Perlite Occurrences in Lake/Klamath Counties

Map No.	Name	Location	Remarks	Laboratory Tests
1	Eagle's Nest (Paisley Perlite)	Sec. 26,27,34,35 T. 34 S., R. 19 E.	Complete report being sent from Portland office	(See Remarks)
2	No Name	Sec. 28, T. 37 S., R. 18 E.	Perlite occurs on both sides of NE trending rhyolite dike. Perlite is from light gray to dark gray opened by several cuts.	3 samples submitted. No results
3	Glass Slipper	Sec. 14,T.37S.,R.18E.	Light gray perlite occurs on north flank of large rhyolite dome. Where exposed by dozer cuts the perlite breaks down into translucent sand. Obsidian common as Apache tears.	2 samples submitted.
4	Lucky Day CO	Sec. 26,35,T.37S.,R.18E.	Light gray perlite along northwest edge of small plug like mass of flow banded glassy rhyolite.	Results from 1 sample. Expansibility 50.0%
5	Drews Valley Ranch	Sec. 16,17,T.38S.,R.17E.	Large mass of light gray perlite and glassy dacite occurs in low rounded hills just north of U.S. Hwy.66. Obsidian is common to abundant in some zones. If most of this material is useable this would be an inexhaustable supply.	See separate sheet for results of 4 samples.
6	Roselite	Sec. 5,T.38S.,R.17E.	Mainly glassy rhyolite-dacite, light gray to green, perlitic structure.	No samples submitted.
7	No Name	Sec. 25,T.37S.,R.16E.	Not visited. Perlite reported to be here in large quantities.	No samples submitted
8	No Name	Sec. 30,T.37S.,R.16E.	Pinkish-gray glassy dacite(?), perlitic structure. Occurs in prominent rounded outcrops just north of U.S. Hwy. 66.	1 sample submitted. No results.
9	No Name	Sec. 24,T.37S.,R.15E.	Medium gray dacite perlite-sugary texture contains common to abundant crystals of feldspar & biotite. Outcrops weather low and rounded & occur over a wide area indicating a large amount.	1 sample submitted. No results.

Norman V. Peterson P.O. Box 417, Grants Pass, Oregon

P-25488	UG-188	Drews Valley Ranch	Chip sample	Lake County	Sec. 17-16, T. 38 S., R. 17 E.	Expansibility
P-25489	UG-189	"	"	"	Sec. 16-17, T. 38 S., R. 17 E.	"
P-25490	UG-190	"	"	"	Sec. 16-17, T. 38 S., R. 17 E.	"
P-25491	UG-191	"	Grab sample	"	Sec. 16-17, T. 38 S., R. 17 E. ¼ mile from U.S. Highway 66	"

Description:

(1) UG-188 Chip across 30' in small borrow pit.

(2) UG-189 Chip across 8' flow banded outcrop.

(3) UG-190 Chips from float rock top of knoll.

(4) UG-191 Grab of perlite sand from shallow excavation SW side.

Material crushed and screened through 20, on 28 fraction

		Volume Increase	Temp.	Time		Color
P-25488	UG-188	125%	1850° F.	30 seconds	150% @ 1950° F.	gray
P-25489	UG-189	25%	1850° F.	30 seconds	- - -	gray
P-25490	UG-190	550%	1850° F.	30 seconds	400% @ 1700° F.	bright white
P-25491	UG-191	550%	1850° F.	30 seconds	- - -	dull white

B

STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

2033 First Street
Baker, Oregon

#1

1069 State Office Building
Portland 1, Oregon

239 S.E. "H" Street
Grants Pass, Oregon

REQUEST FOR SAMPLE INFORMATION

The State law governing analysis of samples by the State assay laboratory is given on the back of this blank. Please supply the information requested herein fully and submit this blank filled out along with the sample.

Your name in full Willis Schmiedel

Street or P.O. Box 2690 Prairie Road City & State Eugene, Oregon

Are you a citizen of Oregon? Yes Date on which sample is sent 1-16-61

Name (or names) of owners of the property Matlock - Eagles Nest

Are you hiring labor? No Are you milling or shipping ore? No

Name of claim sample obtained from Unknown

Location of property or source of sample (If legal description is not known, give location with reference to known geographical point.)

