State Department of Geology and Mineral Industries

702 Woodlark Building
Portland, Oregon

PUM-BRICK TILE CO. UNCLASSIFIED DISTRICT DESCHUTES & JEFFERSON COUNTIES
(Pumice Aggregate & Building Blocks)

Owners-Operators:

Dillon L. Moore, Box 248, Bend, Oregon

Orin H. Moore, Madras, Oregon

Foreword:

This company operates both a block plant and a pumice pit from which they produce aggregate for their own use and to retail.

Before starting this operation the owners manufactured pumice blocks in Klamath, and during 1945 opened a pumice pit near Chemault. The mining operation at Chemault were suspended because of the then prevailing unfavorable shipping rates. Present operations were begun early in 1945.

Pumice Pit:

Owner: Olaf Anderson, Redmond, Oregon

Location: T 18 S; R 12 E; S 7-8. This is south of Bend and about 1½ miles by unpaved road to U. S. Highway 97.

History: A break in the irrigation canal situated above this property led to the discovery of this occurrence by exposing it in the resulting gully. The county then opened up a small pit for local road material.

Geology: The deposit is situated on the northward sloping flank of a small canyon. The pumice, as exposed in the discovery gully and in the working pit, occurs interbedded with wash silts and gravels and basalts. The pumice surface is essentially level with but a gentle dip to the north. The bottom however, pitches steeply to the north so that the bed thickens rapidily. In the working pit the

plant and bunker are situated on the downhill, or thick side, and there the thickness is known to be in excess of 20 feet. This thickness pinches to 0 in a distance of about 150 feet. Laterally, the pumice is known to extend both to the east and west. To the east test pitting has merely confirmed its presence for a distance of 100 feet, and no data is available regarding the thickness. To the west however, the discovery gully reveals a section through a substantial amount of the deposit. This proves the extension of the deposit for a distance of 175 feet to the west and shows the thickness to be as much as 25-30 feet. Here the overburden varies from a foot or so over the outcrop portion of the deposit to about 5 feet at the exposed face near the crest of the slope. This overburden is mostly fine bedded pumiceous sands, but locally, and scoured into the pumice, there is a lens of heavy wash boulders. Over the pit the overburden was only 1 to 2 feet thick, but much of this material has been piled in the area occupied by the reserves and will have to be re-handled.

Pumice in this pit is white and exceptionally free of contamination. It seems harder than the pumice seen in the Tumalo area and the pit run size is definitely coarser. How much coarser is difficult to state short of screen analyses, but pieces as large as 2 and 3" in diameter were to be seen, with 1" pieces being common.

Pit run material mined even in the summer is reportedly wet. A wet yard weighed 1400 lbs. No data for dried weight is available.

Equipment and Mining: Overburden removal is accomplished by Bulldozer on a contract basis. Excavation is done by a company owned scraper drawn by a tractor. Pumice is draged over a grizzly where it falls to a bin and is taken by a conveyor belt to a set of rolls. Plus $\frac{1}{2}$" material is removed by a fixed screen and the rolls are spaced about $\frac{1}{4}$" apart. A bucket conveyor raises the crushed material to the bunker.

General: The bulk of the material produced here goes to the company's block plant at Madras. For this purpose a 14 ton semi is used.. The trucking distannee is 60 miles. Some of the pumice sold commercially has been shipped as far as Sacramento, California---by rail at a rate of 28¢/100lbs. The wetness of the pumice and the resultant freezing has tended to restrict operations in this pit during the winter months.

Block Plant:

Location: Madras, Jefferson County, Oregon

Forward: This plant has been in production for nearly a year. It is housed in spacious set of buildings constructed of pumice blocks laid up and designed in a manner to set an architextural standard for builders. While details of trim are not wholly completed, the building features large overhanging eves and general carpentry with a neatness that is striking. Interior finish includes ceilings and fluorescent lights. A concrete floor is scheduled to be laid as soon as the fill on which the building is constructed packs sufficiently to warrant it. and plans are to landscape around the exterior.

Plant Equipment & Practice: Aggregate is stockpiled outside the building on the floor level, and cement inside. These are conveyed by wheelbarrow to a mixer sunk in the floor. The mix is taken by a conveyor belt to a Flam vibrator type block machine. Pallets of freshly molded blocks are stacked four high. For transporting fresh molded blocks to the curing room flange-wheeled cars and two sets of tracks have been provided. These cars are 16' long by 32" wide. With pallets stacked four high they hold 120 6 x 8 x 16" blocks. The curing room is a room of 20,000 block capacity. Blocks are allowed to stand 10 days. No steam or special heat is emplyed.

Mix used is 5 parts pumice aggregate, 1 part pumice sand, 1 part standard concrete.

