

County RANDOLPH

T 21 N R 12 E

Sec SW NW 11

Other Survey

Quarry or Pit... X Core Dim Other

Name .. Fairview Quarry

Former Names .. Hiatt Stone Co.

.....

Operator Baker Rockledge Products, Inc.

Former Operators Portland Stone Co.; G. M. Haatt

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

MEMORANDUM REPORTS BY:	
Name	Date
1 T. G. Perry .....	..... July 21, 1953
2 R. R. French .....	..... Sept. 5, 1963
3 R. R. French .....	..... May 23, 1966
4 C. H. Ault .....	..... Sept. 5, 1969
5 C. H. Ault .....	..... May 28, 1970
6 .....	.....
7 .....	.....
8 .....	.....
9 .....	.....
10 .....	.....

REMARKS
Chemical analyses

MEMORANDUM REPORT

by
Curtis H. Ault

Meshberger Bros. Stone Corp. Quarry near Fairview, Randolph County

Date: March 27, 1985; April 25, 1990; Oct 12, 1992

Location: 1.7 miles southeast of Fairview on CR 1000W near Mississinewa River; SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 11, T. 21 N., R. 12 E; Redkey Quad.

Company: Meshberger Bros. Stone Corp.
P.O. Box 345
Berne, IN 46711

Officers: Ronald Fryback, Pres.
Harold Young, Quarry Manager

Telephone: 317-369-2351

Geology: Now exposed in the quarry:

Limberlost Dol.	27.7 ft.
Salamonie Dol.	36.8 ft.

MEMORANDUM REPORT

by
Curtis H. Ault

MESHBERGER BROS. STONE CORP. QUARRY NEAR FAIRVIEW, RANDOLPH COUNTY

Date of field examination: June 15, 1976, Aug 28, 1980 - no change in geology, Oct 25, 1982

Location: SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 11, T. 21 N., R. 12 E.; Redkey Quad.
2 $\frac{1}{2}$ miles E of Fairview to junc. SR 1 & 28, 1 mile S to
intersection, 1 mile west to intersection, $\frac{1}{2}$ mile S to
quarry.

Company: Meshberger Bros. Stone Corp.
Box 345
Berne, IN 46711

Officers: Ronald and Carolyn Fryback, Owners
~~Ralph May~~, Quarry Superintendent
Orville Bergmann

Telephone: 317-369-2351

Products: Crushed stone, aglime, flagstone, riprap; shipped by
truck.

Geology:

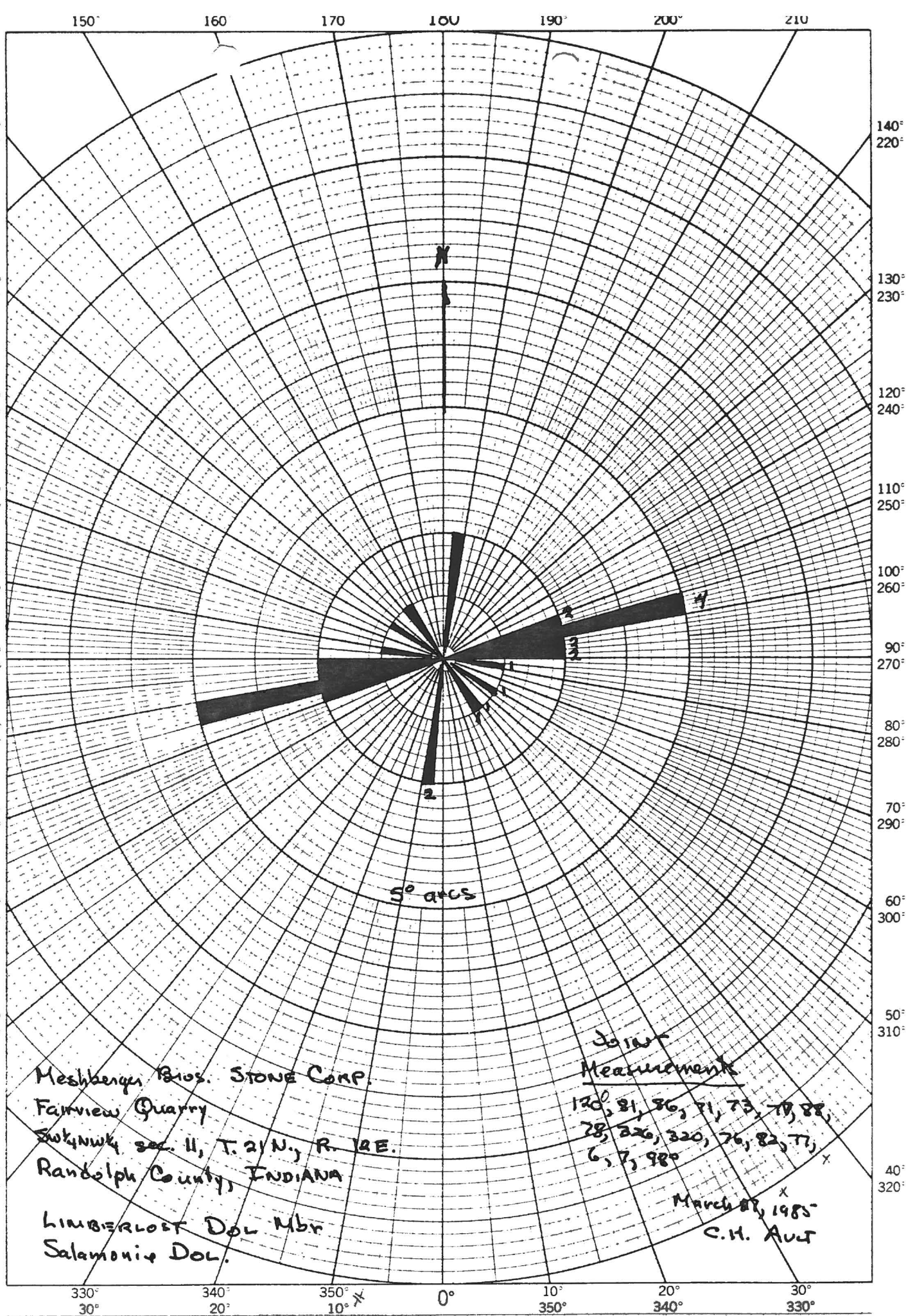
The upper part of the Salamonie Dolomite, commonly called the "brown Salamonie," has been named the Limberlost Dolomite by John Droste and Robert Shaver (see previous geological note, June 8). The exposure of Limberlost in this quarry is a principal reference section. Exposed in the quarry at the sump pit:

(from Droste & Shaver)

Limberlost Dol.	22.7 feet
Salamonie Dol.	36.8 feet

Perry's original description in the quarry (1953), samples Py53-81 and 83, includes most of the Limberlost. As noted in the French report (1963), chert was not included in the original description.

46 4410

K&S
POLAR CO-ORDINATE
KEUFFEL & ESSER CO. MADE IN U.S.A.

Geological Note

by

Curtis H. Ault

MESHBERGER BROS. STONE CORP. QUARRY NEAR FAIRVIEW, RANDOLPH COUNTY

Date: June 8, 1976

Geology:

Part of the Salamonie Dolomite exposed in the Meshberger Bros. Stone Corp. quarry has been designated the principal reference section of the Limberlost Dolomite, a new formation comprised mostly of rocks that were informally called the "Brown Salamonie." The attached description is from Indiana Geological Survey Occasional Paper 15, "The Limberlost Dolomite of Indiana a key to the great Silurian facies in the southern Great Lakes area," by John Droste and Robert Shaver.

Silurian System--Continued

Salamonie Dolomite--Continued

and very fossiliferous, being rich in echinodermal debris and brachiopods; reef-core rocks that are bluish-gray, very fine grained (as carbonate mud), partly interlensed with other rocks described but also in massive central core structures; fossils include *Pentamerus oblongus*, *Halysites* spp., *Coenites*(?) sp., *Favosites* sp., *Klonoceras*(?) sp., and many others that are typical of reef and near-reef faunas; reef rocks as described and arising within this unit extend well toward top of Limberlost interval (units 4-6) and are probably contemporaneous with part of the bedded Limberlost deposits, which both wedge out against and rise over the reef structure, but these reef rocks do not extend as high as the Waldron and Louisville insofar as exposure here permits observation; unit described for several parts of quarry . . . 20.0 to 35.0

Vertical thickness of bedrock section, about 37.5

Stratigraphic thickness of bedrock section (depends on degree of contemporaneity of bedded Limberlost rocks and reef rocks) . . . 53.0 to 71.0

Section (sec. 2) near sump in the Meshberger Bros. Stone Corp. quarry 2 miles southeast of Fairview, Randolph County, Ind. (south line SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 11, T. 21 N., R. 12 E.) including principal reference section of Limberlost Dolomite (location B, fig. 1)