County Lake Mining District

Township 34 S. Range 19 E. Section 25 Quarter section

How far from passable road? On Name of road Private farm

	Channel (length)	Grab	Assay for	Description
Sample no. 1		X	Expansion	-20 +28 mesh
Sample no. 2		X	Expansion	-10 +20 mesh

(Samples for assay should be at least 1 pound in weight)

(Signed) Willis Schmiedel

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Sample Description Perlite. Expanded product very light colored.

VOLUME INCREASE

Sample number	GOLD oz./T.	GOLD Value	SILVER oz./T.	SILVER Value	On 28 mesh @ 1850° F.	On 28 mesh @ 1600° F.	On 20 mesh @ 1850° F.	
P-26137 #1	- - -	- -	- - -	- -	650%	200%	- - -	- - -
P-26138 #2	- - -	- -	- - -	- -	- - -	- - -	700%	- - -

Report issued Card filed Report mailed 1-23-61 Called for

SIR-5

#2

STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

2033 First Street, Baker, Oregon | 1069 State Office Building, Portland 1, Oregon | 239 S.E. "H" Street, Grants Pass, Oregon

REQUEST FOR SAMPLE INFORMATION

The State law governing analysis of samples by the State assay laboratory is given on the back of this blank. Please supply the information requested herein fully and submit this blank filled out along with the sample.

Your name in full N. V. Peterson

Street or P.O. Box General Delivery City & State Lakeview, Oregon

Are you a citizen of Oregon? _____ Date on which sample is sent _____

Name (or names) of owners of the property _____

Are you hiring labor? _____ Are you milling or shipping ore? _____

Name of claim sample obtained from Glass Slipper prospect

Location of property or source of sample (If legal description is not known, give location with reference to known geographical point.)

County Lake Mining District _____

Township 37 S. Range 18 E. Section 14 Quarter section _____

How far from passable road? _____ Name of road _____

	Channel (length)	Grab	Assay for	Description
Sample no. 1		X	Expansability	Glass Slipper, lower cut
Sample no. 2		X	"	Glass Slipper, upper cut

(Samples for assay should be at least 1 pound in weight)

(Signed) N. V. Peterson

DO NOT WRITE BELOW THIS LINE - FOR OFFICE USE ONLY - USE OTHER SIDE IF DESIRED

Sample Description #1 Perlite sand - translucent, occasional obsidian fragments (this sample shattered badly). #2 Dark gray banded perlite from upper cut.

Through 20 - on 28 mesh

Sample number	GOLD oz./T.	GOLD Value	SILVER oz./T.	SILVER Value	Vol. increase @ 1900° F.			
P-25602 #1	- - -	- -	- - -	- -	350%	- - -	- - -	- - -
P-25603 #2	- - -	- -	- - -	- -	200%	- - -	- - -	- - -

Report issued _____ Card filed _____ Report mailed 9-13-60 Called for _____

SIR-5

STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

2033 First Street, Baker, Oregon | 1069 State Office Building, Portland 1, Oregon | 239 S.E. "H" Street, Grants Pass, Oregon

REQUEST FOR SAMPLE INFORMATION

The State law governing analysis of samples by the State assay laboratory is given on the back of this blank. Please supply the information requested herein fully and submit this blank filled out along with the sample.

Your name in full N. V. Peterson

Street or P.O. Box General Delivery City & State Lakeview, Oregon

Are you a citizen of Oregon? _____ Date on which sample is sent _____

Name (or names) of owners of the property _____

Are you hiring labor? _____ Are you milling or shipping ore? _____

Name of claim sample obtained from _____

Location of property or source of sample (If legal description is not known, give location with reference to known geographical point.)

County Lake Mining District _____

Township 37 S. Range 18 E. Section 21 - 28 Quarter section _____

How far from passable road? _____ Name of road _____

	Channel (length)	Grab	Assay for	Description
Sample no. X 3			Expansability	West side ridge
Sample no. X 4				West side ridge
5				West side ridge

(Samples for assay should be at least 1 pound in weight)

(Signed) N.V. Peterson

DO NOT WRITE BELOW THIS LINE - FOR OFFICE USE ONLY - USE OTHER SIDE IF DESIRED

Sample Description #3 Dark gray banded perlite. #4 Dark gray-green vitreous perlite (?). #5 Light gray banded perlite.

