

RECORD IDENTIFICATION

RECORD NO..... M061805
RECORD TYPE..... X1M
COUNTRY/ORGANIZATION. USGS
MAP CODE NO. OF REC..

REPORTER

NAME..... SMITH, ROSCOE M.
DATE..... 78 08
UPDATED..... 81 05
BY..... FERNS, MARK L. (BROOKS, HOWARD C.)

NAME AND LOCATION

DEPOSIT NAME..... EDEN RIDGE
SYNONYM NAME..... MEYERS, ANDERSON, CARTER, LOCKHART

COUNTRY CODE..... US
COUNTRY NAME: UNITED STATES

STATE CODE..... OR
STATE NAME: OREGON

COUNTY..... COOS
DRAINAGE AREA..... 17100305 PACIFIC NORTHWEST
PHYSIOGRAPHIC PROV..... 13 COAST RANGE
LAND CLASSIFICATION..... 41 01

QUAD SCALE QUAD NO OR NAME
1: 62500 BONE MOUNTAIN

LATITUDE LONGITUDE
42-45-55N 123-59-24W

UTM NORTHING UTM EASTING UTM ZONE NO
4735000. 419000. +10

TWP..... 32S
RANGE..... 11W
SECTION.. 22-31 (28)
MERIDIAN. WB & M

COMMODITY INFORMATION

COMMODITIES PRESENT..... COA2

OCCURRENCE(S) OR POTENTIAL PRODUCT(S):
POTENTIAL..... COA2

DRE MATERIALS (MINERALS, ROCKS, ETC.):

COMMODITY COMMENTS:
FOUR SEPARATE SEAMS

ANALYTICAL DATA

BTU..... 11000
ASH..... 10 - 60
THICKNESS OF COAL. 9.0 FT

EXPLORATION AND DEVELOPMENT

STATUS OF EXPLDR. OR DEV. 2
PRESENT/LAST OWNER..... PACIFIC POWER AND LIGHT (1976)

EXPLDR. AND DEVELOP. COMMENTS:
DRILLED IN LATE 1950'S

DESCRIPTION OF DEPOSIT

FORM/SHAPE OF DEPOSIT:

SIZE/DIRECTIONAL DATA

SIZE OF DEPOSIT..... SMALL
MAX LENGTH..... 5 MI
MAX THICKNESS..... 9 FT

COMMENTS(DESCRIPTION OF DEPOSIT):

ABOUT FOUR SQUARE MILES UNDERLAIN BY COAL SEAMS

DESCRIPTION OF WORKINGS

COMMENTS(DESCRIP. OF WORKINGS):
PROSPECT PITS

PRODUCTION

UNDETERMINED
23 .080 SAMPLES - 1913 50 COAL, 10-60 ASH, 12000 BTU

RESERVES AND POTENTIAL RESOURCES

ITEM	ACC	AMOUNT	THOUS. UNITS	YEAR	GRADE	OR USE
1 COA2	IND	50000.00	TON			

GEOLOGY AND MINERALOGY

AGE OF HOST ROCKS..... EOCENE
HOST ROCK TYPES..... SHALE, SANDSTONE

PERTINENT MINERALOGY..... 50 % BONE & SHALE

Brett - Int. 33787

UNITED STATES
DEPARTMENT OF THE INTERIOR
Geological Survey
Washington, D. C.



For release January 25, 1965

The Geological Survey is releasing in open files the following report:

The correlation of coal beds in Squaw Basin and part of Eden Ridge, T. 33 S., R. 11 W., W.M., southwestern Oregon, by Russell G. Wayland. 3 pls, 12 figs., 3 tables. Map scale 1:31,680. Area 45 square miles.

Copies are available for consultation in Geological Survey libraries, 1033 GSA Bldg., Washington, D. C.; Bldg. 25, Federal Center, Denver, Colo.; 345 Middlefield Road, Menlo Park, Calif.; and in other offices as listed:

Public Inquiries Office, 437 Federal Bldg., Salt Lake City, Utah
1031 Bartlett Bldg., Los Angeles, Calif.
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Oregon Department of Geology and Mineral Industries, 1069 State Office Bldg., Portland, Oregon; 239 S. E. "H" St., Grants Pass, Oregon.

