

County PUTNAM
T 13 N R 4 W
Sec SW NE SW SW 4
Other Survey

Quarry or Pit.....Core...X...Dim.....Other.....
Name...Summitt Nos. 1, 2, and 3.....
Former Names.....
.....
Operator...Ohio and Indiana Stone Co......
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
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REMARKS

INDIANA GEOLOGICAL SURVEY
INDUSTRIAL MINERALS SECTION
CORE DESCRIPTION

Ohio and Indiana Stone Company

Farm: Summitt No. 1

Location: SW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 4, T. 13 N., R. 4 W., Putnam County

Locality: About 1 mile north of Putnamville

Surface elevation: 790 feet

Total depth: 86.4 feet

Core description: Priscilla Nelson, August 1972

Unit	Description	Depth in feet	
		from	to
1	No information	0.0	14.3
	Mississippian System		
	Chester Series		
	<u>Paoli Limestone</u>		
2	Limestone, light olive gray (5Y6/2), oolitic, burrowed with green micritic mud as filling.	14.3	14.5
3	Shale, greenish gray (5GY6/1), non-fissile, with sand-size limestone detritus.	14.5	15.2
	Meramac Series		
	<u>Ste. Genevieve Limestone</u>		
	Levias Member		
4	Limestone, medium olive gray (5Y5/1), skeletal oolitic, pyritic, with a minor, but gradually increasing lithographic micritic component.	15.2	20.5
	Note: 0.9' core missing from interval 14.3 to 21.4'.		
5	Limestone, light olive gray (5Y6/1), lithographic, micritic-skeletal, recrystallized to grainy texture near shales. Shale breaks becoming very numerous to base, thinly bedded, slightly to moderately porous, pyritic.	21.4	27.4
6	Limestone, as unit 5.	27.4	29.7
7	Limestone, light olive gray (5Y6/1), oolitic, with grains being dominantly recrystallized coated skeletal grains. Most elongated grains show preferred horizontal orientations, coarsely crystalline texture, shale breaks common only in top of unit. Zone of extensively burrowed lithographic limestone at 33.1 to 34.0, pyrite concentrated at edges of burrows.	29.7	35.1
	Spar Mountain Member		
8	Sandstone, very light gray (N8), fine quartz sand cemented by white calcite. Top 0.4' contain much calcareous skeletal and oolitic material, unit is very porous and medium bedded.	35.1	41.1

Unit	Description	Depth in feet	
		from	to
9	Sandstone, as unit 8, but basally, unit contains intraclasts of superficial oolites and micritic limestone.	41.1	43.2
10	Limestone, dark yellow brown (10YR4/2), oolitic, with skeletal material forming bulk of non-recrystallized nuclei. Approximately 10% quartz, most as discrete detrital grains, but few forming nuclei of coated grains. Numerous zones of chert-replaced algal material. Unit becomes conglomeratic at base, with chert, quartz and limestone pebbles in a brown chert matrix.	43.2	46.4
Fredonia Member			
11	Limestone, medium olive gray (5Y5/1), extensively recrystallized skeletal micrite. Some grains may have been coated; skeletal material mainly algae and foraminifera, algal mats at 46.4' and 47.7', unit is grainy textured, medium bedded, very few shale breaks, slightly porous.	46.4	51.1
12	Limestone, light olive gray (5Y6/1), lithographic micritic with few 1" zones of skeletal matter, chert in upper 2', nodular; scattered shale breaks medium to thinly bedded, slightly porous.	51.1	54.8
13	Limestone, as unit 11, but without algal mats, many shale breaks from 55.4' to 56.4', thinly bedded, slightly glauconitic.	54.8	57.9
14	Limestone, light olive gray (5Y6/1), lithographic micritic as unit 12, no chert, stylolites scattered.	57.9	58.7
15	Limestone, light olive gray (5Y6/1) recrystallized skeletal-oolitic, coarsely crystalline texture, stylolites common.	58.7	60.0
16	Limestone, medium olive gray (5Y5/1), skeletal micritic limestone, scattered shale breaks, largely recrystallized, slightly porous, medium bedded, pyritic.	60.0	63.5
17	Limestone, light olive gray (5Y6/1), micritic skeletal, coarsely crystalline texture, stylolitic, no shale breaks, medium bedded.	63.5	65.5
18	Limestone, light olive gray (5Y6/1), pelletal micrite, coarsely crystalline, glauconitic, stylolitic, medium bedded, slightly porous.	65.5	70.2