Quaternary System:

1. Alluvium and soil at Mississinowa River flood-plain level and lower 11.0

Silurian System:

Limberlost Dolomite, 22.7 ft exposed:

2. Dolomite, brown, fine- to medium-grained, thin-bedded (1 to 2 in.), bioclastic to oolitic; some coarse porous bioclastic material and identifiable fossils; echinodermal debris most in evidence; some beds entirely oolitic 13.1
3. Dolomite, brown, mostly very fine-grained to dense, thin- to medium-bedded (to 6 in.), cherty; bedding is nodular, giving rough hackly appearance to exposure; chert is white, chalky weathered, in small nodules; contact with unit 4 is clear near sump, but in another part of the quarry contact is gradational, having chert in much greater abundance on both sides of its designated position and being in midst of change from thick to thin bedding; contains *Pentamerus oblongus* 9.6

Salamonie Dolomite, 36.8 ft exposed:

4. Dolomite, streaky yellowish-brown or buff and gray (weathered colors), mostly medium-grained but poorly sorted, including coarsely bioclastic texture, medium- to thick-bedded (to 1.5 ft) but has superimposed thin relict bedding, porous, vuggy (to 2 in.); thicker bedded (to 3 ft) and coarser toward top; bright yellowish-brown streaky material may be considered as stromatolite structure, possibly diagenized beyond recognition of original material 13.2
5. Dolomite, yellowish-brown (weathered color, weathering further on old quarry surface to grayish buff), fine- to medium-grained but poorly sorted, thick- to massive-bedded (to 4 ft), finely porous; has hackly appearance suggesting brecciation after some induration; stromatolite-like material (see unit 4 above) also suggests brecciation 10.3

Silurian System—Continued

Salamonie Dolomite—Continued

6. Dolomite, yellowish-tan (weathered color), poorly sorted (to coarse-grained), bioclastic, medium- to thick-bedded (to 1.3 ft), porous; echinodermal debris conspicuous as is stromatolite-like material (see unit 4);

Silurian System—Continued

Salamonie Dolomite—Continued

examined to level of water in sump	<u>13.3</u>
Thickness of section	70.5
Elevation of top of section (flood-plain level), about . . .	940.0

MEMORANDUM REPORT

BY

CURTIS H. AULT

Meshberger Bros. Stone Corp.

~~BAKER ROCKLEDGE PRODUCTS INC.~~ QUARRY, NEAR FAIRVIEW, RANDOLPH COUNTY

Date of field examination: January 14, 1972

Location: SW NW sec. 11-21N-12E; Redkey Quadrangle
2½ miles E of Fairview to junc SR 1 & 28, 1 mile south to
intersection, 1 mile west to intersection, ½ mile south to
quarry

Ownership: Baker Rockledge Products, Inc.
Box 902
Portland, Indiana 47371

Officers: William Smith, manager (lives at Portland)
Ralph May, superintendent

Telephone: 317-369-2351

Personnel: 7

Production: Crushed and agricultural limestone, flagstone; all shipped
by truck

Capacity: Primary crusher - 140 tons per hour

Equipment: P & H 855-B Shovel (2 or 3 yards); 2 Model C rear dump Le
Tourneau-Westinghouse trucks; large front-end loader - Hough
120; Euc 820 truck; impactor primary and secondary crushers

Geology: The quarry was deepened in 1971. A description of the newly-
exposed Salamonie Dolomite is attached to this report. Total
section now exposed is as below:

Overburden	5.0'
Salamonie Dol.	61.4'
	<hr/> 66.4"

Baker Rockledge Corp. quarry, near Fairview, Randolph County
SW NW sec. 11-21N-12E

Described by C. H. Ault January 17, 1972 from quarry face at south side of quarry. This section begins at or near base of unit 1 described by R. R. French in a memorandum report dated September 5, 1963.

