MAGMA COPPER COMPANY

ANNUAL REPORT

For Year Ended December 31, 1943
MAGMA COPPER COMPANY

Incorporate Under the Law of the

STATE OF MAINE IN 1910

President's Office

14 Wall Street New York 5, N. Y.

Mine Office

Superior . . . . Arizona

CAPITALIZATION

Authorized . . . . 410,000 shares of $10 par value
Outstanding . . . . 408,000 shares of $10 par value

OFFICERS

CHARLES F. AYER . . . . . . President
A. J. McNAB . . . . . . Vice-President
HENRY E. DODGE . . . . . . Secretary and Treasurer
GUS A. MRKVICKA . . . . . . Asst. Secretary and Asst. Treasurer

DIRECTORS

CHARLES F. AYER
R. H. CHANNING
EDWARD G. DENTZEK
HENRY E. DODGE

HARRY T. HAMILTON (Died Feb. 5, 1944)
PHILIP KRAFT (Elected March 17, 1944)
A. J. McNAB
FRANCIS J. OAKES, JR.

OPERATING OFFICIALS

EDWARD G. DENTZEK . . . . . . General Manager
DARRELL GARDNER . . . . . . Assistant General Manager
J. F. BUCHANAN . . . . . . Mine Superintendent
JAMES H. ROSE . . . . . . Mill and Smelter Superintendent
FRANK SARVER . . . . . . Purchasing Agent
JOHN R. MAYS . . . . . . Auditor
CHARLES A. WHITE . . . . . . Traffic Manager

TRANSFER AGENT

GUARANTY TRUST COMPANY OF NEW YORK, 140 Broadway, New York 15, N. Y.

REGISTRAR

BANKERS TRUST COMPANY, 16 Wall Street, New York 5, N. Y.

ANNUAL MEETING

Second Monday in May each year at Augusta, Maine
To the Stockholders of
MAGMA COPPER COMPANY:

The accompanying report from Mr. Edward G. Dentzer, General Manager, shows the operations of your Company and of the Magma Arizona Railroad Company for the calendar year 1943.

The accompanying report from Mr. H. E. Dodge, Treasurer, shows the consolidated income and expenses of Magma Copper Company and Magma Arizona Railroad Company for the calendar year 1943 and the consolidated financial position of these companies as at December 31, 1943, as certified by the auditors.

No change was made in the capital structure of your Company during the year.

The following dividends were declared and paid during the year:

<table>
<thead>
<tr>
<th>Number</th>
<th>Date Paid</th>
<th>Per Share</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>82</td>
<td>March 15, 1943</td>
<td>$0.50</td>
<td>$204,000.00</td>
</tr>
<tr>
<td>83</td>
<td>June 15, 1943</td>
<td>$0.25</td>
<td>$102,000.00</td>
</tr>
<tr>
<td>84</td>
<td>September 15, 1943</td>
<td>$0.25</td>
<td>$102,000.00</td>
</tr>
<tr>
<td>85</td>
<td>December 15, 1943</td>
<td>$0.25</td>
<td>$102,000.00</td>
</tr>
</tbody>
</table>

$1.25 $5,100,000.00

The average net cost of producing copper after deducting gold, silver and zinc concentrate values was 10.28 cents a pound. This cost includes all operating costs, including Arizona taxes, Federal Social Security Taxes, depreciation and administrative expenses, but does not include any allowance for mine depletion, Capital Stock Tax, Federal Income and Excess Profits Taxes. The comparable cost for the year 1942 is 9.66 cents a pound. Including the bonus paid by the Government for production under its Premium Price Plan the company received for all copper produced in 1943 an average price of 12.79 cents a pound.

Publication of production statistics was prohibited in the report covering the year 1942. However, the Office of Censorship now permits such publication, and the production figures for both the years 1942 and 1943 appear in General Manager Dentzer’s report under the heading “Production”.

Mr. Harry T. Hamilton, who was elected a Director on March 17, 1943, died on February 5, 1944, after a brief illness. His wise and able counsel will be missed by your Directors.

