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GOLD PLACER MINING IN SOUTHWESTERN OREGON

By
Len Ramp*

Production

Placer mining for gold in southwestern Oregon today is very much limited as compared to the activity before World War II, when more than 100 placers were in operation. During the 1959-1960 season, 29 small placers were worked in Douglas, Jackson, and Josephine counties (see map and Table 2). The total gold production for the entire state of Oregon in 1959 dropped to an all-time low of 686 ounces; approximately 70 percent of this amount was produced from placers (Fulkerson et al, 1960).

Table 1 - PLACER PRODUCTION BY MINING DISTRICTS, 1940
(Minerals Yearbook, Review of 1940, pp.429-430, 1941)

County and District	No. Operators	Production Fine Oz.
Coos County:		
Coos Bay Area	*	7
Johnson Creek	3	78
Curry County:		
China Diggings	*	4
Gold Beach	*	55
Sixes	4	57
Douglas County:		
Green Mountain	2	39
Riddle	9	1,392
Jackson County:		
Ashland	*	18
Elk Creek	*	15
Gold Hill	22	6,629
Jacksonville	4	395
Upper Applegate	22	8,672
Josephine County:		
Galice	10	740
Grants Pass	8	555
Greenback	10	657
Illinois River	8	285
Lower Applegate	1	18
Waldo	14	3,558

* Output from property not classed as a mine

The peak of gold production for Oregon came in 1940, when 23,174 fine ounces of placer gold valued at $811,090 were produced in southwestern Oregon alone. The leading producing area at that time was the Upper Applegate district in Jackson county, which furnished 8,672 ounces of gold from 22 properties (see Table 1). During 1940, fifty-six dredges of various types operated in the state, 9 of which were in southwestern Oregon as follows: one in Douglas County, seven in Jackson County, one on Althouse Creek in Josephine County. Dredged areas in Jackson and Josephine counties are shown on the accompanying map. Although most of the areas had been dredged by 1940, a "doodle bug"** dredge was worked for a short time in 1959 on the Johnson placer (No.9) in Jackson County.

Placer mine production (see graph, p.78) has played a significant part in the area's economy. The production rise in 1934-1935 was due to the increase in the price of gold from $20.67 to $35.00 per fine ounce by presidential proclamation January 31, 1934. This price is still in effect. The sharp drop in production during 1941 and 1942 was due to the war-time inflationary economy and difficulties in obtaining materials