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EDEN RIDGE COAL TO BE INVESTIGATED

By
Ralph S. Mason*

A new and important development in Oregon's mineral industry was announced this month by Pacific Power & Light Company, Portland, when it made public its plans to start immediate exploration of the Eden Ridge coal, southern Coos County, for possible use in an on-the-spot 100,000-kilowatt steam-electric generating plant. A companion investigation to the coal exploration is the possibility of developing additional power through a hydro plant utilizing a drop of 1600 feet in the South Fork of the Coquille River as it flows around Eden Ridge. Although largely unexplored, the Eden Ridge coal seams, which have been known for more than half a century, may contain a reserve of subbituminous grade coal running into many millions of tons.

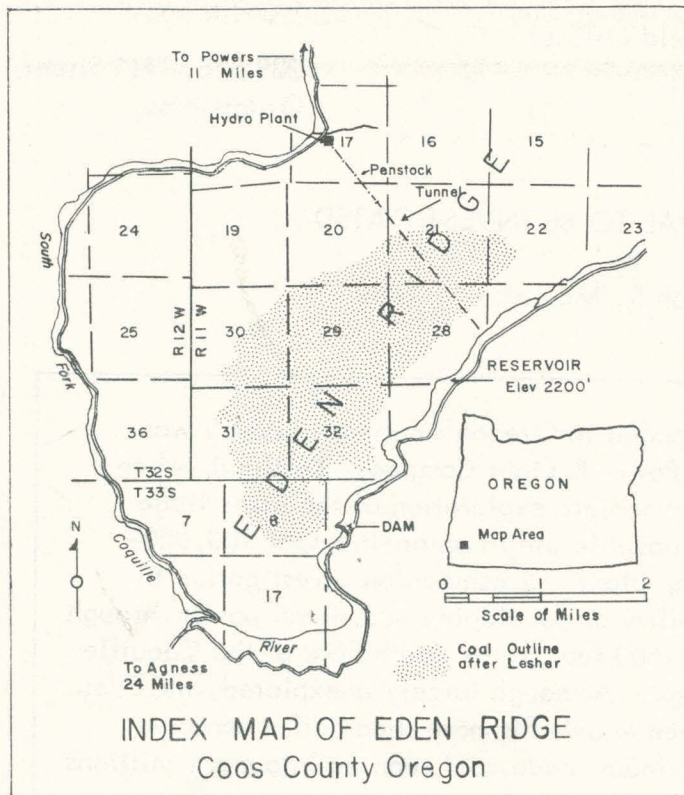
Ed.

The Eden Ridge coal field is located in Tps. 32 and 33 S., R. 11 W., in southern Coos County, 11 miles south of Powers and 24 miles north of Agness (see map on page 68). The South Fork of the Coquille River cuts through the south end of Eden Ridge, a prominent physiographic feature east of Powers, to expose the coal beds. Access to the area is by good forest road from Powers that follows, in general, the Coquille River to Eden Valley at the drainage divide between the Coquille and the South Umpqua River.

The Eden Ridge coal seams have been investigated by geologists from time to time since 1912 when Lesher** first reported on the area. Other reports, principally by Campbell and Clark, 1916, and Daniels, 1920, have also been published. The coal lies in a series of gently dipping sandstones of middle Eocene age. Insufficient exploration has been done to date to determine the extent of the several seams which crop out at numerous places but Pacific Power & Light Company states that 50,000,000 tons of coal are indicated. Although Lesher reported that the coal had coking characteristics, samples taken earlier this year by the Department and analyzed by the U.S. Bureau of Mines, Division of Solid Fuels Technology at Seattle, were not of coking grade. The coal may have an average as high as 11,000 B.t.u.'s. It does not slack readily and samples mined years ago have been found in good condition on some of

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** See references at end of report.

the early mine dumps. The seams range in thicknesses from 4 to 8 feet. Outcrops of the various seams indicate a probable relationship as follows: The Peacock or Lockhart seam 6 feet thick is 50 feet above the 4- to 8-foot thick Carter seam, which is 400 feet above the 6-foot Anderson seam. There is a probability that there may be more seams below the Anderson but this is not certain.