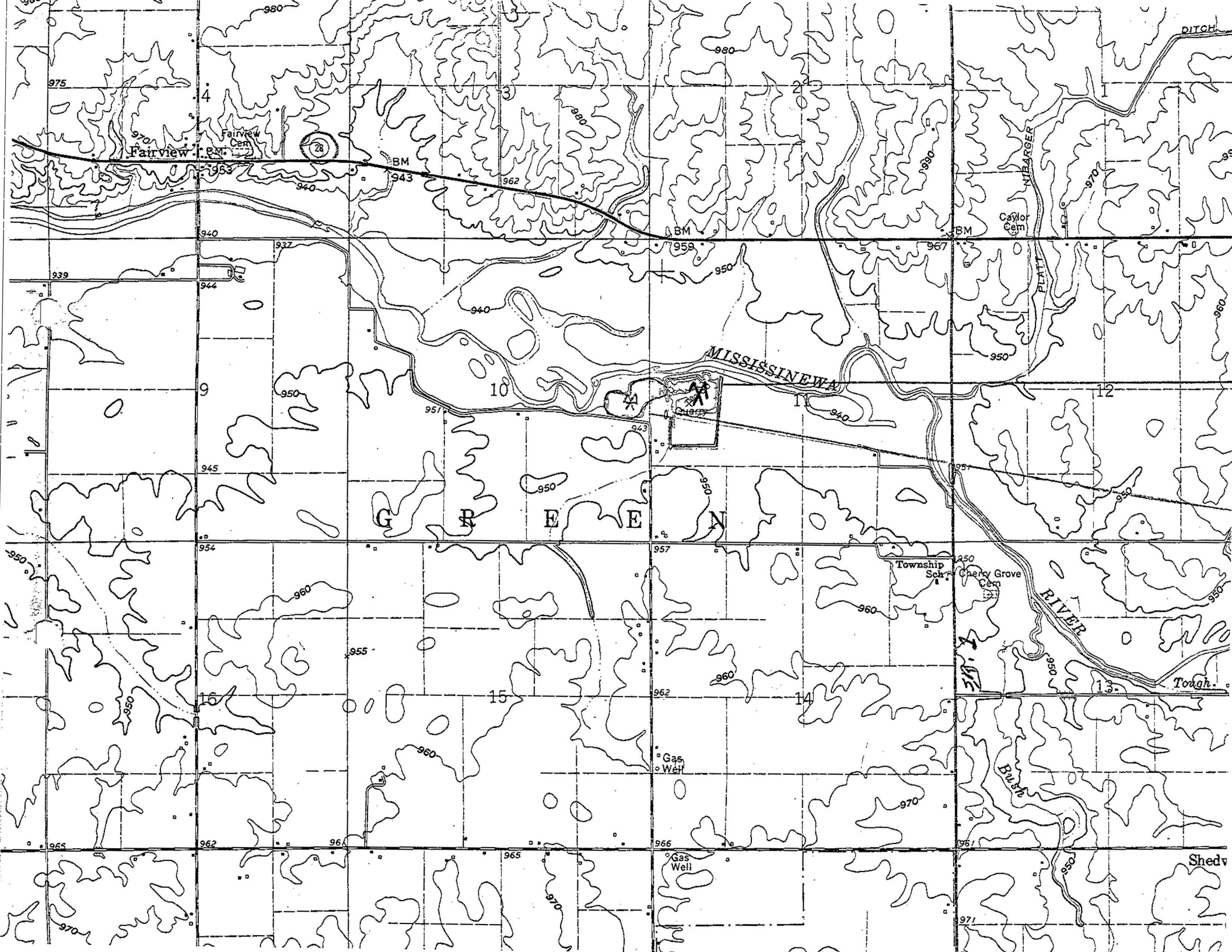
<u>Unit</u>	<u>Description</u>	<u>Thickness</u>	<u>Sample No.</u>
	<u>Salamonie Dolomite</u>		
1.	Dolomite, light buff to gray-buff, mostly fine grained, sucrosic, fossil casts-recrystallized; appears very pure; porous, thick bedded-beds 1 to 2 feet thick. Stone appears mottled from a distance.	11.5	CA72-25
2.	Dolomite, similar to above but massive on quarry face with only a few indistinct bedding planes. Dolomite is less mottled than above.	18.0	CA72-26 upper 9 feet CA72-27 lower 9 feet

Total
Carbon-Dolo- Cal-
ate mite cite

[illegible]

INDIANA GEOLOGICAL SURVEY
SPECTROCHEMICAL ANALYSES
(IN PERCENT)
MESHBERGER BROS. STONE CORP.-FAIRVIEW
SE NW SEC 11, T. 21 N., R. 12 E.
RANDOLPH COUNTY