<u>Unit</u>	<u>Description</u>	<u>Depth in feet</u>	
		<u>from</u>	<u>to</u>
19	Limestone, light olive gray (5Y6/1), lithographic micritic-skeletal, stylolitic, brittle, thinly bedded, non-porous.	70.2	70.8
20	Dolomite, olive gray (5Y4/1), slightly porous, interlayered with green calcareous shaley material from 71.4' - 71.6'.	70.8	72.1
21	Limestone, dark yellow brown (10YR4/2) skeletal pelletal, massive, slightly porous.	72.1	73.0
22	Limestone, light olive gray (5Y6/1), lithographic micritic skeletal, thinly bedded, non-porous, voids filled with spar.	73.0	75.3
23	Limestone, light olive gray (5Y6/1), micritic, recrystallized to a grainy texture, argillaceous bands common, scattered nodular chert, also with grainy texture.	75.3	75.7
24	Dolomite, olive gray (5Y4/1), sugary, dense.	75.7	76.0
<u>St. Louis Limestone</u>			
25	Limestone, light olive gray, (5Y6/1), skeletal pelletal, becoming micritic skeletal by 76.6'. Stylolitic, thin to medium bedded, no shale breaks.	76.0	77.9
26	Limestone, dark yellow brown (10YR4/2), micritic-with minor skeletal component. Grainy at top, becoming lithographic basally, medium bedded, chert scattered at base of unit, no shale breaks, no stylolites.	77.9	81.2
27	Limestone, light olive gray (5Y6/1), skeletal micritic, with abundant bedded chert which is fossiliferous, numerous shale breaks, thinly bedded.	81.2	86.4

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Ohio and Indiana Stone Company

Farm: Summitt No. 1

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	Ste. Genevieve Limestone		
	Levias Member		
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13	Limestone, as unit 11, but without algal mats, many shale breaks from 55.4' to 56.4', thinly bedded, slightly glauconitic.	54.8	57.9
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15	Limestone, light olive gray (5Y6/1) recrystallized skeletal-oolitic, coarsely crystalline texture, stylolites common.	58.7	60.0
16	Limestone, medium olive gray (5Y5/1), skeletal micritic limestone, scattered shale breaks, largely recrystallized, slightly porous, medium bedded, pyritic.	60.0	63.5
17	Limestone, light olive gray (5Y6/1), micritic skeletal, coarsely crystalline texture, stylolitic, no shale breaks, medium bedded.	63.5	65.5
18	Limestone, light olive gray (5Y6/1), pelletal micrite, coarsely crystalline, glauconitic, stylolitic, medium bedded, slightly porous.	65.5	70.2
19	Limestone, light olive gray (5Y6/1), lithographic micritic-skeletal, stylolitic, brittle, thinly bedded, non-porous.	70.2	70.8
20	Dolomite, olive gray (5Y4/1), slightly porous, interlayered with green calcareous shaley material from 71.4' - 71.6'.	70.8	72.1
21	Limestone, dark yellow brown (10YR4/2) skeletal pelletal, massive, slightly porous.	72.1	73.0
22	Limestone, light olive gray (5Y6/1), lithographic micritic skeletal, thinly bedded, non-porous, voids filled with spar.	73.0	75.3
23	Limestone, light olive gray (5Y6/1), micritic, recrystallized to a grainy texture, argillaceous bands common, scattered nodular chert, also with grainy texture.	75.3	75.7
24	Dolomite, olive gray (5Y4/1), sugary, dense.	75.7	76.0
	St. Louis Limestone		
25	Limestone, light olive gray, becoming micritic skeletal to medium bedded, no shale (5Y6/1), skeletal pelletal, by 76.6'. Stylolitic, thin breaks.	76.0	77.9

26	Limestone, dark yellow brown (10YR4/2), micritic-with minor skeletal component. Grainy at top, becoming lithographic basally, medium bedded, chert scattered at base of unit, no shale breaks, no stylolites.	77.9	81.2
27	Limestone, light olive gray (5Y6/1), skeletal micritic, with abundant bedded chert which is fossiliferous, numerous shale breaks, thinly bedded.	81.2	86.4

INDIANA GEOLOGICAL SURVEY
INDUSTRIAL MINERALS SECTION
CORE DESCRIPTION

Ohio and Indiana Stone Co.

