UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE

Terminated (or cancelled) without certification. DMEA No. 2463

This is the official contract file containing all official records of the project. Duplicate material has been removed. The records contained in the files are checked and are arranged in this manner:

Left Side

Certificate of Audit (Final).

Interim Audit(s).

Report of Review.

Termination Notice, or Agreement.

✓ Recision Notice.

Assignment of Contract.

✓ Contract Amendments (latest on top).

✓ Contract with all exhibits and annexes.

✓ Owner's Consent to Lien.

✓ Subordination Agreement.

✓ Leases and assignments of leases.

✓ Application and attachments.

Schedule of Collections.

Operator's monthly reports and all attachments (latest on top).

Right Side

Project summary.

Work completed analysis.

All other material is filed in chronological order with correspondence including the following reports as checked:

Final Field Team Report. (Tab)

Operator's Final Report.

✓ Interim Reports.

✓ On-site Exam Report(s). (Tab)

Settlement Sheets.

If additional folders are required because of volume of records, show folder numbers and contents below:

Maps in folder number _____

Operator's Monthly Reports in folder number _____

WNC
Reviewer's Initials

500 115

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

Keating
Lamel
McKane
Rubin

AUG 11 1953

Mr. Ralph R. Langley, President
Arizona Metals Company
1156 South Highland Avenue
Los Angeles 19, California

Re: Docket No. DMEA 2463 (Lead-Zinc)
Summit Mine
Mohave County, Arizona
Contract No. Idm-E390

letter of recision

Dear Mr. Langley:

This refers to your letter of August 1, 1953, relative to a termination of the cited contract. We find that as a result of an inspection of your project on July 9, 1953, by our field engineers no work was being conducted, nor has work of any significance ever been performed, although almost one year has passed since the execution of your contract.

From the information you have given us, it is evident that you have no definite plans for the future. Accordingly, it becomes necessary to give notice to you that Exploration Project Contract Idm-E390, Docket No. DMEA-2463, dated August 25, 1952, shall be and is hereby rescinded, revoked, and cancelled as of the date of the contract, before any actions have been taken or costs incurred thereunder, without any obligation whatever one party to the other, the same as if said contract had never been entered into.

Sincerely yours,

SIGNED

Administrator

AGKeating/hmj
(8/7/53)
CC to: Docket
Adm. Reading File
Operating Committee
Base Metals Division (2)
Finance Office
Region IV (2)
Chief Counsel
Mr. Bishop
Mr. Kinkel
Mr. Chambers
Chron.
Pending

No. 1

AMENDMENT OF CONTRACT: No. Idm-E390

Contract Docket No. DMEA 2463, dated August 25, 1952, between the United States of America and Arizona Metals Company is hereby amended as follows, effective as of the date of said contract.

> Referring to "Article 3. Exploration Project" of Exploration Project Contract Form MF-200(A), following the words "The operator, within", delete - 60 - and in lieu thereof substitute - 90 - .

This amendment shall not be construed to increase the estimated total cost of the project, the amount of the Government's contribution, or any item of allowable cost which is expressly designated "allowable maximum".

Dated November 3 1952.

ARIZONA METALS COMPANY

By Ralph R. Langley
Ralph R. Langley, President

UNITED STATES OF AMERICA

By W. H. King
Executive Officer, DMEA
Field Team, Region IV

Attest

MF-200 (A)
(February 1952)

DOCKET NO. DMEA 2463

COMMODITY Lead-Zinc

Idm-E390

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

GOVERNMENT COPY

EXPLORATION PROJECT CONTRACT[1]

(Short Form)

IT IS AGREED this 25th day of August, 1952, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and[2] Arizona Metals Company : an Arizona corporation
Box 1266
Kingman, Arizona

hereinafter called the "Operator," as follows:

ARTICLE 1. *Authority for contract.*—This agreement is entered into under the authority of the Defense Production Act of 1950, as amended, pursuant to DMEA Order 1 entitled "Government Aid in Defense Exploration Projects."

ARTICLE 2. *Operator's property rights.*—With respect to that certain land situated in the State of Arizona, County of Mohave, described as follows:[3]
The "Summit" mining claim recorded in Book 19, page 539 and the "Silver Monster" mining claim recorded in Book 16, page 531-534, both being of record in the Office of the County Recorder, Mohave County, Arizona

the Operator represents and undertakes:[4]

~~(a) That the Operator is the owner in possession and entitled to possession, and that the property is subject only to the following exceptions, encumbrances, and conditions, as to each of which the subordination agreement of the holder is attached:~~

Landlord's Subordination Agreement

(*b*) That the Operator is a lessee, in possession and entitled to possession, and ~~the owner's consent is attached~~ is attached.

The Operator shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of the exploration project without any allowance for the use, rental value, depreciation, depletion, or other cost of acquiring, owning, or holding possession thereof.

ARTICLE 3. *Exploration project.*—The Operator, within - 60 - days from the date of this contract shall commence work on a project of exploration for[5] lead and zinc

in or upon the described land; and shall bring the project to completion within a period of 9 months from the date of this contract. The work to be performed is more fully described in Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, are made a part of this contract. The Government will contribute to the cost of this work as hereafter provided. The work shall be performed by the Operator or by independent contractor or contractors efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for workmen's compensation and employers' liability insurance, with suitable and adequate equipment, materials, and labor, to bring the project to completion within the time fixed. The Government shall have the right to enter and observe and inspect the work at all reasonable times, and the Operator shall provide the Government with all available means for doing so. The Government may consult with and advise the Operator on all phases of the work.

ARTICLE 4. *Costs of the project.*—The agreed, estimated costs of performing the work, expressed in terms of units of work to be performed (per foot of drifting, per foot of drilling, per cubic yard of material to be moved, etc.) are set forth in Exhibit "A," attached hereto. The Government will pay 50 percent of these agreed, estimated costs, as they accrue, for units of work actually performed that conform with the description or specifications for the work set forth in this contract, in an aggregate total amount not in excess of $23,050, which is 50 percent of $46,100, the agreed, estimated total cost of the project in which the Government will participate: *Provided,* That until the Operator's final report and final accounting have been rendered to the Government and any final check or auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last voucher or vouchers such sums as it sees fit not in excess of ten (10) percent of the maximum total which the Government might have been obligated to pay under the terms of the contract. The Government may, as it sees fit, make payments direct to the Operator's contractors, if any, for the account of the Operator, rather than to the Operator.

ARTICLE 5. *Reports, accounts, audits.*—(*a*) *Progress reports.* The Operator shall provide the Government with monthly reports of work performed under the contract, in quintuplicate (five copies), upon forms provided by the Government. Such reports shall be certified by the Operator, and shall constitute both the Operator's invoice of units of work performed on the project during the period covered by the report and his voucher for repayment by the Government, unless the Government requires the use of a standard voucher form with invoice attached. Progress reports shall include surface and/or underground engineering-geological maps or sketches showing the progress of the exploration, with assay-reports on samples taken from any part of the advance in mineralized ground.

[1] If space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] Name, address, and nature of organization if any.
[3] Description or enough to identify the property, particularly excluding any land or interest therein to which the Government's lien is not to be subject, or production from which is not to be subject to the Government's percentage royalty.
[4] Strike the provision not applicable.
[5] Name of mineral or minerals.

16—66329-1

(*b*) *Final report.*—Upon completion of the exploration work or termination of the contract the Operator shall provide the Government with an adequate geological and engineering report, in quintuplicate (five copies), including an estimate of ore reserves resulting from the exploration work.

(*c*) *Compliance with requirements.*—If, in the opinion of the Government, any of the Operator's reports are insufficient or incomplete, the Government may procure the making or completion of such reports and attachments as an expense of the exploration work; and the Government may withhold approval and payment of any vouchers depending upon insufficient or incomplete reports.

(*d*) *Accounts and audits.*—The Operator shall keep suitable records and accounts of the units of work performed, which the Government may inspect and audit at any time. The Government may at any time require a check of the work performed and an audit of the Operator's records and accounts, by a certified public accountant or otherwise, the cost thereof to be treated as a cost of the project. The Operator shall keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract. Upon the completion of the project or termination of the contract the Operator shall render a final account and statement of work performed to accompany his final report.

ARTICLE 6. *Repayment by Operator.*—(*a*) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than 6 months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) percent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) percent of any such net amounts, plus one-half (½) percent of such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such net amounts.

(For instance: The percentage royalty on a net amount of five dollars ($5.00) per ton, would be one and one-half (1½) percent; on a net amount of ten dollars ($10.00) per ton, three and one-half (3½) percent.)

(*b*) As here used, "net smelter returns," "net concentrator returns," and "other net amounts realized from the sale or other disposition," mean gross revenue from sales, or if not sold, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be the gross income from mining operations for percentage depletion purposes in income-tax determination.

(*c*) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(*d*) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

ARTICLE 7. *Assignment, transfer, or loss of Operator's interest.*—Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder. The Operator shall not make any voluntary nor permit any involuntary transfer or conveyance of the Operator's rights in the land described in Article 2, without making suitable provision for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof; *Provided,* that mere failure by the Operator to maintain the Operator's rights in the land, without any consideration running to the Operator other than relief from the cost of maintaining such rights (as by surrender of a leasehold, failure to perform assessment work, or failure to exercise an option), coupled with complete abandonment by the Operator of all interest in or operations on the land for a period of 10 years from the date of this contract, shall not constitute such a transfer or conveyance. Should the Operator make or permit any transfer or conveyance in violation of this provision, the Operator shall be and remain liable for payment to the Government of the same amounts, at the same times, as would have been paid under the terms of the percentage royalty on production. If for any reason the net smelter returns, net concentrator returns, or other net amounts realized from the sale or other disposition of such production are not available as a means of measuring the amount of the Operator's liability, the amount thereof shall be estimated as well as may be, and in the event of dispute as to such estimates, the determination thereof by the Administrator of Defense Minerals Exploration Administration or by his successor shall be final and binding upon the Operator.

ARTICLE 8. *Termination and completion.*—The Government may, at any time, by written notice to the Operator, terminate this contract: (*a*) If the Operator fails to provide his share of the money necessary to prosecute operations pursuant to the terms of the contract; (*b*) if the Operator, in the opinion of the Government, fails to prosecute operations pursuant to the terms of the contract; or (*c*) if, in the opinion of the Government, operations up to the time of the notice have not indicated the probability of making any worth while discovery and in the opinion of the Government further operations are not justified.

ARTICLE 9. *Changes and added provisions* _____

Executed in sextuplicate the day and year first above written.

ARIZONA METALS COMPANY

(Operator)

By Ralph R. Langley, President

THE UNITED STATES OF AMERICA

By W. H. Ring

Executive Officer, DMEA
Field Team, Region IV

I, Ralph R. Langley Jr., , certify that I am the _____ secretary of the corporation named as Operator herein; that Ralph R. Langley President of this contract on behalf of the Operator, was then that said contract was duly signed for and in behalf of said corporation by authority of its governing body, scope of its corporate powers.

Ralph R. Langley Jr.

U. S. GOVERNMENT PRINTING OFFICE 16—66329-1

EXHIBIT A

Description of the Work

The project consists of drifting 1,000 feet in a southeasterly direction on the Summit vein on the lower adit level. The drifting will be accompanied by long hole drilling in the walls to explore the entire width of the mineralized zone.

When part or all of the drifting is completed, 200 feet of raises may be driven from the drift. The location and extent of the raises must be acceptable to the DMEA representative. The raises are not authorized unless prior approval in writing is obtained from the DMEA representative.

The location of the vein in relation to the property lines is shown on Figure 2.

The location of the proposed drift, and the tentative location of a raise is shown on Figure 3.

Estimated Cost of the Project

1000 feet of drifting @ $38.30 per foot (includes cost of percussion long hole drilling in walls of drift)	$38,300.00
200 feet of raising at $39.00 per foot	$7,800.00
Total Cost -	$46,100.00
Government's participation at 50%	$23,050.00

MF-202

LANDLORD'S SUBORDINATION AGREEMENT

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, the undersigned is the owner in fee simple of that certain parcel of ground in the county of Mohave, State of Arizona, described in a certain Exploration Project Contract dated August 25, 1952, between Arizona Metals Company, the Lessee of said property, and the United States of America;

NOW, THEREFORE, the undersigned, as Lessor of said property under lease dated Sept 1st, 1940, does by these presents subordinate all of his right, title, and interest under the provisions of said lease to the right, title, and interest of the United States of America under the provisions of said Exploration Project Contract, and agrees that the lien and claim of the United States of America under the provisions of said contract shall be prior to the undersigned's rights to rentals or royalties under the terms of said lease; and

The undersigned further agrees that if said leasehold interest should be surrendered or if said lease should terminate at any time prior to the expiration of the rights of the United States of America under said Exploration Project Contract, the undersigned shall assume and does hereby assume all of the obligations of the Lessee under said Exploration Project Contract to make repayment to the United States of America according to the terms of said contract; and

The undersigned agrees to commit no act, nor assert any claim under judicial process or otherwise that may contravene or conflict with the prior lien and claim of the United States of America under the provisions of said Exploration Project Contract.

This undertaking and covenant shall be binding upon the heirs, successors, and assigns of the undersigned.

Dated this 24th day of March, 1952

L. L. ROBINSON ESTATE COMPANY

Mary A. Robinson
President

Virgil W. Duren Jr.
Secretary

U. S. GOVERNMENT PRINTING OFFICE 940768

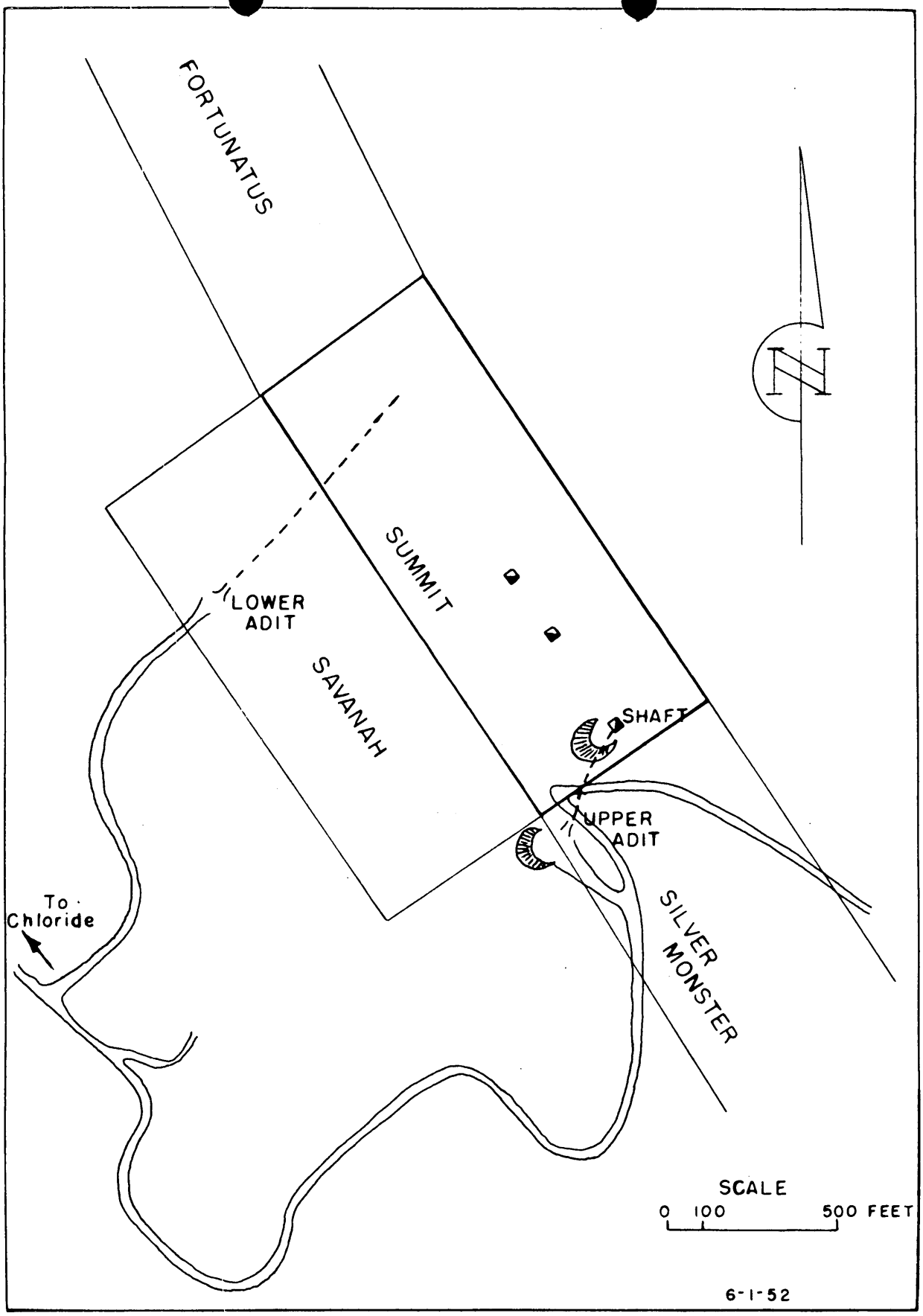


FIG. 2 — Claim Map, Summit Mine, Mohave County, Ariz.
DMEA 2463

MF-203

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of Arizona, County of Mohave, described as follows:1/

Fortunatus Lode Mining Claim, U. S. Patent 3005 whereof is of record in the office of the County Recorder of Mohave County, Arizona, in Book 23 of Deeds, pages 230-231, records of Mohave County, Arizona,

which is the subject of a proposed exploration project contract, hereinafter called the "contract", between the United States of America, hereinafter called the "Government", and

2/ Arizona Metals Company, an Arizona corporation,

hereinafter called the "Operator"; and

WHEREAS, under certain provisions of said contract which are set forth on the reverse side hereof, the Government is entitled to a percentage royalty on production and to certain other rights and equities which do or may conflict with or be adverse to the interest of the undersigned in said property;

NOW THEREFORE, the undersigned, in consideration of said contract and as an inducement to the Government to enter into same, undertakes and agrees as follows:

1. The Government's equity in and right to dismantle, sever, take possession of, and remove and dispose of facilities, buildings, fixtures, equipment, or other items as provided in the contract, or any amendment thereof, shall prevail over and be prior and superior to any conflicting or adverse rights of the undersigned, and the Government is authorized to enter upon the land for such purposes.

