiopod fragπents; is extensively fractured; contains rumerous vugs with palisade-cement linings.

16 CA85-2 m

CA86-6 (103)

4. Dolomite, light-gray to slightly blue gray, less mottled than above, medium- to coarse- grained; very vuggy, abundant intergranular porosity; has abundant crinoid columnals and favosited debris, rare <u>Fletcheria</u> and possable brachiopod debris

CA86-7 (10') -8 (10.) -9 (7)

5. Dolomite, mottled light-gray, to bluegray to slightly tan-gray, predominately medium-grained with lesser amounts of fine- and coarse-grained; has very abundant crinoid columnals, rare <u>Fletcheria</u> and brachiopod debris; vugs with palisade-cement linings; grades into unit below 70.0-97.0

CA86-10 (3')

6. Dolomite, as above becoming much lighter in color; mottled (in part); has abundant Fletcheria debris, rare Arachnophylum

CA86-12 (10) -13 (10) -14 (10) -15 (5,5)

7. Dolomite, light-gray medium- to coarsegrained, alternating in bards with bluegray fine- to medium-grained; very vuggy; has abundant crinoid and common tabulate

CH86-16 (10') -17 (10) -18 (10) -20 (10') -21 (10') -22 (51)

R. Dolomite, as above with large palisadecement lined vugs; has possable bedding plane fractures at 0 to 15 degree dips, slight amount green mud vug fill at 180 feet; unit becoming stylolitic in lower

CAS6 - 23 (10) - 24 (10) -25 (10) -26 (10) -27 (ID) - SE (B)

9. Dotomite, as above, with cecreasing mottling, rock becoming banded into lighter medium- to coarse-grained and darker bluish gray finer grained layers; roticeable increase in large botryoidal palisade cement lined vugs; less fractured; has fossils as above with some <u> Halysites</u> debris

CA86 -29 (10') -36 (10°) 10. Colomite, as above, with vugs grading into "stromatactis" like structures; increasing amounts of finer grained bluegray dolomite with depth; has crinoid cebris becoming prominant rear base

CA86-32 (10) -33 (10) -34 (10)

11. Colomite, medium- to dark-gray to bluegray, medium- to coarse-grained; rock composed primarily of crinoid columnals; stylolitic; has abundant meldic, vuggy, and intercrystalline porosity 293.0-323.0

Pleasant Mills Formation, nonreef facies, (Salira group) 26 ft:

12. Colomite, light-gray to medium-gray, CA86-35 (5.4) medium-grained; has abundant green shale laminations; has slight amount vuggy porosity; retains some of the bioclastic texture of above unit; probable Waldron 323.6-328.4 J equivalent

13. Colomite, very light-gray to light-A86-36 (15') gray, with dark-gray mottling, medium-grained; has common intercrystalline and vuggy porosity; has slight amount shaly material on fracture surfaces 328.4-329.9

> 14. Dolomite, light- to medium-gray, medium- grained; abundant crinoid debris; has