Farm: Summitt No. 2

Location: SW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 4, T. 13 N., R. 4 W.

Locality: About 1 mile northeast of Putnamville

Surface elevation: 790 feet

Total depth: 106.8 feet

Driller's Log

<u>Depth</u>	<u>Feet</u>	
0.0	- 0.5	Soil
0.5	- 21.0	Sandstone (Mansfield)
21.0	- 21.4	Shale
21.4	- 76.0	Limestone (Paoli); most of interval consisted of shale and silt. Driller believed he drilled in a solution cavity.
76.0	- 76.8	Cherty limestone.
76.8	-106.0	Shale and silt as above.
106.0	-106.8	Cherty limestone.

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Ohio and Indiana Stone Co.
Farm: Summitt No. 2
Location: SW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 4, T. 13 N., R. 4 W.
Locality: About 1 mile northeast of Putnamville
Surface elevation: 790 feet
Total depth: 106.8 feet
Driller's Log

	Depth	
Soil	0.0	0.5
Sandstone (Mansfield)	0.5	21.0
Shale	21.0	21.4
Limestone (Paoli); most of interval consisted of shale and silt. Driller believed he drilled in a solution cavity.	21.4	76.0
Cherty limestone.	76.0	76.8
Shale and silt as above.	76.8	106.0
Cherty limestone.	106.0	106.8

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INDIANA GEOLOGICAL SURVEY
INDUSTRIAL MINERALS SECTION
CORE DESCRIPTION

Ohio and Indiana Stone Co.

Farm: Summitt No. 3

Location: $SE\frac{1}{4}$ $SE\frac{1}{4}$ $SW\frac{1}{4}$ $SW\frac{1}{4}$ $SE\frac{1}{4}$ sec. 4, T. 13 N., R. 4 W.

Locality: About 1 mile north of Putnamville

Surface elevation: 780 feet

Total depth: 86.4 feet

Core description: Priscilla Nelson, September 1972

Unit	Description	Depth in feet	
		from	to
1	No information	0.0	10.0
	Mississippian System Meramac Series <u>Paoli Limestone (?)</u>		
2	Limestone, lt. olive gray (5Y6/1) and green sandy mudstone. Limestone is micritic, fractured and mudcracked, appears in places as intraclasts.	10.0	18.0
	NOTE: 3.8' missing from interval 10.0 to 15.4'. 2.7' missing from interval 15.4 to 26.4'.		
	<u>Ste. Genevieve Limestone (?)</u>		
3	Limestone, lt. olive gray (5Y6/1), oolitic skeletal recrystallized; sl. porous, massive, no shale breaks, stylolitic, pyritic, glauconitic.	18.0	22.1
4	Limestone, as unit 3, but shale breaks abundant and unit is thinly bedded. Unit becomes more micritic with depth.	22.1	23.7
5	Limestone, lt. olive gray (5Y6/1), mottled with dk. greenish gray (5GY4/1) shale (approx. 20% of rock); limestone is skeletal micritic with minor oolite content. Nodular chert scattered from 30.4' to 30.6'.	26.4	30.4
6	Limestone, lt. olive gray (5Y6/1), oolitic skeletal, scattered shale partings, zones of nearly pure oolite scattered; med. bedded, crystalline texture, glauconitic, pyritic.	30.4	35.9
7	Limestone, lt. olive gray (5Y6/1), lithographic micritic and oolitic, very fine grained, pyritic, stylolitic.	35.9	37.7
8	Limestone, lt. olive gray (5Y6/1), oolitic, extremely well sorted; no shale breaks, stylolitic, med. bedded, base of unit shows evidence of burrowing.	37.7	40.1
9	Limestone, dk. yellowish brown (10YR4/2), oolitic to 41.4, oolites graded and cross bedded. From 41.4, limestone is micritic detrital with brown oolitic matrix; stylolitic, glauconitic, massive, non-porous.	40.1	42.5
10	Limestone, pale yellow brown (10YR6/2), micritic oolitic, chert (brown center, dk. rim) from 44.0 to 44.5; stylolitic, no shale partings, med. bedded, non-porous.	42.5	46.0

