

State Department of Geology and Mineral Industries

1069 State Office Building
Portland 1, Oregon

Bear Creek Uranium - URANIUM OCCURRENCE, BEAR CREEK AREA

Creek County

Name of claim: Unknown.

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

Location: (SE $\frac{1}{4}$?) sec. 13, T. 18 S., R. 16 E., Crook County. The mine is reached from Bend by traveling east on the Bend-Burns Highway No. 20 a distance of 34 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 Scott 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. Schlicker

Visited: 12/16-17/55

State Department of Geology and Mineral Industries

702 Woodlark Building
Portland 5, Oregon

BEAR CREEK CLAIMS (uranium)

Crook County

Visited: Schafer & Schlicker, May 24, 1956

Development: 7 (?) trenches totaling about 500 feet.

Geology: Varicolored tuffs of Clarno formation have been intruded by rhyolite dike. Fractures in dike and footwall tuffs have been mineralized. Only one trench has visible mineralization although distinct anomalous radioactivity can be found in the other trenches where they cut the dike. This dike is responsible for holding up the ridge.

The country rock has been mapped by Lowry as Clarno formation and this is thought to be correct principally because of the contained rhyolite flows which lie just above the uranium occurrence. It is possible that this dike is a feeder for these flows.

To the SW of the trenched area about 100 yards much slickensided float is present. In the areas of the flows-rhyolites or welded tuffs, hyaline opal is common.

Conclusions and recommendations: The mineralization may be hydrothermal. It is closely associated with the dike. Only sparse mineralization is in sight, although anomalous radioactivity is present in other places in the explored area.

It was recommended that a short shaft be sunk to examine the occurrence at a short depth. This is the only way in which good, detailed information may be obtained.

This report supplements green-sheet report dated 12/16/55 by M.S. & H.S.

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Supplemental Report

June 7, 1960

BEAR CREEK URANIUM

The Bear Creek Uranium was visited on June 1 by N. V. Peterson and R. G. Bowen at the request of James Marier of the Bear Creek Mining Co. Other principals in this company are: Frank Jones, Estil Parris, Darrell Parris, Billy Joe Polly, and Dick West all from Roseburg or nearby.

Development: Development work by the Bear Creek Mining Company during 1959 and 1960 has been concentrated in the immediate area of the original discovery. A large bulldozer excavation 200 feet long, 100 feet wide, and variable depths up to 60 feet deep now encompasses the area that included the #1, #2, and #3 cuts on the sketch map. This pit is being enlarged and deepened at the present time.

The recent work exposes what appears to be a rhyolite dike or pipe-like mass that intrudes vari-colored clayey tuffs. This dike(?) is about 30 feet wide near the surface but tapers rather rapidly to pinch out or is faulted off at 60 feet below the surface in the bottom of the pit. To the south along the ridge the rhyolite appears more like a flow with accompanying narrow dikes.

The only mineralized zone that could be seen at this visit was in the deepest part of the pit in a narrow gouge zone at the contact of the rhyolite dike and the clayey tuffs. Autunite is common to abundant in both the clayey gouge and the rhyolite. Iron oxide coatings in the brecciated rhyolite near the contact show high radioactivity. This mineralization varies from a few inches to 5 feet wide and in some cases occurs in lenses or pods.

Another mineralized zone is reported near the center of the pit nearer the surface but this was covered with debris from stripping work at the time of the visit.

Several piles of ore has been stockpiled (about 70 tons) and will be shipped to the Lakeview Mining Company's mill at Lakeview.

Bear Creek Mining plans to deepen the present pit with a bulldozer to expose the mineralized zone and to explore its length. A verbal recommendation that if this zone is of a mineable width that underground mining methods be considered.

Visited: June 1, 1960 by N. V. Peterson & Richard Bowen.

Report by: N. V. Peterson.