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15. Colomite, light-gray to tan-gray to
      trown-gray, with dark-gray mottling, redium-grained; with iregularly spaced shaly laminations and horsetail structures; has abundant crinoid and trachiopod debris; occasional stylolites;
                        tecomes lighter, less mottled with depthi
                        abundant intercrystaline and vuggy poros-
                        ity; grades into unit below; nonreef
                        Limberlost Dolomite Member ....
                                                             ... 332.1-349.0
                  Salamonie Dolomite, 99.8 ft:
                      16. Dolomite, very light-gray to light-gray
     ~40 (w)
                        to clear-white, generaly medium-grained,
     -41 (10)
                        very clean; bioclastic in texture, with
     -43 (10)
-43 (10)
                        rare clay seams and stylolites, slightly
                        calcareous in part; abundant porosity;
                        becomes banded in medium-gray and coarse-
                        grained clear-gray tayers; ocasional
     - 45 (10)
                        crinoid debris, rare corals
     - 46 (2,2)
                        rear base ......
                      17. Dolomite, clear-white to light-gray
                        with distinct darker gray mottling, fine-
                        to medium-grained; with abundant crinoid
  CA86-47 (9.0)
                        columnals; has common highly weathered
                        chert nodules which appear to replace
                        fossil material; slightly calcareous;
                        prominant saw tooth stylolites,
                        cccasional clay seams .......... 411.2-420.2
CA86-48 (b) 18. Dolomite, light-gray to clear-white, fine- to medium-grained; calcareous to
                        very calcareous with coarse-grained
      -49 (7,8) calcite crystals; grading in part into cenerally medium grained limestone; co
                        generally medium grained limestone; com-
                        non crinoid fragments; prominant
                        stylolites with clay concentrations;
                        trace pyrite; porous to nonporous;
                        slightly argillaceous
                                                            · · · · 420 • 2-438 • 0
                        at base ........
                      19. Limestone, green-gray to green to
:A86-50 (11.2')
                        trown, generaly fine-grained, calcareous
                        colomite at top; very argillaceous.
                        abundant shaly taminations and
                        stylolites; occasional coarse-grained
                        calcite crystals ...... 438.0-449.2
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Sexton Creek Limestone, 82.2 ft: 20. Limestone, medium-gray to brown-gray, often darkly iron stained, sublitho-CA86-51 (6) graphic to medium-grained with thin coarse-grained layers; argillaceous, glauconitic; intermitant concentrations of fossil fragments including trilobites and clams; with basal 0.2 ft thick green shale seam 449.2-454.2 CA86 - 52 (10) 21. Limestone, light brown-gray to tan to tan-gray, fine- to coarse-grained becoming -53 (io) generally fine-grained at cepth; abundant white to gray highly weathered chert less common at -54 (10) cepth; limestone and chert with abundant fossil debris including clams, trilobites, corals, -55 (10) trachiopods, gastropods, and possable crinoid and - 56 (10) bryozoan fragments; becoming dolomitic, with decreasing glauconite at depthi with trace pyrite 454.2-504.2 22. Colomite, medium-gray to brown-gray to CA86-57 (10) 27 -58 (10) -59 (7,1) trown, fine- to medium-grained; with abundant interbedded dolomitic brown-gray shale increasing with depthi calcareous, fossiliferous; dolomite becoming very argillaceous and silty with depth; Schweizer Member Ordovician System CASS - 60 (10)

Brainard Shale (Maquoketa Group) 23.9 ft:

-61 (10)

23. Shale, green-gray to green, silty, noncalcareous; occasional pyrite; becoming
carker with 531.4-555.3 cepth . Fort Atkinson Limestone (Maguoketa Group) 4.7 ft:

CA86-63

24. Limestone, dark-gray to brown to white; argillaceous, with interbedded calcareous shale; contains blue phosphatic material, cyrite; commonly iron stained; very abundant fossil material including large coral fragments and