Through 20 - on 28 mesh

Sample number	GOLD oz./T.	GOLD Value	SILVER oz./T.	SILVER Value	Vol. increase @ 1900° F.			
P-25604 #3	- - -	- -	- - -	- -	25.0%	- - -	- - -	- - -
P-25605 #4	- - -	- -	- - -	- -	25.0%	- - -	- - -	- - -
P-25606 #5	- - -	- -	- - -	- -	100.0%	- - -	- - -	- - -

Report issued _____ Card filed _____ Report mailed 9-13-60 Called for _____

SIR-5

#4

STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

2033 First Street
Baker, Oregon

1069 State Office Building
Portland 1, Oregon

239 S.E. "H" Street
Grants Pass, Oregon

REQUEST FOR SAMPLE INFORMATION

The State law governing analysis of samples by the State assay laboratory is given on the back of this blank. Please supply the information requested herein fully and submit this blank filled out along with the sample.

Your name in full N. V. Peterson

Street or P.O. Box P.O. Box 417 City & State Grants Pass, Oregon

Are you a citizen of Oregon? _____ Date on which sample is sent _____

Name (or names) of owners of the property Lucky Day OO - Don Tracy

Are you hiring labor? _____ Are you milling or shipping ore? _____

Name of claim sample obtained from Lucky Day OO

Location of property or source of sample (If legal description is not known, give location with reference to known geographical point.)

County Lake Mining District Thomas Creek

Township 37 S. Range 18 E. Section 35 Quarter section _____

How far from passable road? Road to _____ Name of road Mine road

	Channel (length)	Grab	Assay for	Description
Sample no. 1		X	Expansibility	
Sample no. 2				

(Samples for assay should be at least 1 pound in weight)

(Signed) N. V. Peterson

DO NOT WRITE BELOW THIS LINE - FOR OFFICE USE ONLY - USE OTHER SIDE IF DESIRED

Sample Description White to light gray perlite. Crushed and screened through 20, on 28 mesh fraction.

Sample number	GOLD oz./T.	GOLD Value	SILVER oz./T.	SILVER Value	VOLUME INCREASE @ 1900° F.			
P-25567	- - -	- -	- - -	- -	50.0%	- - -	- - -	- - -

Report issued _____ Card filed _____ Report mailed 8-29-60 Called for _____

SIR-5

UG - 188 thru 191
Expansibility

#5

STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
PROJECT SAMPLE RECORD

SAMPLES SUBMITTED BY: Norman V. Peterson (DOGAMI) ADDRESS: P.O. Box 417 Grants Pass, Ore. DATE: 8/1/60

Sample No.	Mine or Prospect	Type	District	S.	T.	R.	Assay For
UG-188	Drews Valley Ranch	chip sample	Lake County	17-16	38 S	17 E	Expansibility
UG-189	" " "	" "	" "	16-17	38 S	17 E	Expansibility
UG-190	" " "	" "	" "	16-17	38 S	17 E	Expansibility
UG-191	" " "	grab "	" "	16-17	38 S	17 E	Expansibility

½ mile from U. S. Hwy. 66

Descriptions:

1. UG-188 gray perlite with common obsidian
Chip across 30' in small borrow pit.
2. UG-189 Gray perlitic flowbanded glassy rhyolite
Chip across 8' flow banded outcrop.
3. UG-190 gray glassy rhyolite
Chips from float rock top of knoll.
4. UG-191 gray perlite sand
Grab of perlite sand from shallow excavation SW side.

Results:

		Volume Increase	Temp.	Time	
P-25488	UG-188	125%	1850° F.	30 seconds	150% @ 1950° F.
P-25489	UG-189	25%	1850° F.	30 seconds	- - -
P-25490	UG-190	550%	1850° F.	30 seconds	400% @ 1700° F.
P-25491	UG-191	550%	1850° F.	30 seconds	- - -