On March 17, 1944, the Board elected Mr. Philip Kraft a Director to fill the vacancy caused by the death of Mr. Hamilton. Mr. Kraft is a mining engineer and geologist of wide experience in the United States and Canada and has been actively engaged in his profession for over twenty-five years.

Respectfully submitted,

CHARLES F. AYER, President.
GENERAL MANAGER’S REPORT

SUPERIOR, ARIZONA,
January 12, 1944.

Mr. Charles F. Ayer, President,
Magma Copper Company,
14 Wall Street,
Sew York 5, N. Y.

Dear Sir:

I submit the following report on operations of the Magma Copper Company for the year ending December 31, 1943:

PROPERTY

The Company owns 2,355,698 acres of lode mining claims, of which acreage 741,118 acres have been patented; 208,457 acres of mill sites, of which 181,037 acres have been patented; 346.15 acres of patented desert land; 365.13 acres of patented farm lands, 2 town lots in the original Townsite of Superior and 21 town lots in the First Addition to the Townsite of Superior.

MINE

Drifting, Raising, etc.:

The following is a resume in linear feet of the development work done during 1943 and since the Company started operations:

<table>
<thead>
<tr>
<th>Drifting</th>
<th>Raising</th>
<th>Sinking</th>
<th>Cross-Cutting</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 9 4 3</td>
<td>4,458</td>
<td>6,818</td>
<td>278</td>
<td>14,800</td>
</tr>
<tr>
<td>Total</td>
<td>173,828</td>
<td>92,160</td>
<td>29,511</td>
<td>377,767</td>
</tr>
</tbody>
</table>

During the year 385 cubic yards of rock was excavated in the cutting of stations and pockets. There was completed during the year 5,727 feet of diamond drilling.

Shaft Sinking:

No. 8 shaft was sunk 196 feet during the year and is now down to the 4820 level of the mine. West No. 14 winze was sunk 82 feet and is now down to the 4806 level of the mine. No sinking was done in any of the other shafts. In No. 8 shaft 10 linear feet of concrete was poured as additional support for the shaft bearing beams at the 4800 level.

Development:

Due to the shortage of labor it was necessary to drastically curtail the usual amount of development work early in the year.

The most important development work during the year was done on the following levels, namely: East 2000, West 3800, West 4200, West 4400, West 4600, West 4800 and the Koerner Vein.

East 2000 Level:

The East drift on the 2000 level was driven an additional 214 feet between East 25 crosscut and East 28 crosscut in low grade zinc-copper ore averaging 3.57% zinc and 2.50% copper for the entire distance. This drift was driven to facilitate the extraction of mineable zinc-copper ore occurring in this vicinity between the 2000 level and 1800 level.
West 3800 Level:
During the year 944 feet of drifting and crosscutting was completed on the West 3800 level. However, as this work was confined to a hanging wall drift and three crosscuts to the extraction drift no new ore was exposed.

West 4200 Level:
On the West 4200 level 85 feet of drifting was completed during the year. This work was all in the footwall of the vein and disclosed no new ore.

West 4400 Level:
During the year 472 feet of drifting and crosscutting was completed on this level. All of the drifting done was in that part of the vein to the east of West No. 14 crosscut which had been explored by diamond drilling during the previous year. No new ore was exposed.

West 4600 Level:
There was completed 1,721 feet of drifting and crosscutting and 952 feet of diamond drilling on the West 4600 level during the year. Up to January 1, 1944, 3,600 feet of vein, including the Main Vein and the North Branch, has been explored by drifting, crosscutting and diamond drilling. Out of 3,100 feet of Main Vein exposed by drifting 1,170 feet can be classed as mineable ore occurring in shoots varying from 20 feet to 260 feet in length. No crosscuts were driven across the vein on this level during the year. However, the vein was explored for its full width by diamond drill holes at 75-foot intervals for a distance of 1,100 feet between West No. 19 crosscut and West No. 33 crosscut. No drifting has been done to date on the North Branch of the vein on this level. However, the North Branch for a distance of 500 feet west of its junction with the Main Vein has been explored by diamond drill holes at 75-foot intervals. The results of the diamond drilling through both the Main Vein and the North Branch make it appear that the ore bodies on this level, while relatively short, do have a greater width than was disclosed by the drilling done during the previous year.