Indiana Geological Survey Survey Drill Hole 318

1667' FSL x 1038' FWL SW¼ sec. 16, T. 29 N., R. 4 W. Pulaski County, Indiana

Elevation 579 feet (floor of quarry) drilling completed June 17, 1982

Core described by Gary Yoder and Robert Shaver

<u>Unit</u>	Description	Depth to top of <u>Unit</u>	Thick- ness (ft)	Sample number
	System, sh and upper Pleasant Mills Formations, reef facie	es, 353 ft.		
1.	No samples	0.0	20.0	
2.	Dolomite, light-gray to white, slightly tan- stained (in part), medium- to coarse- grained; has abundant vuggy and intercrystalline and lesser moldic porosity; is highly weathered; is highly fractured at base	20.0	2.5	CA86-1 20.0-22.5
3.	Dolomite, as above, becoming significantly blue gray to gray mottled; has abundant crinoid columnals, rare favositid debris, rare brachiopod fragments; is extensively fractured; contains numerous vugs with palisade-cement linings	22.5	37.0	CA86-2 22.5-32.5 CA86-3 32.5-42.5 CA86-4 42.5-52.5 CA86-5 52.5-59.5
4.	Dolomite, light-gray to slightly blue gray, less mottled than above, medium- to coarse-grained; very vuggy, abundant intergranular porosity; has abundant crinoid columnals and favositid debris, rare <u>Fletcheria</u> and possible brachiopod debris	59.5	10.5	CA86-6
5.	Dolomite, mottled light-gray, to blue-gray to slightly tan-gray, predominately medium-grained with lesser amounts of fine- and coarse-grained; has very abundant crinoid columnals, rare <u>Fletcheria</u> and brachiopod debris; vugs with palisade-cement linings; grades into unit below	70.0	27.0	CA86-7 70.0-80.0 CA86-8 80.0-90.0 CA86-9 90.0-97.0

Ordovician System

Brainard Shale (Maquoketa Group) 23.9 ft:

23.	Shale, green-gray to green, silty, non-	531.4	23.9	CA86-60
	calcareous; occasional pyrite; becoming			531.4-541.4
	darker with depth			CA86-61
				541.4-551.4
				CA86-62
				551.4-555.3

Fort Atkinson Limestone (Maquoketa Group) 4.7 ft:

24. Limestone, dark-gray to brown to white; 555.3 4.7 CA86-63 argillaceous, with interbedded calcareous 555.3-560.0 shale; contains blue phosphatic material, pyrite; commonly iron stained; very abundant fossil material including large coral fragments and brachiopods

17.	Dolomite, clear-white to light-gray with distinct darker gray mottling, fine- to medium-grained; with abundant crinoid columnals; has common highly weathered chert nodules which appear to replace fossil material; slightly calcareous; prominent saw tooth stylolites, occasional clay seams	411.2	9.0	CA86-47 411.2-420.2
18.	Dolomite, light-gray to clear-white, fine- to medium-grained; calcareous to very calcareous with coarse-grained calcite crystals; grading in part into generally medium grained limestone; common crinoid fragments; prominent stylolites with clay concentrations; trace pyrite; porous to nonporous; slightly argillaceous at base	420.2	17.8	CA86-48 420.2-430.2 CA86-49 430.2-438.0
19.	Limestone, green-gray to green to brown, generally fine-grained, calcareous dolomite at top; very argillaceous, abundant shaly laminations and stylolites; occasional coarse-grained calcite crystals	438.0	11.2	CA86-50 438.0-449.2
	Sexton Creek Limestone, 82.2 ft:		*	
20.	Limestone, medium-gray to brown-gray, often darkly iron stained, sublithographic to medium-grained with thin coarse-grained layers; argillaceous, glauconitic; intermittent concentrations of fossil fragments including trilobites and clams; with basal 0.2 ft thick green shale seam	449.2	5.0	CA86-51 449.2-454.2
21.	Limestone, light brown gray to tan to tangray, fine- to coarse-grained becoming generally fine-grained at depth; abundant white to gray highly weathered chert less common at depth; limestone and chert with abundant fossil debris including clams, trilobites, corals, brachiopods, gastropods, and possible crinoid and bryozoan fragments; becoming dolomitic, with decreasing glauconite at depth; with trace pyrite	454.2	50.1	CA86-52 454.2-464.2 CA86-53 464.2-474.2 CA86-54 484.2-494.2 CA86-55 494.2-504.2
22.	Dolomite, medium-gray to brown-gray to brown, fine- to medium-grained; with abundant interbedded dolomitic brown-gray shale increasing with depth; calcareous, fossiliferous; dolomite becoming very argillaceous and silty with depth; Schweizer Member	504.3	27.1	CA86-57 504.2-514.2 CA86-58 514.2-524.2 CA86-59 524.2-531.4

