



New Mexico Bureau of Mines & Mineral Resources

Socorro, New Mexico 87801

14

OPEN FILE REPORT

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R E P O R T

On

THE NEW MEXICO RICOLITE COMPANY

TELEGRAPH MINING DISTRICT

GRANT COUNTY, NEW MEXICO

By

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MINING DIVISION

NEW MEXICO BUREAU OF MINES AND MINERAL RESOURCES

SOCORRO, NEW MEXICO

July 15, 1946

THE NEW MEXICO RICOLITE COMPANY

TELEGRAPH MINING DISTRICT

GRANT COUNTY, NEW MEXICO

Lessors of four patented lode mining claims.

Owner. John W. Freilinger, 546 Garfield Avenue, Jersey City,
New Jersey.

FOREWORD

A request for an inspection of the ricolite deposit in Grant County was made to the New Mexico Bureau of Mines and Mineral Resources by C. R. Reed, President, and T. C. Berlekamp, a director of the New Mexico Ricolite Company, the last week in June 1946.

CONCLUSIONS

The ricolite deposit in Grant County has merit of size of deposit and should find a place of use by novelty trade and as a decorative stone to be used by the building trades. It is very possible that it might be used as a mosaic in a decorative cement floor. (Used for this purpose, it is thought the crushed and sized material could be used as an aggregate in the cement cast floor, and that after setting could be polished. A beautiful colored pattern could be developed by such a process.)

The operations of the New Mexico Ricolite Company between April 1, 1946 and July 1, 1946 suggest a commercial value of the stone in the novelty trade. These operations have further suggested a possible use of the stone as a decorative stone to be used by the building trade. This phase should be developed and pushed for the future.

The operations of the property in the past and at the present time have not been guided or planned efficiently. The present operations for production, as is usually the case of enterprising individuals and companies, were attempted from the deposit before sufficient information was obtained on the many critical matters that have to do with the success or failure of such enterprises.

A preliminary exploration of the deposit that would show best methods of extraction in order that the natural valuable physical characteristics of the stone would be preserved should have been No. 1 consideration. A second consideration, the problem of economics, that is, demand of trades for the material, the cost of production, selling and distribution, should have been investigated to a point where conclusions reached were logical, before beginning the actual production and fabrication of cut and polished novelties.

The writer did see enough bona fide information, as letters from responsible firms, to warrant an intelligent nominal outlay of capital to investigate the many problems to be solved in production and fabrication of the stone.

The conclusions above are only suggestions offered by the New Mexico Bureau of Mines and Mineral Resources, and are not to be construed as recommendations. The balance of report is to be interpreted in the same light.

LOCATION

The property leased and optioned by the New Mexico Ricolite Company consists of four patented lode mining claims, and several possessory locations as State land leases, in Section 16, T. 18 S., R. 18 W.,

Telegraph mining district, Grant County, New Mexico. The deposit now being worked is 5 miles north and west of the Red Rock post office. From Red Rock post office it is reached over a rather poor road for autos and trucks. Red Rock, New Mexico, post office is reached over good improved gravel roads from Silver City, New Mexico, a distance of 53 miles, and from Lordsburg, New Mexico, a distance of 23 miles. Silver City is shipping point on Santa Fe railroad and Lordsburg is shipping point on Southern Pacific railroad. Actual distance of truck haul from deposit to Silver City is 58 miles and from Lordsburg 28 miles. The deposit and nearby camp are on what is known as Alder Creek, a tributary of the Gila River.

ELEVATION

The elevation of the deposit is between 5,000 and 5,500 feet above sea level.

TOPOGRAPHY

The topography of the area is mountainous, and is very rugged. Erosion has cut a deep narrow crooked canyon gorge across the deposit and eventually the drainage reaches the Gila River.

WATER - TIMBER - POWER

Water for domestic purposes only is available at a spring just below the deposit of ricolite. It is not thought that enough water is continuously available that would furnish a processing plant on the ground.

Timber is absent in the area, except in the bottom of the canyon, and this is not of quantity or quality that can be used for any purpose whatever except minor fuel requirements for camp.

There is no available electric power in the area. All provisions for power must be planned for.

TRANSPORTATION

Transportation to and from the deposit is for personal by auto or pickup truck, and for production, truck. Just why Silver City was considered as a shipping point on railroad is hard to comprehend, as Lordsburg is 30 miles nearer the deposit and has virtually a downhill haul every mile for loaded trucks, and to reach Silver City material must be transported over two mountain ranges, a distance of 58 miles. Lordsburg is logical conclusion as rail shipping point, as well as a location for a cutting, polishing, and fabrication point.