2. To secure the payment to the Government of the percentage royalty on production3/ provided for under the terms of said exploration project contract, or any amendment thereof which does not increase the maximum amount of the Government's claim here stated or alter the provisions for repayment, there is hereby granted to the Government a lien upon the land herein described and upon any production of minerals therefrom, until the royalty claim is fully paid in the amount of the Government's contribution, not in excess of 4/$50,000.00, or ten years have elapsed from the date of the contract.

3. The undersigned shall commit no act nor assert any claim that may contravene or conflict with the lien, claim, or rights of the Government under the provisions of said contract. This agreement shall be binding upon the heirs, executors, administrators, successors, and assigns of the undersigned.

Dated this 17 day of February, 195 3.

Leon S Godshall [Seal] Elizabeth Godshall Bonner

[illegible] [Seal]

Trustees of the Trust of William A. Godshall, Deceased [Seal] Marilyn Godshall Hewitt

1/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [or contract, deed, or other document] dated _____, and recorded in book _____ page _____ official records of said county." If (b) is used, the book and page of recordation cannot be dispensed with. If the space provided is insufficient, use an Annex, and refer to the Annex in the space.

2/ Insert the name of the Operator as it will appear in the exploration project contract.

3/ Mining or production from the land is not required, and in the absence of production there is no obligation to repay the Government.

4/ Insert the maximum amount of the Government's contribution.

RELEVANT CONTRACT PROVISIONS

Repayment by Operator. (a) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than six months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) per cent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) per cent of any such net amounts, plus one-half (½) per cent such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) per cent of such net amounts.

(For instance: the percentage royalty on a net amount of five dollars ($5.00) per ton, would be one and one-half (1½) per cent; on a net amount of ten dollars ($10.00) per ton, three and one-half (3½) per cent.)

(b) As here used, "net smelter returns", "net concentrator returns", and "other net amounts realized from the sale or other disposition", mean gross revenue from sales; or if not sold, the market value, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be gross income from mining operations for percentage depletion purposes in income tax determination.

(c) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(d) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

Title to and disposition of property. All facilities, buildings, fixtures, equipment, or other items costing more than $50.00 each, paid for or purchased with funds contributed jointly by the Operator and the Government, although title may be taken in the name of the Operator, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the completion of the work or the termination of the contract shall be disposed of promptly by the Operator for the joint account of the Government and the Operator, either by return to the vendor, by sale to others, or purchase by the Operator at a price at least as high as could otherwise be obtained, as may appear to be for the best interest of the Government, unless the Government, in writing, waives its interest in any such item. If necessary to accomplish such disposition, the Operator shall dismantle, sever from the land, and remove any such item, the cost thereof to be for the joint account of the parties in proportion to their respective interests. If the Operator, within 90 days after the receipt of written notice from the Government, fails, neglects, or refuses to dispose of such property, the Government may itself enter upon the land, take possession of, and remove and dispose of any such property as above provided.

Ex D

MINING LEASE

LEON D. GODSHALL and M. KINZIE MILLER, Trustees of the Trust of William A. Godshall, Deceased, ELIZABETH GODSHALL BONNER and MARILYN GODSHALL HAWORTH,

Lessor

To

ARIZONA METALS COMPANY,
a corporation,

Lessee

Dated as of February 11, 1953

- -

STATE OF CALIFORNIA)
) ss
COUNTY OF LOS ANGELES)

I, LOUISE H. HAMILTON, a Notary Public in and for the County of Los Angeles, State of California, have done the actual typing on this copy of mining lease between the lessor and Arizona Metals Company, said lease containing twenty-one (21) pages and this title page, and I have carefully compared the typing with the original lease. Therefore, I do hereby certify that this is a true and correct copy thereof.

Dated at Los Angeles, California, this 17th day of February, 1953.

Louise H. Hamilton
Notary Public in and for the County of Los Angeles, State of California

My Commission Expires August 21, 1953

MINING LEASE

THIS LEASE, made and entered into this 11th day of February, 1953, by and between LEON D. GODSHALL and M. KINZIE MILLER, trustees of the trust of William A. Godshall, deceased, ELIZABETH GODSHALL BONNER and MARILYN GODSHALL HAWORTH, hereinafter designated as "Lessor," and ARIZONA METALS COMPANY, a corporation organized and existing under the laws of the State of Arizona, with its principal place of business at Kingman, Arizona, hereinafter designated as "Lessee,"

W I T N E S S E T H:

For valuable consideration, receipt of which is hereby acknowledged, moving between the parties and in consideration of the promises and covenants of the parties hereto, it is mutually stipulated, understood and agreed as follows:

ARTICLE I

GRANTING CLAUSES

Section 1. Description of Claims and Grant. For and in consideration of the royalty and payments hereinafter to be made by the Lessee to the Lessor and the performance of the terms, covenants and agreements by the Lessee to be performed, Lessor has demised and leased and by these presents does demise and lease unto the Lessee the following mining

property situated in the Wallapai Mining District, County of Mohave, State of Arizona, and described as follows, to wit:

> Fortunatus Lode Mining Claim located in Sections 29 and 32, Township 23 North, Range 17 West of the Gila and Salt River Meridian, U. S. Patent whereof is of record in the office of the County Recorder of Mohave County, Arizona, in Book 23 of Deeds, pages 230-231, records of Mohave County, Arizona,

and appurtenances, together with the right and privilege to enter into and upon the above described premises or any part thereof and to work and operate the same and to extract therefrom, reduce, ship, sell and treat all ores and values found in or upon or contained in said claim.

Section 2. Term of Lease. The term of this lease shall be for a period of fifteen (15) years from date hereof, expiring at noon on the 15th day of January, 1968, unless sooner forfeited, surrendered or terminated under the terms and conditions hereinafter set forth.

In consideration of such demise and lease, the Lessee does covenant and agree with the Lessor as follows:

ARTICLE II

COVENANTS CONCERNING ROYALTIES

Section 1. Basis of Computation. Lessee covenants and agrees to pay to Lessor at Los Angeles, California, royalties on all ores extracted and sold or removed from the demised premises, which royalties shall be computed as follows:

(a) On all ores having a market value of $10.00 or less per ton, five per cent (5%) of the net amount received by Lessee.

(b) On all ores having a market value in excess

of $10.00 but not more than $20.00 per ton, seven and one-half per cent (7½%) of the net amount received by Lessee.

(c) On all ores having a market value of $20.00 but not more than $30.00 per ton, ten per cent (10%) of the net amount received by Lessee.

(d) On all ores having a market value in excess of $30.00 but not more than $35.00 per ton, twelve and one-half per cent (12½%) of the net amount received by Lessee.

(e) On all ores having a market value in excess of $35.00 but not more than $50.00 per ton, fifteen per cent (15%) of the net amount received by Lessee.

(f) On all ores having a market value in excess of $50.00 per ton, twenty per cent (20%) of the net amount received by Lessee.

Section 2. Definition of "Market Value" and "Net Amount Received by Lessee." The term "market value" as used in subdivisions (a) and (f), inclusive, in the foregoing Section 1, shall be deemed to mean the pay off value of all metals contained in each lot as shown by smelter or custom mill settlement sheets at the time and place when and where ores are milled, treated and settled for; and the term "net amount received by Lessee" shall mean the said pay off proceeds as shown by smelter and custom mill settlement sheets, less the deductions as specified in the following Section 3.

Section 3. Government Subsidies and Other Deductions.

(a) In computing royalties payable to Lessor under

the provisions of the foregoing Section 1 of this Article II, any premiums, subsidies or bonuses which may be allowed and paid by the Federal Government on ores produced from the demised premises shall not be included in the amounts payable to Lessor, Lessee shall be entitled to deduct from the gross returns from the sale or other disposition of ores mined from the demised premises, or concentrates produced therefrom, the following:

(1) Actual transportation charges, rail and truck, as the case may be, not to exceed the going rate of charges customarily payable in the district from the mine to the place where marketed or milled by Lessee.

(2) Smelter and custom mill charges and any penalties imposed in the usual and customary practice. In the event ores are milled at a mill owned or operated by Lessee, the mill charges deductible under this subdivision (b) shall not exceed the mill charges customarily paid in the district in which such mill is located.

(3) Severance, sales or similar taxes (Federal and State) imposed upon the mining operations or ores produced and sold therefrom.

Section 4. Royalties Payable on Separate Lots. Lessee covenants and agrees that settlement for all ores shipped in railroad cars shall be made separately on each car lot in accordance with settlement sheets furnished Lessee by the smelter or custom mill. Settlements for all ores transported by truck or by other means than in railroad cars, milled and treated by local custom mills or by a mill

owned or operated by Lessee, shall be made in such lots of ore as the concentrates produced therefrom will correspond as near as may be with car lot shipments of ore, each such lot to be identified, assayed and valued in the customary manner for accounting purposes, and the value thus fixed shall be used in computing the royalties to be paid under the foregoing Section 1.

Section 5. Reports to Lessor. Lessee covenants and agrees to furnish Lessor with copies of the smelter or custom mill settlement sheet for each lot mined and shipped, showing the number of tons, the market value as hereinabove defined of the ore in each such lot, and the net amount payable to the Lessee therefor. In the event Lessee crushes and treats ores in a mill owned or operated by it, Lessee shall furnish Lessor certificates executed by an officer of the Lessee showing weights and market values of each separate lot in substantially the same form furnished by smelter or custom mill settlement sheets, as hereinabove provided.

Section 6. Reports and Payments. Lessee covenants and agrees to furnish Lessor smelter and/or mill settlement sheets within ten (10) days after the same are received by Lessee, accompanied by payment of royalties due covering all ores shipped to independent mills or smelters.

On all ores crushed and treated at a mill owned or operated by it, Lessee covenants and agrees to furnish Lessor certificates executed by one of its officers showing weights and values of each separate lot, as above in Section 4 defined, when the concentrates are produced therefrom,

which certificates shall further state the date of shipment and the name of the purchaser of such concentrates; and within ten (10) days after receipt of payment therefor Lessee shall furnish Lessor with customary settlement sheets and remit the royalties payable with respect to each lot so shipped, or to request the smelter or custom mill to furnish directly to the Lessor copies of the settlement sheets upon the Lessor's requesting the same of the Lessee.

ARTICLE III

GENERAL COVENANTS OF LESSEE

Section 1. Payment of Taxes. Lessee covenants and agrees that it will, at least five (5) days prior to delinquency, pay all general and special taxes assessed against the demised property and the improvements thereon or therein, as well as all franchise and other governmental taxes or charges necessary to maintain its corporate existence.

Section 2. Licenses. Lessee further covenants and agrees that it will obtain and maintain all Federal and State licenses necessary to conduct its mining operations on the demised premises, and that it will in a timely manner file with the proper bureau or department of the Federal or State government all returns and reports, and will pay any sales or other taxes required under any present or future law respecting its mining operations and the income or products derived therefrom.

Section 3. Work Requirements. Lessee is also the lessee under a lease dated September 1, 1949, with L. L. Robinson Estate Company, as lessor, covering the Summit and other claims described in said lease. The Summit claim lies

immediately to the east of and adjoins the Fortunatus claim. Lessee has, under said lease and other prior leases on claims generally known as the Summit workings, caused to be driven a crosscut tunnel approximately 900 feet in length and approximately 450 to 500 feet below the visual outcrops of the so-called Summit vein at the original shaft located on the Summit claim, which crosscut tunnel is hereinafter referred to as the lower Summit crosscut tunnel. Lessee has also caused a drift tunnel to be driven from the intersection of said crosscut tunnel with the so-called Summit vein at the said crosscut level to the west to a distance of approximately 150 feet from the easterly end of the Fortunatus claim, which drift tunnel is referred to herein as the "west drift." Lessee undertakes to make application within sixty (60) days from the date of this lease to obtain from the Defense Minerals Exploration Administration, pursuant to DMEA Order - 1 under the Defense Products Act of 1950, and amendments thereto, for a contract or contracts with said government agency for the contribution by the United States Government for exploration work of not less than 600 feet of tunneling or drifting on the Fortunatus claim. Lessee agrees within sixty (60) days after obtaining said contract or contracts from said Defense Minerals Exploration Administration, but not later than twelve (12) months from the date of this lease, to commence such exploration work and to pursue said exploration work diligently in accordance with said proposed contract or contracts with the Defense Minerals Exploration Administration. Lessee further undertakes and agrees to complete drifting work to the west end line of the Summit claim within twelve (12) months from the date of this lease. Lessee further agrees to furnish Lessor with copies of all such applications for such contracts and

copies of the contracts entered into with said Defense Minerals Exploration Administration for the exploration of the Fortunatus Mining Claim and the westerly 175 feet of the Summit Mining Claim. Lessee also agrees to furnish Lessor with copies of all reports as to the nature and extent of the progress and work being done pursuant to said contract or contracts entered into with the Defense Minerals Exploration Administration for the exploration of said Fortunatus Mining Claim and/or the westerly 175 feet of the Summit Mining Claim.

Lessee undertakes and agrees to cause to be driven within two (2) years from the date of this lease a drift tunnel along the Fortunatus vein on the same level as the lower Summit crosscut and present "west drift" for a distance of not less than 600 feet from the easterly end line of the Fortunatus Mining Claim.

If Lessee fails to obtain a contract or contracts with the Defense Minerals Exploration Administration within a period of eight (8) months from the date of this lease for the proposed exploration work provided for in this Section 3, then either party shall have the right to terminate this lease upon thirty (30) days' notice to the other.

Section 4. General Work Requirements. Lessee further covenants and agrees to operate the mining claim covered hereby in a safe and miner-like manner necessary to good and economical mining so as to take out the greatest amount of ore practicable with due regard to the exploration and preservation of the same as a working mine; to occupy and hold all cross or parallel veins, lodes, spurs or mineral deposits of any kind which may be discovered by the Lessee or any person under it in any manner, by working within or from

the demised ground as the property of said Lessor, with the privilege of Lessee working the same as a parcel of said demised premises, and to diligently develop and mine all veins and/or mineral deposits as appear capable of producing ores in paying quantities.

Section 5. Construction and Maintenance of Road. Lessee further covenants and agrees that it will construct, and maintain at all times, suitable roads providing ingress and egress to the demised claim as in its opinion shall be necessary for the proper operations of said mining claim and that it will at all times permit the Lessor, its attorneys or authorized agents, to enter upon and into all parts of the demised premises and the roads, tunnels, drifts, shafts and passageways of the premises being leased by the Lessee from L. L. Robinson Estate Company, or other lessors, which are being operated by the Lessee in connection with the operations of the demised premises, for the purposes of inspection of the demised premises, of taking samples or making surveys, with the free use of all passages, ropes, windlasses, ladders, hoists, elevators, trams and all other facilities for ingress and egress for such purposes.

Section 6. Delays Occasioned by Cause Beyond the Control of Lessee. Whenever Lessee is prevented by the acts of nature and/or public enemy, strikes, riots, fires, power failure, interference with and prevention of transportation beyond the control of Lessee, or by reason of an order, judgment or decree of any court when not issued or obtained at the instance of Lessee, or for its benefit, or by governmental regulation or by act of any public officer, when not at the instance of Lessee, in the production, milling,

treating and/or processing of ore or the shipping of ore from the demised premises by Lessee, or if market prices of metals over a ninety (90) day period will not permit the mining operations hereunder to yield a reasonable profit and Lessee shall certify in writing to Lessor the existence of the particular circumstance which is precluding Lessee from complying with the covenants of this lease relating to its mining operations, then and in that event, and for the period during which Lessee, on account of one or more of the events hereinabove specified in this Section 6, is prevented from performing its obligations under the terms hereof, the covenants to perform hereunder shall be suspended for the period, but only for the duration of the period, when Lessee is so prevented, but in no event shall such suspension remain in effect beyond the period specified in such certificate.

The term "reasonable profit" as used in this Section 6 shall be deemed to mean the net amount received by Lessee as defined in Section 2 of Article II hereof which would yield to Lessee a return of not less than two dollars and fifty cents ($2.50) on each ton of ore shipped and milled over and above the deductions provided for in Section 3 of Article II, taxes and mining, milling and operating costs.

In the event Lessee shall certify to Lessor that it has suspended mining operations under the foregoing provisions of this Section 6 by reason of the failure of such operations to yield a return of not less than two dollars and fifty cents ($2.50), as determined above, Lessee shall furnish Lessor with a detailed statement showing the anticipated net return on each ton of ore to be mined and shipped, based upon the then market value and the deductions as provided in Section 2 of Article II hereof, taxes and mining,

milling and operating costs. In addition to the right to terminate this lease for the failure to operate said mining claim, as herein in this Section 6 contained, in the event Lessor shall disagree with the showing of the anticipated profits, as disclosed by said statements, then Lessee shall have the right to have the controversy submitted to a board of three arbitrators, one to be selected by the Lessor, one by the Lessee and a third one to be chosen by the two selected, within thirty (30) days, and it is agreed and understood that the decision of the majority of such board shall be binding and conclusive on the parties hereto in the event the Lessor shall elect to have said controversy submitted to arbitration.

Section 6-a. Additional Remedies of Lessor for Failure to Operate Mining Property. After the completion of the exploration work referred to in Section 3 of this Article III, if the Lessee shall cease operations for a period of more than six (6) months the Lessor shall, after ninety (90) days' notice, have the right to terminate this lease and to execute a new lease with some other operator who is willing to commence and continue the mining operations of the said Fortunatus Mining Claim, provided that the terms and conditions of the agreement or lease with said new operator with reference to the operations of said mining claim, shall in no manner be more favorable than the terms and conditions for the operation of said mining claim under this lease, and provided further that said operator shall agree to pay to the Lessee fifty cents ($.50) per ton on all ores and waste materials mined from the Fortunatus Mining Claim that are removed through the Summit drift and crosscut as consideration for the use of said crosscut, drift, and the tracks, switches and other facilities

located therein, as provided in Article IV hereof.

The right to terminate this lease for the failure to operate said mining claim, as herein in this Section 6-a provided, is contingent upon the Lessor obtaining another operator or lessee who is willing to operate said mining claim on terms not more favorable than those contained herein. The Lessee shall have the right within ninety (90) days after the service of said notice, as herein provided, to prevent the termination of this lease by again resuming mining operations and continuing mining operations of said claim for a period of not less than six (6) months, employing not less than 75 shifts of labor each month. If thereafter the Lessee ceases mining operations for a period of six (6) months, Lessor shall again have the right to assert the remedies provided in this Article III, Section 6-a, and the rights provided in this Section 6-a shall be continuing rights and shall apply to each six (6) months period of cessation of work.