Due to its relative inaccessibility the Eden Ridge coal has received little attention even though it is of higher rank than the Coos Bay coal. The decision to use Eden Ridge coal at the mine, rather than transporting it, overcomes the principal difficulty of its remote location.

Coal, unlike metallic minerals, may not be located under the federal mining laws but must be leased from the government. As reported in the November 1955 *Ore.-Bin*, Roy Rannells, Jim Carrol, and A. A. Robins initiated a small exploration program at Eden Ridge during the summer of 1955. Their permit was taken over by G. D. Rannells, Aurora, who asked the Department of Geology to examine the property. Several samples were taken by the Department in February and an examination of additional outcrops was made in April.

Pacific has an agreement with the Rannells for prospecting and development under this permit, and under Pacific's permits, on approximately 5000 acres of land in the Siskiyou National Forest.

The hydroelectric phase of the proposed project involves the construction of a dam at the head of a series of rapids on the South Fork of the Coquille to create a long, narrow reservoir. Water from the reservoir would be diverted through a tunnel more than 2 miles in length to penstocks leading down to a power house located at the mouth of McCurdy Creek on the South Fork at a point 1650 feet lower in elevation and 12 miles downstream from the dam. The accompanying map shows the general relationship of the Eden Ridge coal beds to the proposed dam and the hydroelectric plant. Exact location of the steam-fired plant has not been settled and will depend on the results of the exploration and method to be used in mining. If the combined projects prove feasible Pacific estimates the cost of the coal and hydro plants might run between 30 and 50 million dollars and employ 2000 men at the height of the construction phase. When completed, the combined operation would be staffed with about 100 permanent employees.

The combination of steam and hydro generation is favorable in that base load power will be supplied by steam while the hydro plant, with a projected capacity of 67,500 kilowatts, will be used to carry the peak loads. The consideration of Eden Ridge coal by Pacific

points up a growing demand for electric energy, coupled with a steady decrease in suitable sources of hydroelectric power. Improvements in coal technology have brought coal back into the energy picture in areas noted for their cheap hydro power. The following which appeared in Trends, March 1, 1956, sums up the situation:

"Back in 1939, it took 1.38 pounds of coal to generate one kilowatt hour of electricity. Since then the technology of generating electricity in steam plants has undergone a revolution. By 1946, the quantity of coal needed to produce 1 kilowatt hour was down to 1.29 pounds. Last year came further improvements, and the amount of coal per kwh dropped to 0.96 pound."

In addition to the 400,000 or more tons of coal which it is anticipated would be required annually by the steam plant, there is a good possibility that additional coal could be produced to bolster sagging fuel supplies in the area. Large-scale modern mining methods could conceivably place coal in a competitive position with either oil or natural gas. Another outlet for Eden Ridge coal might be in offshore shipments to Japan and other fuel-shy countries bordering the Pacific. A total of 20,157 tons of coal originating in the inter-mountain states was shipped from Portland and nearby ports during the past 12 months. Eden Ridge coal should be able, due to freight differentials, to enter this market since it compares closely in heating value and other physical and chemical characteristics with coal now being shipped overseas. Still another possibility in this development is the obtaining of by-products from the coal.

The investigations which Pacific Power & Light Company will make in the coming months will be followed with a great deal of interest by the people of Oregon for if the project proves feasible, a healthy new mineral industry will be established and a new source of electrical energy will be assured.

Bibliography

- Campbell, M. R., and Clark, F. R.
1916 Analyses of coal seams from various parts of the United States: U.S. Geol. Survey Bull. 621, p. 268, 1916
- Daniels, Joseph, The coking industry of the Pacific Northwest: Univ. of Wash. Eng. Exp. Sta. Bull. 9, p. 29, Aug. 1920.
- Leshner, C. E.,
1914 The Eden Ridge Coal Field, Coos County, Oregon: U.S. Geol. Survey Bull. 541, p. 399, 1914.