HISTORY

The first working of the deposit dates back to 1878, when a shipment of the stone was made to Chicago. The material was used for interior wainscoting. The name "ricolite" means rich stone and was adopted by the U. S. Geological Survey in 1889.

Between 1888 and 1945, no operation of the property was attempted. It is reported that after property was patented as mining lode claims, no attempt was made to consider operating the deposit until Dan W. Schmitt in September 1945 became interested in the deposit as a source of material to be used in the novelty trade. Prior to Schmitt's interest, Ernest Bennett of Silver City, New Mexico, from a deposit of same material to the south, fabricated a few lamp stands, ash trays, and sundry novelties just to satisfy a personal curiosity. The writer saw these items in 1937 at Bennett's Machine Shop.

The New Mexico Ricolite Company was a direct result of Schmitt's interest in the material. It is a New Mexico Corporation, and has furnished necessary finance for operations since December 1945. The manufacture of novelties, sale, and distribution of same has been carried on up to the present time.

The development of the novelty trade brought about a possible market for the material in the building trade. One railroad car of 50 tons of the material has been shipped to and paid for at the rate of \$60.00 per ton, f.o.b. Lordsburg, in the rough state by the Natural Marble and Onyx Company of 2545 Pulaski Road, Chicago, Illinois. A 40-ton shipment at same price, f.o.b. Lordsburg, New Mexico, went to the Comcor Products Company, 126 E. Badillo Street, Covina, California.

It is interesting to note that in each case, Chicago and Covina, the material was shipped elsewhere to be sawed and polished, and was shipped back as a product for fabrication to the firm that originally ordered the material in the rough.

The history of the present operation can be summed up as a pioneering project with object in view of developing interest in the stone to a point where a successful industry might be established in New Mexico. That much has been found out of what not to do in operations of extraction at the deposit, and the same at the novelty works in Silver City. These are facts to be considered in future operations.

QUARRY WORKINGS

The past and present production from the deposit comes from open cut works on the steep slopes of the narrow gorge of Alder Creek. Operations up to date have followed a general mining practice, rather than quarry practice that should have been followed.

GEOLOGY

The general area is composed of intrusive rocks of granite pegmatite and effusive flows of andesite and rhyolite. Metamorphic rocks as schists, gneisses, gabbros, and limestones are also present adjacent to workings.

It is very apparent that intrusive granite has elevated the sedimentary rocks and lava flows from an original nearly horizontal position to the present steeply inclined positions that these rock formations now occupy.

There is considerable faulting in the area which has caused an appearance of many different deposits, but in truth are only displacements of huge blocks of formations along a general strike of the ricolite bedding.

The general strike of the ricolite bedding is east and west, dipping 76 to 80 degrees to north in the proximity of the mine workings. The different segments of faulted deposit maintain general strike but dips vary strongly.

OCCURRENCE

The ricolite occurs as a bedded zone composed of many thin bands 1/2" to 4" or more in thickness of various shades of green, yellow, black, and white, tilted steeply to the north. The overall width of bedded zone is 32 feet. From 5 to 8 feet of the bedded stone, rather centrally located within the bed, is what to date has shown commercial possibilities. Footwall or base rock of bedding is granite, and hanging wall or top bedding is a metamorphosed limestone. Well away from hanging wall, perhaps 50 feet, is found a strata of serpentine about 10 feet thick, locally called onyx. This has not been explored enough to show size or usability of the material.

CHARACTERISTICS

Ricolite is the name of a variety of serpentine noted for banded structure of various colors. Serpentine is not a primary but is derived from hydration and otherwise of magnesium minerals or of magnesium rocks. A

very short fibered asbestos was noted in two isolated spots along the strike of the deposit, northwest of present workings, 1,000 to 1,500 in the bed of Alder Creek.

It is supposed that minute amounts of iron give the various shades of yellow and green, and manganese in small amounts give the black colored bands.

The bands of material have a homogeneous structure with a hardness of about 4.5 scale of hardness. The different bands are cemented, or appear to be cemented, together with possibly extremely thin seams of calcite or silica material, in cases rather siliceous. The rock splits easily along these seams and for this reason various colored patterns can be assorted individually or in grouped masses of rock.

The rock from the deposit cuts and polishes beautifully and in novelty sizes can be fabricated - joined with screws for shapes desired.

METHOD OF PRODUCTION AND HANDLING

The method of mining deposit at present is stripping. Extraction of poorer grade on foot wall exposes the better or usable material for extraction. When a section of usable material has been stripped, it is wedged or plugged and feathered, and barred down from the deposit.