RU/SAMPLE NO	THICK	CAC03	MGC03	SI02	AL203	FE203	TI02	MNO	CALC CO2	CHEM CO2	LOI	S	P205
LIMBERLOST													
PY53-83	13.5	54.5	43.7	1.11	.12	.13		.016	46.8	46.1		.012	.004
PY53-81	4.3	53.9	43.0	1.96	.36	.20		.015	46.2	45.8		.021	.005
	2.1												
SALAMONIE DOLOMITE													
RF63-90	12.0	58.4	39.6	1.00	.19	.17		.013	46.4	47.0		.030	
CA72-25	11.5	79.0	6.40	11.5	1.56	.67	.063	.024	38.1			.031	
CA72-26	9.0	56.3	43.2	.07	.017	.18		.011	47.3			.029	
CA72-27	9.0	57.2	42.3	.11	.023	.21		.011	47.2			.31	



L. SADLER ATTN N. WEST
SOURCE
FIELD OFFICE (3)✓

INDIANA STATE HIGHWAY COMMISSION
DIVISION OF MATERIALS AND TESTS
SUMMARY OF QUALITY RESULTS

AUGUST 25, 1980

SOURCE MESHBERGER BROTHERS STONE CORP 2368
FAIRVIEW, IN.

ELEVATION TOP OF LEDGE 4 919 FEET ABOVE MSL

LEDGE QUALITY

LAB NUMBER	DATE SAMPLED	LEDGE NUMBER	GEOLOGICAL FORMATION	BULK SP.G. PCT	ABS. PCT	BRI.	L.A. WEAR PCT	S.S. LOSS PCT	F.T. LOSS PCT	QUAL RATNG	APPROX DATA THICK FT	VALID UNTIL
64-26005	08-21-63	1	LIMBERLOST	2.490	2.80		42.80	9.60		C1	8	11-21-65
64-26006	08-21-63	2	LIMBERLOST	2.430	3.50		39.50	23.70		G1*	13	11-21-65
77-28001	07-01-76	3	LIMBERLOST	2.401	2.62	1.53	31.20	.22		A1	9	10-01-78
80-28184	05-08-80	4	SALAMONIE	2.380	4.12	1.64	40.00	1.24		A1	11	08-08-82
80-28185	05-08-80	5	SALAMONIE	2.336	4.91		44.72	4.22		C1	17	08-08-82

NOTES: THIS IS A CATEGORY I SOURCE.

FOR PRODUCTION SAMPLE QUALITY RESULTS SEE SUMMARY LETTER DATED JUNE 6, 1979.

*THIS MATERIAL DOES NOT MEET THE QUALITY REQUIREMENTS FOR ANY STATE HIGHWAY USE.

DLB
THIS REPORT IS FOR INFORMATION ONLY AND
IS NOT INTENDED TO BE USED FOR ADVERTISING.

Acting *R. H. Lowe*
CHIEF, DIVISION OF MATERIALS AND TESTS

Sept 23, 1971
this quarry reported deepened 30'
by Lawrence P. Quaintance, quarry mgr.
should be checked - C.H. Ault

MEMORANDUM REPORT
BY
CURTIS H. AULT

BAKER ROCKLEDGE PRODUCTS INC. QUARRY, NEAR FAIRVIEW, RANDOLPH COUNTY

Date of field examinations: C. H. Ault, Sept. 5, 1969; May 28, 1970
R. R. French, Sept. 5, 1963; May 23, 1966
T. G. Perry, July 21, 1953

Location: SW NW Sec. 11-21N-12E; Redkey Quadrangle W
On Rd 1000W one-half mile N of intersection, 1 mile ~~E~~ of T intersection,
1 mile S of junction of SR 1 & 28, 2½ miles E of Fairview.

Ownership: Baker Rockledge Products, Inc. (purchased quarry from Portland Stone
Box 902 Company April 1, 1969)
Portland, Ind. 47371

Officers: William Smith, manager (lives at Portland)
Ralph May, superintendent

Telephone: 317-369-2351 (quarry)

Personnel: 7

Acreage: 102 acres (from previous report)

Production: Crushed and agricultural limestone, flagstone; all shipped
by truck.

Capacity: Primary crusher - 140 tons/hour.

Equipment: P & H 855-B Shovel (2 or 3 yards); Two Model C Rear dump
Le Tourneau-Westinghouse trucks, large front-end loader -
Hough 120, Euc 820 truck, impactor primary & secondary.

Geology: Mr. May, the superintendent, said that samples from a hole
drilled 80 feet deep from 20 feet below the surface of the
bedrock indicated that they were still in carbonate rock.
The present section exposed in the quarry has been described
in previous reports.