11.	Dolomite, medium- to dark-gray to blue- gray, medium- to coarse-grained; rock composed primarily of crinoid columnals; stylolitic; has abundant moldic, vuggy, and intercrystalline porosity	293.0	30.0	CA86-32 293.0-303.0 CA86-33 303.0-313.0 CA86-34 313.0-323.0
	Pleasant Mills Formation, nonreef facies, (Salina	Group) 26 ft:		
12.	Dolomite, light-gray to medium-gray, medium-grained; has abundant green shale laminations; has slight amount vuggy porosity; retains some of the bioclastic texture of above unit; probable Waldron equivalent	323.0	5.4	CA86-35 323.0-328.4
13.	Dolomite, very light-gray to light-gray, with dark-gray mottling, medium-grained; has common intercrystalline and vuggy porosity; has slight amount shaly material on fracture surfaces	328.4	1.5	CA86-36 328.4-329.9
14.	Dolomite, light- to medium-gray, medium- grained; abundant crinoid debris; has abundant intercrystalline, vuggy, and moldic porosity; reef facies of Limberlost dolomite Member	329.9	2.2	CA86-37 329.9-332.1
15.	Dolomite, light-gray to tan-gray to brown-gray, with dark-gray mottling, medium-grained; with irregularly spaced shaly laminations and horsetail structures; has abundant crinoid and brachiopod debris; occasional stylolites; becomes lighter, less mottled with depth; abundant intercrystaline and vuggy porosity; grades into unit below; nonreef Limberlost Dolomite Member	332.1	16.9	CA86-38 332.1-342.1 CA86-39 342.1-349.0
	Salamonie Dolomite, 99.8 ft:			
16.	Dolomite, very light-gray to light-gray to clear-white, generally medium-grained, very clean; bioclastic in texture, with rare clay seams and stylolites, slightly calcareous in part; abundant porosity; becomes banded in medium-gray and coarse-grained clear-gray layers; occasional crinoid debris, rare corals near base	349.0	62.2	CA86-40 349.0-359.0 CA86-41 359.0-369.0 CA86-42 369.0-379.0 CA86-43 379.0-389.0 CA86-44 389.0-399.0 CA86-45 399.0-409.0 CA86-46 409.0-411.2

6.	Dolomite, as above becoming much lighter in color; mottled (in part); has abundant Fletcheria debris, rare Arachnophylum debris	97.0	12.5	CA86-10 97.0-104.0 CA86-11 104.0-109.5
7.	Dolomite, light-gray medium- to coarse- grained, alternating in bands with blue-gray fine- to medium-grained; very vuggy; has abundant crinoid and common tabulate coral debris	109.5	35.5	CA86-12 109.5-119.5 CA86-13 119.5-129.5 CA-14 129.5-139.5 CA-15 139.5-145.0
8.	Dolomite, as above with large palisade- cement lined vugs; has possible bedding plane fractures at 0 to 15 degree dips, slight amount green mud vug fill at 180 feet; unit becoming stylolitic in lower half	145.0	65.0	CA86-16 145.0-155.0 CA86-17 155.0-165.0 CA86-18 165.0-175.0 CA86-19 175.0-185.0 CA86-20 185.0-195.0 CA86-21 195.0-205.0 CA86-22 205.0-210.0
9.	Dolomite, as above, with decreasing mottling, rock becoming banded into lighter medium- to coarse-grained and darker bluish gray finer grained layers; noticeable increase in large botryoidal palisade cement lined vugs; less fractures; has fossils as above with some Halysites debris	210.0	58.0	CA86-23 210.0-220.0 CA86-24 220.0-230.0 CA86-25 230.0-240.0 CA86-26 240.0-250.0 CA86-27 250.0-260.0 CA86-28 260.0-268.0
10.	Dolomite, as above, with vugs grading into "stromatactis" like structures; increasing amounts of finer grained blue-gray dolomite with depth; has crinoid debris becoming prominent near base	268.0	25.0	CA86-29 268.0-278.0 CA86-30 278.0-288.0 CA86-31 288.0-293.0