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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 $\frac{1}{4}$?) 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



PETROGRAPHIC REPORT

To: Norman V. Peterson, P. O. Box 417, Grants Pass, Oregon
Donald L. Hetland, Spokane Section, SLB, PED
Byron J. Sharp, SLB, PED

Location: Bear Creek property, Crook County
Sec. 13, T. 18 S., R. 16 E., Oregon

Occurrence: weathered rhyolite tuff (?)

Information Desired: identify highly radioactive black mineral.

Type of Examination: binocular microscope, microchemical tests, X-ray diffraction analysis, quantitative chemical and radiometric analyses.

Examined by: E. E. Anderson *EED*, Petrographer

Petrography: The specimen was first examined under the binocular microscope for general observation and to obtain pure fragments of the black mineral for microchemical tests. Representative pieces of the specimen were also submitted to the Lucius Pitkin, Inc. laboratories for quantitative chemical and gamma only radiometric analyses. Results were as follows:

Microchemical test of black mineral for uranium	negative
Microchemical test of black mineral for manganese	positive, strong
Chemical analysis of rock for U ₃ O ₈	0.03%
Radiometric equivalent U ₃ O ₈ for rock.....	1.29%

Microscopic examination failed to reveal any recognizable uranium mineral. The black mineral was believed to be one or more of the manganese oxides or hydrated oxides. The radioactivity is probably due to the presence of minute though anomalous amounts of radium and/or other daughter products of uranium which are much more highly radioactive than equal amounts of uranium. Thus, the specimen exhibits pronounced disequilibrium, $\%cU_3O_8:\%eU_3O_8 = 0.02$, which indicates separation of uranium and its daughter products. Such extreme disequilibrium must be taken into consideration when assessing the potential of this property by radiometric methods. It may be that equally high disequilibrium in favor of chemical U₃O₈ is present elsewhere in the deposit and will cancel out the effect of radiometrically high zones. Such is the case at other deposits, i.e. Lakeview, Oregon and Cameron, Arizona. Such chemical highs, of course, might go unnoticed where conventional radiometric methods of evaluation are in use.

The interplaner spacings of the black mineral, as determined from an X-ray powder pattern, did not correspond to those of any mineral listed in the ASTM X-ray Powder Data File but most closely matched those of calcium permanganate tetra hydrate, Ca(MnO₄)₂·4H₂O. The mineral might be considered as belonging to the generic category of wad.

Wm

STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

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Baker, Oregon

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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 Mr. Lundgren

Street or P.O. Box P.O. Box 70 City & State Bend, Oregon

Are you a citizen of Oregon? yes Date on which sample is sent April 17, 1958

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 Crook Mining District _____

Township 18 S. Range 17 E. Section 18 Quarter section _____

How far from passable road? ? Name of road _____

Channel (length) Grab Assay for Description

Sample no. 1 _____ U308 _____

Sample no. 2 _____

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

(Signed) _____

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

Sample Description Autunite in silicified tuff.

Sample number	GOLD		SILVER		URANIUM			
	oz./T.	Value	oz./T.	Value	U ₃₀₈			
P-22833	---	--	---	--	0.084%	---	---	---

Report issued _____ Card filed _____ Report mailed 5-13-58 Called for _____

Redmond Spokesman Monday, Nov. 28, 1955

Metal Service, Inc. - Roseburg - headed
by A.H. Leaper of Roseburg

Frank Scott ranch

Central Oregonian - Prineville - Dec. 1 - 55

"

"

"

Dec 8

Original claim Dale Doty - 2 ms. ago
assay 1.38% U₂O₈
1.83% U₃O₈

Doty - 1124 Newport St - Bend
along w/ Forest Kennaday

Redmond Spokesman - Dec 5
Bear Butte Claims - Metal Serv., Inc
Ralph W. Stark, Eugene

Metal Serv purchased Jumper
Bear claims, Peter Don
Reich of Crescent, pres. of Am. Br.
Co. with 6 others - A.H. Leaper,
R.C. Whipple, Henry Miller, Keith
Carter, Leland Leaper, Avery
Armstrong, Stark

Charles Williams of Kansas -
Geol. for Roseburg outfit -
also J.T. McDonald
lake, County lands - Roseburg
outfit