LAKEVIEW URANIUM NEWS

The Lakeview Mining Company shipped 400 tons of uranium ore from the Lucky Lass mine August 10 to Vitro Chemical Company of Salt Lake City. This is the second shipment of ore from Lake County. A test shipment of three carloads was sent to Vitro last fall from the Lucky Lass and White King properties.

Drilling is continuing at the Lucky Lass, and some mineralization has been found below the mine. The Company is continuing to find more ore in the vicinity of the White King mine. Three core drilling rigs have been working double shifts on exploration, and last month's drilling totaled more than 20,000 feet.

According to the Lake County Examiner, the Lakeview Mining Company is conducting an aerial survey program to locate areas of radioactivity, and is making this information available to prospectors and claim holders. By announcing the anomalous radioactive areas to the public, the Company hopes to spur localized ground exploration for uranium in southern Lake County. The location of the anomalies detected by airborne equipment is shown on maps which are posted each Friday morning about 9 o'clock in the Company's office window in the Marius Theater Building in Lakeview, Oregon. Information released has no bearing on land ownership or whether the ground is staked. It is pointed out that the presence of an anomalous radioactive area on the map shows where the instrument reacted more strongly and does not necessarily mean that ore-grade uranium will be found there.

STRATIGRAPHIC HOLES TO BE DRILLED

Sunray Mid-Continent Oil Company, Los Angeles, has applied for a permit to drill five stratigraphic core holes near Scappoose, Columbia County, Oregon. Locations are as follows:

Core hole No. 1 - SW $\frac{1}{4}$ sec. 12, T. 2 N., R. 2 W. Lessee is B. Cole, Portland, Oregon.

Core hole No. 2 - NW $\frac{1}{4}$ sec. 12, T. 2 N., R. 2 W.

Core hole No. 3 - NW $\frac{1}{4}$ sec. 12, T. 2 N., R. 2 W.

Core hole No. 4 - SE $\frac{1}{4}$ sec. 2, T. 2 N., R. 2 W.

Core hole No. 5 - NE $\frac{1}{4}$ sec. 11, T. 2 N., R. 2 W.

Holes 2 through 5 have Ralph Kapper, Mulino, Oregon, as the lessee.

Core hole No. 6 - SW $\frac{1}{4}$ sec. 12, T. 2 N., R. 2 W. Lessee is C. M. Austin, Portland, Oregon.

Core hole No. 7 - SW $\frac{1}{4}$ sec. 12, T. 2 N., R. 2 W. Lessee is B. Cole.

Core hole No. 8 - SE $\frac{1}{4}$ sec. 11, T. 2 N., R. 2 W. C. M. Austin, lessee.

THREE GEOLOGIC MAPS OF CENTRAL OREGON PUBLISHED

Preliminary geologic maps of the Aldrich Mountain, Mt. Vernon, and John Day quadrangles, Grant County, have been published by the U.S. Geological Survey as part of the Mineral Field Investigations Series. They show the geology of a 40-mile strip along the John Day River valley including the Aldrich and Strawberry mountains to the south. The maps are in black and white with the formations shown by letter symbols and the chromite-bearing rocks by shading. Author of the three maps is Thomas P. Thayer. The titles are as follows:

MF-49, "Preliminary geologic map of the Aldrich Mountain quadrangle, Oregon."

MF-50, "Preliminary geologic map of the Mt. Vernon quadrangle, Oregon."

MF-51, "Preliminary geologic map of the John Day quadrangle, Oregon."

These maps may be purchased for 50 cents each from the U.S. Geological Survey, Denver Federal Center, Denver, Colorado.

VALUE OF OREGON'S MINERAL PRODUCTION FOR 1955

Oregon's mineral production for 1955 as given in an advance summary just released by the U.S. Bureau of Mines is valued at \$31,895,335. The 1955 total value shows a decrease of about 7 percent as compared to 1954 rather than an increase as anticipated.