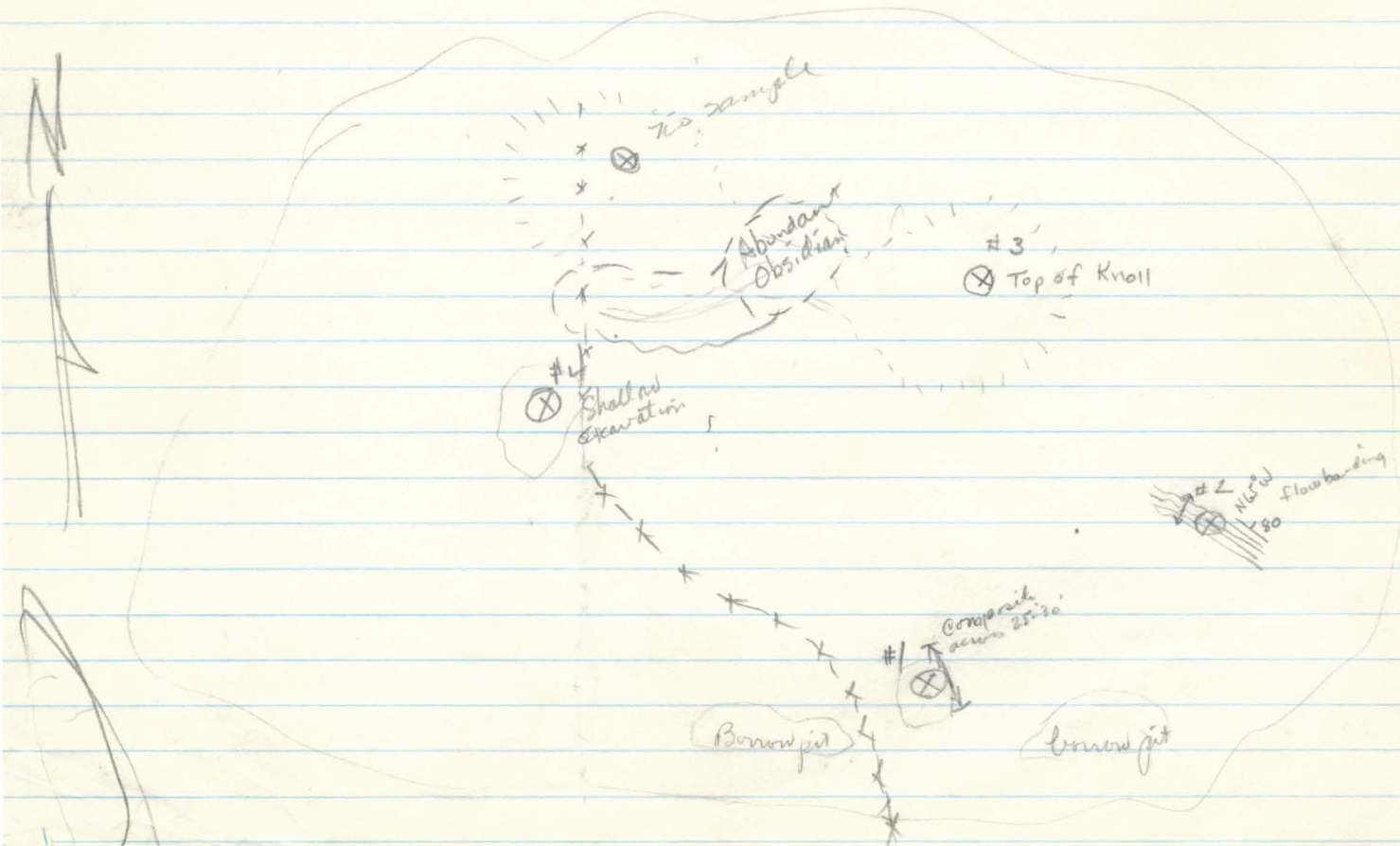
Perlite Samples from Clarence Dallas - Drews Valley Rd

#1 - Sample taken near borrow pits - composite of solid to loose material across about 30' - there are zones in which this material is almost 1/2 obsidian -

#2 chip sample - 8' in glassy flow banded rock with perlitic structure.

#3 Assorted float rocks from top of Knoll - see sketch - finely flow banded almost pumice in some places - no appreciable obsidian

#4 Perlite - Obsidian sand from shallow excavation on SW side of tallest knoll - just west of fence line.



P-25653 & P-25654
Expansibility

Morris

STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

2033 First Street
Baker, Oregon

1069 State Office Building
Portland 1, Oregon

239 S.E. "H" Street
Grants Pass, Oregon

REQUEST FOR SAMPLE INFORMATION

The State law governing analysis of samples by the State assay laboratory is given on the back of this blank. Please supply the information requested herein fully and submit this blank filled out along with the sample.

