

STATE OF OREGON  
DEPARTMENT OF GEOLOGY & MINERAL INDUSTRIES  
PORTLAND, OREGON

# THE ORE.-BIN

VOL. 4 NO.3

PORTLAND, OREGON

March 1942



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## PORTLAND GEOLOGY MAPPED

The past geologic story of the evolution of the landforms of the Portland area is depicted on a large colored map, and is described in an accompanying short paper by Ray C. Treasher, field geologist of the Oregon Department of Geology and Mineral Industries, released this week. This seventeen-page pamphlet tells how local landscapes came to be and what the country was like in past ages. The paper has been made as non-technical as possible. It is issued primarily for the layman, for the student, for the average citizen who looks at the hills, the streams, and the valleys and is greatly interested in learning why, how, and when.

The Portland area has a most interesting geologic history. The basaltic hills of West Portland, the Boring hills to the southeast, the little cinder cone on the flank of Mt. Tabor, the peculiar turn of the Willamette River near Oregon City, the classic gorge of the Columbia with its precipitous cliffs, -did not materialize over night, just before the advent of man. These and many other unusual landforms in the environs of Portland developed according to a logical pattern throughout millions of years. This pattern was complicated by such episodes as glacial floods, and volcanic explosions, by outflow of lava, and long continued erosion.

The colored geologic map of the area which shows in detail the rock outcrops from which the geology has been interpreted may be purchased separately or with the short paper. This map measures (16 x 23) inches and shows the topography and culture as well as geologic formations. The cost of the map is 25¢ and the pamphlet (GMI Short Paper No. 6) is 15¢; they are obtainable at the offices of the Department of Geology and Mineral Industries in Portland, Grants Pass, or Baker. Both are postpaid.

## OREGON MANGANESE

Over eighty manganese deposits in Oregon are described in a bulletin just published by the State Department of Geology and Mineral Industries, Earl K. Nixon, Director. The bulletin is the result of field work undertaken for the purpose of cataloguing the State's resources of this important strategic mineral. In addition to descriptions of individual properties, a chapter is devoted to a brief discussion of mineralogy, origin, methods of prospecting, and economics of manganese ores. A list of western buyers of manganese ore is included. The volume contains eighty pages and has three plates which show localities of deposits.

Bulletin No. 17, Manganese in Oregon, by members of the Departmental staff, is for sale at the Portland office of the Department, 702 Woodlark Building, or at the field offices at Baker and Grants Pass. The price (postpaid) is 45 cents.

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## KROME, INC.

The importance to Oregon and to the country of the new plant of Krome, Inc. for the recovery of chromite from marine sands can hardly be minimized. It is a new industry for the State; it will produce in very material quantity a strategic mineral of which there is a serious shortage; and it may, in addition, produce by-products needed in our war effort. But probably of equal, if not of more far-reaching, importance are other factors not fully appreciated by people outside of the mineral industry.

This new plant is a pioneer in a field practically untouched in this country. There has been some domestic production of zircon, ilmenite, rutile, gold and platinum metals from heavy sands, but no production of chromite, by far the most important of black sand minerals. Krome, Inc. is the first chromite sand project. It will use large scale procedure, modern metallurgical methods, and a carefully prepared flow sheet based on extensive testing work. Other projects will follow. Potentially this new industrial development is susceptible of large expansion.

The actual start of construction on this project is a source of considerable satisfaction to the Department. For four years we have been studying, insofar as our facilities permitted, the feasibility of producing chromite from the Oregon marine sands, and have continually advocated, both to Federal agencies and private capital, the desirability of exploration and research which would lead to commercial operations. The Krome Company project is a definite milestone in the growth of the State's mineral industry.

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## AIN'T IT ALL WONDERFUL?

You will probably agree with us that the event of Sunday morning December 7th at Pearl Harbor was the real turning point of World War II. You won't? Well, let's do a little mental meandering.