Section 7. Mechanics and Materialmen Claims. Lessee further covenants and agrees to pay promptly when due all charges and expenses incurred by or for Lessee in connection with its operations on the demised premises, and to protect said premises and the Lessor and hold the premises and the Lessor harmless from and against any and all claims of miners, mechanics, materialmen, contractors and others in connection with Lessee's operations, and to keep the premises free and clear from all liens and claims of whatsoever nature arising therefrom.

Section 8. Public Liability and Compensation Insurance. Lessee further covenants and agrees that it will

protect, save and hold harmless Lessor from and against any and all liability arising out of personal injuries or accidents sustained by employees, licensees, agents, visitors and/or other persons upon the demised premises, and that it will provide at Lessee's own expense workmen's compensation insurance in accordance with the law, and public liability insurance in a reputable insurance company authorized to and doing business in Arizona, insuring against loss, damage or liability in an amount of not less than $100,000 for injury to or death of any one person and in an amount of not less than $300,000 for injury to or death of more than one person arising from one and the same accident, such public liability insurance to be in such form as will protect both Lessor and Lessee. Lessee undertakes and agrees, upon written request of Lessor, to furnish Lessor with a certificate executed by one of its

officers giving a detailed description of the workmen's compensation and public liability insurance then in force pursuant to the provisions of this Section 8.

Section 9. Maintenance of Books and Records - Right of Inspection. Lessee covenants and agrees to maintain at all times at its operating headquarters complete records of all ores mined and shipped, including ores broken in or upon the demised premises as of the date hereof, which records shall at all times during business hours be open to the inspection of any officer or authorized attorney or agent of Lessor; and the right is given Lessor to permit its officers, attorneys or authorized agents to make extracts from such books and records. Lessor shall have, and hereby is given, the right and authority to request of and receive from any smelter or custom mill to which ores or concentrates are shipped by Lessee from the demised premises, copies of settlement sheets or other pertinent information in relation thereto.

Section 10. Lessee's Compliance with Law, etc. Lessee agrees to conduct its mining operations on the demised premises in accordance with the prevailing mining laws and regulations of the Federal Government and of the State of Arizona, and in the carrying on of said mining operations Lessee agrees to keep all shafts, tunnels and other workings in safe condition and protected from trespassers by proper doors or other means.

Section 11. Segregation of Ores. It is understood and agreed that the Fortunatus Mining Claim is to be mined and operated by the Lessee in connection with mining operations carried on by the Lessee on the Summit and other

adjoining mining claims and that mining operations may and will be conducted by the Lessee on the said other claims at the same time as mining operations are being conducted by the Lessee on the Fortunatus Mining Claim, and that the same tunnels, drifts, shafts and other facilities may and will be used in connection with said operations. Lessee agrees, so far as it is practicable, to conduct its operations so that the ores mined from the Fortunatus Mining Claim shall not be commingled with the ores from other claims, to maintain separate ore bins or other receptacles for all ores mined or extracted from the Fortunatus Mining Claim and so far as it is practicable to ship and transport said ores in separate lots from those of the other claims. However, where it is uneconomical and impracticable to segregate the ores from the Fortunatus from those produced from the other claims operated by the Lessee, the Lessee shall take "grab" samples on each ore car of all ores or materials mined from the Fortunatus Mining Claim as the car leaves said mining claim or the portal from which said ores are removed. The accumulated samples from approximately fifty (50) mine cars shall be crushed, quartered and divided into two or more parts and one part thereof furnished to the Lessor or its agents, if so requested. Lessee shall also take, keep separately and furnish samples from each car of ores mined from the other claims that are mixed with those of the Fortunatus. The Lessee shall also keep accurate accounts of all tonnage, types of ore and assay reports on all ores removed from the Fortunatus Mining Claim and from other claims operated at the same time so that the royalty payments provided for in Section 1 of Article II may be accurately determined.

ARTICLE IV

EASEMENT FOR INGRESS AND EGRESS

Section 1. Ingress and Egress. As a part of the consideration for the execution of this lease, it is mutually agreed that should the Lessee default in the performance of any of the terms or conditions of this lease and should the Lessor or Lessee terminate this lease for any of the causes provided herein prior to the expiration of the term hereof, the Lessor, its successors or assigns, shall have a non-exclusive easement for ingress to and egress from said Fortunatus claim, through the lower Summit crosscut tunnel and any and all drifts connecting said crosscut tunnel with the workings of said Fortunatus claim, and through and over the roads and rights of way of the Alpha, Summit, Savannah and McAllister Claims, to said crosscut tunnel, together with the right to use, in common with the lessees or owners of said claims, said tunnels, tracks, workings, roads and rights of way in such a manner as to not unduly or unreasonably interfere with or impede the full scale operations of the lessees or owners of said claims, or other claims held by them, and upon the condition that there be paid to the Lessee the sum of fifty cents ($.50) per ton on all ore or waste materials from the Fortunatus claim transported through said crosscut tunnel, said sums to be paid on the 10th day of each succeeding month. It is understood and agreed that upon termination of this lease prior to its expiration the Lessor or other lessees or operators of the Fortunatus claim may use the Lessee's tracks, switches, drifts, crosscut tunnel and roads (but not Lessee's other facilities or equipment) and shall have passage over and

the right to use Lessee's tracks from the portal of said crosscut tunnel to a point where said ore and waste can be dumped or otherwise disposed of, together with the right to dump waste materials on said claims, all of which shall be done without undue or hampering interference with the Lessee's mining operations. The easements, covenants and conditions contained in this Article IV shall run with the land and shall be binding upon the successors, assigns and legal representatives of the parties hereto.

ARTICLE V

DEFAULTS AND REMEDIES

Section 1. Definition of "Defaults". The following events are hereby defined for all purposes hereof as defaults:

(a) Lessee's failure to pay royalties as provided in Section 1 of Article II hereof.

(b) Lessee's failure to furnish Lessor with reports or copies of smelter or custom mill settlement sheets as provided in Sections 5 and 6 of Article II hereof.

(c) Lessee's failure to pay taxes or to obtain and maintain licenses as provided in Sections 1 and 2 of Article III hereof.

(d) Lessee's failure to perform the development work as required by Sections 3 and 4 of Article III hereof, subject to the provisions of Section 6 of Article III hereof.

(e) Lessee's failure to comply with, observe and perform all other of the covenants and agreements herein contained required to be observed and performed by it.

(f) Should Lessee assign or attempt to assign its interest under this lease, or any part thereof, or of any of Lessee's rights hereunder for the benefit of creditors.

(g) Should Lessee be adjudicated a bankrupt, or should a petition be filed either by Lessee or by any creditor or creditors of Lessee for reorganization under Chapter X of the Bankruptcy Act of the United States, or any Amendment thereto.

(h) Should a writ of attachment be levied upon any of the business or assets of Lessee which would interfere with the continued possession and operation of all or any part of the demised premises, or compliance by Lessee of any of the terms, provisions and conditions of this lease.

(i) Should a writ of execution be levied upon any of the business or assets of Lessee which would interfere with the continued possession and operation of all or any part of the demised premises, or compliance by Lessee of any of the terms, provisions and conditions of this lease.

Section 2. Remedies in Event of Default. In case a default shall occur as defined in the foregoing Section 1 of this Article V, Lessor reserves unto itself the right to terminate at its election all of the rights of Lessee under this lease and all of such rights shall terminate at the

expiration of thirty (30) days from the giving of written notice of default, which notice shall specify the nature of the default or defaults which have occurred, and shall be personally served upon an officer of the Lessee or mailed, postage prepaid, to the address of Lessee as provided in Section 6 of Article VI hereof.

Unless the default or defaults specified in such notice is or are cured to the satisfaction of Lessor within the period of thirty (30) days after written notice as aforesaid, then at the expiration of said thirty (30) day period this lease and all rights of the Lessee hereunder shall forthwith terminate, and thereupon Lessee shall surrender peaceable possession of the demised premises unto Lessor, and Lessor may reenter and remove all persons therefrom, subject to the rights granted Lessee under the provisions of Section 1 of Article VI hereof.

Section 3. Additional Remedies. The rights and remedies hereunder given to Lessor are in addition to and not in lieu of or in limitation or derogation of the rights and remedies otherwise granted by law in Lessor; any waiver by Lessor of any breach or default by Lessee, whether such waiver be direct or implied, shall not be considered to be a continuing waiver or a waiver of or consent to any subsequent breach or default on the part of Lessee.

ARTICLE VI

MISCELLANEOUS

Section 1. Construction of Ditches, etc. and Removal of Facilities by Lessee. Lessee is hereby given the right to construct all necessary ditches, dikes, canals,

bridges, tunnels, roads, pipe lines, power lines, wells, tanks and other facilities and buildings necessary or desirable in connection with its operations on the premises. All removable facilities placed by Lessee on the premises shall be and remain the property of Lessee and shall not become a part of the premises, and may be removed by Lessee at any time within ninety (90) days after the expiration of this lease or its termination under the provisions of Section 2 of Article V hereof; provided, however, that none of such removable facilities may be removed at any time unless all sums due from Lessee to Lessor shall have been paid and there exists no lien for mechanics, materialmen or other persons, or any liabilities incurred by the Lessee in connection with its operations which are existing against the premises or for which the Lessor may be or become liable; provided further, that no timbering, rails, air or water lines in place underground, or power lines aboveground, shall be removed, and any such that shall have been placed therein or thereon by Lessee shall nevertheless become and remain the property of Lessor.

Section 2. Retention of Ores and Tailings by Lessor. Upon the expiration or termination of this lease, Lessor shall have the right to keep and retain as its own property any and all ore and tailings that remain upon the demised premises.

Section 3. Lessee to Furnish Detail of Workings, etc. Upon the expiration or termination of this lease according to its terms, Lessee shall furnish Lessor, without cost to Lessor, a map or diagram of the mine workings of the demised premises, together with pertinent assay or other data which Lessee may have with respect to the mined or unmined portions of the demised premises.

Section 4. Assignment and Subletting. It is understood and agreed that the Lessee shall have no right to sublet the premises or any part thereof without the prior written consent of the Lessor and then only on the condition that the subtenant shall by an appropriate instrument agree to preserve and perform each and all of the obligations, covenants, terms and conditions hereof. The Lessee shall have no right to assign this lease except upon the condition that the assignee or assignees of this lease or of any of the Lessee's rights hereunder shall, by appropriate instrument, agree to observe and perform each and all of the obligations, covenants, terms and conditions hereof.

Section 5. Invalidity of Clauses. Should any court of competent jurisdiction hold any clause or clauses or provisions of this lease invalid, such holding shall not affect or invalidate the remaining clauses of this lease, but such remaining clauses shall continue in full force and effect during the term hereof.

Section 6. Notices. Any notice required or permitted to be given by either party hereto to the other shall be deemed effective for all purposes if deposited in the United States mail, registered, with postage prepaid, in an envelope sealed and addressed to the party or parties to whom it is required or permitted to be given, at the last known address or addresses of such party or parties. Lessor's present address for the purposes hereof is as follows:

Trustees of William A. Godshall Trust
c/o Musick and Burrell
1075 Subway Terminal Building
417 South Hill Street
Los Angeles 13, California

Lessee's present address for the purposes hereof is as follows:

Arizona Metals Company
P. O. Box 1266
Kingman, Arizona

Section 7. Successors and Assigns. This lease shall be binding upon and shall inure to the benefit of the Lessor and the Lessee and their respective successors and assigns.

Section 8. Time is of Essence, etc. Time is of the essence of this lease and of each of the provisions hereof.

Section 9. Definition of Lessor. For convenience the Lessors have been referred to herein as Lessor. In this lease whenever the context so requires the masculine gender includes the feminine and/or neuter, and the singular number includes the plural.

Section 10. Notice of Non-Responsibility. This lease will not be effective until the Lessee has caused to be posted on said mining claim a notice of non-responsibility in conformance with the laws of the State of Arizona and has furnished to the Lessors an affidavit of posting of said notices of non-responsibility.

IN WITNESS WHEREOF, Lessor and Lessee have executed this lease by their respective officers thereunto duly authorized as of the day and year first above written.

LEON D. GODSHALL
Leon D. Godshall

M. KINZIE MILLER
M. Kinzie Miller

Trustees of the Trust of William A. Godshall, Deceased

ELIZABETH GODSHALL BONNER
Elizabeth Godshall Bonner

MARILYN GODSHALL HAWORTH
Marilyn Godshall Haworth

Lessor

ARIZONA METALS COMPANY

By Ralph R Langley
President

By Ralph R Langley Jr
Secretary

Lessee

STATE OF CALIFORNIA)
) ss
COUNTY OF LOS ANGELES)

On this 11th day of February, 1953, before me, Louise H. Hamilton, a Notary Public in and for said County and State, personally appeared LEON D. GODSHALL and M. KINZIE MILLER, trustees of the trust of William A. Godshall, deceased, ELIZABETH GODSHALL BONNER and MARILYN GODSHALL HAWORTH, known to me to be the persons whose names are subscribed to the within instrument, and acknowledged to me that they executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

LOUISE H. HAMILTON
Notary Public in and for the County of Los Angeles, State of California

(SEAL)

My Commission Expires August 21, 1953

STATE OF CALIFORNIA)
) ss
COUNTY OF LOS ANGELES)

On this 11th day of February, 1953, before me, Louise H. Hamilton, a Notary Public in and for said County and State, personally appeared RALPH R. LANGLEY, known to me to be the President, and RALPH R. LANGLEY, JR., known to me to be the Secretary, of ARIZONA METALS COMPANY, the corporation that executed the within instrument, known to me to be the persons who executed the within instrument on behalf of said corporation, and acknowledged to me that such corporation executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first above written.

LOUISE H. HAMILTON
Notary Public in and for the County of Los Angeles, State of California

(SEAL)

My Commission Expires August 21, 1953

Form MF-103
(Revised June 1951)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.1.

MF-103 Should Be Filed With General Technical Data Form MF-100

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

Not To Be Filled in by Applicant

Docket No. DMEA-2463
Metal or Mineral
Date Received 3-31-52
Amount $
Participation (Government %)

Mr. J. H. East, Jr.
Executive Officer
Region IV
Defense Minerals Administration
224 New Customhouse
Denver 2, Colorado

Name and address of applicant
Arizona Metals Company
Box 1266
Kingman, Arizona

Date March 17, 1952

The forms were returned to us for further detail and have not been re-submitted.

If you have already filed MF-100, give date filed May, 7, 1951, type of assistance requested R-O serial number

DMA Docket Number (if available) ~~X~~

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four copies each, of the signed application form, General Technical Data Form MF-100, and answers to questions as specified, to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive office thereof, with your name and address on each sheet of the application and all accompanying papers. If you have previously filed MF-100, it is not necessary to file it again. However, you should indicate in space provided above the type of assistance previously applied for (loans, procurement contracts, etc.) and DMA Docket Number, if available. *When a question is inapplicable it should be so stated in the form.* Additional sheets should be attached in answering any questions or in supplying additional information. IF YOU CANNOT ANSWER A QUESTION, SO STATE.

1. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property. Answered on page 1 attached.

   (*b*) If you are not the owner of the property, submit a copy of the lease, purchase option, or other agreements under which you are authorized to operate the property with each copy of your application. See Page 1 attached.

   (*c*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted. See Page 1 attached.

   NOTE: (1) If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*c*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

   (2) If applicant is not the owner of the property or if there are any liens or encumbrances against the property, copy of agreements of claimants, lienors, encumbrances, and lessors subordinating their interests in the property to the interest of the Government under the Exploration Project Contract will be required for attachment to the Contract.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 31 1952

2. (*a*) What metals or minerals do you expect to find? Zinc, Lead, Copper, Silver, Gold -- See Page 1 attached.

   (*b*) Furnish statement of the geologic features of your property, giving type of ore deposit and reasons for expecting to find commercial ore bodies. Illustrate with maps or sketches. If you have a geologic or engineering report, or assay maps showing width and grade, please send them with application, stating whether or not you wish to have them returned.

Answered pages 1 and 2 attached -- Also see exhibits D and E, and Maps A and B.

16—64067-2

The information requested in questions 3, 4, 5, 6, 7, 8, and 9 below should be answered specifically and in detail, as this information will be attached to and incorporated as part of the Exploration Project Contract, if such contract is entered into with you by the Government.

ANSWER EACH QUESTION ON SEPARATE SHEETS OF PAPER AND SUBMIT A COPY OF EACH ANSWER FOR EACH COPY OF YOUR APPLICATION.

3. (*a*) Describe fully the proposed work and give the total cost of the project. Answered Page 3 attached.

   (*b*) State the time required to start the project and to complete it. Answered Page 3 attached.

4. Submit a map or sketch of the property involved showing a plan (and cross section, if needed) of the present mine workings and the *location of the proposed exploration work* as related to geologic features, such as contacts, veins, ore-bearing beds, etc.

   Maps A and B attached

5. Furnish an itemized list of existing facilities, buildings, installations, and fixtures with a statement of the cost of any necessary rehabilitation or repairs to put into useful and operable condition. Answered Page 4 attached.

6. Furnish a detailed list of additional facilities, buildings, and fixtures to be purchased, installed, or erected by you, with the estimated cost of each item. Answered Page 4 attached.

7. Furnish a detailed list of operating equipment, separated into items to be—

   (*a*) Rented Answered on Page 5 attached.

   (*b*) Purchased Answered on Page 5 attached.

   (*c*) Furnished by you Answered on Page 5 attached.

   with the rental, purchase price, or depreciation of each item, as the case may be, to be charged as a cost of the project.

8. Furnish an itemized schedule of labor, by numbers and classes (miners, muckers, etc.) and of supervisors by numbers and positions, with the maximum wages or salaries to be paid to each. Answered Page 6 attached.

9. Furnish a detailed list with estimated cost of each item for materials, supplies, engineering, assaying, accounting, power, water, utilities, and any other items not provided for above. See "X", "Y", and "Z" -- Pages 7, 8, and 9 attached.

10. (*a*) How much are you prepared to invest in the proposed project? $25,000 if necessary

    (*b*) Is this amount sufficient to pay your part of the cost of the project, in accordance with the regulations on Government participation (Sec. 9 of MO-5)? Yes

11. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

    No comments.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

ARIZONA METALS COMPANY
(Name of company)

By Ralph R. Langley
(Signature of authorized official)

March 17, 1952
(Date)

President
(Title)

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

U. S. GOVERNMENT PRINTING OFFICE 16—64067-2

Form MF-103

1. (a) The property directly involved is the Summit patented claim Lot No. 47 -- patent 353, located in the N.W. quarter of Section 32, TWP 23 N, Range 17 W, Mohave County, Arizona. All the exploration work is to be done on the Summit claim as shown on the accompanying lateral sectional map marked Exhibit B.

