INTRODUCTION

On Saturday, January 16, 1964, I accompanied Mr. Otto Best of 1435 Lombard St, Canyon City, Colorado, on a one day examination of mining properties leased or claimed by his company. These properties contain reserves of several stone types that have current market value in the precast concrete and related industries. During the day, three properties were visited.

Lester Bortz Quartz Property

The Lester Bortz property was formerly known as the Meyers Ranch Mine. The property, located in section 31, T 15 S, R 73 W, Park County, Colorado, is 15 miles northwest of the village of Guffey. Canyon City, the nearest shipping point, is 37 miles south of the mine via Colorado State Highway 9, an improved gravel road and paved U.S. Highway 50. The junction between 9 & 50 is eight miles west of Canyon City. Both roads would be kept open at all times except possibly, during the heaviest snowfalls.

The Bortz mine is about 3 mile west of Colorado 9, and is reached from that highway via a poor dirt road.

This mine was originally opened for production of the scarce minerals normally found in pegmatites. The recorded production of these minerals is as follows:

- Feldspar: 200 tons
- Serap mica: 150 tons
- Beryl: 25 tons
- Columbite-tantalite: 1 ton

During past operations, the quartz core was ignored and was not considered an ore. During production of the quartz in the future, limited further by-product production of those materials listed above, should be possible.

The quartz of the Bortz pegmatite is glassy, is nearly clear, and in the western part of the deposit in particular, has a very pleasing rose tint. The deposit is unusual in its glassy and rose-tint characteristics and should have a good marketability for pre-cast
concrete. It is estimated, based on rough pacing of exposed outcrop and estimating an expectable depth of 20 feet, that it should be possible to produce at least 1800 tons of clear glassy and 1800 tons of rose-tint glassy quartz.

This property is currently being worked under a verbal lease from the fee owner. A lease, supposed to be signed Monday, January 20, 1964, is said to provide a $2.00 per ton royalty to the owner which applies against a total purchase price of $20,000.00. Forty acres of land surrounding the mine is to be included and will become the property of Mr. Best upon completion of the purchase price. All payments are said to come from royalty.

As stated above, this lease is in the process of preparation and at the time of writing of this report, had not been signed. Data given above is quoted from Mr. Best; I did not see preliminary copies of the lease.

THE BUFF CLAIMS

Two placer claims, the Buff #1 & #2 were located September 15, 1962 on tracts described in the location notice as NWNE sec. 9, T 17 S, R 71 W and SWNE sec. 9, T 17 S, R 71 W respectively. Claim #1 was recorded Dec. 6, 1962; #2 was recorded Dec. 15, 1962. These locations are in error, based on topography and geology. They are more likely in the west half of sec. 25, T 17 S, R 71 W. These claims should be relocated and location notices amended.

A proof-of-labor, showing $100.00 worth of work was filed Sept. 15, 1963 for Buff #2 claim. Buff #1 was not included and no separate form was presented. In either case, such forms need not be filed before Sept. 1, 1964 so there has been no omission of legal requirements in this regard. It should be noted however, that U.S. Public Law #167 states in part "This law places certain limitations on patented and unpatented claims located subsequent to July 23, 1955." In brief this law bans the location of mining claims for common varieties of sand, stone, gravel, pumice, pumicite, and cinders, and makes them subject to disposal under the Materials Disposal Act. It does not affect the validity of any mining location based upon discovery of other mineral occurring in or in association with such deposits nor does it ban mining location of claims valuable because of other properties giving them distinct and special values.
It would seem the Buff #1 and #2 claims might be challenged by the Bureau of Land Management under Public Law #167. It seems desirable then, to suggest that Mr. Best consult his lawyers on this particular matter of title.

The Buff claims are accessible from Canyon City by going 4.5 miles west of town on U.S. Highway 50. Turn right at the junction with a dirt road that continues to the north up the main valley. Approximately 4 miles up this county road, a lesser road joins it from the west. The claims are about 3 miles from this junction at the end of the road.

Available time did not permit location and verification of claim corners. The pit, recently developed by Mr. Best was examined and the outcrop for at least 1000 feet was traced and checked for similarity to the material in the pit.