Overburden	5.0'
Salamonie Dol	<u>31.9'</u>
	36.9

MEMORANDUM REPORT
BY
ROBERT R. FRENCH

PORTLAND STONE COMPANY, SOUTHEAST OF FAIRVIEW, RANDOLPH COUNTY

Date of field examinations.-

23 May 66
R.R. French, 5 September, 1963*
T.G. Perry, 21 July, 1953**

Location.-

SW NW Section 11, T.21N., R.12E.
1.7 miles southeast of Fairview and 2700' south of State Highway 28, on
the south bank of the Mississippi River, in Randolph County.

Ownership.-

The operation was purchased by Portland Stone Co., in 1956.
Mr. R.V. Smith, President. Mr. Ralph May, Quarry Superintendent.

Elevation.-

The highest exposed limestone is 938' above sea-level **

Reserves.-

Total acreage is approximately 102 acres.
Carbonate section is 40.0' at present.

Products.-

Crushed stone and agricultural limestone.
Average daily production is about 1,200 tons

Personnel.-

Ten employees.

Geology.-

Perry (1953) measured and described the upper 19.9' of the present exposure. The 'argillaceous' material described by Perry in unit 2 is not argillaceous at all, but is a porous, white, tripolitic type chert. This material has apparently given a great deal of trouble when used as a filler for the concrete highway near Winchester in Randolph County. In order to avoid further difficulties the quarry has been deepened by 12' and will be taken down another 8' in the near future.

The following section was measured and sampled:

Salmon River

Unit	Description	Thick.	Sample
1	Dolomite, gray-light brown, finely crystalline, very porous, faint trace of stylolites; black, hard residue on some joint faces. Bedding indistinct. Conspicuous lack of chert. Area appears to be well jointed. A part of the upper few feet may be correlative with the oolitic zone found to the north and east of this area. Unit 1 is subjacent to unit 1 of Perry (1953).	12.0'	RF63-90

Total section of lower Niagaran now exposed is 31.9'

Reference cited:

Perry, T.G. (1953) Hiatt Stone Company Quarry, southeast of Fairview, Randolph County., Ind. Div. Cons. Geol. Surv., open-file memorandum report, 3 pp.

Respectfully submitted,

Robert R. French

to this now the
Holland Stone Co.?

B3
Redkey

MEMORANDUM REPORT BY T. G. PERRY

Loc. 116

HIATT-STONE QUARRY SOUTHEAST OF FAIRVIEW,
RANDOLPH COUNTY, INDIANA

Date of field examination. -- July 21, 1953.

Location. -- The ^{Portland} Hiatt Stone quarry is located in the ^{SW}SE¹/₄NW¹/₄ sec. 11,
T. 21 N., R. 12 E., 1.7 miles S. 40 degrees E. of the village of Fairview and 2700
feet south of Indiana Highway 28, in Randolph County. The quarry is about 100
feet south of the Mississinewa River. The quarry shows on photos BFR-3G-93 and
94, flown in 1950.

Ownership. -- The quarry and the land on which the operation is located
is owned by Mr. G. M. Hiatt, Albany Box 12, Delaware County, Indiana.
^{Purchased by R. V. Smith Portland Stone Co. in 1956}
^{Ralph May, Supv}

Elevation. -- The altitude of the highest exposed limestone in this quarry
is 15 feet lower than Bench Mark T220, established in 1947 and reset in 1951 by
the U. S. Coast and Geodetic Survey, in Fairview. Therefore, the altitude of
the highest exposed limestone is 938 feet.

Geology. -- Ericksen (1947, pp. 1-3) has described the geology of the
recently abandoned quarry of the M. D. & R. Stone Company, which lies immediately
west of the Hiatt Stone Quarry. As the map accompanying the present report
indicates, the following section was measured and sampled on the south face of
the Hiatt Stone Quarry:

<u>Unit</u>	<u>Description</u>	<u>Thickness in feet</u>	<u>Chip Sample Number</u>
^{Limestone lost} 3	Huntington dolomite Dolomite: Light-gray, rarely gray-tan, fine-grained, crystalline; weathered surface light-gray in lower part of unit but commonly rust-stained in upper 5.0 feet of unit. Beds range in thickness from less than 0.1 foot to 1.6 feet, averaging 0.5 feet; bedding thinner and more clearly defined in upper 5.0 feet of unit. Unit is porous throughout but does not contain conspicuous amounts of argillaceous material as does unit 2. Molds of brachiopods, particularly <u>Conchidium</u> and <u>Leptaena</u> are		

