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PRINTED: 09/12/2002

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: WILLBANKS PROSPECT

ALTERNATE NAMES:
PERLITE DEPOSIT

MARICOPA COUNTY MILS NUMBER: 791

LOCATION: TOWNSHIP 6 N RANGE 1 W SECTION 2 QUARTER W2
LATITUDE: N 33DEG 53MIN 20SEC LONGITUDE: W 112DEG 20MIN 31SEC
TOPO MAP NAME: GOVERNORS PEAK - 7.5 MIN

CURRENT STATUS: EXP PROSPECT

COMMODITY:
PERLITE
THORIUM ?

BIBLIOGRAPHY:
ADMMR WILLBANKS PROSPECT FILE
AZBM BULL 180 1969 P. 248-50
DEPOSIT MAY EXTEND A MILE TO NORTH INTO
YAVAPAI COUNTY

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES

VERBAL INFORMATION SUMMARY

1. Information from: Ken A. Phillips
2. Address:
3. Phone:
4. Mine or property name: Willbanks Prospect
5. ADMMR Mine file: Perlite Deposit
6. County: Maricopa (also maybe Yavapai)
7. MILS Number: currently 931
8. Operational Status:
9. Summary of information received, comments, etc.:

The Willbanks Prospect (Yavapai 931) is primarily in Maricopa County and described in a file named Perlite Deposit. The Yavapai AZ MILS 931 has been deleted and a new Maricopa Az MILS _____ number assigned. The primary name is Perlite Deposit and Willbanks Prospect is an aka. The deposit is in Secs 2 & 3, T6N R1W of Maricopa County and may extend northward into Sec 34, T7N, R1W partially in Yavapai County.

This property is separate from and not to be confused with the Perlite Claims also in Maricopa County

Date: April 18, 1990

Ken A. Phillips

PERLITE DEPOSIT

MARICOPA COUNTY
PIKES PEAK DIST.

LOCATION: NW $\frac{1}{4}$ & SE $\frac{1}{4}$ Sec 1, T5N, R1W.
 SW $\frac{1}{4}$ & SE $\frac{1}{4}$ Sec 36, T6N, R1W (State Section).

INFORMANT: Hale Tognoni and D. S. Davis 2/19/65

Agent: Hale Tognoni, 411 N. Central Ave, Phoenix. According to Davis the perlite is overlain by Quarternary basalt flows, and is bordered on one side by a volcanic breccia, that is held together by pumice or pumicite like material. These flows probably emanated from vents that form a large volcanic vent in this region.

MEMO LAS 2/19/65

SHATTUCK DENN MINING CORPORATION
and
SUBSIDIARIES

.....ENGINEERING.....Office

Date.....Dec. 8, 1960.....

TO: D. M. KENTRO

SUBJECT: PERLITE CLAIMS, MARICOPA COUNTY
ARIZONA

Attached is a report by Mr. Robt. Raabe of the Perlite Claims of Mr. Lonnie Wilbanks, that was examined by this Department on Nov. 29, 1960. The five samples that were taken at the property have been subjected to several tests. We have been able to "pop" the perlite, but not by means that would give us a qualitative analysis. Special equipment is required for accurate analysis and this type of equipment is not available at the Iron King Laboratory. It is reported that Independent Testing Laboratories charge approx. \$25.00 per sample for this work.

The deposit is situated for easy open cut type of mining and can probably be ripped without any blasting. Four miles of road would be required to meet the Peoria to Lake Pleasant Rd. Six miles of road would be required to meet the county road leading to the Santa Fe R.R. near Surprise, Arizona. Water is available from springs that are nearby, but they would only sustain a mining program.

This property deserves further investigation if the Company is interested in the production of Perlite.

B. R. Waples Jr.

SHATTUCK DENN MINING CORPORATION

and

SUBSIDIARIES

Engineering/Geology

Office

December 1, 1960

Date.....

TO: D. M. Kentro

SUBJECT: Examination of a perlite
property in Maricopa
County, ArizonaSummary

A large perlite deposit was examined on Mr. Lonnie Wilbanks' claims near Lake Pleasant and the Maricopa-Yavapai County lines. Samples of the deposit were taken and are to be tested in our laboratory at the Iron King Mine. If laboratory tests prove this rock to be commercial grade, serious consideration should be given to acquiring the Wilbanks property.

General and Location

On November 29, I examined a perlite property in Maricopa County, Arizona, near Lake Pleasant. The property is approximately 67 miles from the Iron King Mine. To reach the property, travel south from the Iron King Mine via State Highway 69 about 45 miles and turn right on a gravel road at the Lake Pleasant cut off. Proceed to the Lake Pleasant Guest Ranch sign, turn right, continue north along the west side of Lake Pleasant into Yavapai County. Shortly after entering Yavapai County turn sharply south on a rough unmarked drill road. This unmarked road is approximately 22 miles from State Highway 69 and care must be taken not to miss it. Follow this road south into Maricopa County about 2.5 miles to the Wilbanks property--the road crosses a dirt airstrip about 1 mile from the unmarked turnoff.

