



# State Department of Geology and Mineral Industries

1069 State Office Building  
Portland 1, Oregon

## URANIUM OCCURRENCE, BEAR CREEK AREA

Creek County

Name of claim: Unknown.

Owners: Sage Hollow Mining Corporation, Forest Kennedy of Glide, Oregon,  
Secretary-Treasurer.

Location: (SE<sup>1</sup>?) sec. 13, T. 18 S., R. 16 E., Creek County. The mine is reached from Bend by traveling east on the Bend-Burns Highway No. 20 a distance of 3 $\frac{1}{2}$  miles to the Bear Creek Junction, thence north on Bear Creek road for a distance of 10.5 miles to the Gardner (Platner mine) mailbox, thence left 1 mile to the forks of the road at the cabin. Take the left fork 1.5 miles to the discovery pit of the claims.

General geology: The oldest rocks exposed in the area belong to the Clarno formation. The lower Clarno formation is composed of basalt flows, rhyolite lavas and tuffs, and sedimentary beds having a total thickness of over 400 feet. The upper Clarno formation is separated from the lower by a non-conformity. It is composed of lighter-colored tuffs, mostly silicified, and rhyolite flows. To the north, west, and south the Clarno formation is overlain by later andesites called the Madras formation. A patch of Columbia River basalt covering about 3 square miles has been mapped about 5 miles south of Bear Creek Butte. The John Day tuffs are recognized in only small scattered erosional remnants.

The Clarno formation in this area has a general southwest dip of about 15° and has been cut by a series of NW trending major faults. Smaller faults intersect the main fault at angles approaching 90°. Many of the fault zones have been silicified and stand out in relief due to their weather-resistant

characteristics. Locally they have been referred to as dikes which they topographically resemble (Lowry, 1939).

Mineralization: The Clarno formation in the Bear Creek area has been known for occurrences of cinnabar which have been worked sporadically for a number of years. A deposit of gypsum occurs on the Seett ranch, and a 3-foot calcite vein in the vicinity of Bear Creek Butte is reported. The early settlers supposedly made quick-lime by heating this material.

Uranium and cinnabar are often found occurring together in Oregon, and the fact that cinnabar is widespread in the Clarno formation is reason to suspect uranium.

Uranium occurrence: The prospect is located about 1 mile southeast of Bear Creek Butte on the crest of a ridge. The ridge has a core of silicified tuff in a shear zone about 4 feet wide which is probably responsible for the ridge's existence. The elevation at the discovery claim is 4,290 feet (Aneroid).

Visible yellow-green uranium minerals occur in the silicified zone on the east wall (mapped wall) of trench "D" but on the west wall (not mapped) the uranium minerals are darker green and occur disseminated in a clayey gouge several feet from the silicified zone. The association of the yellowish minerals with the silicified host rock and the green minerals with the clayey gangue is also apparent in a Lakeview deposit.

A radiometric traverse of trench "D" indicated a distinct rise in the vicinity of the mineralized shear zone. Although no minerals were visible in trench "C", a radiometric rise was noted about 20 feet from the shear zone. If this gives a true trend of the mineralized area, trench "A" and "B" are not on the deposit (see map) and the high radioactivity does not follow the line

of the small ridge on which the deposit is located. More work should be done to investigate the trends of high radioactivity.

The work done thus far has not turned up any quantity approaching a commercial ore body. A complete radiometric survey of the claim area and a little more dosing should be done. Also, a program of accurate and careful sampling should be undertaken to determine if commercial grade and quantity of ore is indicated.

Remarks: The real significance of this occurrence is the fact that there is uranium in the Clarno formation in addition to the Powell Butte occurrence. The discovery should open up many hundred square miles for investigation. Any mineralized area in the Clarno formation should have fair prospects of turning up an occurrence of uranium.

There have been reports of other occurrences in the area, one in sec. 26, T. 18 S., R. 16 E. A cinnabar mine owned by Joe Beaver, Chuck and Art Crouch was reported by them to have visible uranium mineralization. This has not been confirmed.

Report by: Max Schafer and H. G. Schliker

Visited: 12/16, 17/55

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Crook County

## BEAR CREEK URANIUM

Supplemental report. June 4, 1958.

Owner: The claims are being leased by Leonard Lundgren and associates of Bend.

Location: The 32 claims are mainly in Sec. 13, T. 18 S., R. 16 E., Crook County.

