

State Department of Geology and Mineral Industries

Owner of property: Mrs. Amanda Myers
(Mrs. Kartes' mother)

1069 State Office Building
Portland 1, Oregon

Investigation of Anomalous Radioactivity in the
SE $\frac{1}{4}$ sec. 12, T. 30 S., R. 2 W., Douglas County, Oregon

Introduction:

This investigation was made at the request of the Bureau of Land Management to determine whether radioactive minerals are present along the existing road that crosses the SE $\frac{1}{4}$ sec. 12, T. 30 S., R. 2 W.

The area was visited first on Feb. 20, 1961. Mr. Jack Berkshire and Paul Sangor, of the Roseburg B.L.M. office accompanied me to the property, showed me the right-of-way where the radioactivity was reported to be and then left me to make an inspection of the area.

The property was visited again on March 14, 1961 with Mrs. Dorothy Kartes.

General Geology:

The following observations were made from examining rock outcrops adjacent to the existing road.

The predominant rocks in the SE $\frac{1}{4}$ sec. 12 are vari-colored, white, tan, reddish-brown rhyolite tuffs of Tertiary age. The texture and composition of the tuffs ranges from fine-grained crystal tuffs to lapilli and pumice lapilli tuffs. Most appear to be of rhyolitic composition. They are massive and commonly form prominent erosional outcrops on the hillsides. The rocks are randomly jointed and cracked causing them to break into large irregular shaped blocks. These joints and cracks commonly show iron staining and bleaching from normal weathering. Narrow zones of clay alteration are also present.

Where the attitude of the tuffs could be determined they generally strike from N. to N. 10° W. and dip about 15° to the northeast.

Two narrow basalt dikes intrude the tuffs along the road near the center of sec. 12.

- 2 -

Rocks of rhyolitic composition generally contain a higher uranium content than rocks with a lower silica (more basic) composition.

A slightly higher than background radioactivity appeared to be present in this area especially where the rhyolitic tuffs were prominently exposed along the existing road. This is probably the result of the mass effect of a large body of tuffs containing a slightly more than average uranium content. During the inspection the geiger counter used began to operate erratically because of weak 45 volt batteries.

No discreet radioactive minerals were seen, or indicated from checking cracks, joints, or rusty zones with the geiger counter before it began to operate erratically. Rock samples collected from various points along the road were checked later in the office for fluorescence with Ultraviolet light and for radioactivity with a radioassayer. The results were negative.

Date visited: February 20 and March 14, 1961.

Report by: Norman V. Peterson, March 17, 1961.

* * * * *

Addendum to: Investigation of Reported Anomalous Radioactivity in the
SE $\frac{1}{4}$ sec. 12, T. 30 S., R. 2 W., Douglas County, Oregon

After the first inspections were made Mrs. Kartes called at our Grants Pass office to show us samples that she obtained from the SE $\frac{1}{4}$ of sec. 12. Three samples contained ^{abundant} /fluorescent radioactive minerals. The composition of the rocks in these samples is the same as the predominant rock type in the area and they probably came from the immediate area.

Because of the similarity of the samples to the rhyolitic tuffs that outcrop along the road in the SE $\frac{1}{4}$ of sec. 12 another inspection was arranged to determine whether or not the radioactive minerals occur as reported.

This inspection was made on March 22, 1961 with Mrs. Kartes and Mr. W. R. Purvine. The rock outcrops along the road were again carefully examined and checked with our geiger counter. The background radioactivity again was found to be slightly higher than the level at Tiller. No anomalous radioactivity was found.

Date visited: March 22, 1961.

Report by: N. V. Peterson, March 22, 1961.

* * * * *

Subject: Inspection of SE 1/4 Sec. 12, T. 30S. R. 2W.
for the Bureau of Land Management. Reason for
the inspection to check for the presence of
radioactivity or uranium minerals.

Mr. Paul Sangor was contacted and an
arrangement made to meet at the Postoffice
in Canyonville on Monday, Feb. 20 to visit the
property. Mr. Sangor and Mr. Jack Berkshire
accompanied me to the property and pointed out
the areas to be examined.

The ~~area~~ ^{SE 1/4 sec. 12} was examined by making a traverse along
the existing road, by checking all rock outcrops ^{along} for
visible mineralization and for radioactivity
with a Geiger counter. The creek was traversed
on the return trip and ~~the~~ the exposed rock
were checked as before.

The ^{predominant} rocks in the SE 1/4 of sec. 12 are white
^{to buff and} reddish brown rhyolite tuffs of Tertiary age.
Biotite and small fragments of obsidian are common
in these tuffs. They are massive and ~~and~~
joint and cracks randomly oriented ~~and~~
cause the rocks to break into rather large irregular
blocks. The joints and cracks commonly show
iron staining and bleaching from normal weathering.
^{Narrow} zones of clay alteration are also present.

In the creek and on the slope to the east of
the creek, the tuffs ~~show a~~ strike from
N to N 10° W and dip 15° to the NE. Two
narrow basalt dikes ^{that} intrude the tuffs at the
north edge of sec. 12 are exposed in the west bank
of the ~~the~~ Deadman Creek.

Although rhyolite tuffs are considered to be favorable
^{host rocks for uranium,} no mineralization was seen either along the road
or along the creek. No radioactive rocks were indicated
~~from~~ by checking the rock outcrops with the Geiger counter.
Rock samples collected from road cuts were
checked for fluorescence with an ultra-violet light.

Check of SE 1/4 of sec. 12 for Radioactivity.

Rocks from sec. line are light gray to white biotite rhyolite tuffs - iron stained
#1 N-S fracture zone 1 to 2 ft thick broken clayey rock - shallow dip
15° to the SE.

#2 On to the north the rock grades into a reddish rhyolite tuff - with
abundant obsidian fragments - rock sample
Random joints or cracks cause the rocks to break into large
angular blocks - these cracks or joints are iron stained and
bleached from normal weathering - some zones of clay
alteration are present.

#3 At spring the rock type again is yellowish to white - ^{biotite} tuff
no radioactivity.

To south of end where road crosses east trending stream there is
a small ls block - came from west and all cuts show imbedded
debris.

Large outcrops of the yellowish-white rhyolite tuff can be seen
on the ridge just to the NW.

At the north property line ~~at~~ on point there ~~are~~ an abrupt
change in rock type to dark gray, coarse grained basalt
highly fractured and iron-stained - fractures are coated
with red iron oxide - hematite (?).

N-S trending basalt dike - 8 to 10' wide - baked & reddened
tuffs on either side - dip vertical. - Another parallel dike
6' wide - columnar jointed - black -

Downstream - similar tuffs - reddish-purple to white -
almost crystal tuffs in some places - very likely - rhyolite
deposited - outcrops along east side of creek are 200' high
Massive - fairly good attitude in Creek down near the sec.
line. $R \frac{12}{13}$ - N10°W dip 20° to the SE.