General: Specifications and prices of products available here is as follows:

Item	Price at plant
6 x 8 x 16 tile	$0.21
6 x 8 x 12 "	.17
6 x 6 x 12 "	.14
4 x 6 x 12 "	.11
Brick	.04

Informant:

Pit: Dillon Moore

Plant: Orin Moore

Report by:

N. S. Wagner, February 19, 1947

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State Department of Geology and Mineral Industries

702 Woodlark Building
Portland, Oregon

PUM-BRICK TILE COMPANY
(Pumice Aggregate & Building Blocks

Unclassified Districts
Deschutes & Jefferson Counties

Owner and Operator: Dillon L. Moore, box 248, Bend, Oregon

Orin H. Moore, Madras, Oregon

Location: T 18 S; R 12 E; Sections 7-8 (pumice pit south of Bend).

City of Madras (concrete products plant)

General: This business was dissolved October 1947-at least the pumice production portion thereof was dissolved and/was taken over by Merle Sleeper of the Pumice Eningeering Company. Present status of the Building Block phase of this company is not known.

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Report by: N. S. Wagner
Date of Report: August 17, 1949
Informants: Merle Sleeper and Ralph Mason (letter, November 9, 1948)

State Department of Geology and Mineral Industries

702 Woodlark Building
Portland 5, Oregon

Pumice Engineering Company (pumice)

Unclassified District
Deschutes County

Owner-Operator: Merle Sleeper
Pumice Engineering Company
Box 808, Bend, Oregon

Location: Two working pits, the VanMetre and the Conlee, both situated close together directly south and southeast of Bend respectively. The VanMetre pit was formerly operated by Dillon L. Moore of the Pum Brick Tile Company. The location is T 18 S; R 12 E; Section 7 & 8. The Conlee pit is part of a two thousand acre tract in T 18 S; R 12 E; portions of sections 1, 2, 11 and 12.

History: This company began operations in March 1947. The Dillon Moore pit was acquired in October 1947 when the Pum-Brick Tile Company was dissolved.

General: Mining is done by 3/4 yard Buckeye shovels which load direct to trucks for haulage to the processing plant situated on the railroad in the Industrial District of Bend. The shovel is preferred by this operator on the grounds that (1) a better (less fractured and more uniform) pit run plant feed is secured by means of vertical cuts up the face; (2) less difficulty in digging is experienced during the winter months due to the maintainence of vertical faces and the consequent need of stripping only small areas of overburden at a time. Dozers are used for stripping and the practice employed is to doze overburden into the old pit.

For a description of the occurrence as exposed by the VanMetre pit reference is made to the report entitled Pum-Brick Tile Company, N. S. Wagner, February 1947. The Conlee pit was not visited but is understood to be similar to the VanMetre occurrence. Overburden reportedly varies from three to 30 feet and the pumice from fifteen to twenty-six.

Products put out by this company include a monolithic aggregate from 5/8 to plus 3/16 mesh; clean segregated and sized aggregate to consumer's specifications; a block aggregate blend and a pumice plaster sand under the trade name of Therm-O-Lite.

Aggregate processing is accomplished by means of rolls and vibrating screens, the various grades being putout by manipulation of screen sizes and screening-crushing stages. The plaster sand is treated in a separate plant in which it is crushed, screened, dried to a dead dry and sacked. Details regarding the mechanics of the process have been with held from publication at the owner's request. This plaster sand phase of production was commenced during March 1949. Aggregate is sold for $1.60 per yard F.O.B., loaded. The price of plaster sand is $0.66 per 95 pound sack, ((about 4 cubic feet).

Shipments are made 95 percent by rail with the largest market area being the State of Washington. Distant points reached by this producer include Vancouver, B. C. and Sacramento, California.

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Report by: N. S. Wagner
Date of Exam: August 1, 1949
Date of report: August 17, 1949
Informant: Mr. And Mrs. Sleeper

State Department of Geology and Mineral Industries

702 Woodlark Building
Portland 5, Oregon

ROCK MESA OBSIDIAN — Lane and Deschutes

Howel Williams describes an occurrence of obsidian at Rock Mesa having an areal extent of more than a square mile in "volcanoes of the Three Sisters Region, Oregon Cascades", University of California Geological Science Bull., vol. 27, no. 3, p. 58.

Rock Mesa is located in sec. 29?, T. 17 S., R. 8 E. on the Lane-Deschutes county line.

State Department of Geology and Mineral Industries

702 Woodlark Building
Portland 5, Oregon

Tum
Tumalo ---- Pumice — Deschutes County
Pum

This report is supplement #1 for a report under the same title by N.S. Wagner, February 15, 1947.

Operator: O.W. Grubb and Sons, Route 2, Box 73, Bend, Oregon

Location: T 16S, R 12E, Section 29 (NW¼)

General: This operation has been inactive throughout the current year although prior to that a sporadic production was made each year since the operation first started.