West 4800 Level:
During the year 678 feet of crosscutting was completed on the West 4800 level. This work was all done in driving West No. 14 crosscut from No. 8 shaft north to West No. 14 winze and from No. 8 shaft south through the Main Vein, which was cut 208 feet south of the shaft. The vein where cut was 10.3 feet wide and assayed 0.75% copper; trace ozs. silver, and no ozs. gold. No drifting was done on this level during the year.

Koerner Vein: (Approximately 1,200 feet south of the Main Vein on the 4000-foot level.)

3400 Level:
During the year Zero crosscut was driven to a point 883 feet south of No. 3 shaft where work was discontinued in May on account of the manpower shortage.

3800 Level:
During the year Zero crosscut was driven a distance of 242 feet to the south, and at 1,248 feet south of No. 3 shaft the Koerner Vein was crosscut. The vein where crosscut has a width of 11 feet and assayed 4.32% copper, 1.308 ozs. silver and 0.008 ozs. gold. There was 104 feet of drifting on the vein done to the west of Zero crosscut and 666 feet of drifting to the east of Zero crosscut as well as 68 feet of short crosscuts and 66 feet of diamond drilling. The total
drifting on the Koerner Vein on this level amounts to 770 feet, of which approximately 65 feet is in ore of average grade that will vary in width from 4 feet to 8.5 feet. However, there still remains approximately 675 feet of vein to be explored before the western limits of the ore body should be reached. Work on the vein on this level was discontinued in July because of the manpower shortage.

4000 Level:

During the year two more raises were driven on the vein from the 4000 level to the 3800 level. These raises, as did the two driven during 1942, showed that the mineable ore is not continuous vertically as areas of low grade vein material were exposed in each raise. A small amount of stoping was done on this level early in the year, but all work here was discontinued during July because of the manpower shortage.

4200 Level:

During the year Zero crosscut was driven to a point 1,054 feet south of No. 3 shaft, where work was discontinued in July because of the manpower shortage.

4400 Level:

Early in the year 25 feet of drifting was done on the Koerner Vein east of West No. 14 crosscut. The vein exposed east of this crosscut was of such low grade that work was discontinued until the vein has been prospected on the 4200 level.

Diamond Drilling:

The diamond drill hole drilled in a southeasterly direction from the face of Zero crosscut south of the Koerner Vein on the 4000-foot level was completed at a depth of 2,733 feet. This hole disclosed no ore nor any fissure of consequence.

As noted above, development work was greatly curtailed during the year, and the ore bodies found on the west end of the 4600 level continue to be relatively short and narrow. Long lengths of vein still remain to be explored on the lower levels of the mine, however, which will take a great amount of development work. Provided favorable costs and market conditions can be maintained the reasonably assured reserves at the present capacity are approximately the same as shown in last year’s report.

OPERATIONS

The mine operated continuously on production throughout the year.

In the first three months of the year stoping operations were carried on at approximately the same rate as during the last three months of 1942. Commencing with the latter part of March production slowly decreased until in October the tonnage mined reached a lower point than for any one full month’s operation since November, 1938. The drop in production was due principally to the continued loss of skilled employees to other higher wage paying war industries throughout the West, our inability to procure replacements for all of those that left, and the inexperience and, in many cases, the inefficiency of the replacements we did procure.

The War Manpower Commission Employment Stabilization Program was in effect in Arizona for the entire year. Under this program all new employees must be referred to us by the United States Employment Service, and all labor for the mine must be recruited through that agency. They have been unable to supply the manpower needed to operate the property at capacity. On December 31, 1942, we had 1,150 employees on the pay roll; on December 31, 1943, our pay roll had dwindled to 980 employees despite the fact that one hundred soldiers had been fur-
loughed by the Army during August and September for work in the Magma mine. By the end of April the manpower shortage was affecting production to the extent that it was deemed necessary to discontinue approximately sixty per cent of our development work and use the men thereby released in the stoping operations. Since then development work has been further curtailed for the same reason until, at the end of the year, development work was being done on a two-shift basis in only one drift and one shaft.