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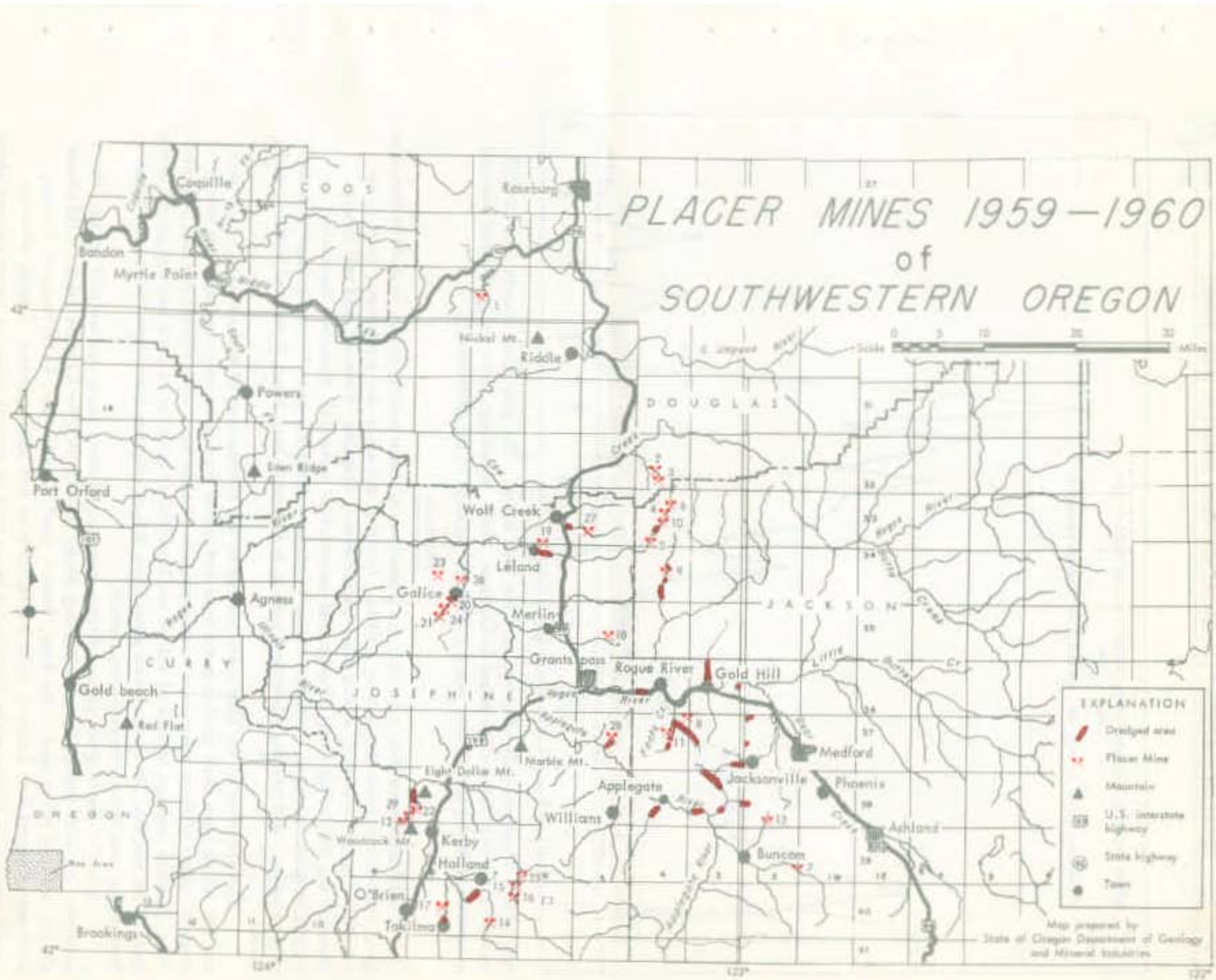
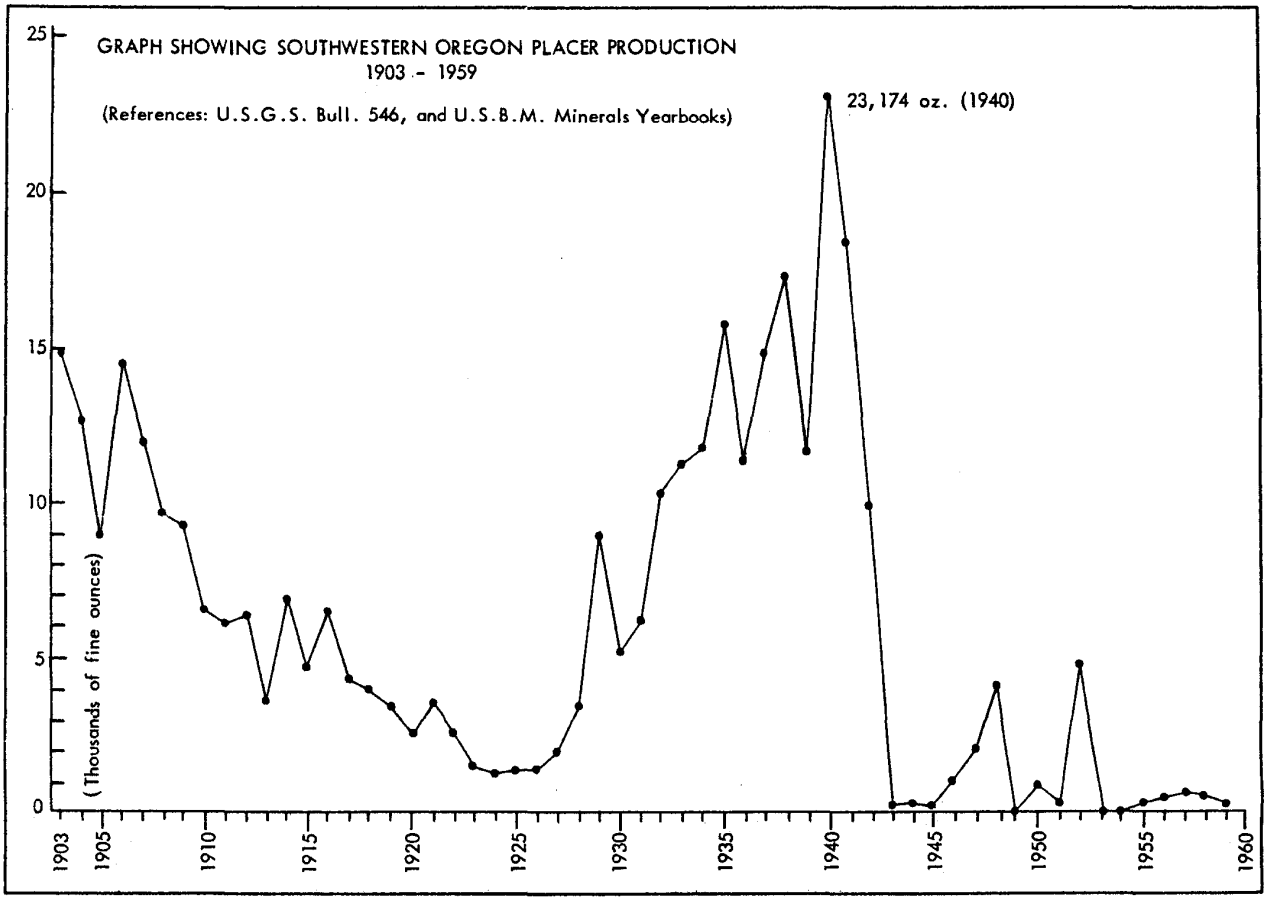
** The "doodle bug" dredge contains pump, trommel, sluices, and stacker on floating platform. It is fed by a separate dragline.