The entire group of mining claims held by applicant, together with the Fortunatis claim (which is available), are shown on map A.

(b) A copy of the lease under which we hold the property accompanies this application, marked Exhibit C.

(c) Legal description is the same as stated in 1 (a) above.

2. (a) Zinc, Lead, Copper, Silver, Gold -- in that order of quantity and importance.

(b) The geological and topographic features of the area and of the Summit claim in particular, are discussed in the excerpts from the reports of J. D. McPherson, E.M., Exhibit D; and of E. Ross Housholder, E.M., Exhibit E, attached hereto.

The reports cover other areas not related to the Summit claim, hence the excerpts. The full reports are available if desired.

Mr. McPherson is a part time instructor at Stanford University and part time in private practice.

Mr. Housholder is in private consulting practice.

Sectional map B shows the old workings at the east end of the Summit claim and also shows the west end of that claim where we intend to do the exploration work. (Maps A and B were made before the crosscut was completed. We have revised them for this use.)

Judging from the outcrops and the prospecting shafts sunk on the Fortunatis claim endlining the Summit claim on the west, we believe we will pick up an ore chute (a) within 100 feet west of the crosscut intersection. The outcrops indicate a long chute of ore extending perhaps half the length of the Fortunatis claim.

2. (b) Continued

We also expect to pick up an ore chute within 100 feet east of the intersection. We should have ore more or less continuously after we get into that chute, for several hundred feet, and downward indefinitely, as indicated at B--C and D, Map B. There may be a break in pay ore somewhere between B and C.

Above the 300 level there is a lean chute of about 125 feet -- really a pinch -- at (c-d). But on the floor on the 300 level under the stope, at (d-d) the pay ore continues downward so we expect block D to be mill grade ore -- and we expect that chute of ore to extend downward to considerable depth.

More than 30,000 tons of production was had from the stopes shown on map B at the east end of the Summit claim above the 300 level. That chute continues downward. The vein widths were generally from 4 feet to 6 feet with an occasional bulge to 12 feet of width. The average values of the ore produced and marketed were

AU 0.068 oz. AG 4.48 oz. CU 0.58% PB 4.22% ZN 6.22%

The average values of about 400 tons produced from the underhand stope west of the pinched zone on the 160 foot level -- map B -- averaged

AU 0.054 oz. AG 6.3 oz. CU 0.58% PB 7.53% ZN 5.23%

and our sampling of the old dump from the short drift which is directly above the crosscut intersection revealed values

AU 0.09 oz. AG 6.00 oz. CU 0.22% PB 8.75% ZN 0.50%

The walls of the stoped areas are hard and firm -- 4' to 6' apart.

It is not necessary to return exhibits.

3. The exploration work to be done is indicated A on Map B.

(a) We intend to drift west from the intersection

(1) until we pick up and get under an ore chute (A) which we believe will be within 100 feet. We think that ore chute will extend west several hundred feet through the endlining Fortunatis claim (which is available to us), and downward indefinitely.

(2) We intend to drift east to get under expected ore chutes at B, C and D. Because of the appearance of the outcrops, we expect a break or pinch in the pay ore somewhere between B - C. There is a known pinch above the 300 level at C-D as indicated.

The chute which was stoped out above the 300 level above block D -- apparently extends downward through block D and we believe continues downward indefinitely.

(3) We will be required to put up a raise for air and for a second exit before we are permitted to mine and produce ore. (See accompanying letter from Mine Inspector -- Exhibit F). Such raise can be put up either west of the crosscut -- a height of 320 feet -- or from the east drift to connect with the old workings -- a height of 200 feet.

Exactly how far we will have to drift and whether to put the raise at the west end or up under the old workings at the east end of the claim can only be determined as we drift and explore for ore chutes. Whether we put the raise up on the west or the east, the total amount of exploratory drifting and raising will be about the same. And in any event we will have to drift a considerable distance through and under expected ore chutes in order to explore this area and open up possible chutes of ore for mining.

The total cost of the project will be about $42,960.00 as indicated in the answers to 6, 7, 8 and 9, and as detailed on sheets X, Y, and Z.

(b) The work can be started immediately after execution of an exploration contract. Probably one year will be required to complete the work indicated.

4. Maps A and B cover the situation fully.

5. Three bunk houses -- 12' by 16' -- and a cook house 18' x 20' -- in good condition except for nominal repairs which may cost $250.00.

   A three-section building at portal of crosscut containing (a) blacksmith and machine shop, (b) tool room, and (c) shower and change room. Cost of possible repairs may be $250.00.

6. No additional buildings or facilities necessary other than perhaps a new water heater which may cost $350.00.

7. (a) A Diesel driven 315 CUF air compressor and a loading machine are controlled by applicant subject to purchase contract payments of $250.00 monthly on the compressor and $100.00 monthly on the loader. The equivalent of these monthly payments should be considered rental -- therefore the rental items are:

Compressor	$250.00 monthly
Loading Machine	100.00
Battery Trammer	150.00

(b) Necessary to purchase:

2 Jackleg drifters with 2 sets steel	$2,500.00
Ventilating fan and motor	700.00
Battery charger and motor	350.00
Bit and steel grinder	450.00
Repairs, tools, hose, etc.	1,000.00
Total to be purchased	$5,000.00

NOTE: As an alternate to paying these rentals we have permission of mortgagee to electrify the power unit by substituting a 100 KW generator for the direct driven compressor, and then drive the compressor with an electric motor thus enabling us to put the compressor back in the mine where air is used. We can then drive the ventilator and battery charger with small motors. We will thus save the rental on both the compressor and loader which will amount to about $4,000 for the period of the job, whereas the cost of the generator and motor will be somewhat less than $4,000 so the total requirements of funds remains the same. We wish to reserve the right to substitute the generator unit and save the rent money.

(c) The applicant will furnish:
Diesel driven 315 CUF compressor -- subject to NOTE at (b).
Loader -- subject to NOTE at (b).
Steel sharpener and shaper.
4 mine cars.
Air and water lines into crosscut.
Ventilation conduit line into mine through 900-foot crosscut.
Rails -- track-ties through 900-foot crosscut.
1 each -- drifter, stoper, jackhammer.
Change room facilities.
Bunk houses, cook house and cooking facilities.
No rental or costs on items listed in (c).

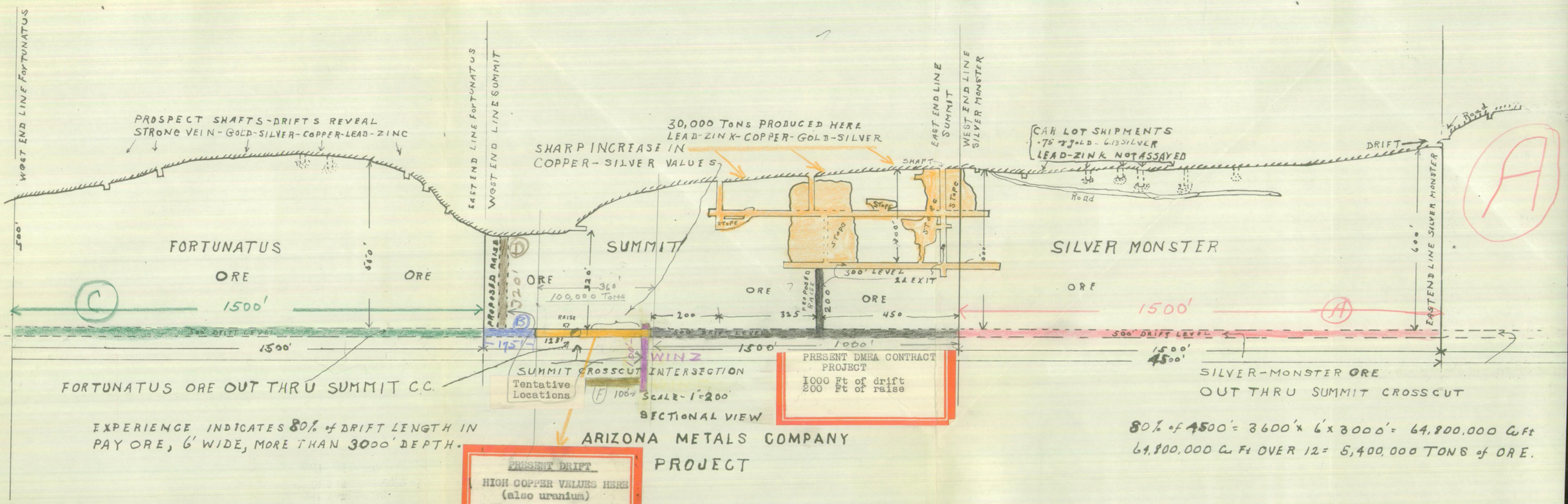
8. One wage rate for all labor used in exploration work. Eight men at a maximum of $14.00 per day and a supervisor at $15.00 per day, plus compensation and unemployment insurance and Social Security, and part time accountant, will be required.

9. List attached --- X, Y, and Z.

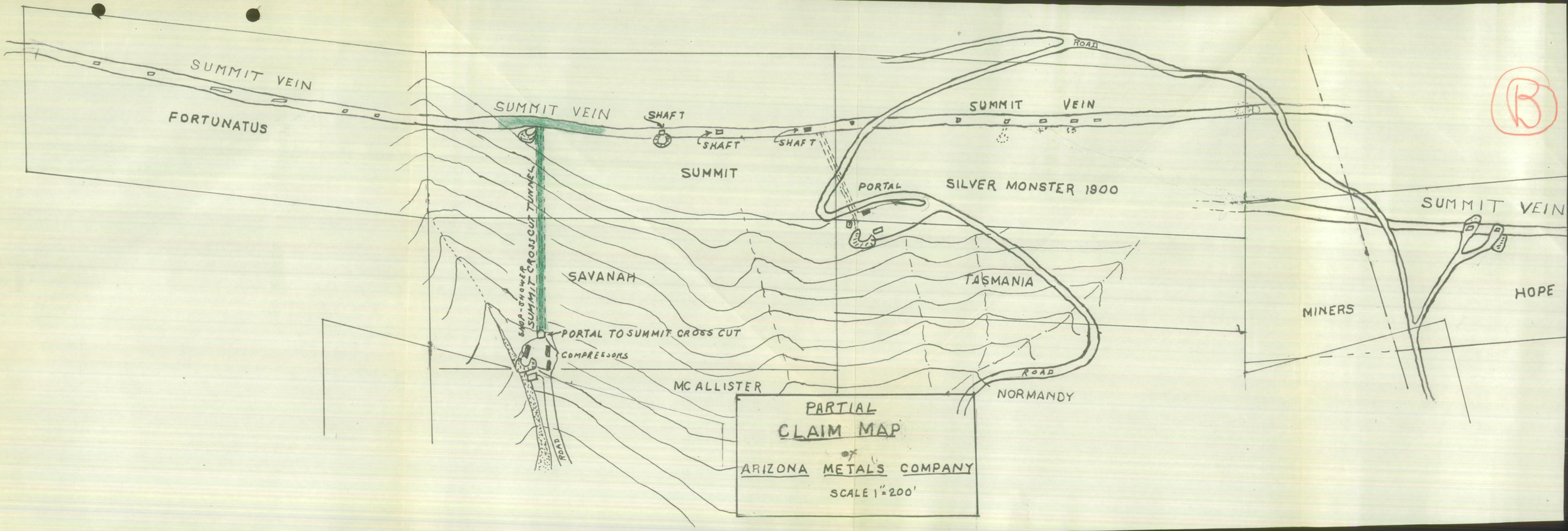
10. (a) $25,000 if necessary.

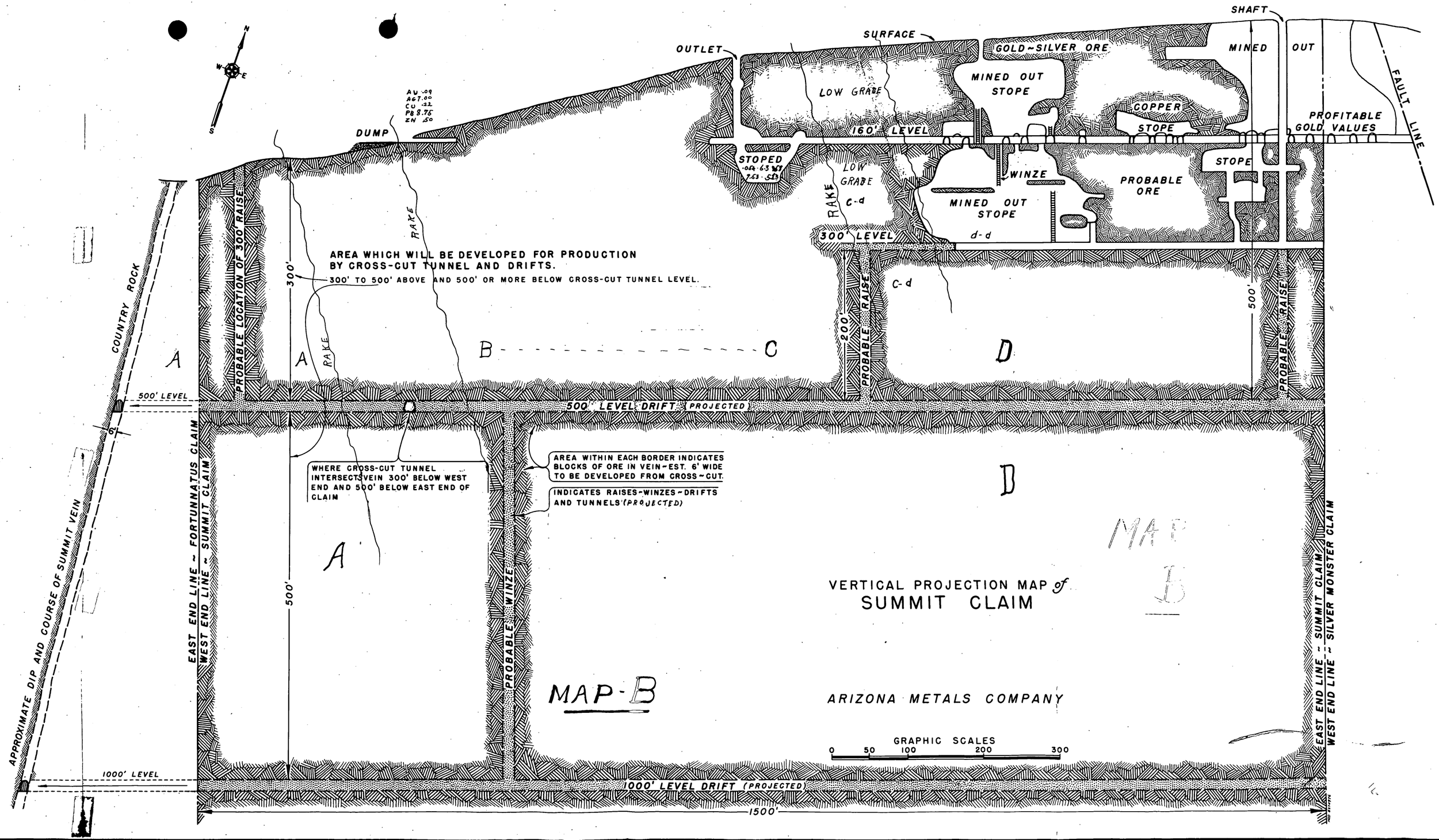
    (b) Yes.

11. No Comments.


WEST END LINE FORTUNATUS
PROSPECT SHAFTS-DRIFTS REVEAL
STRONG VEIN-GOLD-SILVER-COPPER-LEAD-ZINC
EAST END LINE FORTUNATUS
WEST END LINE SUMMIT
30,000 TONS PRODUCED HERE
LEAD-ZINK-COPPER-GOLD-SILVER
SHARP INCREASE IN
COPPER-SILVER VALUES
EAST END LINE SUMMIT
WEST END LINE SILVER MONSTER
CAR LOT SHIPMENTS
.75 oz GOLD - 6.13 SILVER
LEAD-ZINK NOT ASSAYED
DRIFT
Road
EAST END LINE SILVER MONSTER
FORTUNATUS
ORE
ORE
SUMMIT
ORE
ORE
SILVER MONSTER
ORE
500'
450'
1500'
PROPOSED RAISE
D
B
C
A
100,000 TONS
360'
320'
RAISE
123'
195'
200
325
450
200
STOPE
SHAFT
500' LEVEL
2 EXIT
500' DRIFT LEVEL
1500'
1000'
1500'
1500'
4500'
WINZ
F
100'
SUMMIT CROSSCUT INTERSECTION
Tentative Locations
SCALE - 1" = 200'
SECTIONAL VIEW
PRESENT DMRA CONTRACT PROJECT
1000 Ft of drift
200 Ft of raise
FORTUNATUS ORE OUT THRU SUMMIT C.C.
SILVER-MONSTER ORE
OUT THRU SUMMIT CROSSCUT
EXPERIENCE INDICATES 80% of DRIFT LENGTH IN
PAY ORE, 6' WIDE, MORE THAN 3000' DEPTH.
80% of 4500' = 3600' x 6' x 3000' = 64,800,000 Cu Ft
64,800,000 Cu Ft OVER 12 = 5,400,000 TONS of ORE.
ARIZONA METALS COMPANY
PROJECT
PRESENT DRIFT
HIGH COPPER VALUES HERE
(also uranium)
REQUIRES EXPLORATION
at more depth.