On the West side of the mine ore was stoped from the 1400 level to above the 3200 level. In the ore body west of No. 5 shaft ore was stoped from the 2650 level to above the 2250 level. On the East side of the mine some copper ore was stoped on the East 3200 level, East 3000 level and the East 2800 level. Zinc-copper ore was stoped on the East 2800 level, the East 2250 level, the East 2000 level, the East 1800 level, the East 1600 level and the East 1500 level. The amount of zinc-copper ore mined was approximately the same as mined in 1942, but the ore body of the higher grade material is now depleted to a point where the future ore mined will probably be of a lower grade.

The average copper grade of all ore mined during the year, including the zinc-copper ore, was one-tenth of one per cent lower than that mined during 1942. The drop in grade is caused mainly by dilution in the stopes due in turn to the great number of inexperienced miners we are now working.

Gold and silver values continue to decrease as more ore is mined from the lower levels. Also operating conditions are becoming increasingly more difficult due to heavier ground and higher rock temperatures on the lower levels.

Other than booster fans and one set of refrigeration coils no new equipment was installed.

**CONCENTRATOR**

With the exception of July 4th and Christmas Day the mill operated continuously throughout the year. Due to the shortage of ore only two sections of the copper mill operated during the month of October; during the balance of the year there were periods of a few days when one section of the copper mill was shut down for repairs or due to lack of ore.

The zinc section of the mill, except for minor shutdowns for repairs and one day each at July 4th and Christmas, operated continuously throughout the year. Considering the grade and character of the ore a fairly satisfactory zinc concentrate was made during the year. However, for the purpose of increasing the zinc and copper recovery in this section six additional flotation cells have been recently installed. As these cells have been in operation only a few days it is too early to determine how much improvement has resulted.

**SMELTER**

Smelter production was carried on continuously during the year except for the periods from April 4th to April 20th and from August 27th to September 9th when production was interrupted for major repairs to the furnace.

**PRODUCTION**

The Magma mine produced during the year 414,718 tons of ore, assaying 4.91% copper, 1.20 ozs. silver and 0.024 ozs. gold. In this tonnage is included 330,147 tons of copper ore, assaying 5.84% copper, and 84,571 tons of copper-zinc ore, assaying 1.27% copper and 7.89% zinc. There was mined during the year from the Company’s Superior mine 90 tons of siliceous gold ore, assaying 0.66% copper, 1.581 ozs. silver and 0.393 ozs. gold. There was purchased from shippers and treated at the smelter 768 tons of ore and concentrates. The smelter metal production for the year after deducting all losses, including refinery, was as follows:
In addition to the copper and zinc produced there was 1,135.05 long tons of manganese ore, assaying approximately 32.5% manganese, mined on the Company's property and shipped by lesers during the latter part of the year to Metals Reserve Company at Phoenix, Arizona, and Deming, New Mexico.

The production for the year 1942, the publication of which was not permitted last year, is shown below:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>From Magma Mine</td>
<td>40,390,671</td>
<td>547,396,01</td>
<td>12,818,090</td>
<td>7,315,034</td>
</tr>
<tr>
<td>From Superior Mine</td>
<td>7,020</td>
<td>360.77</td>
<td>277.776</td>
<td>—</td>
</tr>
<tr>
<td>From Other Sources</td>
<td>42,399</td>
<td>25,766.54</td>
<td>674.414</td>
<td>—</td>
</tr>
<tr>
<td>Total</td>
<td>40,440,090</td>
<td>573,523.32</td>
<td>13,770,280</td>
<td>7,315,034</td>
</tr>
</tbody>
</table>

MAGMA ARIZONA RAILROAD

The Magma Arizona Railroad operated a freight train twice weekly between Superior and Magma during the year.