Table 2 - PLACER MINES ACTIVE DURING 1959-1960

Map No.	Name	Location Sec.	T. S.	R. W.	Operator	Address	Equipment	Bedrock	Type Deposit
						Douglas County			
1	Coarse Gold Creek	20	29	7	H. Thurber	Roseburg	dozer, pump, sluice	conglom. & shale	creek placer
2	Hogum Creek	21	32	4	A. A. Robbins	Riddle	giants and sluice	Galice slate	cemented bench
3	Upper Hogum	28	32	4	Henry Speaker	Wolf Creek	giants and sluice	slate & metavols.	bench & hillside
						Jackson County			
4	Anderson placer	15	33	4	Tom Yarem	Sunny Valley	dragline, pump, sluice	serp. & metavols.	creek placer
5	Baker Flat placer	32	33	4	John E. White	Grants Pass	dragline, pump, sluice	sandstone	creek placer
6	Buddy placer	15	33	4	Jack Lewis	Central Point	pump and sluice	slate & metavols.	creek placer
7	Can Can placer	25	39	2	Victor Nordgreen	Jacksonville	pump and sluice	metavolcanics	creek placer
8	DeJanvier placer	1	37	4	Glenn DeJanvier	Gold Hill	giant and sluice	Applegate metasediments	creek & hillside
9	Johnson placer	15	34	4	H.Commers - C.A.Reinke	Rogue River	dozer and sluice	decomposed granite	creek placer
10	King placer	21	33	4	Ted King	Sunny Valley	sluice and diving	metavols. & serpentine	creek placer
11	Shoemaker placer	15	37	4	Jack N. Shoemaker	Gold Hill	dozer (?) and sluice	Applegate ms. & granite	creek placer
12	Sterling placer	33	38	2	A.C. & Ivan Rock	Jacksonville	giants and sluice	Applegate ms. & metavols.	low bench
						Josephine County			
13	Bear placer	36	38	9	George Foster	Kerby	drifting	serpentine	cemented bench
14	Brown placer	28	40	7	Al Brown	Holland	giants and sluice	Applegate ms.& serpentine	low bench-hillside
15	California bar	1	40	7	Thomas Bros.	Cave Junction	back-hoe, loader, truck, trommel	metavolcanics	river bar
16	Edmonds placer	12	40	7	Joe & Lou Edmonds	Cave Junction	diversion ditch, sluice, stacker	serpentine & metavols.	creek placer
17	Esterly placer	22	40	8	Journeys End, Inc.	Cave Junction	shovel, screens, jigs	serpentine & metavols.	tails (gravel-plain)
18	Forest Queen	28	35	5	Orville Snavely	Grants Pass	giants, sluice, elevator	Applegate metaseds.	low bench & creek
19	Goff placer	5	34	6	E.Cantwell - R.Smith	Sutherlin	giants and sluice	Galice sediments	bench placer
20	Golden Bar placer	2	35	8	Bob Pancost	Galice	giants and sluice	Galice sediments	low bench & creek
21	Golden Lyon placer	10	35	8	Cole Grisel & Sons	Grants Pass	pump and sluice	Galice sediments	low bench & creek
22	Gold Nugget placer	30	38	8	Archie Rhoten	Kerby	giants and sluice	serpentine	low bench & creek
23	Lucky Strike	22	34	8	Paul E. Jonas	Merlin	hand operation, sluice	amphibole gneiss	creek & hillside
24	Maloney placer	10	35	8	Bert Pankey	Galice	giants and sluice	Galice sediments	low bench & creek
25	Oregon Bar placer	31	39	6	Fritz Johnson	Cave Junction	giants, sluice, pelton	metavolcanics	river bar
26	Rocky Gulch placer	25	34	8	N.L.Lewis	Galice	giants and sluice	Galice sediments	bench placer
27	Ruble placer	30	33	5	Fitzpatrick & Inman	Canyonville & Grants Pass	giants and sluice	Galice sediments	creek placer
28	Schaffer placer	22	37	5	J.B.Schaffer	Grants Pass	giants and sluice	serpentine & metavols.	creek placer
29	Sutter placer	36	38	9	Graham & Peyton	Klamath Falls	dozer, back-hoe, sluice	serpentine	bench & hillside