The property is reported by the owner, Mr. Lonnie Wilbanks of Kirkland, Arizona, to consist of 10 placer claims. A claim map was not available and Mr. Wilbanks stated the claims were not necessarily contiguous. An assumption the bulk of these claims are in T 6 N, R 1 W, Maricopa County, is apparently correct.

A quarter corner common to sections 2 and 3 marking the approximate center of the property was observed indicating some of the claims may lie across the county line in T 7 N, R 1 W, Yavapai County, Arizona.

Geology

The topography in the area is moderately rough consisting essentially of ridges and valleys of gently dipping to near horizontal volcanic flows ranging in composition from basaltic to felsitic.

A bed of perlite between other bedded volcanic rocks outcrops along ridges and is a prominent feature in the area. On hill slopes and valley flats beds of perlite occur with relatively no overburden. In the outcrops along ridges the perlite bed appears to be about 20 feet thick. The perlite beds in the valleys may be of equal thickness if the ridge outcrops and valley outcrops belong to the same stratigraphic unit.

Mineralogy

Perlite can be defined as a peculiar variety of glassy rock composed of small spheroids ranging in size from small shot to peas. A well developed botryoidal (concentric) structure on fractured surfaces is therefore characteristic.

Perlites prove on analysis to contain a rather constant percentage of combined water, between 3 and 4 percent. There may be a connection between this amount of water and the peculiar concentric method of cracking.

On the Wilbanks claims beds of perlite are best described as glassy, light gray, volcanic rocks characterized by a subconcentric, shelly texture. If subconcentric perlite indicates an appreciable reduction in combined water content the rock may not expand suitably upon heating.

In general perlite is processed by heating to 1400-2500 F when it releases water as steam and expands up to 20 times its original volume.

Samples

Five samples of perlite from the Wilbanks claims were taken at four localities, viz., west side, east side, south side and approximately the center of the group. The above sample localities roughly define an area somewhat less than one quarter square mile.

- Sample # 1 --- west side, (claim # 5 ?)--light gray, glassy, scaly with siliceous impurities (chalcedony filled geodes)
- Sample # 2 --- west side, (claim # 6 ?)--gray to black, glassy, subspherulitic perlitic-obsidian with siliceous impurities (chalcedony filled geodes)
- Sample # 3 --- center of claim group, (claim # 3 ?)--light gray, glassy subspherulitic to spherulitic--appears to be of better grade than samples # 1 and # 2
- Sample # 4 --- south side, (claim # 9 ?)--light gray, glassy, subspherulitic to dense (indicates low water content ?) with siliceous impurities.
- Sample # 5 --- east side, (claim # 1 ?)--light gray, glassy, scaly, spherulitic to subspherulitic--appears to be of better grade than other samples

Grade of perlite was estimated in the field by degree of spherulite development and concentricity of fracture--these may not be valid criteria of grade.

Arizona Perlite Industry (Ariz. Bur. Mines Bull. No. 155, 1949)

Numerous perlite claims have been located, and material from some of them has been shipped for experimental and commercial purposes to popping plants in Phoenix, Los Angeles, and other places.

During early 1949, expanded perlite was produced by the following:
Western Perlite Corporation, 919 N. First St., Phoenix, Arizona.

Mines at Superior and south of Aguila, and plant near Tempe.
The Perlite Corporation, 413 Lemon St., Tempe, Arizona.

Mine at Superior, and plant at Tempe.
Perlite Industries of Arizona, 2133 E. Henshaw Rd., Phoenix, Arizona.

Mine at Superior, and plant at Phoenix.
Sil Brico Corporation.
Mine southwest of Yucca, and plant at Clearing, Illinois.

Arizona's total reported production of perlite in 1946 was 1,725 tons, valued at \$9,488; it was utilized by the construction industry as thermal insulation and light-weight aggregate.

The average price of unprocessed perlite in 1946 was \$5.50 per ton, f.o.b. mine; processed perlite brought \$35 to \$37 per ton.

According to the U. S. Minerals Yearbook (Minor Nonmetals preprint), shipments of crude and refined perlite within the United States in 1947 reached 9,265 tons, valued at \$94,309.

As costs of production and processing perlite are reported to be relatively low, the future of the industry in Arizona depends largely upon the useful properties and the cost of the processed material as compared with competitive materials.

Conclusions

There appears to be a considerable tonnage of raw perlite on the Wilbanks claims.

The value of the Wilbanks property as a perlite deposit hinges upon laboratory tests now being performed on samples taken.

If the sample material "pops" and expands to commercial grade the property will deserve further investigation.

RGR/


Robert G. Raabe