D


SUMMIT VEIN
FORTUNATUS
SUMMIT VEIN
SHAFT
SHAFT
SHAFT
SUMMIT
SUMMIT CROSS CUT TUNNEL
SHOP-SHOWER
PORTAL TO SUMMIT CROSS CUT
COMPRESSORS
ROAD
SAVANAH
MC ALLISTER
ROAD
SUMMIT VEIN
PORTAL
SILVER MONSTER 1900
TASMANIA
ROAD
NORMANDY
SUMMIT VEIN
MINERS
HOPE
PARTIAL
CLAIM MAP
of
ARIZONA METALS COMPANY
SCALE 1" = 200'


N
W
E
S
AU .09
AG 7.00
CU .22
PB 8.75
ZN .50
DUMP
OUTLET
SURFACE
SHAFT
GOLD~SILVER ORE
MINED OUT
FAULT LINE
LOW GRADE
MINED OUT STOPE
COPPER STOPE
PROFITABLE GOLD VALUES
160' LEVEL
STOPED
.064 6.3 .147
7.63 .513
LOW GRADE
WINZE
PROBABLE ORE
STOPE
RAKE
C-d
MINED OUT STOPE
d-d
300' LEVEL
AREA WHICH WILL BE DEVELOPED FOR PRODUCTION BY CROSS-CUT TUNNEL AND DRIFTS.
300' TO 500' ABOVE AND 500' OR MORE BELOW CROSS-CUT TUNNEL LEVEL.
COUNTRY ROCK
PROBABLE LOCATION OF 300' RAISE
300'
RAKE
A
B
C
D
200'
PROBABLE RAISE
500'
500' LEVEL
500' LEVEL DRIFT (PROJECTED)
6'
CLAIM
WHERE CROSS-CUT TUNNEL INTERSECTS VEIN 300' BELOW WEST END AND 500' BELOW EAST END OF CLAIM
AREA WITHIN EACH BORDER INDICATES BLOCKS OF ORE IN VEIN ~ EST. 6' WIDE TO BE DEVELOPED FROM CROSS ~ CUT.
INDICATES RAISES ~ WINZES ~ DRIFTS AND TUNNELS (PROJECTED)
EAST END LINE ~ FORTUNNATUS CLAIM
WEST END LINE ~ SUMMIT CLAIM
APPROXIMATE DIP AND COURSE OF SUMMIT VEIN
500'
PROBABLE WINZE
MAP-B
VERTICAL PROJECTION MAP of
SUMMIT CLAIM
ARIZONA METALS COMPANY
GRAPHIC SCALES
0 50 100 200 300
1000' LEVEL
1000' LEVEL DRIFT (PROJECTED)
1500'
EAST END LINE ~ SUMMIT CLAIM
WEST END LINE ~ SILVER MONSTER CLAIM

Form MF-100
(May 1951)

U[illegible] DEPARTMENT OF THE INTERI[illegible]
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

GENERAL TECHNICAL DATA
FOR USE UNDER THE
DEFENSE PRODUCTION ACT OF 1950

NOT TO BE FILLED IN BY APPLICANT

Docket No. DMEA-2463

Date received 3-31-52

Mr. J. H. East, Jr
Executive Officer
Region IV
Defense Minerals Administration
224 New Customhouse
Denver 2, Colorado

Arizona Metals Company
Box 1266
Kingman, Arizona

Name and address of applicant

Date March 17, 1952

INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, (4) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (5) other forms of Government assistance that might arise under the Act. Submit four (4) signed copies of the form and accompanying papers. Name and address should be stamped or typed on each sheet of this form and all accompanying papers. *When a question is inapplicable it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. (IF YOU CANNOT ANSWER A QUESTION, SO STATE.) If a question is answered elsewhere indicate where answered. It is not necessary to answer it again.

GENERAL TECHNICAL DATA

Supply the following information on separate sheets, arranged, numbered, and lettered as indicated:

1. Materials produced:
   (*a*) What are the chief mine, mill, or smelter products?
   (*b*) What are the byproducts, if any?

   Answered on page 1 of attached

2. Name(s) and type(s) of mine(s), mill(s), smelter(s), refinery(ies), pit(s), quarry (ies), drilling operation(s). Include old names of property, if any. Show extent of workings, including the following:
   (*a*) Linear feet of shafts.
   (*b*) Linear feet of drifts and crosscuts.
   (*c*) Linear feet of tunnels or adits.
   (*d*) Linear feet of other mine openings (explain briefly).

   Answered on page 1 of attached

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.

   Answered on page 1 of attached

4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated.
   (*b*) Are you operating this property as:
   ☐ Owner.
   ☐ Lessee.
   ☐ Contractor.

   Answered on page 1 of attached

   DEPARTMENT OF THE INTERIOR
   Defense Minerals Administration
   RECEIVED
   MAR 31 1952

5. Number of years in production See page 1, attached
   If not in production or operation, estimated date when production will begin
6. Experience of operators:
   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project.

   See page 1, attached

7. History:
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation.
   (*b*) State briefly the known history and production of adjoining and neighboring properties.
   (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

16—63792-2

7 (A), (B), and (C) answered page 2, attached
Also Exhibits E and F, attached to accompanying Form MF-103.

8. Names and addresses of Officers, Directors, or Partners, and in addition thereto, the five largest stockholders if applicant is a corporation.

Name and Address (a)	Official Title (If officer is also director indicate by "D") (b)	Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year (c)	Estimated Net Worth Outside of Interest in Applicant (d)	Number of Shares Held in Applicant Corporation: Common (e)	Number of Shares Held in Applicant Corporation: Preferred (f)	Life Insurance Carried for Benefit of Applicant: Amount (g)	Life Insurance Carried for Benefit of Applicant: Net Cash Surrender Value After Loans (h)
ANSWERED ON PAGE 2 OF ATTACHED.....							
	Total		x x x x x			x x x x x	x x x x x

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

Item	Authorized (a)	Outstanding (b)	Par Value (c)	Number of Shares Outstanding (d)	Dividend Rate Last Paid* (e)
Common stock	$	$	$		
ANSWERED ON PAGE 3 OF ATTACHED.....					
Preferred stock	$	$	$		

*Indicate period covered.

10. Production:

Item	Kind of Product (a)	1948 Total (b)	1949 Total (c)	1950 Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.)					
2. Quantity of product processed (specify unit of measure and type of process)		ANSWERED ON PAGE 3 OF ATTACHED			
3. Quantity and grade of product sold or shipped (specify units of measure)					

11. Do you contemplate a change in the present average monthly rate of production? If so, state estimated maximum monthly production and basis of change. Answered on page 3 of attached

12. Ore or Mineral Reserves:

(a) Describe the ore or mineral deposit briefly. Accompany the application by any available report on the geology and ore reserves.

Answered on page 3 of attached

Form MF-100

1. (a) Zinc, Lead, Copper, Silver, and Gold Ore.

   (b) No by-products.

2. SUMMIT Mine.

   (a) Shaft 300 feet.

   (b) 2,500 feet -- Old workings

   (c) 900 feet -- new crosscut

   (d) No other

   The fissure makes water but it drains out through the crosscut.

3. (a) Eighteen miles northwest from Kingman and ten miles southeast from Chloride, Arizona.

   (b) Wallapia Mining District.

   (c) Section 32, TWP 23 N, Range 17 West.

   (d) Mohave County, Arizona.

4. (a) Not currently in operation.

   (b) Lessee.

5. The property has been operated intermittently at different locations for 20 years. Production from the Exploration Area can begin nine months after exploration funds are available. Exploration work can begin immediately upon execution of contract.

6. The applicant has been actively in the mining business since its organization in 1944. Its President and General Manager -- Ralph R. Langley -- has been in the mining business for fifteen years, and before that was in the business of development and production of oil.

7. (a) Several locations on the Old Colony Group of claims, of which the Summit is a part, have been under development and production for about twenty years. About 40,000 tons of base metal ore have been produced from different parts of the Group of which amount about 30,000 tons were produced from the Summit fissure at the east end of the Summit claim. Except some development work, operations were discontinued when premium prices were discontinued after WAR II.

(b) The Alpha, Cashier and Jemison properties side line and end line the Summit group. Each of them has produced substantial amounts of base metal ore.

The Golconda mine, about one mile away, has produced about 250,000 tons of base metal ore and has attained a depth of 1,400 feet, the ore values increasing with increased depth.

The Tennessee mine ten miles away has produced about 750,000 tons of base metal ore and attained a depth of 1,600 feet.

(c) Excerpts from the reports of J. D. McPherson, E.M., marked Exhibit E, and from the report of E. Ross Housholder, E.M., Exhibit F, which relate to this property, accompany this application, with accompanying Form MF-103.

8.

Name & Address (a)	Title (b)	Salary (c)	Worth (d)	Shares Held Common (e)	Shares Held Pref. (f)	Life Ins. (h)
Ralph R.Langley Los Angeles,Cal	D. & Pres	None	Nominal		None	None
M. F. Langley Lincoln, Nebr.	D. & V-P.	None	Substan-tial	243,000	None	None
Ralph R.Langley, Junior Birmingham, Ala.	Sec. and Treas.	None	Nominal		None	None
J. R. Payne Chloride,Ariz.	D.	None	Nominal	1,000	None	None
C. G. Patterson Chloride,Ariz.	D.	None	Nominal	1,000	None	None
John A. Warren Kingman, Ariz.	D.	None	Nominal	1,200	None	None

9.

	Authorized (a)	Out-standing (b)	Par Value (c)	Shares Out-standing (d)	Dividend (e)
Common stock	$1,500,000	$250,000	$1.00	250,000	None

No preferred.

10. (1) About 1,000 tons of base metal ore was mined in 1948 from old workings at east end of Summit claim. During three years previous to 1948, about 25,000 tons were produced from those workings.

(2) About 8,000 tons were milled in local mill during 1946 and 1947.

(3) Average values of metals in ore produced were about AU 0.068 oz. AG 4.48 oz. CU 0.58% PB 4.22% ZN 6.22%

No current production.

11. Do not intend to attempt production until we accomplish the exploration work indicated in this application. When we get into the ore bodies we expect to produce more than 50 tons daily.

12. (a) Maps A and B with exhibits E and F, with accompanying Form MF-103, together with the answers to questions 1 and 2 of Form 103, and 7(a) of this form (MF-100) covers this question.

(b) (c) Not applicable.

13. Access roads -- Eighteen miles to Kingman, residence and shipping point, over paved roads, and ten miles over good county roads to Chloride where most of the labor lives. Roads are in good condition direct to the Summit claim.

14. Water supply is ample from the Summit fissure for all purposes at all seasons of the year.

15. Diesel power is used for compressors. Gasoline power for shop and venttilation.

16. Ample labor available for this exploration work. All labor used for exploration work will take same wage rate. Exploration work will require eight laborers for two shifts, and one supervisor.

17. Facilities now on the premises under the control of the applicant consist of: ample housing for employees, a three section building at portal of crosscut, divided into blacksmith and machine shop, tool room, and shower and change room.

    Equipment now available consists of: a 315 CUF diesel driven compressor, steel and bit grinder, steel sharpener, drill press, forge, mine ventilating fan, vent pipe and air and water lines through the 900-foot crosscut, air receivers, mine cars, mucking machines, rock drills, drill steel, pickup truck -- all generally in good condition.

18. No comment.

(*b*) If deposit is other than placer:

(1) Submit assay plans and/or sections showing location and size of proved (measured) and probable (indicated) ore or mineral reserve.

(2) State the tonnage (indicate type of ton) and grade of each class of ore reserve, as above, and show how computed. Tabulated total ore reserve as follows:

TOTAL ORE OR MINERAL RESERVES

Ore or Mineral Reserve	Estimated Tons (a)	Metal or Mineral Content Per Ton (Grade) (b)	Gross Value Per Ton (c)	Recoverable Unit Value Per Ton (d)	Estimated Cost of Production Per Ton (e)
Measured (proved)	See maps A and B and No 10 of this Form, also 2 (b) of accompanying Form MF-103.				
Indicated (probable)					

(*c*) If placer: Not applicable.

(1) Give estimated total yardage and average marketable mineral content of each deposit.

(2) Submit map showing location of placer deposit and surrounding area, with all test holes or pits. Submit logs of each hole and test pit with depth and average value of each.

(3) Describe gravel, stating whether fine, medium or coarse; loose, tight, cemented, or frozen, and whether it contains stumps or boulders more than 1 foot in diameter; if so, how large, and in what proportion.

(4) Describe bedrock, giving type (granite, sandstone, shale, etc.) and state whether it is hard or soft, smooth, uneven or rough.

(5) Describe overburden, stating whether loose, tight, or cemented; fine or coarse textured; furnish estimate of average thickness and total amount.

(6) Tabulate the reserves using the form outlined above for ore or mineral reserves.

13. Access Roads: **Answered on Page 3 attached**

Give road distances to shipping, supply and residence points, stating kind and condition of roads.

14. Water Supply: **Answered on page 3 attached**

State source and quantity of water available for operations and whether sufficient for all seasons of year.

15. Power: **Answered on Page 4 attached**

State amount of power used, rate per hour, and source thereof.

16. Labor: **Answered on Page 4 attached**

State number and classes (miners, muckers, millmen, etc.) of men employed during a recent representative payroll period.

17. Equipment and Facilities: **Answered on Page 4 attached**

Describe present equipment on the property, including buildings. (State condition.) List major pieces of equipment now owned or controlled and in serviceable condition available for this operation.

18. Are there any particular conditions or circumstances affecting your operations that are not described above? If so, explain.

No comment.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

ARIZONA METALS COMPANY
(Name of company)

By Ralph R. Langley
(Signature of authorized official)

March 17, 1952
(Date)

President
(Title)

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

U. S. GOVERNMENT PRINTING OFFICE 16—63792-1

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
11/15	[illegible]	500
11/15	Talbot	800
11/16	Selfridge	130
"	[illegible]	110
11/16	[illegible]	100
		220

NOV 1 6 1961

Memorandum

To: Acting Field Officer, Region III

From: Chief, Division of Field Operations

Subject: DMEA-2463 (Lead-Zinc)
Arizona Metals Company
Summit Mine
Mohave County, Arizona
Contract Idm-E390
and
DMA-1801X (Lead-Zinc)
Reed and Reed, Partnership
Fountainhead and Silver Legion Mines
Mohave County, Arizona
Contract Idm-E315

Because of the exchange of recent memoranda between our offices bearing the double caption above, and in response to your inquiry of November 7, under the subject of Docket DMEA-2463, Arizona Metals Company, we wish to explain that Mr. Langley's letter of October 19 and your memorandum of October 23 apply to DMEA-1801X, Contract Idm-E315, Reed and Reed, Partnership.

A reply to Mr. Langley's letter of October 19 has been prepared but it has not cleared approval in the Associate Solicitor's office. As soon as the letter goes forward, you will receive the usual copies for your records.

Meanwhile, you undoubtedly have received copies of our reply of November 3 to Mr. Langley in response to his letter of October 31 under the caption of DMEA-2463, Arizona Metals Company.

/s/ George C. Selfridge (SB)

GLAult/a
11-15-61
cc to: Director's Reading File
Review Committee
Docket
Code 500

43683

Form 7
(8)

OFFICIAL FILE COPY

Date	Surname	Code
11/3	[illegible]	500
11/3	[illegible]	120
"	[illegible]	110
11/3	[illegible]	100
		220

NOV 3 1961

Mr. Ralph R. Langley
1156 South Highland Avenue
Los Angeles 19, California

Re: IMEA-2463 (Lead-Zinc)
Arizona Metals Company
Summit Mine
Mohave County, Arizona
Contract Idm-E390

Dear Mr. Langley:

We have your October 31 letter concerning a proposed application for Government assistance in an exploration project on the referenced property. You ask if it would be necessary for us to make another field examination, as a project had been approved on the same property some nine years ago.

Matters of this sort are usually discussed with our Field Officers and we prefer to make no commitment in advance.

Sincerely yours,

George Fumich, Jr.

Director

WRGriswold/FEJohnson/gla
11-3-61
cc to: Director's Reading File
Region III (2) w/2 cys incoming letter
Docket
Code 500

43683

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
11/3	Griswold	500
		120
		110
		100
		220

Mr. Ralph R. Langley
1156 South Highland Avenue
Los Angeles 19, California

Re: IMEA-2463 (Lead-Zinc)
Arizona Metals Company
Summit Mine
Mohave County, Arizona
Contract Idm-E390

Dear Mr. Langley:

We have your October 31 letter concerning a proposed application for Government assistance in an exploration project on the referenced property. You ask if it would be necessary for us to make another field examination, as a project had been approved on the same property some nine years ago.

Matters of this sort are ~~left to the discretion of~~ usually discussed with our Field Officers and we ~~can~~ prefer to make no commitment in advance.

Sincerely yours,

Director

WRGriswold/gla
11-3-61
cc to: Director's Reading File
Region III (2) w/2 cys incoming letter
Docket
Code 500

43683

OFFICIAL FILE COPY
O. M. E
RECEIVED NOV 2 1961
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RALPH R. LANGLEY
CONSULTING ENGINEER
1156 SOUTH HIGHLAND AVENUE
LOS ANGELES 19, CALIFORNIA

MEMBER
AMERICAN INSTITUTE OF
MINING, METALLURGICAL
AND PETROLEUM ENGINEERS

PRESIDENT
ARIZONA METALS COMPANY

TELEPHONE
WEbster 1-2351

October 31-1961.

Mr. George Fumich Jr., Director,
Office of Minerals Exploration,
Washington 25,
D. C.

Re; DMEA -2463 (Lead-Zinc)
Arizona Metals Company,
Summit Mine,
Mohave County, Arizona.
Contract Idm-E390.

Dear Mr. Fumich;

Refering to my letter of August 5 and your reply dated August 14th--on behalf of Arizona Metals Company, I have leased the Summit and contiguous claims to an Arizona Corporation styled Cerbat Mining and Milling Company the officers of which company have asked me to aid them in obtaining an OME exploratory contract.

I believe the enclosures with your letter of the 14th are quite complete. I would like to know, however whether it will be necessary to have another examination and report made by a Bureau of Mines Engineer, in view of the fact that it is the same project as was approved for the above indicated contract, which contract was never performed and there has been no work done nor change in the physical situation since that examination was made.

There will be no material change in the costs of the work other than the cost of labor. There are two changes with respect to labor--one is that the rate of pay has been increased and the efficiency is less, therefore that item of cost will be substantially increased per foot of drift and raise.

The Lessee is ready to start work as soon as the application is completed and the contract executed.

Sincerely,

Ralph R. Langley

Ralph R. Langley

rm 7
)

OFFICIAL FILE COPY

Date	Surname	Code
9/29	[illegible]	500
10/2	Talbut	800
10/2	on leave	130
"	Johnson	110
		100
10-2	gad	220

OCT 2 1961

Memorandum

To: Acting Field Officer, Region III

From: ACTING Chief, Division of Field Operations

Subject: DMEA-2463 (Lead-Zinc)
Arizona Metals Company
Summit Mine
Mohave County, Arizona
Contract Idm-E390
and
DMEA-1801 (Lead-Zinc)
Reed and Reed, Partnership
Fountainhead and Silver Legion Mines
Mohave County, Arizona
Contract Idm-E315

In accordance with your memorandum of September 22, 1961, two copies of the Director's letter, dated August 14, to Mr. Ralph R. Langley under the caption of Docket DMEA-2463, Contract Idm-E390, are enclosed. We regret that the copies previously sent you apparently went astray.