PLACER MINES 1959—1960
of
SOUTHWESTERN OREGON
Coquille
Bandon
Myrtle Point
Roseburg
Riddle
Powers
Port Orford
Wolf Creek
Leland
Agness
Gallice
Merlin
Grants Pass
Rogue River
Gold Hill
Gold Beach
Red Flat
Medford
Jacksonville
Phoenix
Ashland
Applegate
Williams
Kerby
Holland
O'Brien
Takilma
Buncom
Brookings
Marble Mt.
Eight Dollar Mt.
Woodcock Mt.
Nickel Mt.
Siskiyou Mts.
COOS
DOUGLAS
JACKSON
CURRY
JOSEPHINE
OREGON
EXPLANATION
Dredged area
Placer Mine
Mountain
U.S. interstate highway
State highway
Town
Map prepared by
State of Oregon Department of Geology
and Mineral Industries



and labor. Most seriously affected were the lode mines. The gold mine closure order L-208, issued by the War Production Board in October, 1942, requiring closure of gold mines deemed nonessential to the war effort, was a substantial setback to all gold mining.

Methods

Although more than a century has passed since placer mining began in southwestern Oregon, the methods have changed very little. Much of the early-day equipment, such as the monitor or giant, elevator, sluice box, undercurrent, dragline, trommel, and self shooter (boomer) are still being used. Design and construction materials, however, have been improved in some instances. Mechanization in placer mining has been limited primarily to digging, loading, and hauling equipment such as bulldozers, back hoes, front-end loaders, and trucks.

Development of the sand pump has led to the construction of various types of suction dredges which have been used to pump sand and gravel from deep holes and crevices along streams. Most of these operations in southwestern Oregon have been short-lived and unprofitable, possibly because of lack of values and insufficient quantity of gold-bearing gravel in the beds of the streams. In the past few years some skin-diving has been done, but so far it has been little more than a recreational pursuit.

A few of the original placer ditches constructed many years ago are still in use; for example, the well-known 30-mile Sterling ditch, built in 1872 by Chinese labor. Old placer ditches are also being used at the Bear, Brown, Goff, Golden Bar, Gold Nugget, Hogum, Maloney, Oregon Bar, Rocky Gulch, Ruble, Schaffer and Sutter placers. Large, efficient pumps capable of lifting water cheaply are being used to operate giants at bench placers where water can not be supplied by gravity ditches.

One of the difficulties encountered in placer mining operations is the working of cemented gravels. In the oxidized zone (above the ground water table) iron oxide (rust) generally cements sand and gold particles to the pebbles and boulders so that ordinary washing through sluice boxes fails to free the gold completely. Without further treatment a portion of the gold is not reclaimed. The lower, unoxidized zone of the gravel deposit is commonly called "blue gravel". The "blue gravel", being closer to bedrock, is usually richer and, because it is less firmly cemented, yields a greater percentage of its values.

For some of the old bench-gravel deposits that are well cemented by clay, calcite, and/or limonite, blasting and periods of weather-slacking are used to break up the gravel and free the gold.

Most placer mining operations are of necessity seasonal, because of lack of water during summer months. The past season was especially dry, so that few of the operations were able to pipe for more than one month and some had water for even shorter periods.

Classification of Placer Deposits

The placer deposits of southwestern Oregon have been classified (see Table 2) according to the definition given by Brooks (1914) for the various types of placers in Alaska. These definitions are given below. Not all of the Oregon placers fit exactly into these categories. For example, a few occurrences of cemented bench-type gravels lying less than 50 feet above the present streams are arbitrarily classified as "low bench" deposits. Some of the placer materials appear to be combinations of these classifications and are designated as such in Table 2.

Creek placers- Gravel deposits in beds and intermediate flood plains of small streams.

Bench placers- Ancient stream gravels standing from 50 to several hundred feet above the present streams.

Hillside placers - Gravel deposits lying between creek and bench placers where bedrock is sloping. (This category may include normal mantle or the eluvial-type placers weathered out of veins located up the slope from the deposits.)