The splitting feature of the rock has certain advantages but care must be exercised in quarrying operations of the rock as a mass, otherwise the mass quarried can be easily spined and result in a great quantity of waste material and very small amount of usable material to be recovered. Again the bedded deposit has been fractured across the direction of banding and recemented in the fracture with calcite and the mass quarried if handled too roughly develops open fractures that cause tremendous waste of material.

Up to the present time the material obtained from this method has been dragged over rough terrane with a drag line to point of loading in bottom of gulch. Here it is further mauled around and finally dragged onto bed of truck, using the same method in loading for transportation to shipping point. Compressed air is used as power for drilling blast and plug and feather holes.

MAGNITUDE

The size of the deposit is large. It is impossible at this time to make even a guess at the amount of usable material that can be quarried from the deposit.

TREATMENT

When shipped for building trade the material goes out in the rough in masses containing 2 to 5 cubic feet or more. At points of consumption it is sawed, polished, and fabricated for uses in the trade.

The company has at Silver City on the north end of Pope Street a small novelty works, where masses of less than a cubic foot are cut, polished, and fabricated for novelty trade.

RESERVES

No reserves as dump or spoil materials of any consequence exist. There has been no systematic operation carried on at quarry to ascertain definite information of volume of deposit. Comment can be made that general appearances suggest material available for long time to come, more dependent on market than size of deposit.

EQUIPMENT

The equipment at quarry consists of one Ingersol-Rand gasoline portable air compressor, 110 cu. ft. capacity, vintage of 1920; one modern 30# Ingersol jack hammer, hoses, etc., 500 feet air line, 1½" steel used,

changes up to 6' maximum for 3/4" shank hexagon and threaded for Timken drill bits; a double drum 20 H.P. gasoline engine driven hoist operating a 3/4 Sauermman scraper; one good truck of 2 1/4-ton capacity (Ford Army); one pickup Ford truck; a limited and sundry quantity of tools, as wrenches, pick, shovel, and bars.

One small cook shack with open air patio is just below the workings. No accomodations for sleeping quarters are at the camp.

The cutting shed office and storage for finished novelties is an L-shaped building about 14' by 40' on long side, and 8' by 12' on short side floor space, 9' high with car roof. The cutting and polishing department is equipped with one 3-bladed diamond saw of size to cut a 9" thick rock by 16" in length; one cut off diamond saw and 3 polishing decks of 2 1/2' diameter each. All equipment is individual electric drive. City water furnishes water for cooling cutting saws and polishing machines. A total of about 15 H.P. is required at the plant.

COSTS

The New Mexico Ricolite Company did not furnish me with any ultimate costs and sales prices. What data was available showed an operating cost and a sales return covering period April 1st to July 1st, but did not show any segregated costs, as mining, cutting, and polishing or marketing, and above all, no overhead charges as superintendence, engineering, etc. was included.

Operating cost, 4-1-46 to 7-1-46		\$4,050.70
Novelty department and quarry sales returns	\$2,531.30	
Inventory of novelties on hand	1,519.00	
	<u>\$4,050.30</u>	<u>\$4,050.70</u>

Information in general, gave the following data on quarry.

April 1, 1946 to July 1, 1946		\$6,000.00
Sales:		
1 car stone Chicago - 50-tons		
@ \$60.00	\$3,000.00	
Stone to Los Angeles - 40-tons		
@ \$60.00	2,400.00	
	\$5,400.00	
Deficit	600.00	
	\$6,000.00	\$6,000.00

It was reported to me the Company had an order for six more railroad cars of 50-tons each in the rough at \$60.00 per ton to be loaded as early as possible.

VALUATION

The valuation of this enterprise cannot be anything but a guess, because at present time option on property has not been cleared. No valuation is made as no value can be placed on what could be lost if option to purchase is not exercised.

The value of machinery at quarry is estimated at \$3,500.00. Although there is possibly more actual value exists, it is questionable if a part of a larger total is adequate for a quarry job.

The location of plant and buildings at Silver City is leased. The tools and machinery belong to Company and are estimated in value at \$6,000.00 by information furnished me by parties contacted.

Until the option is cleared and more information is obtainable on costs and sales of the two markets, one would be assuming too many unknowns to estimate a value at this time.

POSSIBILITIES

It can be assumed justifiably perhaps from information gained in the three months' operation that there is a potential value to the project. Enough should be known from the novelty phase to at least suggest profit,

or loss. Perhaps finished products would stand a raise in wholesale price because this market is seasonable. The price received in the rough and the back orders suggest the development of this market to have real value.