Nonmetallic minerals, used primarily for construction, comprised about 92 percent of the total value. Mercury and nickel production increased, but most other metals declined in 1955. Output of chromite decreased nearly 20 percent, but value of production declined only about 13 percent due to higher grade material received at the depot. Josephine County was top chromite producer while Curry County assumed second place.

Value of mineral production in Oregon in 1954 and 1955 by mineral commodities is tabulated below. A breakdown by counties is given on the following page.

Mineral Production in Oregon, 1954-1955^{1/}

Mineral	1954		1955	
	Short tons (unless other- wise stated)	Value	Short tons (unless other- wise stated)	Value
Chromite, gross weight	6,655	\$ 535,609	5,341	\$ 463,514
Clays	334,413	377,201	250,608	275,916
Copper	5	2,950	4	2,984
Gold, fine ounces	6,520	228,200	1,708	59,780
Iron ore (limonite)	---	---	2,000	2/
Lead	5	1,370	3	894
Mercury, 76-pound flask	489	129,287	1,056	306,610
Nickel ore, nickel content	1,993	2/	4,181	2/
Pumice and pumicite	67,852	177,515	2/	2/
Sand and gravel, short tons	13,157,239	14,149,380	12,148,593	11,985,164
Silver, fine ounces	14,335	12,974	8,815	7,978
Stone	5,841,880	8,436,284	7,739,963	9,420,471
Tungsten, 60 percent WO ₃ basis	2/	2/	1	2/
Undistributed: Carbon dioxide, cement, coal, diatomite, gem stones, and minerals whose value must be concealed for particular years (indicated in appropriate column by footnote reference 2)	---	9,444,218	---	10,504,356
Total		^{3/} 32,271,513		^{3/} 31,895,335

1/ Production as measured by mine shipments, sales, or marketable production (including consumption by producers).
 2/ Included with "Undistributed."
 3/ Total has been adjusted to eliminate duplication in the value of clays and stone.

Value of mineral production in Oregon by counties, 1954-1955

County	1954	1955	Minerals produced in 1955, in order of value
Baker.....	1/	1/	Cement, stone, sand and gravel, clay, gold, copper, silver
Benton.....	\$209,176	\$169,034	Sand and gravel, stone, clay
Clackamas.....	5,312,221	5,485,348	Cement, sand and gravel, stone, clay, coal
Clatsop.....	124,464	138,233	Stone, sand and gravel
Columbia.....	200,996	324,333	Sand and gravel, stone, iron ore (limonite)
Coos.....	240,848	661,200	Stone, sand and gravel, coal
Crook.....	124,448	331,561	Stone, sand and gravel, mercury
Curry.....	1/	132,674	Chromite, stone, sand and gravel
Deschutes.....	907,049	980,180	Diatomite, pumice, sand and gravel, stone
Douglas.....	2,088,283	2,823,527	Nickel, sand and gravel, mercury, stone, chromite, gold, silver
Gilliam.....	-	1/	Stone
Grant.....	260,129	164,032	Chromite, sand and gravel, gold, silver, copper, lead
Harney.....	22,655	48,730	Sand and gravel, pumice, stone
Hood River.....	44,700	43,500	Stone, sand and gravel
Jackson.....	2,958,186	3,220,052	Cement, stone, sand and gravel, clay, carbon dioxide, gold, tungsten, chromite, silver
Jefferson.....	1/	183,867	Mercury, stone, sand and gravel
Josephine.....	609,059	890,216	Sand and gravel, stone, chromite, gold, clay, silver
Klamath.....	166,303	504,100	Stone, sand and gravel, clay
Lake.....	115,104	76,620	Sand and gravel, stone
Lane.....	2,302,427	2,710,655	Sand and gravel, stone
Lincoln.....	371,204	608,840	Stone, sand and gravel
Linn.....	526,434	583,445	Sand and gravel, stone, clay
Malheur.....	1/	1,041,027	Stone, sand and gravel, mercury, clay
Marion.....	540,083	526,116	Sand and gravel, stone, clay
Marrow.....	1/	139,137	Stone, sand and gravel
Multnomah.....	2,503,456	2,884,972	Sand and gravel, stone, clay
Polk.....	465,782	385,783	Stone, sand and gravel, clay
Sherman.....	80,235	1,276,500	Sand and gravel, stone
Tillamook.....	204,838	180,606	Stone, sand and gravel, clay
Umatilla.....	550,737	622,948	Stone, sand and gravel
Union.....	178,115	335,801	Sand and gravel, stone, clay
Wallowa.....	189,031	258,028	Stone, sand and gravel
Wasco.....	505,634	314,945	do
Washington.....	753,033	1,369,757	Stone, sand and gravel, clay
Wheeler.....	1/	21,106	Sand and gravel, gold, silver
Yamhill.....	289,123	200,247	Sand and gravel, stone, clay
Undistributed 2/	10,651,235	3,390,557	
Totals.....	3/ 32,271,593	3/ 31,895,335	