River-bar placers - Placers on gravel flats in or adjacent to the beds of large streams.

Gravel-plain placers- Placers found in gravels of coastal or other lowland plains. (This category may be applied to deposits such as those in the upper Illinois Valley near Takilma, Holland, Kerby, and O'Brien.)

Sea-beach placers- Reconcentrations of coastal-plain gravels by waves along shore.

Ancient beach placers- Deposits found on coastal plain along a line of elevated benches. (Black sand deposits on terraces along the Oregon coast.)

Lake-bed placers- Gravels accumulated in beds of present or ancient lakes that may have been dammed by landslides or glacial deposits.

Bibliography

Brooks, A. H., The mineral deposits of Alaska; Mineral resources of Alaska, 1913, U. S. Geo. Survey Bull. 592, pp. 25-32, 1914.

Fulkerson, F. B., Kingston, G. A., and Peterson, N. S., The mineral industry of Oregon in 1959, Bureau of Mines Area Report, B-76, June 24, 1960.

U. S. Bureau of Mines production records, Mineral Year Books.

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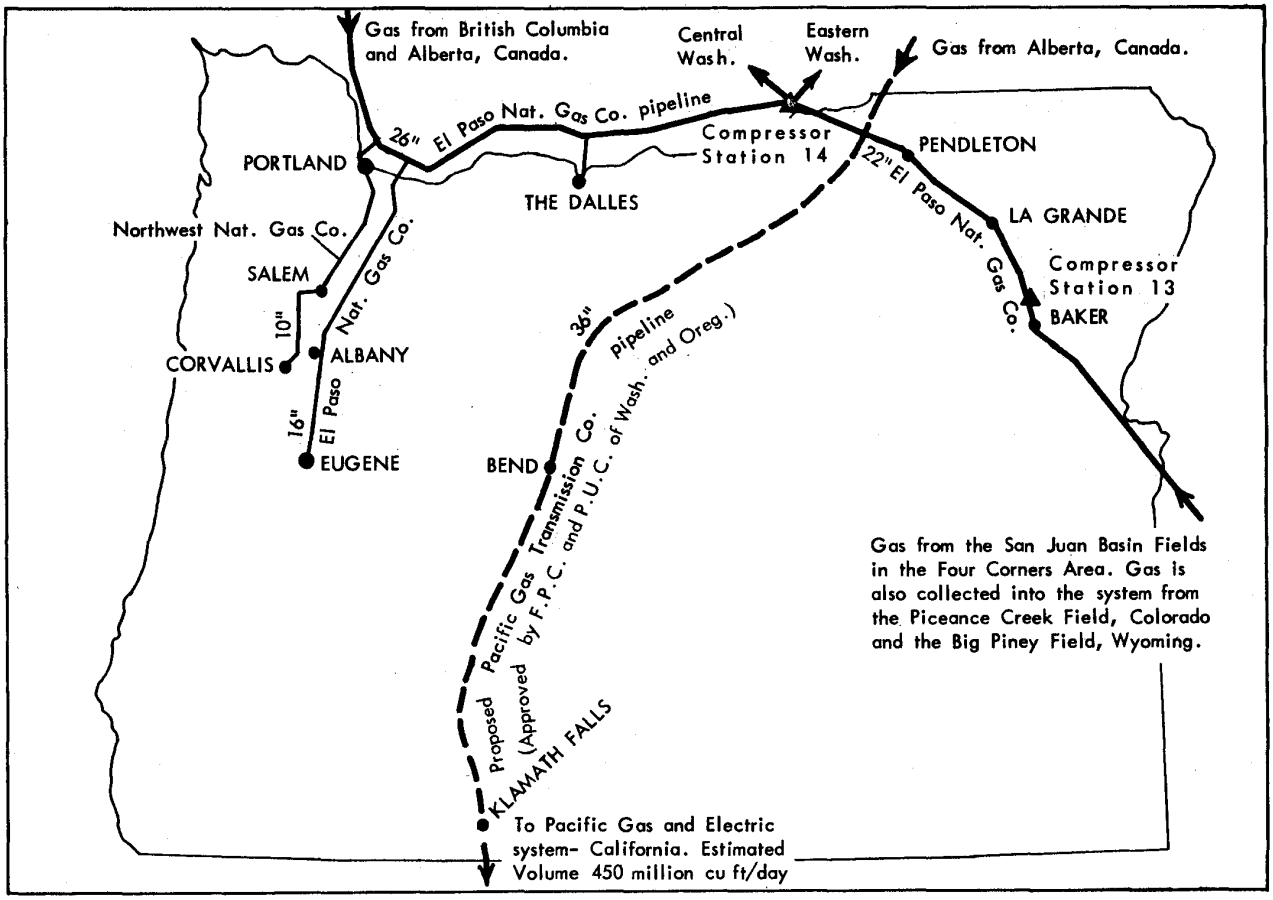
OREGON ASSURED OF AMPLE SUPPLY OF NATURAL GAS