The war has been going on several years. Germany has cleaned up on 13 (or is it 19) countries. She controls most of continental Europe. She pulled Francois Frenchman's cap down over his eyes and he is licked; she flopped her apron at Mousie Mussolini and he fell into the Adriatic; she stole Denmark, and stiff-armed Norway; she murdered Poland, etcetera, ad nauseam. She could doubtless have captured Britain had the omens been right on that particular invasion day. Anyway, she taught British army chiefs how to be the most brilliant strategists the world has produced - at evacuating. She was smart enough to keep USA out of the war, from thinking war, from providing for war, from having a war policy; she sabotaged our efforts to accomplish unified public opinion.

We, the USA, the richest, the stupidest, the most resourceful, the most improvident, the most democratic, the most disunified, the most literate, the most witless, the most talented, the most lethargic, the most important, the most vulnerable, nation in the world, and the most unprepared.....sat on our soft cushions saying, "It can't happen here."

And then, Pearl Harbor!

If Japan had schemed since the first dynasty, she couldn't have figured out a device that would more certainly have sealed her own fate - her defeat - the ultimate outcome of the war issue. By her act, she changed, in a matter of hours, our war psychology, the reactive consciousness of more than one hundred million people, from a condition of relative complacency, and divided opinion, to one of fury.

The Yankee is a funny duck. It wasn't so much the loss of planes and boats and material - or even the loss of life at Pearl Harbor that incensed each of us! It was the fact that Japan had deliberately and carefully and cunningly planned her act, and had gotten away with it.

What did the average man in the street say on that Monday morning? He said, or felt, "Why, the dirty, sneaking, murdering, yellow \_\_\_\_\_s". (use your own judgement in filling the blank).

And then we knuckled down, coolly, collectedly, rapidly to try and correct the terrible blunders that had come out of the stupid complacency the country had been in for many, many months. For we all had arrived at the same idea - FINALLY. And when the American people finally, or suddenly come to think and act as one - something is just going to bust. It always has. As evidence, when the Congress votes a 20 or 30 BILLION dollar war measure for a single purpose, by unanimous vote, and without a squawk from a newspaper, a citizen, or a taxpayer, that is a bust, - in the nose for the Axis. (It may mean bust for us, too; but then, we're pretty well busted anyway, so 'what the Hell'.)

We are going to win this war. That is certain. When? Neither you nor I know. If our efforts, like those of a miner we once had for a short time, are characterized by "All guts and no brains," we will win for a time and then go "Boom"; if we go "all brains and no guts", we might ultimately muddle through and win by sheer force of numbers and resources. If our efforts are in balance, our timing right, we should win in a couple of years. But win we must, or else. And we shiver to contemplate the "or else".

In three months we have done the impossible. We have got the production machine oiled up and started to turn over; we have pretty well mobilized the army; we have taken inventories and found the weak spots in the raw materials production picture - and made plans to save ourselves (we hope); we have pretty well licked the strike problem; we have got some of the politics and much of the complacency out of the Washington set-up (there is still too much of both left); and, most important of all, the people are beginning to think in terms of offense rather than defense. We probably never could defend this country, big and awkward as it is, but, if we ever get going, we can lick the stuffing out of any bully before he gets to us.

Anyway, we have gone places in three months, at least relatively speaking. We are not satisfied with our efforts, which is not an unhealthy sign. We are reasonably well satisfied with our leaders, which is a good sign, - although we continually criticize them, which merely indicates that we are human. Best of all, we collectively and individually, are thoroughly awakened and mad; and when anything gets 130 million resourceful Yankees really mad, nothing is going to stop their making a sea-going job of setting matters right.

Pearl Harbor touched it off. Had it not been for that explosive event, had Japan continued her invasion of Malaya, she might have taken Singapore, and even Sumatra and Java before we awakened and asked the Isolationists if it weren't time to declare war and perhaps start making some machine guns a few months hence. Now, if Japan would follow up by coming over with planes and drop several bombs in the suburban eye-sores and garbage dumps of some West Coast cities, or a couple of hundred-pounders in Central Park at midnight, or sticks of incendiaries on the broad pavement of Constitution Avenue. It would really help to knock the rest of the complacency out of all of us.

So credit the Pearl Harbor double-cross as a favor in disguise. We were rudely but thoroughly awakened, and now there is a unified America with a paramount purpose -- to get going, to get hold of the ball and keep it; to block, to pass, to plunge. We can't lose if we'll forget for the time, our petty politics and selfish interests. If we don't, God help us -- if we're worth helping.