GENERAL

The precipitation for the year was 17.08 inches, which is 2.89 inches greater than the 1942 precipitation and 1.39 inches less than the yearly average since 1920, prior to which time no rainfall records for Superior are available. It was again necessary to draw on the smelter storage reservoir several times during the year. It was not necessary, however, to pump any water from the Bilk Shaft.

My sincere thanks and appreciation are extended to the staff and all employees of the Company who have assisted in operations during the past year.

Respectfully submitted,

EDWARD G. DENTZER, General Manager.

TREASURER'S REPORT

New York 5, N. Y., March 17, 1944.

To the Stockholders of

MAGMA COPPER COMPANY:

For my report as Treasurer I submit Consolidated Statements of Magma Copper Company and Magma Arizona Railroad Company, as follows:

Consolidated Balance Sheet as at December 31, 1943
Consolidated Income and Expense Statement and
Consolidated Earned Surplus Statement for the year ended December 31, 1943.

Proxies will be requested for the annual meeting of the stockholders to be held on May 8, 1944. In connection with such request a proxy statement and form of proxy will be sent on or about April 10th to stockholders entitled to vote at the meeting.

Respectfully submitted,

H. E. DODGE, Treasurer.
Magma Copper Company and
CONSOLIDATED BALANCE SHEET

ASSETS

CURRENT ASSETS:
Cash ........................................ $4,002,507.70
United States Government Securities (Purchased at Par) . . . 1,470,000.00
Bonds of Domestic Corporations—at cost (Value based on Market Quota-
tions December 31, 1943, $72,093.75) .......................... 73,687.50
Accounts Receivable and Accrued Interest . 140,753.34
Inventories :
Metals (Copper at Contract Sales Price; Gold and Silver 
at Market Value) $466,216.56
Ores and Metals in Process—at cost 73,193.00
Materials and Supplies—at cost 730,708.20 1,270,117.76

Total Current Assets ........................................ $6,957,066.30

INVESTMENTS—at cost—Apache Powder Company etc. 10,200.00

PROPERTY ACCOUNTS:
Mining Claims and Land $1,013,224.49
Mine, Mill and Smelter Building-s, Machinery 
and Equipment 4,460,608.12
Standard Gauge Railroad 682,255.45

$5,142,863.57

Less—Reserve for Depreciation. 4,208,315.52 934,548.05 1,947,772.54

DEFERRED CHARGES:
Prepaid Development, less Amortization . $822,517.38
Unexpired Insurance, etc. 51,502.42 874,019.80

$9,789,058.64

REPORT OF INDEPENDENT

To the Board of Directors,
MAGMA COPPER COMPANY,
14 Wall Street,
New York, N. Y.

We have examined the Consolidated Balance Sheet of Magma Copper Company and Magma Arizona 
Earned Surplus for the year then ended, have reviewed the system of internal control and the accounting 
tested accounting records of the Companies and other supporting evidence, by methods and to the extent we 

The policy of Magma Copper Company with respect to depletion of Mining Claims and Land is to make 

In our opinion, the accompanying Balance Sheet and related Statements of Income and Expense and 
position of Magma Copper Company and Magma Arizona Railroad Company at December 31, 1943, and the 
accounting principles applied on a basis consistent with that of the preceding year.

New York, N. Y., March 14, 1944.
Magma Arizona Railroad Company
AS AT DECEMBER 31, 1943

LIABILITIES, CAPITAL, STOCK AND SURPLUS

CURRENT LIABILITIES:
Accounts and Wages Payable ........................................... $ 355,084.05
Accrued Taxes ......................................................................... 72561.68
Provision for Federal Income Tax-1943 ................................. $ 229,950.00
(Computations indicate the Companies are not liable for Excess Profits Tax)

Total Current Liabilities ....................................................... $ 657,595.73

CAPITAL, STOCK AND SURPLUS:

Capital Stock—Par Value $10.00 per share:
Authorized — 410,000 shares .................................................. $4,100,000.00
Issued — 408,155 shares ......................................................... $4,081,550.00
Less — 155 “ held in Treasury (Cost $1,149.13) ...................... 1,550.00

Outstanding — 408,000 shares ................................................. $4,080,000.00

Capital Surplus (Arising through the conversion of Capital Stock from a no par value to a par value of $10.00 per share) ................................................................. 2,922,600.87
Earned Surplus—without provision for Depletion of Mining Claims and Land .......... 2,128,862.04 9,131,462.91

$9,789,058.64

CERTIFIED PUBLIC ACCOUNTANTS

Barrow, Wade, Guthrie & Co.,
Accountants and Auditors.

