

University of Wisconsin-Extension
GEOLOGICAL AND NATURAL HISTORY SURVEY
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APPRAISAL OF GRANITE PROPERTIES IN MARINETTE COUNTY

by

E.F. Bean

Open-File Report 38-1

6 p.

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1938

Survey Copy

MARINETTE CO
GRAN STUDIES

APPRAISAL OF GRANITE PROPERTIES IN MARINETTE COUNTY

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These properties were examined December 11, 1938, at the request of Mr. Elmer Grimmer of Marinette. There was about six inches of snow on the ground which made a thorough examination impossible. I had previously examined most of the properties in question; hence the purpose of this visit was to bring the information up to date.

General Principles of Valuation of a Granite Property

There is a great abundance of granite. A granite deposit to be of value must have some of the factors favoring profitable quarrying. These are:

1. Physical Properties. These include texture, color, hardness, strength and porosity.
2. Appearance. A stone may be perfect physically and yet be so unattractive as to be valueless.
3. Structural Features. These affect both the quality and workability of the granite. The most important are joints, sheeting, rift, grain, dikes, and knots.
4. Location with reference to market.
5. Location with reference to a railroad siding.
6. Climate.

In addition to the above factors, the extent of development must be considered in the appraisal. A property that has been developed enough to show that the stone is of good quality, takes a good polish, and has been on the market long enough to establish a good reputation is naturally worth more than one that is undeveloped.

With all of these factors known there can be at least three methods of approach to valuation. (1) What has been paid for granite land in the vicinity? (2) What royalty per cubic foot has been paid? (3) What land cost can a quarry profitably carry? I understand that the State Board of Control paid about \$10,000 for their 80. I have no record of local royalties. The third question can be answered by setting a net annual income and life of the quarry and thus determine the value of the land. It is assumed that the quarry produces 10,000 cubic feet of stone a year, and that a royalty of 5 cents a cubic foot is paid to cover interest on investment plus depletion over a period of 20 years. Assuming an investment rate of 8%, and the rate at which the redemption fund can be accumulated, 4%, we have:

Annual income on royalty 5¢ x 10,000 = \$500

Present value of \$500 per year for 20 years - \$4400. This computation is based on assumptions which may or may not be correct. It seems, however, that a quarry must produce at least 10,000 cubic feet a year if it is to operate profitably. We know that the value of a cubic foot of stone in the ground is a relatively small part of the value of the finished stone. Royalty on granite in Georgia is 25 cents a cubic foot for block granite and two to five cents a foot for other stone. For Indiana limestone, the royalty ranges from four to ten cents a cubic foot.

It is apparent that the amount of stone on a 40-acre tract is so large that the present value of future royalty is very small. A depth of 25 feet on one acre, figuring 80% waste, will produce 216,000 cubic feet of stone. A considerable ground area is required for plant, storage of stock, and for disposal of waste.

Granites of Amberg and Vicinity

In general, it may be said that the physical properties of the granites are excellent. These granites are expensive to work because of their hardness. The appearance is excellent. Some of the quarries have been producing monumental granite for about 40 years. This indicates that a most exacting

clientele has been satisfied.

Owing to structural features, such as closely spaced joints which result in small dies or heavy waste, knots (inclusions of another type of rock), and dikes, the percentage of waste has been heavy. Little or no attempt has been made to utilize the waste for building stone or crushed stone. Some has been sold for breakwater stone. As a building stone, granite meets serious competition from Bedford limestone which is cheaply produced.

The location of these quarries is relatively near large centers of population, and at a distance from eastern granite. Granite imported from Europe is subject to a heavy freight charge to the Middle West. The principal competition comes from the Wausau district and from Minnesota.

Quarry Description and Valuations

Middle Inlet Quarry in the NE¹ NE¹ Sec. 30, T.33N., R.20E.

Stripping (maximum) 4 feet. Maximum depth of quarry 25 feet. The waste stone piles indicate that the waste for monumental stone has been about 80%. Much of this waste stone could be utilized for building stone, etc. Haul is 3 miles to Middle Inlet on gravel road.

The joint system is such that good sized dies can be produced. There are some black "knots" and dikes.

This is known as Montrose Red, and is a beautiful red granite of excellent quality.

We have no knowledge as to quality of stone on the undeveloped part of the forty. In my opinion, this site is worth less than one surrounded by developed quarries. A value of \$4000 is assigned to the property, both developed and undeveloped land.

Emil Mattson site in SW $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 2, T.35N.,R.20E.

There is a small snow-covered opening showing about 3 feet of stripping . About 80 cubic feet of dies piled. This is a good looking gray granite. There was very little waste in the production of this amount of stone. Since I have no knowledge of the character of stone at depth or elsewhere on the forty, I can merely assign a value of \$75 per acre or \$3000 to this property.

Pike River Granite Company in SE $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 10, T.35N.,R.20E.

This quarry was opened in 1896, and has been operated more or less continuously since that time. Fine-grained gray granite from this quarry was for many years responsible for the splendid reputation of the gray granite of the Amberg area.

The quarry is now filled with water, but it is reported to be 75 feet deep. There is evidence of pyrite seams in the waste rock. The seamy character of the rock exposed, and the large waste piles indicate that the waste has been about 80%. The 1898 report of this Survey says of this quarry:

"The results of these various tests are entirely satisfactory, showing beyond a doubt that perfect blocks of this granite, free from seams, are equal, if not superior, to any other gray granite used in this or adjacent states."

The established name of this quarry is worth a good deal. The site is near the siding at Amberg, which makes the waste stone of potential value. To an organization equipped to market both monumental and building stone, this property has the following value:

Quarry	\$5000
Waste stone	2000
Undeveloped land	3000
	<u>\$10000</u>

Undeveloped Land in the N $\frac{1}{2}$ of SE $\frac{1}{4}$ Sec. 2, T.35N.,R.20E.

No work has been done on this property. For that reason we did not visit it. Because of its location with reference to developed properties, it has a potential value of \$75 per acre or \$6000. This appraisal can probably be ma-

terially increased when development work has been done.

Summary

Middle Inlet Quarry	\$ 4000
Emil Mattson Forty	3000
Pike River Granite Company Forty	10000
N $\frac{1}{2}$ SE $\frac{1}{4}$ Sec.2, T.35N., R.20E.	<u>6000</u>
Total	\$23000

T. 35, R. 20E, C.C.

Glenn Frank, President

By Dr. Attorney General's Office

REPORT FOR WEEK ENDING 192

POST OFFICE

Geologist in charge

Geologist	Traverse Symbol	Mileage for week	Total Mileage

Magnetic line (Heavy black line)

Location of Camp +

Road to Camp (Blue pencil line)