Natural gas was made available to many cities in Oregon during 1956 when the Northwest Pipeline Corporation completed a pipeline to the Northwest from gas fields in the Four Corners area of New Mexico, Colorado, Utah, and Arizona (see map below). The pipeline system is now owned by El Paso Natural Gas Company. Canadian gas was first imported into the northwestern states through El Paso's system in 1957 and now is an integral part of the supply. Gas from the Peace River district of British Columbia and Alberta is piped 500 miles to the United States-Canadian border and there taken into the El Paso system near Sumas, Washington.

Natural gas from northern and southern sources flows into the 1487-mile main pipeline of El Paso Natural Gas Company, making ample supplies of gas available to industrial areas of the Northwest. Gas from Big Piney Field, Wyoming, Piceance Creek Field, Colorado, and several other small gas fields in the Rocky Mountains is gathered into the pipeline along its route northward from New Mexico.

Gas for the Portland area and Willamette Valley is taken off the mainline at points near Vancouver and Washougal, Washington. The 16-inch lateral crossing the Columbia River near Vancouver carries up to 120 million cubic feet per day, and the 20-inch line crossing at Washougal, 170 million cubic feet per day. (170 million cubic feet of gas is sufficient to heat 150,000 homes for an entire year.)

A plan to construct a 36-inch pipeline from gas fields in Alberta, Canada, to San Francisco, California, has been approved by the Federal Power Commission and awaits only the ratification of the California Public Utilities Commission. Cost of the project will be about $340 million. The plan calls for importing 600 million cubic feet of gas per day from Alberta: 150 million cubic



NATURAL GAS PIPELINES IN OREGON

feet per day to go to Washington, Idaho, and Oregon; and 450 million cubic feet per day to northern California.

Gas for the new pipeline will be taken at the United States-Canadian border near Kingsgate, British Columbia, by Pacific Gas Transmission Company and delivered to El Paso Natural Gas Company in northern Idaho and Pacific Gas & Electric Company at the California-Oregon border.

Application has been made to the Federal Power Commission by El Paso Natural Gas Company to take gas off the new pipeline at Bend and Klamath Falls for distribution in central Oregon. The cities of Madras, Redmond, Prineville, Medford, Ashland, and those in the Rogue River Valley will receive gas from the new system.

V. E. Newton

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AMERICAN MINING CONGRESS AT LAS VEGAS

The 1960 American Mining Congress will be held October 10 through October 14 at the Convention Center in Las Vegas, Nevada. Twenty sessions will be devoted to discussions of the mining industry's problems, progress, and future trends. The subjects will include national mineral policies; taxation; labor-management relations; public lands; gold, silver, and monetary policies; the future outlook for metals and minerals; exploration and geology; and the practical operating problems of underground and open-pit mining and processing of mineral resources. One of the features of the program will be the Exposition, at which the latest developments in mining and mineral processing machinery and equipment will be shown by more than 200 manufacturers. On October 14, trips will be conducted to mines and plants in the Las Vegas area and to the Kennecott Copper operations. Subjects of particular interest to Oregon people will be discussed at the following sessions:

Welcoming Ceremonies; National Mineral Policies - Monday, October 10, at 10:00 A. M.

"The minerals platform of the Republican Party"

"The minerals platform of the Democratic Party"

Public Lands Session - Tuesday, October 11, at 10:00 A. M.

"The implications of wilderness legislation." One of the speakers will be William D. Hagenstein, Secretary of Resources Development Council, Portland, Oregon.

"Problems under the multiple use laws." Speakers will be Hon. Edward P. Cliff, Assistant Chief, U. S. Forest Service, and Hon. Edward Woozley, Director, Bureau of Land Management.

State of the Mining Industries Session - Thursday, October 13, at 10:00 A. M.

"Special metals and rare earths", by Steven Yih, Vice President, Wah Chang Corporation, Albany, Oregon.

"Strategic minerals", by S. H. Williston, Executive Vice President, Cordero Mining Company, Palo Alto, California.

Gold, Silver, and Monetary Policies Session - Thursday, October 13, at 3:00 P. M.

"Gold, silver, and monetary problems", by Dr. Elgin Groseclose, Economist, Groseclose, Williams & Associates, Washington, D. C.