Your name in full N. V. Peterson

Street or P.O. Box General Delivery City & State Lakeview, Oregon

Are you a citizen of Oregon? _____ Date on which sample is sent Nov. 1960

Name (or names) of owners of the property Government

Are you hiring labor? _____ Are you milling or shipping ore? _____

Name of claim sample obtained from Open ground

Location of property or source of sample (If legal description is not known, give location with reference to known geographical point.)

County Lake and Klamath Mining District Quartz Mountain

Township 37 S Range 15 E. Section 24 Quarter section _____

(37 S 16 E. 30)

How far from passable road? ½ mile Name of road U.S. Highway 66

	Channel (length)	Grab	Assay for	Description
Sample no. 1		X	Expansibility	
Sample no. 2		X	Expansibility	

(Samples for assay should be at least 1 pound in weight)

(Signed) N. V. Peterson

DO NOT WRITE BELOW THIS LINE - FOR OFFICE USE ONLY - USE OTHER SIDE IF DESIRED

Sample Description #1 (1) Pinkish-gray ~~glassy dacite (?)~~ Perlite - common feldspar & biotite crystals.

#8 (2) Medium gray ~~perlitic dacite (?)~~ perlite - "

Sample number	GOLD oz./T.	GOLD Value	SILVER oz./T.	SILVER Value	VOLUME INCREASE at 1850° F.			
P-25653 #1	- - -	- -	- - -	- -	500%	White with few black specks.		
P-25654 #2	- - -	- -	- - -	- -	700%	Very white.		

Sample #7 Sample #8

Report issued _____ Card filed _____ Report mailed 12/5/60 Called for _____

SIR-5

EXPANSION PROPERTIES OF PERLITE FROM KLAMATH & LAKE COUNTIES, OREGON

Locality No.	Name	Sample No.	Fused Color	Expanded Volume	Temp.	Time	Minus	Plus	Sample Description
1	Eagles Nest Perlite	P-26137	Very light	200%	1600°F.		20	28 mesh	Perlite.
			~~Very light~~	650%	1850°F.	30 sec.	20	28 mesh	
	" " "	P-26138	Very light	700%	~~1850°F.~~	" "	10	20 mesh	Perlite
2	Glass Slipper	P-25602		350%	1900°F.	30 sec.	20	28 mesh	Perlite sand. Translucent, occasional obsidian fragments (this sample badly shattered).
	" "	P-25603		200%	1900°F.	" "	20	28 mesh	Dark gray banded perlite from upper cut.
3	No Name	P-25604		25.0%	1900°F.	30 sec.	20	28 mesh	Dark gray banded perlite.
	" "	P-25605		25.0%	~~1900°F.~~	~~30 sec.~~	20	28 mesh	Dark gray-green vitreous perlite(?).
	" "	P-25606		100%	1900°F.	30 sec.	20	28 mesh	Light gray banded perlite.
4	Lucky Day 00	P-25567		50%	1900°F.	30 sec.	20	28 mesh	White to light gray perlite.
5	Drews Valley Ranch	P-25488	gray	125%	1850°F.	30 sec.	150% @ 1950°F.		Gray perlite w/common obsidian.
	" " "	P-25489	~~Gray~~	25%	"	" "			Gray perlitic flow banded glassy rhyolite.
	" " "	P-25490	White	550%	"	" "	400% @ 1700° F.		Gray glassy rhyolite.
	" " "	P-25491	"	550%	"	" "			Gray perlite sand.
6	Roselite		No	data					Light gray-green perlitic rhyolite.
7	No Name	P-25653	White w/few blk. specks	500%	1850° F.	30 sec.			Pinkish-gray perlite common feldspar & biotite crystals.
8	No Name	P-25654	Very white	700%	1850° F.	30 sec.			Medium gray perlite, common feldspar

copy

Perlite occurrences in Southeastern Klamath and Southwestern Lake Counties, Oregon

by
Norman V. Peterson*

A preliminary study of perlite occurrences in southeastern Klamath and Southwestern Lake Counties was made by the writer during 1960 while extending the reconnaissance mapping of the Lakeview uranium area. Large bodies of glassy rhyolite-dacite rocks with associated perlite were found to be widely distributed in Klamath and Lake Counties. This distribution and the possibility of new and larger markets in the lightweight aggregate industry and increasing use or perlite as a filtering medium, made it desirable to locate and sample the perlite occurrences and to indicate areas of possible commercial importance.