<u>Unit</u>	<u>Description</u>	<u>Depth in feet</u>	
		<u>from</u>	<u>to</u>
11	Limestone, lt. olive gray (5Y6/1), skeletal micritic, recrystallized; scattered zones of clear spar; massive, sl. porous, few bands of argillaceous matter.	46.0	48.4
12	Limestone, lt. olive gray (5Y6/1) with ramiform chert extremely abundant. Limestone is micritic skeletal recrystallized; pyritic, glauconitic.	48.4	49.9
13	Limestone, lt. olive gray (5Y6/1), micritic skeletal, recrystallized, zones of lithographic texture; nodular and bedded chert (brown center, dk. rim), fossiliferous, especially with echinoderm fragments.	49.9	56.2
14	Limestone, lt. olive gray (5Y6/1), lithographic micritic with 1" zones of skeletal material scattered, becoming increasingly abundant with depth; stylolitic, pyritic.	56.2	57.7
15	Limestone, lt. olive gray (5Y6/1), skeletal micritic, recrystallized, scattered oolites, massive, stylolitic, only sl. porous.	57.7	63.7
16	Limestone, as unit 15.	63.7	67.2
17	Limestone, lt. olive gray (5Y6/1), oolitic skeletal, micritic content minor; no shale breaks, sl. porous, lithographic texture at base.	67.2	68.7
18	Dolomite, med. olive gray (5Y5/1) to dk. olive gray (5Y3/1), laminated, sugary texture; fractured, filled with calcite crystals.	68.7	70.4
19	Limestone, yellow brown (10YR5/2), micro-skeletal, micritic and oolitic, recrystallized, no shale breaks, stylolitic, glauconitic. Basal 3" extensively fractured micritic limestone, fractures filled with calcite crystals.	70.4	71.6
20	Dolomite, olive gray to black (5Y4/1-2/1), dense, extensively fractures, with calcite crystals as fillings.	71.6	71.9
21	Limestone, lt. olive gray (5Y6/1), lithographic micritic skeletal, no shale breaks; med. bedded, sl. porous, stylolitic; chert (lt. center, dk. rim) in basal 2" of unit.	71.9	73.4
22	Dolomite, med. olive gray (5Y5/1), grainy texture, dense non-porous.	73.4	73.8

<u>Unit</u>	<u>Description</u>	<u>Depth in feet</u>	
		<u>from</u>	<u>to</u>
	<u>St. Louis Limestone (?)</u>		
23	Limestone, lt. olive gray (5Y6/1), lithographic micritic, skeletal, recrystallized, minor scattered oolites; fractured with calcite and pyrite as fillings; scattered shale breaks, med. bedded, sl. porous, stylolitic.	73.8	76.0
24	Limestone, med. olive gray (5Y5/1), skeletal micritic recrystallized; non-porous, dense, massive, no stylolites or shale breaks.	76.0	78.0
25	Limestone, lt. olive gray (5Y6/1), skeletal, coarsely crystalline, scattered small chert blebs; no shale breaks, med. bedded, sl. porous.	78.0	79.0
	<u>St. Louis Limestone</u>		
26	Limestone, lt. olive gray (5Y6/1), micritic, and skeletal with many shale partings and much fossiliferous chert, no stylolites; med. to thinly bedded, sl. porous.	79.0	86.4

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Ohio and Indiana Stone Co.

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26	Limestone, lt. olive gray (5Y6/1), micritic, and skeletal with many shale partings and much fossiliferous chert, no stylolites; med. to thinly bedded, sl. porous.	79.0	86.4