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POLICY STATEMENT ON FEDERAL LAND USE

The following statement of policy on multiple use of federal lands, with special reference to United States forest lands, was adopted by the Department's Governing Board at its meeting on June 10, 1960:

The initial premise of the mining industry is that minerals and materials extracted from the ground are absolutely essential to the maintenance, development, and progress of our economy. Advances in industry and in living conditions will be directly related to the cost and availability of mineral products.

The source of our minerals to date has been the "high grade" and easily discovered deposits; that is, those mineral deposits of relatively high value, cropping out at the earth's surface or located very near the surface. Today those deposits have been, in large part, found and are either exhausted or in the process of being exploited in the United States.

Mineral deposits of the so-called "underdeveloped countries" are, in general, still being discovered, with the result that the economy of the United States is becoming more dependent on these overseas imports. As the underdeveloped countries achieve a higher level of economy and as a greater number of people live on this world of ours, the easily discovered mineral deposits of other nations will soon reach the stage of development now found in the United States.

Continued advancement in the world will depend on utilization of the known lower-grade mineral deposits and improved prospecting methods to discover deposits which are hidden or difficult of access. Undoubtedly, grades of ore in the future will be but a fraction of what is considered low-grade ore today. If these mineral deposits are to be mined and new deposits discovered, land must be open to prospecting.

Mineral deposits, even of a low-grade nature, are found only at certain places. The deposits cannot be moved. When land is withdrawn for special purpose or even for multiple use of the surface resources, and administered by an agency not concerned with mining, potential mineral deposits may be lost to the world.

There are sufficient laws in force today to allow for both multiple surface use of land and subsurface extraction of materials from that land with a minimum amount of conflict. In many instances it would be for the welfare of the people to move surface uses in order to utilize the nonmovable subsurface mineral deposits. Because there is already sufficient protection to the surface users, more emphasis should be placed on keeping land open to prospecting and mining.

The principal agencies who have control and management of federal land are persons trained in forestry, agriculture, recreation, or other surface usages. It is not surprising that these administrators do not recognize or concern themselves with the many problems connected with the search for mineral deposits. Therefore, it would seem to be of public benefit to place on the staff of every surface-use control agency an expert in mining and mineral economics. This person should not be merely a "policeman" or "workman" for the administrators of the national lands. He should be one who can enter into policy-making at the staff level, so as to protect the legitimate interests of the miners. Perhaps advisory boards from the various communities or states could take the place of the staff mineral expert. In any event, greater recognition of the subsurface resources of national lands should become paramount in the thinking of agencies who now have control of federal lands.

It is recognized that some persons have in the past attempted to use the mining laws as a pretext to gain control over areas of public domain and exploit them for nonmineral purposes. No doubt others will attempt to do this in the future. Such abuses are to be condemned, and the appropriate government agencies should be left free to stamp them out wherever they are found to exist. However, these occasional offences should not be used as an excuse for either legislation or policies so restrictive as to seriously hamper the legitimate activities of the serious miners. It is neither necessary nor desirable to seal off the entire building in order to get rid of a few rats in the basement.

Adopted
June 10, 1960

Governing Board, State of Oregon
Department of Geology and
Mineral Industries:

Hollis M. Dole
Secretary to the Board
and Director of the Department

William Kennedy, Chairman, Portland
Harold Banta, Baker
Earl S. Mollard, Riddle

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VANDALISM KILLS CRUMP GEYSER

The Crump continuous "geyser" (Ore.-Bin, Sept. 1959) which had such a spectacular beginning on July 1, 1959, is now inactive. Vandals succeeded in plugging the "geyser" in February and again in March by piling large boulders and debris in and around the casing of the well.

Despite the obstruction lodged in the casing and hole, the "geyser" spouted continuously until about June 1, 1960. It then became a true geyser erupting for about 30 seconds every two minutes (Ore.-Bin, June 1960). This interval increased steadily and on July 5 was about one hour. By July 20, eruption had ceased. Now there is only the rumbling of boiling water down in the hole.

Hot spring activity adjacent to the now defunct geyser has increased. Springs are again flowing and the original Crump geyser, a 100-foot-deep well just to the north, has blown the debris from its orifice and is again active, spouting a 75 to 100-foot column of steam and water for 5 minutes every 12 hours.

* * * * *

ALASKA TO SHIP URANIUM TO LAKEVIEW

Alaska will again produce uranium. The JOT Mining Company, under new management, is planning to mine and ship several thousand tons of ore this summer from the Kendrick Bay Mining Company pit and adjacent claims at Bokan Mountain. The ore will be shipped to Lakeview, Oregon. Bokan Mountain is on the southern part of Prince of Wales Island. The first shipment of ore is scheduled for August 30.