/S/ W. R. Griswold (24b)

Enclosures

GLAult/a
9-29-61
cc to: Director's Reading File
Review Committee
Docket DMEA-2463
Docket DMEA-1801
Code 500

43683

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
[illegible] Federal Center
Denver, Colorado

9/28 Ehrenreich

220
DMA-2463

September 21, 1961

Memorandum

To: George C. Selfridge, Chief
Division of Field Operations, OME
Washington 25, D.C.

From: Acting Field Officer, OME, Region III

Subject: Docket DMEA 2463
Contract Idm E390
Arizona Metals Company
(Summit mine)
Mohave County, Arizona

DMA 1301X (Lead-Zinc)
Contract Idm E315
Reed & Reed, Partnership
(Fountainhead and Silver Legion mines)
Mohave County, Arizona

On August 7, 1961 I forwarded you a copy of Ralph R. Langley's letter dated August 5, 1961 and a copy of my reply.

If you wrote Mr. Langley may I have a copy of your letter to complete my file?

Hugh M. Conners

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
8/14	Griswold	500
8/14	Orlhane	120
"	Johnson	110
8-14	Fumich	100
8-14	gad	220

AUG 1 4 1961

Mr. Ralph R. Langley
1156 South Highland Avenue
Los Angeles 19, California

Re: DMEA-2463 (Lead-Zinc)
Arizona Metals Company
Summit Mine
Mohave County, Arizona
Contract Idm-E390

Dear Mr. Langley:

We have a copy of your August 5 letter to our Acting Field Officer in Denver, in which you mention that you are leasing the Summit mine to another entity. Furthermore, you state they would like to apply for an OME exploration contract. We are enclosing a copy each of the regulations and Minerals Exploration Program booklet, and four copies of the application form. Three copies of the application should be forwarded to Region III.

As requested, we are forwarding a copy of Exhibit A of Contract Idm-E390, Docket DMEA-2463.

Sincerely yours,

George Fumich, Jr.

Director

Enclosures

WRGriswold/gla
8-14-61
cc to: Director's Reading File
Region III (2)
Docket
Code 500

43683

OFFICIAL FILE COPY
O. M. E
RECEIVED AUG 10 1961

DATE	INITIALS	CODE
8/10		800
		500
4		00
		220

Building 20 - Federal Center
Denver 25, Colorado

August 7, 1961

Mr. Ralph R. Langley
1156 South Highland Avenue
Los Angeles 19, California

Re: Docket DMEA 2463
Contract Idm E390
Arizona Metals Company
(Summit mine)
Mohave County, Arizona

DMEA 1801X (Lead-Zinc)
Contract Idm E315
Reed & Reed, Partnership
(Mountainhead and Silver Legion mines)
Mohave County, Arizona

Dear Mr. Langley:

Thank you for your letter of August 5, 1961. I am forwarding your letter to the Washington Office OME for their reply concerning the steps you should take to obtain a new contract on the Summit mine which you state was covered by Contract Idm E390. Also the Washington Office may have a copy of the old contract.

I will greatly appreciate your forwarding this office any information you have as to any mining operations on the Mountainhead and Silver Legion mines. Royalty is due the Government on all production from these properties.

Yours very truly,

Original signed by

Hugh M. Connors
Acting Field Officer, OME
Region III

HMC/lm
cc Chief, Division of Field Operations, OME
with copy of Langley's letter 8/5/61
Idm E390
Idm E315
Chron

RALPH R. LANGLEY
CONSULTING ENGINEER
1156 SOUTH HIGHLAND AVENUE
LOS ANGELES 19, CALIFORNIA

MEMBER
AMERICAN INSTITUTE OF
MINING, METALLURGICAL
AND PETROLEUM ENGINEERS

August 5-1961

OFFICIAL FILE COPY
O. M. E.
RECEIVED AUG 10 1961

DATE	INITIALS	CODE

PRESIDENT
ARIZONA METALS COMPANY
TELEPHONE
WEBSTER -2351

Executive Officer,
Office of Minerals Exploration,
Building 20, Federal Center,
Denver 25,
Colorado.

Gentlemen;

As of August 25,1952 Contract Idm -E390--Docket DMEA 2463 was executed with Arizona Metals Company covering the Summit mine, Mohave County, near Kingman,Arizona.

The contract never was performed and so was terminated, however in talking with Mr. Mittendorf,and subsequently with Mr. W. H. King, I was advised that since no work was done under that contract it could be renewed or reinstated upon application without the necessity of having another Field Team make another examination. This latter is not too important but I would like to know what proceeding to take in order to re-establish that or a similar arrangement.

The Summit has been dormant, under lease to an individual who did nothing, but I am now in the process of leasing it to a responsible entity which would like to have a DMEA--OME-contract. They are starting a comprehensive exploratory program. They have a small mill near the Summit in which they will mill some developed ore while doing exploration work.

The metals are primarily lead and zinc--with a nominal amount of gold,silver and copper.

If convenient I would like to have a copy of the old contract--Idm-E390. I let the individual who held the lease for several have my copy and never got it back from him.

Incidentally--on February 10,1960 I received a letter from your office, by J. W. Townsend regarding Contract No Idm-E315-Docket No DMA 1801x--lead and zinc--the contract being executed to Reed and Reed--on the Fountainhead and Silver Legion mine (one of the Summit group)-Mohave County,Arizona. In reply to that letter I said I did not believe Reed did any mining. I think that is a fact but I am now informed that a successor has done and is doing some mining, as a result of the work done by Reed. If that is of any interest , please so advise me and I will look into the matter and advise.

Sincerely,

Ralph R. Langley

Ralph R. Langley

FILE COPY
SURNAME:

140

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

Retyped by
Ch. Cnls Of.

Keating
Griswold
Hoffman
Chamberlin
Selfridge
Johnson

AUG 11 1953

Mr. W. H. King
Executive Officer, DMEA
Field Team, Region IV
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-2463
(Lead-Zinc)
Arizona Metals Company
Summit Mine
Mohave County, Arizona
Contract No. Idm-E390

Dear Mr. King:

For your information, there are enclosed two copies of a notice of rescission, by letter, sent to the cited company. This is in accord with the recommendation in your memorandum of July 10, 1953, that the subject contract be terminated for noncompliance by the Operator with the terms of the contract.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (2/6)

Enclosures 2

Approved:

J. H. Hedges
Member, Bureau of Mines (2/6)

D. M. Larrabee
Member, Geological Survey (2/6)

AGKeating:ep 7-22-53

Copy to: Docket
Admr. R. File
Oper. Comm.
Base Metals
Mr. Kinkel
Mr. Bishop
Chief Counsel
Chron.
Pending

R.C.S.
8-11-53

. BOX 1266
KINGMAN

1156 S. HIGHLAND AVE.
LOS ANGELES 19, CALIFORNIA

ARIZONA METALS COMPANY

SUMMIT ALPHA MINES
KINGMAN, ARIZONA

August I-1953.

Department of the Interior
Defense Minerals Administration
RECEIVED
AUG - 4 1953

Mr. C. O. Mittendorf, Administrator,
Defense Minerals Exploration Administration,
Department of Interior,
Washington, D.C.

RE; DMES Docket 2463
Contract E-390

Dear Mr. Mittendorf;

Refering to your telegram dated July 28, 1953 with respect to the above indicated subject, you may regard our DMEA contract as withdrawn by us or cancelled by you as you prefer.

Your refusal to include the Fortunatus claim in our contract distroyed confidence in the administration of the DMEA and discouraged the financing of the project.

The Fortunatus claim is the most potential, most highly rated and approved single base metal mining claim in Mohave County by all competent, informed engineers and operators in the district.

Its rejection by your organization and your refusal to reconsider is not understood by the responsible mine operators of this vacinity.

There will be no further work done at the Summit project in the forseeable future.

Yours very truly,

ARIZONA METALS COMPANY
By Ralph R. Langley Pres.
Ralph R. Langley

cc W. R. King,
Walter R. Storms

9/3

FILE COPY
SURNAME:

C. O. Mittendorf, Administrator,
Defense Minerals Exploration
Administration
14X3923, Working Fund,
Interior, DMEA

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

DAY LETTER

JULY 28, 1953

MR. RALPH R. LANGLEY
1156 SOUTH HIGHLAND AVENUE
LOS ANGELES 19, CALIFORNIA

RE CONTRACT E390 SUMMIT MINE DOCKET 2463. REGRET JUNE 4 TO EXECUTIVE OFFICER KING AT DENVER AND HIS LETTERS JUNE 10 AND 18 TO YOU. OUR RECORDS INDICATE YOU HAVE CHOSEN NOT TO EXECUTE AMENDMENT NUMBER 2 TO SUBJECT CONTRACT SINCE YOU HAVE NOT RETURNED SIGNED COPIES. FIELD INSPECTION OF SUMMIT MINE MADE JULY 9 REVEALS NO WORK BEING DONE, HENCE CONTRACT IN DEFAULT. HAVE RECOMMENDATION BEFORE ME TO RESCIND SUBJECT CONTRACT UNDER PROVISIONS ARTICLE 8 FOR NONCOMPLIANCE WITH TERMS. BEFORE TAKING PROPOSED ACTION DESIRE EXPRESSION FROM YOU REGARDING WORK PLAN INTENTIONS, ALSO EXPLANATION OF YOUR FAILURE TO RESPOND TO KING'S LETTER JUNE 18.

C. O. Mittendorf

C. O. MITTENDORF, ADMINISTRATOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

COMittendorf/fw

cc: Admr Reading File
Mails& Files
Base Metals Div.
Field Team, Reg. IV
Mr. Mittendorf

R.C.G.
7-28-53

C. O. Mittendorf, Administrator,
Defense Minerals Exploration
Administration
14X3923, Working Fund,
Interior, D.C.

Greenwood
Keeling
Betty

DMA LETTER

JULY 20, 1953

MR. RALPH R. DANIELSI
1156 SOUTH HIGHLAND AVENUE
LOS ANGELES 19, CALIFORNIA

RE CONTRACT 6390 SUMMIT MINE DOCKET 2163. REQUEST JUNE 4 TO EXECUTIVE OFFICER ALNG AT DENVER OF-RAP LETTER JUNE 10 AND 18 TO YOU. OUR RECORDS INDICATE YOU HAVE CHOSEN NOT TO EXECUTE AMENDMENT NUMBER 2 TO SUBJECT CONTRACT SINCE YOU HAVE NOT RETURNED SIGNED COPIES. FIELD INSPECTION OF SUMMIT MINE MADE JULY 9 REVEALS NO WORK BEING DONE, MAKES CONTRACT IN DEFAULT. HAVE RECOMMENDATION BEFORE US TO RESCIND SUBJECT CONTRACT UNDER PROVISIONS ARTICLE 8 FOR NONCOMPLIANCE WITH TERMS. BEFORE TAKING FURTHER ACTION DESIRE EXPRESSION FROM YOU REGARDING WORK PLAN INTENTIONS, ALSO EXPLANATION OF YOUR FAILURE TO RESPOND TO ALNG'S LETTER JUNE 18.

C. O. Mittendorf

C. O. MITTENDORF, ADMINISTRATOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

COMittendorf/fw

cc: Admr Reading File
Mails& Files
Base Metals Div.
Field Team, Reg. IV
Mr. Mittendorf

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

500

Keating
AGKeating

July 21, 1953

Memorandum

To: Administrator

From: Chief, Base Metals Division

Subject: Notice of rescission of Contract No. Idm-239C, Docket No. DMEA-2463 (Lead-Zinc), Arizona Metals Company, Summit Mine, Mohave County, Arizona

The subject contract, executed August 25, 1952, provided 60 days for starting work and 9 months for completion. An amendment was executed by the Government on May 28, 1953 allowing a recess to July 6, 1953. This was forwarded to the Operator but was never returned, and no work had been started by July 9, 1953.

No work has been done except a round of unblasted holes in the face of the drift at the starting point of the authorized work.

The Field Team recommends that the contract be terminated, in which the Base Metals Division concurs.

W. R. Griswold
W. R. Griswold

AGKeating;bjl (7/21/53)

Copy to: Docket
Op. Committee
Base Metals
Chron.

R.C.G.
8-11-53

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

224 New Customhouse
Denver 2, Colorado

July 14, 1953

Memorandum

To: C.O. Mittendorf, Administrator, DMEA

From: DMEA Field Team, Region IV

Subject: Contract Idm-E390, Docket DMEA-2463, Arizona Metals Company, Mohave County, Arizona (Lead-Zinc)

In conjunction with the matter contained in our memorandum of July 10, 1953, we are enclosing three copies of a memorandum report by Robert W. Ageton of the Bureau of Mines relative to the non-start of work under the subject contract.

W. H. King

W. H. King

A. H. Koschmann

A. H. Koschmann

Enclosures

MINING DIVISION
REGION IV

July 10, 1953

Memorandum

To : W. H. King, Chief, Mining Division, Region IV

From : Chief, Mining Methods Br., Mining Div., Region IV

Subject : Contract Idm-E390, Docket DMEA-2463, Arizona Metals Co.'s Summit Lead-Zinc Mine, Mohave County, Ariz.

Mr. Robert W. Ageton of this office visited the Summit mine (Contract Idm_E390) on July 9. He verified the fact that no work has been done on this project except for the round of holes drilled in the drift face as reported by Mr. L. L. Farnham in his interim report of April 2(the holes were drilled prior to Farnham's visit on February 25).

As the company evidently has no intention of starting work under the contract, I recommend that the contract be cancelled.

Walter R. Storms

Walter R. Storms

CC W. H. King (6)
DMEA-2463
DF

WRStorms:frj

MINING DIVISION
REGION IV

July 10, 1953

Memorandum

To : Walter R. Storms, Chief, Mining Methods Br., Mining Div., Region IV, Tucson, Ariz.

From : Robert W. Ageton, Mining Engineer, Tucson, Ariz.

Subject : Docket DMEA-2463, Contract Idm-E390, Arizona Metals Company, Mohave County, Ariz.

In accordance with your request, engineer Robert W. Ageton visited the subject property July 9, 1953, to determine whether or not work had been started on the project by July 6, 1953. No work has been attempted since the execution of the contract with the exception of an unblasted round of holes drilled in the drift face at the starting point of the authorized work.

Ralph R. Langley, president of the Arizona Metals Company, was not in Kingman, Ariz., and it was not possible to learn where he was or anything about his activities. The clerk at the Hotel Beale where Langley stays when he is in the Kingman area volunteered the information that for several weeks he has not seen or heard about Langley.

Robert W. Ageton

Robert W. Ageton, Mining Engineer
Mining Methods Branch
Mining Division, Region IV

CC W. H. King (Orig. & 6)
DMEA-2463
DF

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

224 New Customhouse
Denver 2, Colorado

July 10, 1953

Memorandum

To: C. O. Mittendorf, Administrator, DMEA

From: Field Team, DMEA, Region IV

Subject: Docket No. DMEA 2463 (Lead-Zinc) Contract Idm-E390, Arizona Metals Company, Mohave County, Arizona

Reference is made to our memorandum of June 12, 1953 and the transmitted interim report regarding the lack of activity on work under the subject contract.

Amendment No. 2 to the subject contract, which was executed by you to establish the date for starting of work as prior to July 6, 1953 and extends the completion period from 9 months to 17 months, was forwarded to the Operator for his signature on June 3, 1953. However, the Operator has failed to execute the Amendment and return it to this office as instructed.

We have been advised by R. W. Ageton of the Tucson office of the Bureau of Mines that work did not start prior to July 6, 1953, and that there was no project activity on July 9, the date of inspection.

We recommend that the contract be terminated for non-compliance by the Operator with the terms of the contract.

W. H. King
W. H. King

A. H. Koschmann
A. H. Koschmann

FILE COPY
SURNAME:

500

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

Signed
Selfridge
Griswold
Matthews

JUN 22 1953

Mr. W. H. King, Executive Officer
DMEA Field Team, Region IV
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-2463 (Lead-Zinc)
Arizona Metals Company
Summit Mine
Mojave County, Arizona
Contract No. Idm-E390

Dear Mr. King:

This will refer to your memorandum dated June 10, 1953, addressed to the Administrator.

We are in accord that this contract should be terminated if the Operator does not commence work by the proper date. The contract was executed in August 1952 and, as far as we know, no work of any significance has ever been done.

We presume that you have received from us, and forwarded to the Operator, the Amendment No. 2 which we sent you under date of May 28, 1953.

Sincerely yours,

cc 6-22

George C. Selfridge

(SCB)

Chairman, Operating Committee

APPROVED:

J. H. Hedges

Member, Bureau of Mines (SCB)

A. R. Kinkel, Jr.

Member, Geological Survey (SCB)

WRGriswold/bjl (6/17/53)

Copy to: Docket
Admr. R. File
Op. Committee
Base Metals Div.
Mr. Kinkel
Mr. Bishop
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

224 New Customhouse
Denver 2, Colorado

June 22, 1953

Memorandum

To: Secretary to the Operating Committee
Defense Minerals Exploration Administration

From: Executive Officer, DMEA Field Team, Region IV

Subject: Contract Idm-E390, Docket DMEA 2463, Arizona Metals Co. Summit Lead-Zinc Mine, Mohave County, Arizona

Enclosed are four copies of an interim report dated June 19, 1953, by L. L. Farnham of the Bureau of Mines relative to the lack of activity on work under the subject contract.

W. H. King

W. H. King

Enclosures

MINING DIVISION
REGION IV

June 19, 1953

Memorandum

To : W. H. King, Chief, Mining Division, Region IV

From : Chief, Mining Methods Br., Mining Div., Region IV

Subject : Contract Idm-E390, Docket DMEA-2463, Arizona Metals Co.'s Summit Lead-Zinc Mine, Mohave County, Ariz.

Enclosed are original and 6 copies of an interim report on the above property by L. L. Farnham of the Bureau of Mines.

Walter R. Storms

Walter R. Storms

CC W. H. King (6)
DMEA-2463
DF

WRStorms:frj

MINING DIVISION
REGION IV

June 19, 1953

Memorandum

To : Walter R. Storms, Chief, Mining Methods Br., Mining Div., Region IV, Tucson, Ariz.