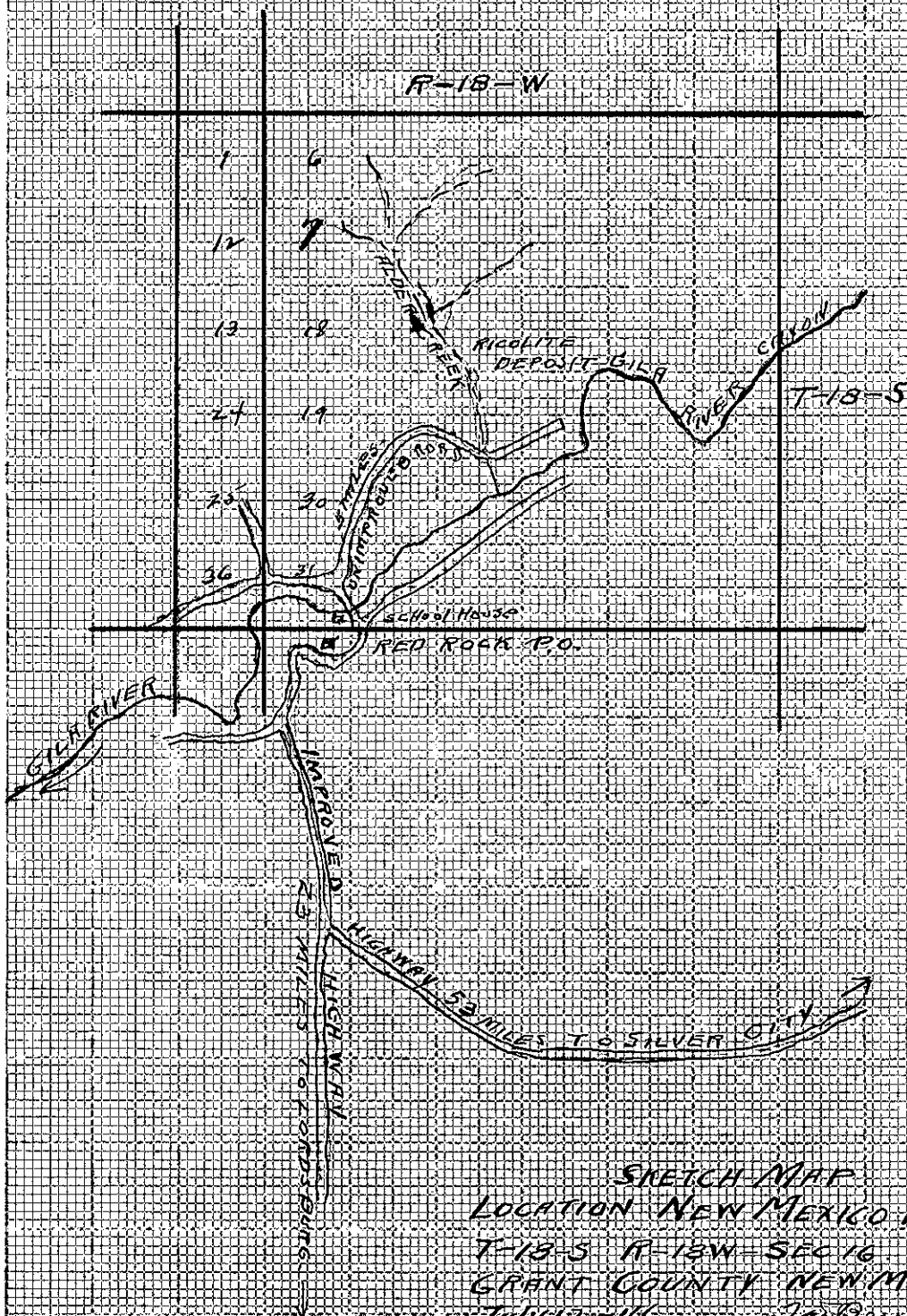
It is suggested that this stone sold to building trade might be sawed into regular shapes at Lordsburg, and thus bring an added price as such process would eliminate freight, as well as being more desirable to the trade.

PROPOSED PLAN OF PROSPECTING AND DEVELOPING

It is suggested that about two months be allowed in time to change over to regular quarry operations. Cost would be \$3,000 to \$5,000.

A diamond drilling campaign might prove valuable, as well as interesting.

T. D. Benjovsky, Chief
Mining Division.



SKETCH MAP
 LOCATION NEW MEXICO RICOLITE
 T-18-S R-18-W SEC 16
 GRANT COUNTY NEW MEXICO
 JULY 17 - 46 J. B. B. B. B. B.
 SCALE 2 MILES TO 1"