The mapping of the rhyolite-dacite rocks was limited generally to the Lakeview uranium area in Lake County and to accessible areas adjacent to Oregon Highway 66 to the west near Bly and Beatty in Klamath County. More detailed work will surely show more outcrops of the glassy rhyolite-dacite rocks and associated perlite occurrences.

Definition of perlite

Strictly defined, perlite is a volcanic glass having numerous concentric cooling cracks which give rise to a perlitic structure. Most perlites have a higher water content than normal obsidian and have a rhyolitic to dacitic composition. Perlite ranges in color from light gray to almost black and has a waxy to pearly luster. Owing to its high water content, perlite, when crushed, sized, and heated quickly to its softening temperature, expands into fluffy pellets that resemble pumice.

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*Field geologist, State of Oregon Dept. of Geology & Mineral Industries.

Commercially the term perlite refers to any naturally occurring glass of igneous origin that will expand when quickly heated and yield a frothy, light colored mass of glass bubbles. The expanded product is also called perlite.

Perlite Industry

Since perlite is a low-cost industrial mineral, economic production requires cheap mining methods and low transportation costs. Most deposits are quarry-type operations where bulldozer ripping, carryall or power-shovel loading methods are used. Crude perlite is usually crushed and screened at or near the quarry and then shipped to a processing plant for drying, pre-heating, and expansion. The expansible properties of different perlites are seldom the same so that the processing plant design is based on trial tests of the perlite for:

1. Physical characteristics, mainly fracture.
2. The temperature at which the perlite expands.
3. The extent to which water vapor has been driven out of the perlite particles before the softening temperature has been reached.
4. The size distribution of the perlite fed to the furnace.

Vertical and horizontal oil or gas fired furnaces of several designs are used, and after expansion the hot "perlite" is cooled and separated into various size fractions by a series of cyclones. The sized product is then bagged or sent to bulk storage.

Uses of perlite

Perlite can be made in a variety of densities, it is chemically inert, flame-proof, mildew-proof, does not disintegrate when wet and has excellent heat and sound insulating properties. The most important uses from a rapidly growing list are shown below.

Plaster aggregate: As an aggregate "perlite" makes a plaster that is lightweight, has good acoustic and thermal insulating properties, is fireproof, resilient, nailable, sawable, and has good bonding properties.

Lightweight concrete aggregate: Used in roof decks, beams, building blocks, prefabricated units and floors, modern curtain-wall construction.

Loose-fill insulation: Between wall studs, around steam pipes, in refrigeration cars, and deep freezers. As a loose fill medium for imbedding hot steel ingots during shipping.

Fillers: Perlite fines are used in rubber goods, cleansers, paints, glazed tile, glazes, plastics, resins, and metal surface plaster. Also used as a porous support for catalysts and chemicals in gaseous reactions.

Industrial filtering: For filtering juices, dry cleaning compounds, alcoholic beverages, and other chemicals.

Oil well cementing and grouting.

Refractory: Used in medium temperature range refractory brick.

Horticultural applications: Soil conditioning, as a plant propagating medium, packing material for shipping, and as a diluent in insecticides.

Klamath & Lake County Occurrences

In Southeastern Klamath County and Southwestern Lake County, the perlite

occurrences are almost always found as a selvage zone around glassy flow-banded rhyolite-dacite rocks. Pumiceous tuffs and breccias are almost always associated. The zones of perlitic rocks vary from a few feet thick to large dome-shaped masses that cover several acres.

On the accompanying map, rocks of predominantly rhyolitic to andesitic composition have been generally outlined. Previously known perlite occurrences and others found during this study are also shown on the map. No detailed study of any occurrence was attempted, but, when feasible, samples were taken and submitted to L. L. Hoagland of the Department's Portland office for preliminary expansion tests (see table). Brief descriptions of eight individual occurrences are given below:

Locality 1 -- Eagles Nest (Paisley Perlite)

The Eagles Nest or Paisley Perlite is located along the crest and east flank of Tucker Hill in secs. 25 and 36, T. 34 S., R. 19 E., about 10 miles southeast of Paisley in Lake County. The Eagles Nest deposit is being developed by A. M. Matlock of Eugene, Oregon

A large amount of light-gray perlite has been explored along the east flank of the large elongated dome-shaped mass of glassy flow-banded rhyolite that makes up Tucker Hill. Perlitic structure is well developed and the rocks break down into perlite sand with common to abundant obsidian cores (Apache tears). This deposit was studied in some detail by N. S. Wagner (1950).