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OREGON PLACE NAMES

Listed below are some of the Oregon names officially accepted by the U. S. Board on Geographic Names, in decisions rendered from September through December, 1959 (Decision list No. 5904). The list will be continued as space permits in future issues of The Ore.-Bin.

Little Owyhee River: stream heading near 42°06'30" N., 117°35'00" W. and flowing generally eastward about 12 miles, then north-northeastward about 30 miles to the Owyhee River (q.v.) about 35 miles southeast of Rome; Malheur County; sec. 4, T. 36 S., R. 47 E., Willamette meridian; 42°27'10" N. 117°12'30" W.

Middle Fork Owyhee River: stream about 17 miles long heading in T. 12 S., R. 5 W., Boise meridian, near 42°24'40" N., 116°54'30" W., Idaho, and flowing generally northwestward to the North Fork Owyhee River (q.v.) about 0.7 mile upstream from the Owyhee River (q.v.); Owyhee County, Idaho, and Malheur County, Oregon; sec. 35, T. 34 S., R. 45 E., Willamette Meridian; 42°32'40" N., 117°09'30" W.

North Fork Owyhee River: stream about 27 miles long, heading on the southern slopes of the Owyhee Range in Idaho, near 42°41' N., 116°48' W., and flowing generally west-southwestward to the Owyhee River (q.v.) about 31 miles southeast of Rome; Owyhee County, Idaho, and Malheur County, Oregon; sec. 35, T. 34 S., R. 45 E., Willamette meridian; 42°32' 30" N., 117°10'00" W.

Owyhee River: stream, partially in Humboldt National Forest, heading in T. 42 N., R. 55 E., Mount Diablo meridian, near 41°30' N., 115°45' W., Nevada, and flowing northwestward about 175 miles through southwestern Idaho into Oregon, then north-northwestward about 80 miles to the Snake River about 5 miles south-southwest of Nyssa; Owyhee County, Idaho, Elko County, Nevada, and Malheur County, Oregon; sec. 30, T. 20 S., R. 47 E., Willamette meridian; 43°48'35" N., 117°01'50" W. Not: East Fork Owyhee River, South Fork Owyhee River (q.v.).

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ASSESSMENT WORK

Have you done your assessment work? The current assessment year is September 1, 1959, to August 31, 1960. If you haven't completed your work and your claims are in a fire-hazard area, the following directive from the Bureau of Land Management will be of interest to you:

> "It has been recently brought to our attention that in many sections of the Western states, due to the extreme dry weather and the critical fire conditions, the performance of annual assessment work by mining claimants, which involves blasting, use of heavy equipment and establishment of temporary camps, is considered to be extremely hazardous and conducive to additional fire potential. We have been further advised that in certain localities the conditions are so extreme that entry has been denied either by the agency administering the land or under State fire prevention regulations.
>
> "Where such conditions exist, the Land Office Manager, under 43 CFR 185.96, is authorized to grant a deferment of assessment work. The granting of such a temporary deferment should be done only after the mining claimant has submitted satisfactory proof either of denial of access or proof of exclusion from the area. This authority is not to be looked upon as an unrestricted deferment, as such deferred work must be performed during the next assessment year, nor is it to be used by the mining claimant as an excuse for nonperformance of required work. It can, however, serve a very real purpose by preventing unnecessary litigation and 'claim jumping' for the mining industry, as well as safeguard valuable surface resources of the United States.
>
> "When claims are located within national forests it would appear advisable to verify statements made requesting deferment with local Forest Service officials. Final authority, however, for granting or rejecting such requests and all actions pertaining thereto is the responsibility of this Bureau."

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HAINES GRANITE PLANT BURNS

The Northwestern Granite Company's plant located two miles east of Haines, and one of Baker County's oldest businesses, burned to the ground on the morning of July 23. Cause of the fire was unknown. Loss to the owners S. E. and Stanley Ingram was in excess of $50,000 and not covered by insurance. Burned besides the structure were the stone cutting, sand-blasting, and polishing machines, compressors and pneumatic equipment, overhead hoist, drafting equipment, machine shop and much granite stock. According to The Baker Record Courier (July 28, 1960), the Company announced immediately that it will remain in the granite and monument business.

The Haines quarry, which has operated since about 1902, has produced granite for most of the public buildings in Baker. The stone was rated highest of the gray granites in the country for strength, and won awards at a number of world fairs. Since the decline of the use of stone in buildings, the firm has dealt extensively in fine monuments.

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