FARM: WESTERN MATERIALS. Co. COMMENCED: 3

LOCATION: County PULLSKI Typ. 291 Rge. 4W Sec. 16 56CNL 300 EL NENWSW

	COF	RE				TOG	CORE LI	BRARY
RUN NO.	FROM	TO	RECOVERY	FROM	TO	DESCRIPTION (REMARKS)	NOTATIO	JNS
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	10	15		36		dombite white		
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6	130	140	12			10 domalite loss parione		

SDH NUMBER:

FARM: WESTERNAMECO

commenced: 3/ $\frac{99}{89}$ completed:

LOCATION: County PULBSKI Twp. 29N Rge. WW. Sec. 16

SGONL, 300 EL ELEVATION: 300

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OF.	130	190	17		·	10' domplet more praires	
9	190	200	18			domplite major sorios	The state of the s
100	200	210	19			domelite more pours	
10	210	220	20			10' domolith more moreman	
11.	220	220	21			10' domolite less pours	
11	230	240	22			10 blutish month	
12	240	250	23			10' domolite less noveme	
12	250	260	24			Comolite less porious	
13	260	270	25		\$.	domlite less porions	
13	270	280	26			donolite les sources	
14	280	290	27	-		Somatite less jurions	

SDH NUMBER: 3/8 FARM: WESTERN MATERIALS Co. COMMENCED: 3/14/

LOCATION: County PulaskI Twp. 29N Rge. 4W Sec. 16 56 CM 300 BL ELEVATION: 300

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15	200	310	29			Mursh whitedome larger		
15	310	320	30			blush white dome larger		
/6	320	330	31			bluesh - white dame langur		
16	330	340	32	<u> </u>		lolieit-whitedown Angon.		
17	340	350	3 3			10' Shreish white dome lun por		
17	3 50	360	34			10 blusish white lome langer		
/8	3 <i>60</i>	370	35			arenist more domos less per		
15	3 7 0	380	36	,		101 grenish-gray done Juspo		
19	380	390	37			101 greenish - gray dons, les spor		
19	390	400	38		-	10' greenish gray dono, less you		
20	400	410	39			quenish-It gray donor lass po		
20	410	420	40			grenist to gray done less por	١	
21	420	430	41			orceash lat, man domo las son		
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SDH NUMBER: 3/4 FARM: WESTERN MATERIALS COMMENCED: 3/14/82 COMPLETED:

LOCATION: County PULASKJ Twp. 29N Rge. 4W Sec. 16 S60NL 300'EL ELEVATION: 300'

	COI	RE				LOG	CORE L	
RUN NO.	FROM	TO	RECOVERY	FROM	TO	DESCRIPTION (REMARKS)	NOTAT	LONS
22	440	450	43			smooth white lineartine, some grow		
22	450	460	44			sonothe white limestone, some chest	l l	
. 23	460	470	45			amoth shit limitere, some chart		
23	470	480	46			Smoth white & gran linestne some ship	- .	
124	480	490	47			smooth white & gray lim stone since	t	
24	490	500	48			sprooth white + may limestone; since		, * .
.25	500	5/0	49			10' south white + aray linestone		
25	5/0	520	50			10' 4	neys	
26	520	530	51			smooth on we dimention some or much		
26	530	540	52			smooth grunish grown a brak		,
27	540	550	53			Smooth granish gray shale	-	
27	S 5 0	560	54			greenish grow shall ligneston shalo so	ne oil	1
* * * * *								2

SDH NUMBER: 318 FARM: Western Materials Company COMMENCED: 3/14/82 COMPLETED: 6/17/82