From : L. L. Farnham, Mining Engineer, Tucson, Ariz.

Subject : Docket DMEA-2463, Contract Idm-E390, Arizona Metals Company, Mohave County, Ariz.

The subject property was visited on June 10, 1953 and was found inactive. No work had been attempted since the signing of the contract with the exception of the unblasted round of holes drilled in the drift face at the starting point of the authorized work.

Ralph R. Langley, the president of the applicant company, was reportedly in Texas for the purpose of securing financial assistance with which to carry on the proposed project at the Summit mine.

L. L. Farnham, Mining Engineer
Mining Methods Branch
Mining Division, Region IV

CC W. R. King (Orig. & 6)
DMEA-2463
DF

MK
LLFarnham frj

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

Greenwold
Keating
Betty

224 New Customhouse
Denver 2, Colorado

June 18, 1953

Mr. Ralph R. Langley, President
Arizona Metals Company
1156 South Highland Avenue
Los Angeles 19, California

Dear Mr. Langley:

Six copies of Amendment No. 2 to Contract Idm-E390 were sent to you on June 3, 1953. Please return the original and four copies of this amendment, properly executed, to this office.

Yours very truly,

W. H. King

W. H. King
Executive Officer
DMEA Field Team, Region IV

JFS:ld

cc: COMittendorf
AHKoschmann
Contract
Chron

JUN 12 1953

Mr. Ralph L. Langley
Arizona Metals Company
1156 N. Highland Ave.
Los Angeles 19, California

Re: Docket No. [illegible] 2463 (Lead-Zinc)
Arizona Metals Company
Summit Mine
Mojave County, Arizona
Contract No. Idm-6390

Dear Mr. Langley:

We have received your letter dated June 3, 1953. Your statement in which you say that you understand available funds for the above project provide for 600 feet of drifting into the Silver Monster claim, is not correct. The contract provides for 1,000 feet of drifting in a southeasterly direction on the Summit vein on the lower adit level. It also provides for 200 feet of raising, providing that such raise work receives the prior approval, in writing, by a representative of this Administration.

We have been advised by the Office of Defense Mobilization as of June 1, that lead-zinc applications prior to May 15 may be considered. Hence, as stated in our letter to you of April 16, we are willing to consider an amendment of your present contract to provide for an additional 600 feet of drifting on the Summit vein into the Silver Monster claim, such work to be subject to the prior approval of the Government, upon completion of the work now provided for, if the Government then determines that in its opinion such additional work is justified.

With reference to the inclusion of the Fortunatus claim into your exploration project, the matter has already been given full consideration and we regret that it cannot be allowed.

By now you undoubtedly will have received the amendment extending the time of the contract from the Field Team.

Sincerely yours,

C. O. Mittendorf

Administrator

WMGriswold/hmj
(6/12/53)
CC to: Docket
Adm. M. File
Op. Committee
Base Metals Division
Region IV (2)
Mr. Kinkel
Mr. Bishop
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

224 New Customhouse
Denver 2, Colorado

June 10, 1953

Griswold
~~King~~
Betty

Memorandum

To: C.O. Mittendorf, Administrator, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Contract Idm-E390, Docket DMEA-2463, Arizona Metals Company

Enclosed is a copy of a letter dated June 4, 1953, from Ralph R. Langley, President of the Arizona Metals Company, and a copy of our reply.

We recommend that Contract Idm-E390 be cancelled if the operator does not begin work on or before July 6, 1953.

W.H. King
W. H. King

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

224 New Customhouse
Denver 2, Colorado

June 10, 1953

Mr. Ralph A. Langley, President
Arizona Metals Company
1156 South Highland Avenue
Los Angeles 19, California

Dear Mr. Langley:

This will acknowledge your letter dated June 4, 1953.

Amendment No. 2 to Contract Idm-8390 was sent to the Washington office for their approval and signature on May 13, 1953. As soon as it has been returned to this office we will forward it to you for signature.

This amendment requires that you start work on Contract Idm-8390 on or before July 6, 1953.

Very truly yours,

W. H. KING

W. H. King
Executive Officer, DMEA
Field Team, Region IV

COPY

ARIZONA METALS COMPANY
SUMMIT ALPHA MINES
KINGMAN, ARIZONA

Los Angeles, California
June 4th, 1953.

Mr. W.H. King
Executive Officer, DMEA
Field Team, Region IV
Denver, Colorado

Re: Docket 2463 DMEA
Contract No. Idm E390

Dear Mr. King:

I have been expecting the formal amendment to our contract which you said in your letter of May 7th that you were preparing.

We have assumed that the amendment would be sent to Washington for signature or approval and so we have been hesitant about the expenditure of time and money until we actually get the executed amendment from Washington--if that is where it comes from.

We have tentatively arranged for the trammer and some additional mine cars and are preparing to resume work but will feel more comfortable about the matter if and when we get the executed amendment.

I have a letter from Mr. Mittendorf advising in effect that no funds have been allocated for new lead zinc contracts so am again asking him to change our present work from the additional 600 feet into the Silver Monster with the same amount of work into the Fortunatus. Copy of letter attached.

Best wishes,

/s/ Ralph R. Langley

Ralph R. Langley

1156 S. HIGHLAND AVE.
LOS ANGELES 19, CALIFORNIA

ARIZONA METALS COMPANY

SUMMIT ALPHA MINES
KINGMAN, ARIZONA

Greenwood
Keating
Betty

Los Angeles California.
June 3-1953.

5

Mr. C. O. Mittendorf, Administrator,
Defense Minerals Administration,
Department of Interior,
Washington, D.C.

RE; Docket No. DMEA 2463 (Lead-Zinc)
Contract No.Idm E390

Dear Mr. Mittendorf;

I have your letter of May 28th.,advising that funds are no longer available for lead-zinc contracts not effective as of April I5th,I953--as I understand your letter.

As I understand the matter, funds are available for our contract ,which I understand includes the additional 600 feet of drift into the Silver Monster claim.

Would it not be possible to change the direction of the drift of that 600 feet from east to west so we can drift into the Fortunatus claim? The Fortunatus claim is the all important one and most potential in the group or in the district.

Furthermore--even without available funds for the present with which to do the work--we want to get the Fortunatus claim qualified for some sort of Government assistance and so would like to go through whatever motions as may be necessary to make that claim available ,if and when funds or assistance are available under the present DMEA seyup or any other arrangement that may be shaped up by the new officials in the Interior Department. So how do we go about it?

We are preparing to resume work on the project within the time stated by Mr. King in his recent letter but as yet have not had the formal extension or amendment sent us for our signature.

Sincerely,

Ralph R. Langley

Ralph R. Langley

FILE COPY
SURNAME:
500

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

pb

Diamond
Kinkel
Ashton
Rubin
Chamberlain
Hedges
Kinkel
Jeffrey
Johnson

MAY 28 1953

pl 5/28

Mr. Ralph R. Langley
Arizona Metals Company
1156 S. Highland Avenue
Los Angeles 19, California

Re: Docket No. DMA 2463 (Lead-Zinc)
Arizona Metals Company
Summit Mine
Mojave County, Arizona
Contract No. Idm-5390

Dear Mr. Langley:

This is in response to your letters of May 6 and May 15, in which you request advice as to the procedure for obtaining a reconsideration of your project with respect to the Fortunatus claim. As you suggest, to explore this claim would involve additional funds to those already provided in the existing contract.

As of April 15, 1953, the commitment of funds allocated to the DMA for exploration assistance under the Defense Production Act was restricted to certain specified metals and minerals still in short supply. Lead and zinc were not specified, and consequently were automatically removed from the list of metals or minerals eligible for exploration assistance.

Since your request for an amendment relates to lead and zinc and was pending on the date of the restrictive order, we are without authority to commit funds for work in addition to that which was approved under the subject contract. You can well understand that your request cannot be favorably considered under the circumstances.

I regret that we cannot be of further assistance to you in this instance.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

AGKeating/hmj
(5/21/53)
CC to: Docket
Adm. R. File
Op. Committee
Base Metals
Region IV (2)
Mr. Kinkel
Mr. Bishop

FILE COPY
SURNAME:
500

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

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Selfridge
Johnson

MAY 28 1953

BL 5/28

Mr. W. H. King, Executive Officer
DMEA Field Team, Region IV
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-2463 (Lead-Zinc)
Arizona Metals Company
Summit Mine
Mojave County, Arizona
Contract No. Idm-E390

Dear Mr. King:

This refers to your memorandum to this office dated May 13, 1953, regarding Amendment No. 2 to the subject contract, which you have prepared and submitted for approval.

We approve of the amendment and are enclosing the original and five copies which have been executed by the Administrator. Please obtain the signature of the Operator and distribute in the usual manner.

We agree with you that if the Operator does not start work within the stipulated time, it will be necessary to terminate the contract. It is suggested that action be taken by the Field Team to determine that actual work has been started within the prescribed time and that the Operator is prepared to prosecute the work continuously so as to bring the project to completion within the period provided by the contract.

Sincerely yours,

George C. Selfridge (JHB)

Chairman, Operating Committee

AGKeating/hmj
(5/21/53)
CC to: Docket
Enclosures 6 Adm. R. File
Op. Committee
Base Metals Division
Mr. Kinkel
Mr. Bishop
Chron.

APPROVED:

J. H. Hedges

Member, Bureau of Mines (JHB)

A. R. Kinkel, Jr.

Member, Geological Survey (JHB)

P. O. BOX 1266
KINGMAN

1156 S. HIGHLAND AVE.
LOS ANGELES 19, CALIFORNIA

ARIZONA METALS COMPANY

SUMMIT ALPHA MINES
KINGMAN, ARIZONA

May 15, 1953

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 18 1953

Mr. C. O. Mittendorf, Administrator,
Defense Minerals Exploration Administration,
Department of Interior,
Washington, D. C.

Dear Mr. Mittendorf: Re: Docket DMEA 2463 (lead & zinc Contract No Idm-E 39o.)

I am anxious to bring about reconsideration of the inclusion of the Fortunatus claim in our DMEA contact, as discussed in our letter dated May 6th, as soon as possible, for economic reasons as well as for compliance with the intent of the Congress with respect to opening up new ore bodies for future production.

There is no question whatever but that the Fortunatus claim holds out every known element of expectation of opening up an unusually large body of heretofore unknown or undisclosed base metal ore. No experienced, realistic mine operator or engineer would risk his professional reputation by going on record otherwise, notwithstanding the examining engineer's cockeyed, unsupported whim and theory to the contrary.

Time is a very important element, particularly during these dark days in the mining industry, for the reason that the cost of drifting two ways at the same time is substantially less per unit of work than drifting one way -- so we wish to drift both ways as soon as we resume work.

I assume the Administrator has final authority and may over-rule or upon analysis, decide other than as recommended by a field engineer. I am in position to and am ready to supply realistic facts and basis for a more correct and logical conclusion, preferably by mail but will come to Washington if desired or if necessary.

The matter is of vital, immediate importance.

Sincerely,

ARIZONA METALS COMPANY

By Ralph R. Langley
Ralph R. Langley

RRL:ath

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

Original
Keating
Betty

224 New Customhouse
Denver 2, Colorado

May 13, 1953

Memorandum

To: C.O. Mittendorf, Administrator, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Docket DMEA-2463, Contract Idm-E390 (Lead-Zinc), Arizona Metals Company, Mojave County, Arizona

In compliance with the last paragraph of the letter from the Chairman, Operating Committee, dated April 16, 1953, we are enclosing the following matter concerning the starting and completion dates of work under the subject contract:

1. The original and five copies of Amendment No. 2 which we have prepared for your consideration and execution.

2. Three sets of copies of correspondence pertaining to and in support of the amendment.

With reference to Amendment No. 2 which extends the starting and completion time for work under the contract, we are of the opinion that if the operator does not start work within the stipulated time that the necessary action should be initiated by your office to terminate the contract.

W.H. King
W.H. King

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

224 New Customhouse
Denver 2, Colorado

May 8, 1953

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 11 1953

Memorandum

To: C. O. Mittendorf, Administrator, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Docket DMEA 2463, Contract Idm-E390, Arizona Metals Company

Enclosed for your information are two copies of a memorandum from the Chief, Mining Methods Branch, regarding the status of Contract Idm-E390.

W. H. King

W. H. King

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

224 New Customhouse
Denver 2, Colorado

May 7, 1953

Imcon 2463

Mr. Ralph R. Langley
Arizona Metals Company
1156 South Highland Avenue
Los Angeles 19, California

MAY 11 1953

Dear Mr. Langley:

This will acknowledge receipt of your letter dated May 6, 1953, regarding amendments to Contract Idm-E390.

We believe that the airmail letter dated April 16, 1953, from C.O. Mittendorf, Administrator, DMEA, explains the position of the Defense Minerals Exploration Administration regarding amendments to Contract Idm-E390.

We will prepare a formal amendment authorizing you to recess operations under Contract Idm-E390 until July 6, 1953, sixty days from the date of your letter.

Very truly yours,

W.H. King

W.H. King
Executive Officer, DMEA
Field Team, Region IV

JFS:jp
cc COMittendorf 2
WMStorms 2
JMTownsend
AHKoschmann
Contract
Chron

P. O. BOX 1266
KINGMAN

1156 S. HIGHLAND AVE.
LOS ANGELES 19, CALIFORNIA

ARIZONA METALS COMPANY

SUMMIT ALPHA MINES
KINGMAN, ARIZONA

Los Angeles, Calif.

May 6, 1953

DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration
RECEIVED
MAY 8 1953

Mr. C. O. Mittendorf, Administrator
Defense Minerals Exploration Administration
Department of the Unterior
Washington 25, D. C.

Re: Docket No. DMEA-2463
Arizona Metals Company
Contract No. Idm-E390

Dear Mr. Mittendorf:

Since writing you on April 21, I have discussed the above referred to matter with your Denver office and with your Field Engineer, Mr. Farnham at Tuscon, who made the examination and report on our application for an amendment to our contract.

Frankly, when I received your letter dated April 16, I jumped to the conclusion that the Washington office was responsible for eliminating the Fortunatus claim for consideration. I was amazed to find, a few days later, that Mr. Farnham's report was adverse to the Fortunatus. He and the others who were present during the examination had clearly indicated to me that they appreciated the potential of the Fortunatus. They could not very well think otherwise for the Fortunatus is an outstanding claim.

The elimination for denial of the Fortunatus claim from our DMEA project was a serious and nonunderstandable error on the part of Mr. Farnham and a great injustice to the applicant and to our district. It is certainly contrary to the purpose and interest of the DMEA function and program. It is contrary to the interest of production and National defense for there is not a more potential, undeveloped base metal mining claim in Arizona than the Fortunatus.

Mr. Farnham's theories as stated to me are (a) that there is not as much high grade lead ore lying on the Fortunatus location, prospecting and assessment work dumps as there is on the more extensive Summit outcrop location, prospecting and assessment work dumps, (b) that there has been no actual production from the Fortunatus claim as there has been from the end lining Summitt claim, (c) that driving a drift on the Fortunatus

fissure would be "prospecting"rather than "exploration" work and (d) that he did not detect gold and silver values in the Fortunatus outcrops as he assumed were present in the Summitt outcrops.

I readily agree that every individual and engineer is entitled to his own judgment even though it be based upon a wrong conception or upon a whim or theory, but when a serious injury results, I believe a reconsideration is in order.

The matter is so important to the applicant, to our district and to the concept of the DMEA authority that I must seek an effective method or a route of reconsideration, which is the purpose of this communication.

No one, including Mr. Farnham, can deny that the Summitt fissure, extending through the Fortunatus claim, is more bold, wider and more continuous across the Fortunatus claim than on the Summitt nor that the character of the fissure or its filling is different in grade and character, except perhaps higher in lead content, than on the Summitt claim.

These facts can be readily proven by photographs, measurements and by assays of samples taken by a disinterested, competent individual -- which thought leads me to suggest that you might ask the Department of Mineral Resources of Arizona to have their District Field Engineer photograph, measure and sample the fissure and report to you. That would be done as a function of the Department without expense to DMEA or to me.

Or, you might employ one or more other engineers, at my expense if necessary, to re-examine the project, in which case I would suggest that you designate an engineer of long realistic experience, one who might be recommended by Howard I. Young, such as, George W. Roddewig, one of Mr. Young's engineers, if he is available.

I will greatly appreciate advice from you as to acceptable procedure for obtaining a reconsideration with respect to the Fortunatus claim, perhaps as an amendment to the new contract which, I understand, your Denver office will write, meantime we are asking the Denver office to prepare and forward a new contract for our signature as per copy of letter attached. I hope we can get the Fortunatus claim exploration work included in the contract or in an amendment thereto without much delay for there will be a saving of several dollars per foot of drift by drifting both ways on the fissure at the same time over drifting one way.

Very truly yours,

ARIZONA METALS COMPANY

By Ralph R. Langley

Ralph R. Langley

RRL:jca

Los Angeles, California

May 6, 1953

Mr. W. H. King, Executive Officer
Field Team, Region IV
224 New Customhouse
Denver 2, Colorado

Re: Docket No. DMEA 2463
Contract No. Idm-E390

Dear Mr. King:

In reply to your letter of April 24, we will resume operations under the DMEA contract at the Summit as soon as we can obtain and install the additional equipment necessary for ventilating and tramming. The greater distances attained preclude hand tramming and further use of the ventilating equipment which has served for the shorter distances. These items of additional equipment required are listed in the application for amendment.

I am advised that delivery of a suitable blower cannot be expected short of thirty days and of a battery trammer short of sixty days but we will get them as soon as available. We can and will do the necessary preparatory work in advance of those items of equipment, but such preparatory work will not be applicable as DMEA work.

We will resume work as soon as possible but under the equipment delivery circumstances it will not be safe to fix a definite time for resumption in less than sixty days.

I suggest that you prepare and forward to us a new contract including the additional 600 feet of work on the Silver Legion claim for our signature - with the knowledge that we intend to ask Washington for a reconsideration of our request to include the Fortunatus claim as indicated in the attached copy of a letter to Mr. Mittendorf. What about including the winz in this contract? Nothing was said either way about the winz in Mr. Mittendorf's letter of April 16th.

The Fortunatus claim is especially important to us for in addition to its high potential, the actual cost per unit of work by drifting in both directions from the crosscut intersection at the same time, is several dollars less per foot of drift than by drifting only one way. However, we will resume work under the contract and take our chances on getting the contract amended to include the Fortunatus.