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GOLD AND SILVER MINES AFFECTED BY  
PREFERENCE RATING ORDER P-56 AMENDED (March 2, 1942)

Order P-56 under which mines have received serial numbers and thereby allotted certain priority ratings was drastically amended on the above date so that, in effect, mines producing mainly gold and silver are removed from those benefits formerly enjoyed in the matter of obtaining high priority ratings. The amendment of the order which directly effects gold and silver mines defines "mining enterprise" as follows: "Any plant actually engaged in the extraction by surface, open pit, or underground methods, or in the beneficiation, concentration, or preparation for shipment of the products of mining activity, but not including any plant more than 30% of the production of which in dollar value consists of gold and/or silver". The basis upon which the 30 percent and 70 percent are estimated is the gross value as produced without smelter or freight deductions.

Since practically all the quartz mines in Oregon producing concentrates for shipment to a smelter have the value of production mainly in gold and silver, the ratio as given in the amended order requiring that the value of gold and silver production be less than 30 percent of the dollar value of the total production, will eliminate Oregon gold lode mines from benefits of Order P-56. Various mine serial numbers have already been cancelled. This does not mean that such mines whose value of production is mainly in gold and silver are prevented from obtaining priority ratings, but that they would be obliged, in general, to operate under no better rating for repairs, operating and maintenance supplies, than A-10, whereas previously they had enjoyed ratings of A-1-c, A-3, and A-8. There is little doubt that the result will be that more or less gradually all quartz mines in Oregon will close down.

There should be a stimulation of dormant copper properties, as a result of the order, and in the case of some quartz mines attempts will be made to increase the proportion of base metal production as related to gold and silver.

Formerly, in order to apply the A-1-c rating, mine operators were obliged to obtain special permission and an authorization number. The amended order allows the operator (except as provided below) to apply the A-1-c rating, <sup>for repair parts</sup> as well as A-8 and A-10 ratings, without special permission by using the following endorsement on purchase orders or contracts: (See "Schedule A" last page.)

"Materials for a mining enterprise, Rating A-\_\_\_\_\_ under Preference Rating Order P-56, Serial Number \_\_\_\_\_ and in compliance therewith.

\_\_\_\_\_  
(Name of operator or supplier)

By \_\_\_\_\_  
(Authorized signature)

The exception noted above, in which the privilege of applying the A-1-c rating without obtaining special permission from the War Production Board, is for those mining enterprises more than 30 percent of the production of which in dollar value for the previous calendar quarter was derived from any one or more of the following:

- Sand (except foundry sand), gravel, crushed stone, and slag,  
including all commercially recognized forms of these products.
- Clay of all types, except those used for refractories and ceramics  
for electrical use.
- Building and ornamental stone of all types.
- Gypsum, talc, soapstone, slate (except for electrical use) and all  
raw material for the manufacture of lime and calcareous cements.

In other words, a sand and gravel company could not apply the A-1-c rating without the special permission of the War Production Board.



In this amended P-56 order the A-3 rating previously allowed for repairs and equipment is discontinued, being replaced in general by the A-1-c rating. An A-8 rating is allowed for all repairs and maintenance not covered by the A-1-a and A-1-c ratings; and an A-10 is set up for repairs, operating, and maintenance supplies not directly connected with production.

As in previous orders the A-1-a rating is to be applied in cases of actual breakdown or suspension of operations and only after specific approval has been obtained from the War Production Board.

There is no change in the order making it necessary for holders of mine serial numbers to submit monthly reports of all rated purchases made on Form PD-119 to the State Emergency Coordinator of Mines. Such reports should be submitted by the 10th of the month following the month covered by the report. They should be made whether or not rated purchases were made. If no rated purchases were made, the fact should be so stated on the regular PD-119 form.

