

# State Department of Geology and Mineral Industries

702 Woodlark Building  
Portland, Oregon

DESCHUTES CONCRETE PRODUCTS CO.  
(Pumice & pumice blocks)

UNCLASSIFIED DISTRICT

DESCHUTES COUNTY

This report accompanies green paper report of same title and date as above.

The pink ash overburden common to many of the pumice deposits in this district is often light and dusty in its natural state. Williamson reports that after being ground it becomes exceptionally heavy and packs in the bins. When ground and mixed with pumice and used in vibrating type block machines, it settles to the bottom of a block to make an off colored streak. This ash can be used satisfactorily only in an unground, clean, sized state, and then only in limited quantities.

As against the above, Larsen of the Volcanic Products Co. reports that many of his buyers prefer an admixture of the ground overburden material with the pumice. In this respect it is of note that these two operators maintain different grinds, Larsen selling his at  $3/8$  and  $1/4$  minus with a moderate amount of fines as against Williamson whose product is  $1/4$  minus with a large percentage of fines.

Of note also is the fact that the Deschutes Products Co. does not use the ash. Furthermore, they size their material for block manufacture. In this respect other block manufacturers <sup>have</sup> complained about the variability of materials as delivered by the producers with respect to the percentage of fines. The Oregon Pumice Products Co. plans to install sizing equipment of their own.

The Deschutes Products Co. has abandoned the use of rolls in favor of a disc crusher for processing pumice. They find a disc gives a much cleaner and more uniform grind. Their screen product for block use is  $-3/16$  and  $+ 3/16-3/8$  used in a 60 to 40 ratio.

This Company regards vibrating concrete machines as superior to tamping machines when heavy aggregates are used. For pumice, however, they regard tamping machines as superior, for the following reasons:

# State Department of Geology and Mineral Industries

702 Woodlark Building  
Portland, Oregon

- 2 -

A drier mix can be used than can be in vibrating machines in which pumice tends to float rather than pack unless very wet. This dry mix is important in that extensively wet pumice blocks tend to shrink and warp. Furthermore, full 8 x 8 x 16" pumice blocks can be made on the tamping machine while reportedly only 6 x 8 x 16" blocks can be made successfully on vibrators.

\*\*\*\*\*

Report by: N. S. Wagner

Date exam: February 17, 1947

\*\*\*\*\*

CONFIDENTIAL

# State Department of Geology and Mineral Industries

702 Woodlark Building  
Portland, Oregon

Deschutes Concrete Products Company  
(Pumice aggregate & blocks)

Unclassified District

Owner-Operator: Chester T. Lackey, Redmond, Oregon

Location: Concrete Products plant is located in Redmond.  
The pumice pit situated in T 16 S; R 12 E; Section 30.

General: Lackey produces pumice for the consumption of his own concrete products plant only. It is used primarily for building blocks although limited amounts of drainage tile have been fabricated with a pumice aggregate. Production for the year 1948 amounted to 7000 cubic yards according to Kieth Parkinson, plant manager.

\*\*\*\*\*

Report by: N. S. Wagner  
Date: August 7, 1949

CONFIDENTIAL

# State Department of Geology and Mineral Industries

702 Woodlark Building  
Portland, Oregon

DESCHUTES CONCRETE PRODUCTS CO.  
(Pumice aggregate and blocks)

UNCLASSIFIED DISTRICT

DESCHUTES COUNTY

## Owner-Operator:

Chester T. Lackey, Redmond, Oregon

Plant Manager is Keith Parkinson

## Foreword:

This company is in the building block business and produces both cinder and pumice aggregates for their own use. The block plant is located in Redmond. Pumice originates in a company leased pit near Tumalo. Cinders come from a pit owned by the city of Redmond and situated nearby.

## Pumice Pit:

Owner: Deschutes County Munciple Improvement District, Rt. 2 Bend, Oregon.

Location: T 16 S; R 12 E; S 30. This is about 1 mile north of Tumalo, and 14 miles via the old Bend Redmond road to the companys plant at Redmond.

Area: Leased area consists of a 40 acre tract.

Geology: Operations were commenced here February 28, 1946. Good grade pumice has been found to average 12' in thickness. This pumice like other occurrences in the vicinity, is an unsorted accumulation of fragments ranging from 0 to possibly  $1\frac{1}{2}$ " in diameter. The overburden is largely soil about 2' in thickness at the pit, but thicker over other portions of the occurrence. The lower portion of the section was obscured at the time of this visit, but reportedly the mineable pumice rests on pumice of an inferior grade, and with an uneven contact. An estimated three years reserves at the rate of 3500 cu. yds. a year remain as the good grade pumice feathers out to the south in a distance of 20 feet from the pit, changes to an inferior grade to the north, and is overlain by an excess of overburden to the west.

Mining and equipment: Pumice is dug and transported to a loading station by a small dozer. As all pumice produced here is used exclusively in the company's block plant, the crushing and sizing unit is situated at said plant. This pit run material is loaded out directly here. The loading station consists of a chute constructed over a truck pit sunk below the level of the bottom of the main pit.

Cinder Pit:

Owner: City of Redmond

Location: T 14 S; R 13 E; S 33.

General: This pit was not visited. On a royalty basis cinders are obtained here, excavated by company equipment.

Block Plant:

Location: Redmond, Deschutes County.

Foreword: This plant has been in production for over a year. It is well mechanized and housed in a large building made of pumice blocks. Both equipment and operating practice differs in many respects that is usage in other plants in Central Oregon.

Plant equipment and practice: Large stockpiles of pit run aggregate are maintained in the yards. This is processed as used, and for crushing a Symons horizontal disc is employed. The disc is situated in the yard outside of the building. Disc discharge is  $3/8$ " maximum. This discharge is conveyed to a trommel situated in the building and above a 25 yard capacity, two partition bunker. Trommel products are sized -  $3/16$  and  $4 3/16 - 3/8$ ". A controlled charge of 60 parts of the fines to 40 parts of the coarse is mixed with standard cement in a  $6\frac{1}{2}$  to 1 ratio. The mixer is set in the floor under the bunkers.

The block machine is a Stearns tamping machine which produces three-hole full standard, or 8 x 8 x 16" blocks.

Curing includes a 48 hour period of steaming at 125 degrees F. under no pressure plus 27 days of air drying in the stockyard.

Plant capacity is reported as 2000 8x 8 x 16" units per 8 hours with 7 men.

General: Specifications and prices of blocks produced here are:

<u>Item</u>	<u>Weight(pumice)</u>	<u>Price at plant</u>
8 x 8 x 16	25 $\frac{1}{2}$ lbs.	\$ 0.25
4 x 8 x 16	14 $\frac{1}{2}$ lbs.	\$ 0.15

Accessory and half size blocks are also made.

Informant:

Keith Parkinson

Report by:

N. S. Wagner

Date of Exam:

February 17, 1947

\*\*\*\*\*



Pumice Pit.