	COF	RE				LOG	CORE LIE	
RUN NO.	FROM	TO	RECOVERY	FROM	TO	DESCRIPTION (REMARKS)	NOTATIO	JIVS .
	0	5				White dolomite		
	5	10				White dolomite		
	10	15				White dolomite		
-	15	20				White dolomite		
1	20	30	1			10'-Dolomite, very porous		
1	30	40	2			10'-Dolomite, very porous		
2	40	50	3			10'-Dolomite, very porous		
2 -	50	60	4			10'-Dolomite, very porous		
3	60	70	5			10'-Dolomite, less porous		
3	70	80	6			10'-Dolomite, less porous		
4	80	90	7			10'-Dolomite, less porous		
4 -	90	100	8			10'-Dolomite, less porous		
5	100	110	9			10'-Dolomite, less porous		
5	110	120	10			10'-Dolomite, less porous		
6	120	130	11		,	10'-Dolomite, less porous		

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	COR	E			LOG			
RUN NO.	FROM	TO	RECOVERY	FROM	то	DESCRIPTION (REMARKS)	NOTAT	10110
6	130	140	12			10'-Dolomite, more porous		
7	140	150	13			10'-Dolomite, less porous		
7	150	160	14			10'-Dolomite, less porous		
8	160	170	15	,		10'-Dolomite, less porous		
8	170	180	16			10'-Dolomite, more porous		5 . 5
9	180	190	17			10'-Dolomite, more porous		
9	190	200	18			10'-Dolomite, more porous		
10	200	210	19 、			10'-Dolomite, more porous		
10	210	220	20			10'-Dolomite, less porous		
11	220	230	21			10'-Blueish white dolomite, less porous		
11	230	240	22			10'-Dolomite, less porous		
.12	240	250	23			10'-Dolomite, less porous		
12	250	260	24			10'-Dolomite, less porous	-	
13	260	270	25			10'-Dolomite, less porous		
13	270	289	26			10'-Dolomite, less porous		÷

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	COR	E		, ,	· · · · · · · · · · · · · · · · · · ·	LOG	CORE LIBRARY
RUN NO.	FROM	TO	RECOVERY	FROM	TO	DESCRIPTION (REMARKS)	NOTATIONS
14	280	290	27.			10'-Blueish white dolomite, less porous	
14	290	300	28			10'-Blueish white dolomite, less porous	
15 .	300	310	29			10'-Blueish white dolomite, less porous	3
15	310	320	30			10'-Blueish white dolomite, less porous	
16	320	330	31			10'-Blueish white dolomite, less porous	
16	330	340	32			10'-Blueish white dolomite, less porous	
17	340	350	33			10'-Blueish white dolomite, less porous	
17 ·	350	360	34			10'-Greenish light gray dolomite, less poro	us
18	360	370	35			10'-Greenish gray dolomite, less porous	
18	370	380	36			10'-Greenish gray dolomite, less porous	
19	380	390	37			10'-Greenish gray dolomite, less porous	
19 ,	390	400	38			10'-Greenish light gray dolomite, less poro	us
20	400	410	39			10'-Greenish light gray dolomite, less poto	us
20	410	420	40			10'-Greenish light gray dolomite, less poro	us
21	420	430	41		,	10'-Greenish light gray dolomite, less poro	us

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	COR	E .				LOG	CORE LIBRARY NOTATIONS
RUN NO.	FROM	TO	RECOVERY	FROM	TO	DESCRIPTION (REMARKS)	NOTATIONS
21	430	440	42			10'-Smooth white limestone, some green shale	
22	440	450	43			10'-Smooth white limestone, some chert	
22	450	460	44			10'-Smooth white limestone, some chert	
23	460	470	45			10'-Smooth white & gray limestone, some cher	t
23	470	480	46			10'-Smooth white & gray limestone, some cher	t
24	480	490	47			10'-Smooth white & gray limestone, some cher	t
24	490	500	48			10'-Smooth white & gray limestone	
25 ·	500	510	49 、			10'-Smooth gray limestone, some dark gray	
25	510	520	5Q			10'-Smooth gray limestone, some greenish gra	ıy
26	520	530	.51			10'-Smooth greenish gray shale	·
26	530	540	52			10'-Smooth greenish gray shale	
27	540	550	53			6'-Greenish gray shale; 4'-Limestone, shale	, some oil
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