This examination indicated the material mined and sold as "Cream Marble" is a very fine grained, pale-buff, siliceous dolomite lying immediately under the red sandstones and shales of the Pennsylvanian Fountain Formation. The dolomite probably represents the Williams Canyon Limestone of basal Mississippian age. Although the total limestone section is at least 150 feet thick at this location, only the top 10 feet or so is being mined because of changes in character and appearance of the underlying material. The sequence as a whole strikes approximately N 3 when local changes are averaged out. Dip is about 40° to the east. The limestone forms a dip-slope in such a way that mining an average of 50 feet down the slope should be very simple and require little waste removal; below this—it will be progressively more difficult.

Since this is a thin bedded limestone of quite consistent color and character, it is reasonable to expect that this deposit will be of comparable character for some distance on either side of a given exposure. This certainly is true of an exposure of like material in a now-abandoned pit roughly 1500 feet south of the present pit. For this reason, it should be reasonable to expect similar material on outcrop for the full length of the claims, 2640 feet. (Since these are placer claims, it is also assumed there is no overlap on prior claims in this distance). A mining depth of 50 feet on the slope of the hill is thought to be a reasonable easily-accessible average. The thickness of this particular member is approximately 10 feet. On this basis, it should be possible to produce at least 105,000 tons of "Cream Marble" with little difficulty. Mining further down-dip can increase this reserve materially.
FLORENTINE PINK QUARTZITE

The Vermillion placer claim, located October 10, 1962, is described as being in the NESE sec. 20, T 16 S, R 70 W, Fremont County, Colorado. The location of the deposit seen on the ground would be in sec. 21, 22 1/2, or 28, T 17 S, R 69 W, Fremont County, Colo. Here again, if the property visited is the Vermillion claim, the location notice is in need of amendment. As stated above, this property, like the Buff claims, is probably subject to leasing under Public Law #167 and is not subject to mining claim location.

The quartzite indicated as the Florentine Pink quartzite is exposed on the west side of state road 268 at a point 9.9 miles north of its junction with U.S. Highway 50. This junction is 7 miles east of Canyon City. State road 268 is gravel. The southern five miles is graded and in good condition; the remainder is good but very narrow.

The quartzite deposit is a partially metamorphosed part of the Cambrian-Ordovician series of sediments. Its exact position in the sedimentary sequence is not known. The deposit strikes approximately N 20° W and dips about 35° NE. The zone indicating good color - a deep bluish and purple on fresh break and yellowish - green on old fractures parallel to schistosity - is at least 60 feet thick. The exposure extends at least 100 feet up the hillside and can be expected to continue along strike for some distance. Estimating a mining depth of 50 feet, that could be accomplished with negligible stripping or other protection against caving of pit walls, this deposit should yield at least 74,000 tons for each 100 feet of length. Total reserves of this deposit are a number of times this figure.

ECONOMICS

In the preceding sections, tonnage estimates have been given for each of the deposits visited. These estimates are given for material in place. It should be realized that when this material is produced it is mined, crushed, and sized. Depending upon the processes employed and the nature of the material, each of these materials will produce varying amounts of the desired size ranges. Finer products may be waste or may be marketed separately.

Since there are no data available as to the percent of each size range after crushing, and no data as to relative market and price for each size range, no figure can be assigned as the present value per ton of material in each deposit.
CONCLUSIONS

Three deposits of stone were examined. Of these three, the Lester Bortz property can be expected to have a reserve of about 3600 tons. The material is unique and should have an excellent market.

For all practical considerations, both the "Cream Marble" and "Florentine Pink Quartzite" deposits are sufficiently large to satisfy even sizable demand for a number of years.

Title to the Bortz property will probably be satisfactory after signing of the lease now being prepared. Concerning the other claims, either I was given the wrong location notices or the descriptions on the claim notices are in error. This should be checked and corrected if necessary. If valid claims can not be established, consideration should be given to leasing the "Cream Marble" and "Florentine Pink Quartzite" from the federal government under Public Law #167.

Since land records were not checked, it is assumed the location of the "Cream Marble" and "Florentine Pink Quartzite" is on open federal ground as against federal withdrawn, state, or fee ownership.

Maynard F. Ayler
Number 3695

January 20, 1964

In the absence of Mr. Ayler this report is signed by:

Robert A. Baxter,
Number 219