1/ Included with "Undistributed" to avoid disclosure of individual output.

2/ Includes value of sand and gravel, stone, gem stones, and chromite production that cannot be assigned to specific counties.

3/ The total has been adjusted to eliminate duplication in value of clays and stone.

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Portland, OregonEDEN RIDGE AND SQUAW BASIN COAL FIELDS. 20

Coal, in southeastern Coos County, has been known since the early 1900's. It was first discovered on the flanks of Eden Ridge, and later, in Squaw Basin to the southward. Active prospecting was done from 1907 to 1912. The area was withdrawn from location entry to await classification as to its mineral character. In 1920, the Coal Act permanently withdrew all coal lands from location privileges. Since then no work has been done in the field.

Location - 4

The Eden Ridge and Squaw Basin coal fields are actually one field but usually are spoken of separately. They lie in southeastern Coos County. The Eden Ridge field is in T. 32 S., R. 11 W., and the Squaw Basin field is in T. 33 S., R. 11 W. Powers is the nearest community, about 12 miles to the northwest, and is the terminus of a branch of the Southern Pacific railroad.

Physiography - 6

The coal fields lie within the Coast Range. The topography is characterized by deeply incised streams which have steep to precipitous walls. It would be classed as mature topography. Access, therefore, is difficult, and road construction is expensive.

The field is covered with a dense growth of timber and brush. Timber consists of fir, principally Douglas fir, and Port Orford cedar. Brush is salal and bracken fern. The vegetation is so dense that it is difficult to "see out" along any of the trails or ridges.

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Use of airplane photographs is made difficult by the heavy vegetal cover.

The area is drained by the South Fork of the Coquille River which heads beyond the northeast corner of T. 32 S., R. 11 W. It flows southwest along the flank of Eden Ridge, then cuts westward for a few miles, and heads northward through Powers to join the Middle Fork near Myrtle Point. The Squaw Creek tributary drains Squaw Basin from the south.

The south boundary is Panther Ridge which forms the boundary line between Coos and Curry counties. The west boundary is Rock Creek and the northward flowing portion of the South Fork. The north boundary is the lowest part of the north flank of Eden Ridge. The east boundary, for practical purposes, is the range line between R. 10 W., and R. 11 W.

Transportation -7

A Forest Service road extends south of Powers along the east bank of the South Fork of the Coquille River to a point where the river comes in from the east. The road continues to Agness, on the Rogue River, in Curry County. The only route out of Agness is by boat on the Rogue River.

A Forest Service road is being constructed eastward from the Powers-Agness road, leaving the road about one half mile south of the South Fork crossing. It crosses Squaw Creek near the east center of sec. 20, T. 33 S., R. 11 W., and continues northeastward. Its total length, at present is $1\frac{3}{4}$ miles. The road has been surveyed and partially cleared to connect with a logging road that deadends near the south line of sec. 27, T. 32 S., R. 11 W. The Coquille River trail closely parallels the proposed alignment. Air line

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distance to connect these roads is 4 miles, but construction would require between 8 and 10 miles of very heavy work.

The logging road that deadends in sec. 27, continues northeastward to a point where it connects with a logging railroad. The logging railroad skirts the extreme northern portion of the field, and has its terminus at Powers.