Railroad Company as at December 31, 1943, and the Consolidated Statements of Income and Expense and procedures of the Companies and, without making a detailed audit of the transactions, have examined or deemed appropriate.

no provision in the accounts, the factors necessary for such determination being unknown.

Earned Surplus, with no provision for depletion of Mining Claims and Land, present fairly the consolidated consolidated results of operations for the year ended that date, in conformity with generally accepted
MAGMA COPPER COMPANY
AND
MAGMA ARIZONA RAILROAD COMPANY

CONSOLIDATED INCOME AND EXPENSE STATEMENT

FOR THE YEAR ENDED DECEMBER 31, 1943

SALES OF METALS—Copper, Gold, Silver, Zinc Concentrates (Including Premium for Base Metal Production) 

$6,409,851.87

COST OF SALES:

Inventories of Metals and Ores-January 1, 1943 $674,079.41
Operating Expenses $4,880,949.49
Depreciation and Amortization 190,337.24
Taxes-other than Federal Income Tax 202,788.31

$5,948,154.45

Copper Company—Net Operating Income $1,001,106.98

GENERAL, ADMINISTRATIVE AND ENGINEERING EXPENSES:

Administrative and Engineering Expenses $40,426.91
Directors’ Fees and Expenses 1,154.80
Rent, Clerical Services, etc. 15,000.00
Transfer, Registrars and Dividend Disbursement Expenses 7,895.72
Other General Expenses 7,019.49

71,496.92

OTHER INCOME:

Cash Dividends $4,740.00
Interest 7,737.67
Net Profit on Sale of Securities 27,200.97
Miscellaneous 2,905.62

42,584.26

Copper Company—Net Profit before Provision for Federal Income Tax $972,104.32

RAILROAD OPERATING INCOME

$95,010.97

RAILROAD EXPENSES:

Operating Expenses $82,872.93
Depreciation 8,317.74
Taxes-other than Federal Income Tax 7,860.34

99,051.01

Railroad—Net Operating Loss $4,040.04

OTHER INCOME:

Interest $9,653.20
Miscellaneous 150.00

9,803.20

$5,763.16

OTHER DEDUCTIONS:

Loss on Sale of Securities 25,144.26

Railroad—Net Loss before Provision for Federal Income Tax $19,381.10

PROVISION FOR FEDERAL INCOME TAX 1943—NORMAL AND SURTAX—Estimated $952,813.22

Net Profit for year without Provision for Depletion of Mining Claims and Land $722,863.22
### Magma Copper Company and Magma Arizona Railroad Company

**Consolidated Earned Surplus Statement**

**For the Year Ended December 31, 1943**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Balance - January 1, 1943</strong></td>
<td>$1,902,392.50</td>
</tr>
<tr>
<td><strong>Add:</strong></td>
<td></td>
</tr>
<tr>
<td>Net Profit for year, without Provision for Depletion.</td>
<td>$722,863.22</td>
</tr>
<tr>
<td>Excess provision for Federal Income Tax for 1942.</td>
<td>1,606.32</td>
</tr>
<tr>
<td>Adjustment of Reserve for Depreciation of the Railroad Company for prior years per agreement with the Interstate Commerce Commission</td>
<td>12,000.00</td>
</tr>
<tr>
<td></td>
<td>736,469.54</td>
</tr>
<tr>
<td><strong>Deduct—Dividends declared and paid during year—$1.25 per share</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>510,000.00</td>
</tr>
<tr>
<td><strong>Balance - December 31, 1943</strong></td>
<td>$2,128,862.04</td>
</tr>
</tbody>
</table>