Development: New development work by Mr. Lundgren includes deepening and cleaning out of old bulldozer cuts and two new trenches across the strike of the ridge on which the uranium mineralization is found.

The somewhat irregular N. 50° W. trending ridge has been explored by at least 10 bulldozer cuts. The main cuts trend generally about N. 15° E. and are about 100 feet long, 10 feet wide, and from 15 to 20 feet deep. (See sketch).

In the immediate area the rocks are a series of varicolored clayey tuffs overlain by a light colored rhyolite (?) or welded tuff flow. The ridge on which the uranium minerals are found is capped by the more resistant rhyolite (?).

In bulldozer cut #2 just to the south of the original discovery cut the relationship of the two rock types and the predominant structure in the area is clearly shown. The conformable contact between the colored tuffs and the overlying rhyolite flow is seen in the southeast wall. The strike of the contact is N. 55° W. and the dip 30° to the southwest. Near the center of the cut there is a narrow but prominent fault that strikes parallel to the ridge N. 65° W. and dips steeply (80°) to the northeast. The rhyolite (?) on the east side has been faulted down and forms the

resistant rib that holds up the ridge.

Visible yellow-green uranium minerals can be seen in both walls of this cut in a narrow zone near the contact of the rhyolite and the clayey tuffs. (See sketch). The occurrence of either the secondary uranium minerals or a high radioactive reading appears to be localized at the contact of the two rock types in almost every case.

Bulldozer cut #5 appears to be entirely in the jointed, fractured and iron-stained rhyolite (?). It is at a slightly higher elevation than the trenches to the northwest. Near the center of this cut a series of narrow slickensided zones are shown. These narrow zones up to six inches wide contain lenses of cemented breccia. The breccia contains fragments of the rhyolite (?) cemented with a black siliceous material. There are also visible yellow-green uranium minerals on fractures in the breccia. A sample of the breccia submitted to the Spokane office of the AEC is reported to contain primary uraninite (?) and secondary autunite and assays 1.5%  $U_3O_8$ . The narrow slickensided zones with which the uranium minerals are associated strike about N. 15° W. and dip steeply to the SW. The slickensides indicate small horizontal displacements.

The contact between the tuff and rhyolite is again shown in cut #7. Here the floor of the trench is entirely in the red to green clayey tuffs and the contact is shown on the northwest wall.

Conclusions: The origin of the uranium is conjectural. The localization of the secondary minerals at the contact between the clayey tuff and the overlying rhyolite suggests the possibility of a concentration of original small disseminations of uranium from the rhyolite.

The discovery of primary minerals at the southern part of the deposit points to an introduction of the uranium by hydrothermal solutions from

Bear Creek Uranium (concluded)

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another source.

The finding of the small amount of commercial grade material should certainly encourage systematic exploration to determine the continuity of the radioactivity along the strike of the ridge and the relation of the mineralization to the NW trending high angle faults.

Visited: June 4, 1958 by Norman V. Peterson accompanied by George Breest.

Report by: Norman V. Peterson - 6/12/58.

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1069 State Office Building

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Portland, Oregon

## URANIUM OCCURRENCE, BEAR CREEK AREA (Sage Hollow Mining Corp.) Crook County

(See report in Crook County Binder)

Location: (SE<sup>1</sup>?) sec. 13, T. 18 S., R. 16 E., Crook County.

Introductory Material: The newspaper reports of uranium activity in this area seem to be a little confused. It appears that Metal Services, Inc., of Roseburg is active in submitting the samples and the staking in the area, but so far they have reported no uranium.

The people having the uranium occurrence are trying to develop the discovery to see if they can actually make a mine. So far, they have had little publicity.

The Redmond Spokesman reported on December 5, 1955, Metal Services, Inc., of Roseburg purchased the Juniper Bear claims from the owners. According to the newspaper report the following men are connected with the firm:

Peter Don Reich, President, Crescent, Oregon  
A. H. Leaper (Leipper?)  
R. C. Whipple  
Henry Miller  
Keith Carter  
Leland Leeper (Leipper?)  
Avery Armstrong  
Ralph W. Stark

Charles Williams, formerly of Kansas, who recently opened a consulting office in Eugene, was named as geologist for the Metal Services, Inc., of Roseburg, and J. T. McDonald, Lake County Lands, is also connected with that company.

Report by: Max Schafer and H. G. Schlicker

Visited: 12/16-17/55