A Forest Service road approaches the field from the east, via Sawmill Gap at Mount Reuben, and Eden Guard Station. Some three miles of road is necessary to connect with the logging road mentioned in the previous paragraph. This road is a fair weather road only.

The Eugene-Coquille branch of the Southern Pacific railroad has taken over the Coos Bay Lumber Company's track from Coquille, through Myrtle Point, to Powers.

The coal field itself is inaccessible except by trail.

Previous Work - 7

Leshner (14) surveyed the area for the United States Geological Survey in 1912. He identified several coal beds that underlie Eden Ridge and briefly commented on coal in Squaw Basin. Williams (14) discussed the coal of Squaw Basin. Leshner's and Williams' observations still apply to 1942 conditions. Leshner concluded that the field is handicapped by its inaccessibility.

Leshner (14:406) reported as follows:

"The coal in the Eden Ridge field is bituminous and in the Squaw Basin district is believed to have coking qualities. It commonly has a bright luster, though in places it is somewhat dull. There is a poor vertical cleavage, but no pronounced lamination parallel to the bedding. The coal does not slack or disintegrate on exposure to the air, and, though thoroughly wet in many of the outcrops of the field, it does not appear to be readily affected by the weather.

These physical properties, together with the low moisture content, averaging 4 percent, the high heat value, about 12,000 British thermal units for coal with 10 percent or less ash, and the possible coking quality, warrant the classification of the Eden Ridge coal as bituminous."

He further reports that the beds contain all grades of coal from clean bituminous with ash as low as 10 percent, to bone with 60 percent ash. Lenses of coal, bony coal, and bone are from a fraction of an inch to several inches in thickness, and grade into one another. So great is the variability that no two sections of a bed agree exactly.

In the Eden Ridge field there are four coal beds. The key horizon is a heavy "blue conglomerate". Above this is the Meyers bed which has been opened by 2 prospects. Thickness of the coal ranges up to 9 feet. About 25 to 50 feet above the Meyers bed is the Anderson bed. The best outcrops are on the north side of the Ridge. It underlies five square miles of Eden Ridge, and one square mile south of the River. The Carter bed is 400 feet above the Anderson bed and underlies three square miles of Eden Ridge. It has been opened in 11 places, most of which are on the north side. Thickness ranges from 3' 7" to 8', and consists of coal layers, $\frac{1}{4}$ - $\frac{1}{2}$ " thick with carbonaceous shale and bone between. The Lockhart bed is 50 feet above the Carter bed. It has been opened in eight places, most of which are on the north side of the Ridge. Thickness is estimated to have a maximum of six feet. The coal ranges in thickness from a fraction of an inch to three inches.

Measured thicknesses, stratigraphic columns, and analyses are shown on the accompanying photographs, taken from Lesher's report.

Squaw Basin beds are assumed to be stratigraphically lower than the Eden Ridge beds. There may be two or even three beds. Thickness is reported as from five to eight feet. It is possible that these

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beds underlie Eden Ridge, and if so, the extent would be considerable. Coal is reported to outcrop south of Panther Ridge.

Williams (14:28-48) reports in more detail about the Squaw Basin coal. There were two principal workings. G. W. Donnell opened a vein on the East Branch, with five feet of coal exposed. Williams measured section is:

Roof of firm bluish shale		
Coal, brittle & shattered, some bone...	2 ft.	6 in.
Clay parting.....	0	3
Coal, firm & jointy, slightly bony.....	2	4

The coal is reported as being 10 feet thick. On the West Branch are the Association, or Seven-Foot workings. Williams' measured section is given as:

Shale capping		
Coal, brittle & shattered, little bone.....	3ft.	0 in.
Shale parting.....	0	3
Clean coal, less broken, more compact, and firm below.....	2	0

Coal is also reported south of Panther Ridge, near the head of Clay Hill Creek. T. W. Billings reported to Nixon and Treasher that this coal was mined and taken to Blossom Bar on the Rogue River for use in mining operations there. He remembers the coal as being in thin seams with bone between the coal layers.