In applying the A-1-c rating, quotas are established. The order states that for any calendar quarter the quota for any operator shall consist of the dollar value of repair parts as may be expressly authorized by the Director of Industry Operations after application by such operator in form prescribed by the Director of Industry Operations. For the first calendar quarter of 1942 such quota shall be the dollar value of repair parts which bears the same ratio to the dollar value of repair parts delivered to the operator in the last calendar quarter of 1941, as the dollar value of the operator's production in the first calendar quarter of 1942 bears to the dollar value of the operator's production in the last calendar quarter of 1941. In other words, if in the first quarter of 1942 the dollar value of production was 25 percent greater than in the last quarter of 1941, then the dollar value of materials to which an A-1-c rating may be applied may be 25 percent greater than the same value for the last quarter of 1941.

Preference ratings for repair parts, machinery and equipment will be issued only where such repair parts, machinery and equipment are required to maintain or increase production and not primarily to reduce cost of operation.

In cases where a material production of base metals can be obtained even though the proportion of dollar value of gold and silver production is greater than 30 percent of the total, indications are that the War Production Board will not curtail priority assistance to such operations. Each individual case will be considered on its merits.

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#### CHANGE IN MANGANESE SPECIFICATIONS

In a release dated February 20, 1942, Metals Reserve Company states that, referring to size of manganese ore, "none in excess of 12 inches and not more than 25 percent to pass a 20-mesh screen". Previous specifications had given the maximum size acceptable as 6 inches with not more than 12½ percent to pass a 20-mesh screen. In addition, the Metals Reserve Company specified that manganese concentrates to be acceptable, must be nodulized or sintered. Prices for the various grades, namely, "High-Grade", "Low-Grade A" and "Low-Grade B" remain the same as specified in previous circulars.

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#### METHODS OUTLINED TO OBTAIN PREMIUM PRICES ON COPPER, LEAD, AND ZINC ORES

Mr. Harry T. Hamilton of the Metals Reserve Company has notified the State Department of Geology and Mineral Industries that the outline of method to be followed by shippers of base metal ores is as follows: The producer will ship to an appropriate smelter as has been his custom. Settlement will be made according to the so-called "ceiling price" established for the metal. The shipper must make out an affidavit and deliver it to the smelter. This

affidavit (forms can be obtained from the smelting company) covers information required by the Metals Reserve Company to show that the shipment of base metal ore comes within the requirements allowed for premium payments, or in other words, is in excess of quota. The affidavit is submitted to the Metals Reserve Company by the smelter and the Metals Reserve Company will then remit to the smelter. The smelter will make out checks in the amount due each individual shipper.

Previous smelter schedules have not been altered nor are any smelter contracts affected by premium prices.

The release of the Metals Reserve Company covering the program is dated March 7, 1942 and has the title "Program for Premium Payments by Metals Reserve Company on Production of Copper, Lead and Zinc in Excess of Monthly Production Quotas".

The release by the office of Price Administration dated February 9, 1942 covered rules and regulations governing quotas.

Three regular classes of quotas were set up in the latter release. These are "zero", "intermediate", and "100 percent". All are based on 1941 production. The "zero" quota applies to properties which had no production in 1941, or production of less than 200 tons in that year; "intermediate" quotas apply to production of from 200 to 600 tons in 1941; "100 percent" quotas apply to production of more than 600 tons.

Quotas are established on a monthly basis. Premium prices will be paid for all production over monthly quotas. If a property fails to produce its quota in any month or months, premiums will not be paid until the deficit is made up. Methods for relief are provided in cases of catastrophes, such as fires or floods, which make quota attainment impossible. Once quotas are set, they shall not be raised during operation of the plan.

The premiums apply to all over-quota production after February 1, 1942, and are to apply for a period of 2½ years. Should the emergency end before the termination period the Metals Reserve Company reserves the right to terminate the arrangement on equitable terms.

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#### BUYING OF CHROMITE IN SMALL LOTS

On March 5th the Metals Reserve Company released new rules to include purchase of chrome ores in small lots. Such lots will be accepted in amounts of one or more than one truck load at Purchase Depots where Purchasing Agents will be available. These Purchase Depots will be at Coquille, Grants Pass, Seneca, Oregon and Yreka, California. Other Purchase Depots may be established by Metals Reserve. Contracts already made under schedules of November 14, 1941, December 19, 1941, or February 20, 1942 will not be altered to come under specifications as published in the circular of March 5th.