<u>Unit</u>	<u>Description</u>	<u>Thickness in feet</u>	<u>Chip Sample - Number</u>
	common; crinoid stems and colonial corals less common. Rock sample Py53-84 taken 6.7 feet above base of unit.	13.5	Py53-83 ✓
2	Dolomite: Predominantly tan-gray and light-brown, fine-grained, crystalline; commonly mottled gray and tan-gray; weathered surface drab-gray and brown. Beds range in thickness from 0.2 to 0.8 foot, averaging 0.6 foot, but this interval tends to be massive elsewhere in the quarry. Unit contains drab-gray, 1.0-inch bands, presumably of argillaceous material; unit also includes soft, gray clay in masses up to 3.0 inches in size and as irregular partings. Molds of the brachiopod <u>Conchidium</u> occur. Rock sample Py53-82 taken 2.9 feet above base of unit.	4.3	Py53-81 ✓
1	Dolomite(?): This interval is not accessible for examination; base of unit forms quarry floor.	2.1	Not sampled
Total thickness of measured section		19.9	

Operational history. -- The measured quarry site was established in 1949 and was operated by the M. D. & R. Stone Company, under lease from Mr. G. M. Hiatt, until January 1, 1953, on which date the lease terminated. Mr. Hiatt has operated this site since January 2, 1953. The quarry of the M. D. & R. Stone Company, examined by Ericksen (1947, pp. 1-3), is now water-filled and this former site, lying immediately west of Hiatt Stone Quarry, has been abandoned since 1949.

Quarrying problems. -- Mr. Hiatt states that minor difficulty is experienced with rarely encountered vertically-extending mud seams that are 3 or 4 feet in width. The material in such seams must be segregated from the dolomite, in part by manual means, before quarrying operations can continue. The overburden ranges in thickness from 4.0 to 5.0 feet.

Personnel. -- Seven employees are usually engaged in this operation.

Equipment. -- The following major items of equipment are in use?


1 No. 6 Allis Chalmers crusher; 1 6-inch Worthington crusher; 1 Link-Belt bucket elevator; 1 Link-Belt 4 x 12 revolving screen; 1 Deister 3 x 8 vibrating screen; 1 Link-Belt Speeder 3/4-yard shovel; 2 quarry trucks; 1 TD9 International bulldozer; 1 Barber Greene bucket loader; 1 Clipper No. 44 drill; and 2 pumps, 1 3-inch and 1 4-inch.

Production. -- Daily production averages ^{1,250}~~250~~ tons, of which agricultural lime comprises ^{15%}~~10~~ percent; the remainder is crushed stone. ~~The State of Indiana has thus far purchased a very minor amount of the crushed stone production;~~ the majority of the crushed stone output is bought by the ^{State is major purchaser.} Highway Departments of Randolph, Jay, and ~~Delaware~~ Counties. The present stockpile of all products is 4600 tons. All shipments are by truck.

References cited. --

Ericksen, G. E. (1947) M. D. & R. Stone Company plant and quarry near Fairview, Randolph County, Indiana, Indiana Dept. Cons. Geol. Survey open-file memorandum rept., pp. 1-3, 1 map.

Respectfully submitted,



T. G. Perry,
Party Chief

Soul of ...

12th Portland Stone C
Sec. 11 - 21N12

PORTLAND STONE COMPAY, SOUTHEAST OF FAIRVIEW^ RANDOLPH COUNTY

By

Robert R. French

Date of field examinations - R.R. French^ 5 September^ 1963

T.G. Perry^ 21 July^ 1953

Location - SW NW Section 11^T. 21 N.^ R. 12 E.

Ownership - The operation was purchased by Portland Stone Co.^in 1956.

Elevation - The highest exposed limestone is 935' above sea-level

Unit	Description	Thick- ness	Sample
1	Dolomite^ gray-light brown^ finely crystalline^ very porous^ faint trace of stylolites; black^ hard residue on some joint faces. Bedding indistinct. Conspicuous lack of chert. Area appears to be well jointed. A part of the upper few feet may be correlative with the oolitic zone found to the north and east of this area. Unit 1 is subjacent to unit 1 of Perry (1953).	12.0	RF63-0090
	Total section of lower Niagaran now exposed is 31.9'		

Baker Rockledge Corp. quarry^ near Fairview^ Randolph County SW NW sec. 11-21N-12E

Described by C. H. Ault January 17^ 1972

from quarry face at south side of quarry.

This section begins at or near base of unit 1 described by R. R. French in a memorandum report dated September 5^ 1963.