Summarizing the published data, there are four coal beds on Eden Ridge. Thickness of the coal veins may be as much as eight feet. Measured sections show that the coal occurs as narrow strata between bone and bony coal. Best outcroppings and the most prospecting is on the north side of Eden Ridge. Squaw Basin has two or three coal veins, variously reported as being up to 10 feet thick. Williams indicates that the coal layers are thicker than on Eden Ridge. Leshar found some of this coal to have coking qualities from field tests.

Nixon & Treasher Reconnaissance - 16

The Eden Ridge and Squaw Basin coal areas were visited on October 5 & 6, 1942, to determine whether a detailed survey is feasible for the fall of 1942. They made one trip to the common section corner of secs. 8, 9, 16, 17, T. 33 S., R. 11 W., on the South Fork of the Coquille River to a coal bed recently reported by Rookard and Kellond. (Treasher 42) Later, it was found that this is identical with Lesher's locality # 13, on the Meyers bed. A trip was made up Squaw Creek to learn conditions in that area. Later, a trip was made into the area from the east, via Glendale, Mt. Reuben, and Eden Guard Station, and into Marial.

The area was found to be very inaccessible, with a lack of roads and trails. Topography is steep, and vegetation is heavy. Little information could be obtained about exact location of coal outcroppings. No accurate impression of the "lay of the land" was obtained, as the vegetation obscured vision at all points. Conditions are still much as pictured by Lesher in 1912.

It was decided that railhead at Powers was not a good railhead for the coal, as the coal would have to go out through Marshfield. Outlet via the Mt. Reuben road is not feasible as it would require nearly 50 miles over very hilly Forest Service road that would be difficult to get into good hauling condition.

Outlet to state highway # 42, Dillard to Coquille, a few miles east of Remote seems the best possibility. (see forest service map) This would require connecting the deadended logging road that parallels the South Fork through southeastern T. 33 S., R. 11 W., with highway # 42. Such a road would be about 12 miles long. Nature of the terrain is not known at present. As nearly as could be determined

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such a road would not be difficult to construct. It would connect with present logging roads and contact highway # 42 in sec. 15, T. 30 S., R. 10 W., or sec. 18, T. 30 S., R. 9 W.

Coal is reported in Camas Valley by a Mr. Walsh. Unless this coal is inaccessible, it was decided that the occurrence should be considered further.

A trip was made to Marial to secure data on outcrops of coal on the south side of Panther Ridge. It was reported by T. W. Billings that coal was mined near the head of Clay Hill Creek and Tate Creek for use at Blossom Bar on the Rogue River. Billings was of the impression that the coal was in narrow seams with lots of bone. The coal was used in blacksmith forges.

The overall picture is not ~~good~~ encouraging. If it is found that outlet for the coal can be made to Highway # 42, there might be some justification for a reconnaissance survey of the Eden Ridge and Squaw Basin coal beds, but such a survey would be conducted during 1943 rather than attempt it in 1942. There is more justification for an early winter survey of the Camas Valley coal beds. The coal south of Panther Ridge is inaccessible.

Some justification for the Eden Ridge survey might be found in the fact that the "old timers" who know something about this coal are getting quite old, and may pass on to their Great Reward at any time. If their information and locations could be obtained it would refreshen the 1912 survey data, and make such data more usable at a time when the coal becomes of economic importance.

Mention might be made of the Eckley Coal Field as reported by Diller (03) in the Port Orford geologic folio. Diller shows several

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coal outcropping around the margin of an Eocene sandstone remnant in an area southwest of Powers. There are no further data. Diller also shows the Shasta Costa field. Coal is reported as having been shipped from this field, to San Francisco in the 1880's. (T. W. Billings) This coal field might be used to supply the southwest coastal area.

References:

Diller (o3) Port Orford Geologic Folio.

Lesher (14) Lesher, C. E., The Eden Ridge coal field, Coos County, Oregon: U.S.G.S. Bull 541, pp. 399-418, (1912) 1914.

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Report by: Ray C. Treasher, Oct. 9, 1942.