Specifications as to grades of ore remain the same as given in the release of February 20, 1942, and state that the size of ore shall be as follows: None in excess of 12 inches will be acceptable. In "High-Grade" and "Low-Grade A" not more than 40 percent is to pass a 1-mesh screen. As before, requirements as to amount of fines are waived on "Low-Grade B".

In the case of concentrates, if briquetted, they are acceptable under the schedule of prices and terms the same as hardrock ore. In the case of concentrates not briquetted the grades "High-Grade" and "Low-Grade A" will be acceptable under the schedule at a discount of \$3.00 per long ton. Prices remain the same as previously published.

The seller must, at his own expense, deliver all ore or concentrates to the Purchase Depot. Metals Reserve Company will pay the cost of weighing, sampling, and analyzing and will furnish a weight ticket on each lot weighed. The lot will be sampled and analyzed by a Metals Reserve Company analyst. As soon as analysis, including moisture determination, is obtained, settlement sheet together with check in payment will be mailed to seller from the buyer's Portland, Oregon office. Weighing, sampling, analysis and classification by Metals Reserve Company shall be final and conclusive. The buyer will reject any ore or

concentrates which do not conform to the requirements and specifications as set forth in the circular. Any and all ore rejected by the buyer must be removed by the seller within 15 days after mailing of notice of rejection. Any and all ore not removed by seller may, at the option of the buyer, be removed or otherwise disposed of by buyer without any liability therefore.

This new program is to date from April 1, 1942.

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#### CLEARING HOUSE COLUMN

For Sale - High-grade pumice in carlots. Interested persons should write Mr. C. T. Reardon, Kirk, Oregon.

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\* means out of print.

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"SCHEDULE A"

(Attached to Preference Rating Order P-56 as amended to March 2, 1942)

An A-1-c rating may be applied by qualified mine operators to deliveries of repair parts for machinery and equipment of the types listed in Schedule A (below) by making the proper endorsement on purchase orders or contracts.

## Schedule "A"

As to all machines listed below, the rating provided herein likewise applies to equipment items, accessories, and tools customarily sold with such machines.

Aerial tramway equipment  
Air Compressors for mine use  
Air distribution equipment  
Assaying and testing laboratory equipment at the mine

Ball-casting machines  
Boxcar loaders

Cages and skips  
Car dumpers - rotary or end  
Equipment for Cleaning plants  
" concentrating plants

Conveyors - shaking, belt, chain,  
or gravity type, including  
duckbills and other self-loading  
heads

Cutting machines - cable reel and  
self-propelling transportation  
trucks therefor

Diamond core drilling machines  
Dragline dredges, excavators, and  
scraper units

Dredges - continuous bucket, in-  
cluding pumps

Drills and drilling machines,  
power driven, and recondition-  
ing Equipment therefor

Dust control equipment

Electrical equipment for mine  
transportation and power

Hoists - including room hoists  
and car pullers  
Hydraulic monitors, with feed  
pipe and fittings

Jacks for lifting and roof support

Lamps--mine, miners', safety,  
and ore-exploration types  
Locomotives for mine use  
Loaders, mobile, including mucking  
machines

Equipment for Milling plants  
Mine cars, track or trackless

Pit-car loaders and elevating con-  
veyors

Equipment for Preparation plants  
Pumps, pipe and fittings for mine  
drainage or material transport

Rock dusting equipment

Safety and defense equipment  
Sand dryers

Scraper loaders

Sheaves and sheave blocks

Shovels, power

Shuttle cars, track or trackless

Slusher hoists and scrapers

Steel sections for support of mine  
openings

Storage batteries for mine use

Tanks and bins for storage of mine  
products

Tipples and head frames

Track and track accessories for  
mine transportation

Equipment for Treating plants

Truck, tractors, and trailers for  
mine use

Ventilation equipment

Waste disposal equipment

Weighing equipment, including automatic  
devices

Wire rope for haulage and hoisting

An A-1-c is allowed to deliveries of repair parts for essential productive facilities to other mining enterprises and/or for other types of machinery and equipment up to the minimum required to make reasonable advance provision to avert an actual breakdown or suspension of operations. However, such deliveries may be obtained only after special permission from the War Production Board.

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