The operators still hold the property under lease and the plant and digging equipment is intact. It is doubtful, however, if operations will be resumed according to Mr. O.W. Grubb.

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Report by: N.S. Wagner
Date of Exam August 2, 1949
Informant: Mr. O.W. Grubb and Mrs. Don Grubb

702 Woodlark Building
Portland, Oregon

TUMALO (Tum / Pum) PUMICE (Pumice) UNCLASSIFIED DISTRICT DESCHUTES COUNTY

Operator:

O. W. Grubb & Sons, Rt. 2, Box 73, Bend, Oregon

Owner:

James A. Elder, Bend, Oregon (Rt. 2)

Location:

T 16 S; R 12 E; S 29 (NW¼). This is 5½ miles west of the railroad siding at Deschutes. This road is currently under construction and scheduled to be paved in the near future. The truck haul to Bend via the old Redmond paved highway is 8 miles.

History:

These operators were active throughout most of 1946 during which time the property was prospected and machinery assembled and constructed. Production began about January 1, 1947.

Development:

The property was opened by bulldozer cuts at the site of the present pit, and continuity of the deposit has been established on both flanks of the pit by bulldozer cuts and shallow holes. This test work is on the southern flank of a low hill with gently sloping sides. No prospect work has been done to show the continuity of the deposit under the hill to the north, or to show the thickness of the overburden there. The work done along the flank of the hill, has demonstrated the existence of a sufficient amount of good appearing pumice to justify the commencement of moderate scale production.

Geology:

The nature of the occurrence is best revealed in the working pit. This pit is 120 feet long by 20 feet in width. The length parallels the flank of the hill. The contour of the surface of the pumice deposit as revealed here tends to conform to that of the hill itself. Operations have not proceeded far enough to square up the face on the uphill side of the cut, but a total thickness of 16 feet of pumice has been established with pumice still constituting the floor on the lowest cut.

The pumice is very light to white in color. It reportedly weighs between 1100 and 1200 lbs. per cubic yard./ The common pit run mesh appears to be close to $\frac{1}{2}$" with but a small amount exceeding that mesh to a maximum of perhaps 1 or $1\frac{1}{2}$ inches.

Overburden at the pit has ranged from 1 to 4 feet in thickness. This consists of both soil and a rather sharply defined layer of discolored pumice. The 4' thickness more or less prevails on the north or uphill side of the cut, but as has already been mentioned, the contour of the pumice surface appears to conform fairly closely with the contour of the hill so that the thickness of overburden may not increase appreciably to the north, or at least may do so only gradually.

Equipment:

Pumice is excavated by a tractor with a blade and is pushed to set of vibrating screens and rolls.

An elevator hoists the crushed product to a bunker, situated in the pit. The mesh of the product is varied to suit the buyer, but is usually about $\frac{1}{4}$".

General Information:

The property is favorably situated in gentle rolling to level country with good roads. Precipitation will not greatly interfere with operations as far as excavation goes, but moisture might prove an undesirable factor for a short time during the early spring.

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Economics:

Although this company is supplying the building trade consumers at the present time, and plans to continue doing so, they are seriously considering sacking a clean sized product to be sold to poultry raisers as chicken and turkey litter and are looking into the possibilities of obtaining contracts. For such purpose screened, sized pumice possesses many favorable characteristics. Pumice is highly absorbant yet does not become slippery or fermented when wet as does sawdust or peat moss. Pumice is non-poisonous when eaten as compared to organic materials which sometimes do prove poisonous. Pumice is non-inflammable which is an important attribute in instances where portable heaters are used in the brooders or hatcheries. Lastly, pumice can be treated with various lice-control medicants.

Informants:

Grubb and Sons

Report by:

N. S. Wagner, February 15, 1947

VIEW OF THE TUMALO PUMICE PLANT

Pum-Brick Tile Co — NAME

OLD NAMES

Pumice aggregate and blocks — PRINCIPAL ORE

MINOR MINERALS

Pumice 18S — T | 12 E — R | 7-8 — S

PUBLISHED REFERENCES

Deschutes ..... COUNTY
Plant in Jefferson County -- Madras
Unclassified ..... AREA

..... ELEVATION

..... ROAD OR HIGHWAY

..... DISTANCE TO SHIPPING POINT

MISCELLANEOUS RECORDS

PRESENT LEGAL OWNER (S) Pumice; Olaf Anderson ..... Address Redmond, Oregon .....

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OPERATOR Pum Brick Tile Co, Messers D.L. and O.H. Moore ..... D.L. Moore Box 248, Bend Oregon
O.H. Moore, Madras, Oregon .....

Name of claims	Area	Pat.	Unpat.

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EQUIPMENT ON PROPERTY