Samples of perlite from the Eagles nest submitted to the State Department of Geology and Mineral Industries for preliminary expansion tests* show the perlite to have good to excellent expansible properties and a

*Laboratory - Expansion tests are made by grinding and screening to obtain a + 28 mesh and -20 mesh sample. A known volume of the sample is placed in an electric muffle furnace heated to 1600° F. to 1850° F. for a specific time. The expanded volume is measured after cooling and listed as a percentage increase in volume.

very light-colored expanded product.

Locality 2 -- Glass Slipper

This occurrence, in sec. 14, T. 37 S., R. 18 E., was discovered adjacent to the Marty K uranium prospect in 1955. The perlite is light to dark gray and occurs at the contact of a large rhyolite dome and massive pumice tuffs. Where it has been exposed in several bulldozer cuts the perlite breaks down into a translucent sand. Obsidian is common as "Apache tears".

Two samples, one of the perlite sand with occasional obsidian and the other a dark-gray banded perlite showed volume increases of 350 percent and 200 percent when tested for expansibility.

Locality 3 -- No Name

In sec. 28, T. 37 S., R. 18 E., perlite occurs on both edges of a northeast trending rhyolite dike. Several bulldozer cuts made while exploring for uranium minerals expose perlitic rocks. The perlite varies from light gray to dark gray and grades into a pink and green glassy rhyolite.

Three samples from the west edge of the dike showed a 25 percent to 100 percent volume increase when expanded.

Locality 4 -- Lucky Day 00

The Lucky Day 00 is a uranium prospect in sec. 35, T. 37 S., R. 18 E. Here again perlite is found at the contact of a small rounded mass of glassy flow-banded rhyolite and volcanic tuffs. Light gray perlite has been exposed in a shallow bulldozer cut on the northwest edge of the rhyolite plug.

One sample of almost white perlite showed a volume increase of 50 percent when tested.

Locality 5 -- Drews Valley Ranch

Just north of U. S. Highway 66 on Drews Valley Ranch in secs. 16 and 17, T. 38 S., R. 17 E., there is a large mass of light gray perlitic rock. The perlite and glassy dacite with zones of obsidian occur in low rounded hills that are possibly remnants of a thick flow. This appears to be a large deposit.

Four samples were taken from widely separated points on the low hills. The expanded products ranged from light gray to very white with volume increases up to 550 percent.

Locality 6 -- Roselite

Quicksilver exploration in sec. 5, T. 38 S., R. 17 E. has exposed flow-banded, light gray to green glassy rhyolite. Where opalization and clay alteration is not present the rocks have a perlitic structure. Drill holes are reported to have encountered perlite for considerable depth. No samples were submitted from this occurrence.

Locality 7 -- (No name)

Pinkish-gray glassy biotite dacite(?) with a perlitic structure occurs in prominent rounded outcrops just north of Oregon Highway 66 in NW¼ sec. 30, T. 37 S., R. 16 E. This occurrence is very close to the western border of Lake County. Small crystals of feldspar and biotite mica are common to abundant in the sugary textured massive rock.

One sample expanded 500 percent and the product was white with a few black specks.

Locality 8 -- (No name)

On the eastern edge of Klamath County in sec. 24, T. 37 S., R. 15 E.

medium-gray perlitic rocks crop out over a wide area. The sugary-textured rocks weather easily into low-rounded outcrops. Feldspar and biotite are common to abundant. The widespread outcrops indicate a large quantity of perlitic material.

One sample chipped from several outcrops showed a very white expanded product with a volume increase of 700 percent.

During this preliminary study the individual occurrences were not mapped in detail, completely sampled, nor were tonnages calculated. The study does indicate that large amounts of perlite that has good to excellent expansible properties are available. If the problem of cost of transportation to market can be worked out there certainly is a good possibility of finding a suitable, adequate source of perlite in this area.

* * * * * * *