Unit	Description	Thick- ness	Sample
	Salamonie Dolomite		
1	Dolomite^ light buff to gray-buff^ mostly fine grained^ sucrosic^ fossil casts-recrystallized; appears very pure; porous^ thick bedded-beds 1 to 2 feet thick. Stone appears mottled from a distance.	11.5	CA72-0025
2	Dolomite^ similar to above but massive on quarry face with only a few indistinct bedding planes. Dolomite is less mottled than above.	18.0	CA72-0026 upper 9 feet
2	Dolomite^ similar to above but massive on quarry face with only a few indistinct bedding planes. Dolomite is less mottled than above.		CA72-0027 lower 9 feet

HIATT STONE QUARRY SOUTHEAST OF FAIRVIEW[^]
RANDOLPH COUNTY[^] INDIANA

Date of field examination. - July 21[^] 1953

Location.- The Hiatt Stone quarry is located in the SE¹/₄NW¹/₄ sec. 11[^] T. 21 N.[^] R. 12 E.

1.7 miles S. 40 degrees E. of the village of Fairview and 2700 feet south of Indiana Highway 28[^] in Randolph County. The quarry is about 100 feet south of the Mississinewa River.

The quarry shows on photos BFR-3G-93 and 94[^] flown in 1950.

Elevation. - The altitude of the highest exposed limestone in this quarry is 15 feet lower than Bench Mark T220[^] established in 1947 and reset in 1951 by the U. S. Coast and Geodetic Survey[^] in Fairview. Therefore[^] the altitude of the highest exposed limestone is 938 feet.

Unit	Description	Thick- ness	Sample
	Huntington dolomite		
3	Dolomite: Light-gray [^] rarely gray-tan [^] fine-grained [^] crystalline; weathered surface light-gray in lower part of unit but commonly rust-stained in upper 5.0 feet of unit. Beds range in thickness from less than 0.1 foot to 1.6 feet [^] averaging 0.5 feet; bedding thinner and more clearly defined in upper 5.0 feet of unit. Unit. is porous throughout but does not contain conspicuous amounts of argillaceous material as does unit 2. Molds of brachiopods [^] particularly <i>Conchidium</i> and <i>Leptaena</i> are common; crinoid stems and colonial corals less common. Rock sample Py53-84 taken 6.7 feet above base of unit.	13.5	Py53-0084
3	Dolomite: Light-gray [^] rarely gray-tan [^] fine-grained [^] crystalline; weathered surface light-gray in lower part of unit but commonly rust-stained in upper 5.0 feet of unit. Beds range in thickness from less than 0.1 foot to 1.6 feet [^] averaging 0.5 feet; bedding thinner and more clearly defined in upper 5.0 feet of unit. Unit. is porous throughout but does not contain conspicuous amounts of argillaceous material as does unit 2. Molds of brachiopods [^] particularly <i>Conchidium</i> and <i>Leptaena</i> are common; crinoid stems and colonial corals less common. Rock sample Py53-84 taken 6.7 feet above base of unit.		Py53-0083
2	Dolomite: Predominantly tan-gray and light-brown [^] fine-grained [^] crystalline; commonly mottled gray and tan-gray; weathered surface drab-gray and brown. Beds range in thickness from 0.2 to 0.8 foot [^] averaging 0.6 foot [^] but this interval tends to be massive elsewhere in the quarry. Unit contains drab-gray [^] 1.0-inch bands [^] presumably of argillaceous material; unit also includes soft [^] gray clay in masses up to 3.0 inches in size and as irregular partings. Molds of the brachiopod <i>Conchidium</i> occur. Rock sample Py53-82 taken 2.9 feet above base of unit.		Py53-0082
2	Dolomite: Predominantly tan-gray and light-brown [^] fine-grained [^] crystalline; commonly mottled gray and tan-gray; weathered surface drab-gray and brown. Beds range in thickness from 0.2 to 0.8 foot [^] averaging 0.6 foot [^] but this interval tends to be massive elsewhere in the quarry. Unit contains drab-gray [^] 1.0-inch bands [^] presumably of argillaceous material; unit also includes soft [^] gray clay in masses up to 3.0 inches in size and as irregular partings. Molds of the brachiopod <i>Conchidium</i> occur. Rock sample Py53-82 taken 2.9 feet above base of unit.		Py53-0081
1	Dolomite(?): This interval is not accessible for examination; base of unit forms quarry floor.		Not sampled
	Total thickness of measured section	19.9	

5-30-61

R-3BB-110



BFR-3BB-111