Very truly yours,

ARIZONA METALS COMPANY

By: _____
Ralph R. Langley

RRL:jca
cc: C. O. Mittendorf

MINING DIVISION
REGION IV

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 11 1953

May 5, 1953

Memorandum

To : W. H. King, Chief, Mining Division, Region IV

From : Chief, Mining Methods Br., Mining Div., Region IV

Subject : Visit of Ralph R. Langley, Contract Idm-E390, Docket DMEA-2463, Arizona Metals Co.'s Summit Lead-Zinc Mine, Mohave County, Ariz.

In regard to our telephone conversation of April 23, Ralph R. Langley of the above company called at our Tucson office on April 28 and talked some time to L. L. Farnham and me about the proposed amendment to his contract Idm-E390. Farnham carefully explained the reasons why he had not recommended work on the Fortunatus claim but Langley still argued that he "just knew there was ore" on that claim.

We finally found out the main reason why Langley insisted on work on the Fortunatus claim. His chief "angel" owns that claim so if Langley cannot have the contract amended so work can be done on the Fortunatus, the "angel" probably will withdraw his support.

Langley left here in a very friendly spirit and also was friendly in Phoenix when we met him there last week. He said that he was going to try to get Mittenderf to send another engineer to examine his property.

When we asked Langley when he expected to start work under Contract Idm-E390, he was very noncommittal, said he thought it would be at least 30 days. Farnham and I believe that he hasn't any money and if his Fortunatus angel withdraws, we doubt if work ever will be started.

Walter R. Storms

CC W. H. King (5)
DMEA-2463
DF

WRStorms:frj

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

Griswold
Kelly
OBM

224 New Customhouse
Denver 2, Colorado

April 24, 1953

Memorandum

To: C. O. Mittendorf, Administrator
Defense Minerals Exploration Administration

From: Executive Officer, Field Team, Region IV

Subject: Docket No. DMEA 2463 (Lead-Zinc) Arizona Metals Company, Summit Mine, Mojave County, Arizona, Contract No. Idm-E390.

Reference is made to your letter of April 16, 1953 regarding the subject contract.

On April 22, Mr. Langley visited this office, and we had a lengthy conversation regarding the operations pertaining to this contract. At that time, we requested Mr. Langley to give us a definite date that operations will be resumed under this contract. We confirmed this with a letter to Mr. Langley and are attaching copy.

W. H. King
W. H. King

Enclosure

COPY

224 New Customhouse
Denver 2, Colorado

April 24, 1953

Mr. Ralph R. Langley
Arizona Metals Company
1156 S. Highland Avenue
Los Angeles 19, California

Re: Docket No. DMEA 2463 (Lead-Zinc)
Arizona Metals Company
Summit Mine
Mojave County, Arizona
Contract Idm-E390

Dear Mr. Langley:

During our conversation at the time of your visit to this office on April 22, we requested you to inform us of the date you intend to resume operations under Contract E390, Docket No. DMEA 2463, Summit Mine, Mojave County, Arizona.

We would appreciate a letter from you setting forth the definite date that operations will be resumed.

Very truly yours,

W.H. King
Executive Officer
Field Team, Region IV

WHK:es

cc: Mittendorf
Contract
Storms
Chron.
Koschmann (2)

P. O. BOX 1266
KINGMAN

1156 S. HIGHLAND AVE.
LOS ANGELES 19, CALIFORNIA

ARIZONA METALS COMPANY

SUMMIT ALPHA MINES

KINGMAN, ARIZONA

Gruwell
Keating
Baty

Lincoln Nebraska. April 21-1953

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 24 1953

Mr. C. O. Mittendorf, Administrator,
Defense Minerals Exploration Administration,
Department of Interior,
Washington, D.C.

Re: Docket No DMEA -2463
Contract Idm.E390

Dear Mr. Mittendorf;

You are in error in paragraphs 2 amd 4 of your letter of the I6th.

We did start work within the time specified in our contract but as a result of conversations with your Denver office , suspended work until spring--as did others holding contracts in our district. We have always considered the contract in force.

If your engineers will check the facts they will find that the prevailing wage rate increased 28% between August I952 and the present time and that the average cost of equipment and su pplies has increased about 20% since August I952.

However, as I see the situation, those details are quite aside from the underlying premise of the whole Defense Minerals purpose ,whereas the elimination of the Fortunatus claim would be totally inconsistent with the intent and purpose of the Act,and contrary thereto. The purpose of the Act as we understand it,it to accomplish--not to let lay dormant,or be too concerned about unimportant details.

The only claim in Mohave County holding out more promise and greater potential than the Summit,is the Fortunatus. That very evident fact was unanimously recognized by your examining engineer and the five other Government and State engineers who accompanied him when he was making his examination under the application for an amendment.

What is the purpose of the DMEA and the objective? Is it not to aid in the exploration for and opening up of base metal resources--preferable extensive resources--or if not then what is its objective?

There is more involved in the Fortunatus phase of the situation than appears in the application. It has a very strong influence upon the financing of the project. The responsibility of the heirs and executors of the estate owning the claim have an important bearing upon the financing of the enterprise.

Then there is an important matter of economy involved. If you will look at the map you will see that the Fortunatus is located west of the crosscut intersection whereas the work to be done on the Summit lies east of the intersection which condition permits drifting two ways on two faces at the same time thus reducing overhead and other costs and accomplishing twice the amount of exploration work within the same period of time.

I will not know until I get to Los Angeles what the effect of eliminating the Fortunatus might be upon the financing of our project but in any event I suggest that you review the situation personally , examine the maps and reconsider the situation.

I would not object to eliminating the work on the Silver Monster if necessary to satisfy your organization and substuting the same amount of work on the Fortunatus, nor would I object to adding I75 or 200 feet of drift to the west of the crosscut on the Summit and taking that much off of the east end of the I,000 feet authorized.. That was originally suggested by your Denver office.

Will communicate with you further after discussing the matter with your Denver office.

Sincerely,

Ralph R. Langley

Ralph R. Langley

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

224 New Customhouse
Denver 2, Colorado

April 20, 1953

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Docket DMEA 2463, Contract Idm-E390, Arizona Metals Company (Lead-Zinc)

Reference is made to your letter dated April 16, 1953, regarding amendments to Contract Idm-E390, and your letter dated April 16 to Ralph R. Langley.

We agree that the unit costs of the work described in the contract should not be increased. We recommend an additional 600 feet of drifting southeasterly on the Silver Monster claim after the completion of the 1000 feet of drifting authorized in the contract. We believe that approval of the additional 600 feet of drifting should be contingent upon obtaining favorable results from the 1000 feet of drifting. The unit cost for this work should be $38.30 per foot the same as is authorized under the present contract.

We will contact the operator and request him to specify when he will be in a position to start work under the terms of this contract and forward the information to your office.

W. H. King

W. H. King

April 17, 1953

Note for file, DMEA-2463 - Arizona Metals Co.

Langley phoned from Lincoln, Nebraska, to inquire the status of his application. I told him we had mailed a letter to his Los Angeles address, with a copy to Salt Lake City, and conveyed the contents of that letter to him by phone. He was disappointed that we denied exploration on the Fortunatas Claim, which we considered the most interesting part of his revised application. He wondered if there had been some misunderstanding on the part of the Government engineers, and if they had this project confused with another part of the ground he controls. I told him I did not think there was any such probability. He felt that he could secure necessary financing in Utah and Los Angeles; however, that it would be much more difficult to obtain, now that the Fortunatas Claim had been eliminated from his application. He said he would be in Denver next week and would discuss the matter with King.

C. O. Mittendorf (for)

FILE COPY
SURNAME:

500
Keating
Bradford
Kimball
Brabson
Fellstrom
Gallagher
Whitenack

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

APR 16 1953

Mr. [illegible] H. King, Executive Officer
[illegible] Field Team, Region IV
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. [illegible] 2463 (Lead-Zinc)
Arizona Metals Company
Summit Mine
Mojave County, Arizona
Contract No. Idm-[illegible]390

Dear Mr. King:

This refers to your memorandum of March 30, 1953, and enclosed application of Arizona Metals Company for an amendment to undertake additional work and to increase the cost of the original work under the subject contract.

J.C. 4/16/53

We note from your memorandum that your office executed an amendment extending the starting time to November 25, 1952, and that your Tucson office advised on March 23, 1953 that no work had been accomplished up to that date, except for a drilled, but not blasted, round in the drift heading. No claim for reimbursement has been submitted by the Operator. It also appears that it is not possible to undertake the additional work requested by the Operator until the work authorized under the existing contract is completed.

The Operator certainly is in default, having not complied with the terms of the contract since work was not started within the time scheduled, and also because the property is not now being operated under the contract. However, we feel that the Operator should be given an opportunity, within a reasonable time, to raise necessary financing, but a definite date should be established as to when he would be prepared to start the operations.

We have recently received a letter from the Operator concerning this matter, and for your information a copy of this letter is enclosed together with a copy of our reply. We concur with your recommendations with respect to his application for an amendment to the contract. Your attention is called, however, to the fact that your recommendations do not indicate the unit cost that should be allowed for the additional 600 feet of drifting in the Silver Monster Claim as a stage II of the contract. We will appreciate your advising us regarding this.

It is suggested that you communicate with the Operator and if agreeable, draft an appropriate amendment and forward it to this office for preparation by our Legal Division.

Sincerely yours,

(JHB)

Chairman, Operating Committee

Enclosure

APPROVED:

(JHB)

Member, Bureau of Mines

(JHB)

Member, Geological Survey

AGKeating/FEJohnson/hmj/bih
CC to: Docket
Adm. R. File
Op. Committee
Base Metals
Mr. Thayer
Mr. Hedges
Mr.Johnson
Chron.

P. O. Box 1266
Kingman

1156 S. Highland Ave.
Los Angeles 19, California

ARIZONA METALS COMPANY
Summit Alpha Mines
Kingman, Arizona

C
O
P
Y

Lincoln Nebraska, March 31, 1953

Mr. C. O. Mittendorf, Administrator,
Defense Minerals Exploration Administration,
Department of Interior
Washington 25,
D. C.

APR 1 6 1953

Re: DMEA docket 2463
Contract Idm-E390

Attention Willis R. Greswold;

Your Denver office advised me last Friday that the Summit Mine reports and papers would be mailed to you the first of this week.

I will very much appreciate having the papers processed and a contract executed as quickly as possible for the reason that I am anxious to conclude some pending financing with local and Salt Lake City people which financing is somewhat contingent upon the execution of an amended contract and, to some extent, upon the terms with respect to the DMEA participation per unit of work to be done.

I had hoped that the uranium showing would be greater and would justify a higher rate of participation by DMEA but that reason is not now as Forceful as it appeared to be, yet the showing is such that we should be on the alert for uranium values and provide ourselves with the necessary detection equipment—which does add to the costs somewhat.

However, costs have increased considerable since the filing of our original application which fact I hope you will take into consideration in setting up an agreed estimate of costs.

I assume the contract will be returned via the Denver office so will keep in touch with that office.

Respectfully,

/s/ Ralph R. Langley
for
Arizona Metals Company

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

Air Mail

APR 16 1953

Mr. Ralph R. Langley
Arizona Metals Company
1156 S. Highland Avenue
Los Angeles 19, California

Re: Docket No. DMEA-2463 (Lead-Zinc)
Arizona Metals Company
Summit Mine
Mojave County, Arizona
Contract No. Idm-2390

Dear Mr. Langley:

In your letter to us of March 31 you refer to a pending application for the amendment of the subject contract and ask that the matter be expedited.

The subject contract (as amended) is dated August 25, 1952, and provides that the work should be commenced within ninety days and completed within nine months from the date of the contract. The work has neither been started nor completed as required by the contract, and you are, of course, in default under the contract.

The contract provides for 1,000 feet of drifting and 200 feet of raising at agreed unit prices. You desire by the amendment to increase the work, to increase the unit price allowed for the work, and to extend the time for beginning and performing the work. Your application has been reviewed by our engineers, commodity specialists, and lawyers, and the conclusion reached that it cannot be granted as presented.

Since you are already obligated by the existing contract to perform the work described therein at the unit prices fixed, this Administration does not have the authority to grant any increase in these unit prices. Moreover, we are of the opinion that the agreed unit prices fixed by the contract, if they were reasonable on August 25, 1952, the date of the contract, remain reasonable at this time and should certainly not be increased. The data available to us does not indicate that any increase in the ratio of the Government's participation can be based on the possibility of discovering uranium, and apparently you yourself agree with this conclusion.

All of the additional work which you have proposed is necessarily contingent upon the completion of the work authorized under the existing contract. Judging from the information now available, we do not believe that this additional work is justified, with the possible exception of some continuation of drifting on the Summit vein within the Silver Monster claim, but this additional drifting would be contingent upon obtaining favorable results from the 1,000 feet of drifting on this vein as provided for in the present contract.

This Administration is willing to consider an amendment of your present contract to make the necessary extensions of time for beginning and completing the work now provided for, if you can give us assurance that the work will be performed within the time limits fixed. In addition, we would be willing to provide for an additional 600 feet of drifting on the Summit vein in the Silver Monster claim at the same unit costs as are now provided, but this additional work to be subject to the prior approval of the Government upon completion of the work now provided for if the Government then determines that in its opinion such additional work is justified.

Sincerely yours,

C. O. Mittenderf

Administrator

AGKeating/FEJohnson/JLHofflund/em
4/15/53

Copy to: Mails and Files
Adm. R. File
Op. Committee
Reg. IV (2)
Base Metals Division
Mr. Kinsel
Mr. Bishop
Mr. Keating
Mr. Johnson
Mr. Hofflund
chron.
pending

CLASS OF SERVICE

This is a full-rate Telegram or Cablegram unless its deferred character is indicated by a suitable symbol above or preceding the address.

WESTERN UNION

W. P. MARSHALL, PRESIDENT

FX-1201

SYMBOLS
DL=Day Letter
NL=Night Letter
LT=Int'l Letter Telegram
VLT=Int'l Victory Ltr.

The filing time shown in the date line on telegrams and day letters is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination

1 AA 641 KA429

1953 APR 16 PM 7 28

K•LNA505 NL PD=LINCOLN NEBR 16=

C O MITTENDORF, ADMINISTRATOR DEFENSE MINERALS

EXPLORATION=ADMN DEPT OF INTERIOR WASHDC=

WILL TELEPHONE YOU FRIDAY AFTERNOON REGARDING STATUS

OF ARIZONA METALS SUMMITT APPLICATION AND OTHER MATTERS•

REGARDS=

RALPH R LANGLY=••

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 17 1953

DMR-2463

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

APR 17 6 57 AM '53
BUREAU OF MINES
MAIL ROOM
WASHINGTON, D.C.

FILE COPY
SURNAME:

140

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

Rewritten by

Keating
Griswold
Hoffland
Hopman
Gallagher
Kimball
Weders

Air Mail

APR 1 1 1953

Mr. Ralph R. Langley
Arizona Metals Company
1156 S. Highland Avenue
Los Angeles 19, California

Re: Docket No. DMEA-2463 (Lead-Zinc)
Arizona Metals Company
Summit Mine
Mojave County, Arizona
Contract No. Idm-E390

Dear Mr. Langley:

J.C. 4/16/53

In your letter to me of March 31 you refer to a pending application for the amendment of the subject contract and ask that the matter be expedited.

The subject contract (as amended) is dated August 25, 1952, and provides that the work should be commenced within ninety days and completed within nine months from the date of the contract. The work has neither been started nor completed as required by the contract, and you are, of course, in default under the contract.

The contract provides for 1,000 feet of drifting and 200 feet of raising at agreed unit prices. You desire by the amendment to increase the work, to increase the unit price allowed for the work, and to extend the time for beginning and performing the work. Your application has been reviewed by our engineers, commodity specialists, and lawyers, and the conclusion reached that it cannot be granted as presented.

Since you are already obligated by the existing contract to perform the work described therein at the unit prices fixed, this Administration does not have the authority to grant any increase in those unit prices. Moreover, we are of the opinion that the agreed unit prices fixed by the contract, if they were reasonable on August 25, 1952, the date of the contract, remain reasonable at this time and should certainly not be increased. The data available to us does not indicate that any increase in the ratio of the Government's participation can be based on the possibility of discovering uranium, and apparently you yourself agree with this conclusion.

All of the additional work which you have proposed is necessarily contingent upon the completion of the work authorized under the existing contract. Judging from the information now available, we do not believe that this additional work is justified, with the possible exception of some continuation of drifting on the Summit vein within the Silver Monster claim, but this additional drifting would be contingent upon obtaining favorable results from the 1,000 feet of drifting on this vein as provided for in the present contract.

This Administration is willing to consider an amendment of your present contract to make the necessary extensions of time for beginning and completing the work now provided for, if you can give us assurance that the work will be performed within the time limits fixed. In addition, we would be willing to provide for an additional 600 feet of drifting on the Summit vein in the Silver Monster claim at the same unit costs as are now provided, but this additional work to be subject to the prior approval of the Government upon completion of the work now provided for if the Government then determines that in its opinion such additional work is justified.

Sincerely yours,

C. O. Mittendorf (fw)

Administrator

AGKeating/FEJohnson/JLHofflund/em
4/15/53

Copy to: Mails and Files
Adm. R. File
Op. Committee
Reg. IV (2)
Base Metals Division
Mr. Kinkel
Mr. Bishop
Mr. Keating
Mr. Johnson
Mr. Hofflund
chron.
pending
Original sent to Mr. Langley at Temple Square Hotel, Salt Lake City; copy to him at Los Angeles.

P. O. BOX 1266
KINGMAN

1156 S. HIGHLAND AVE.
LOS ANGELES 19, CALIFORNIA

ARIZONA METALS COMPANY

SUMMIT ALPHA MINES
KINGMAN, ARIZONA

Temple Square Hotel
Salt Lake City, Utah
April 11, 1953

Ans by phone 4/17

Mr. C. O. Mittendorf, Administrator,
Defense Minerals Exploration Administration
Department of Interior,
Washington 25, D. C.

Re: DMEA Docket 2463
Contract Idm-E390

Dear Mr. Mittendorf:

The availability of competent miners in our district is one of our problems. I know of only three topgrade local men immediately available. The reverse is true up here in Bingham and Park City due to curtailment of operations. The U. S. Smelting Company, being interested in future ore supply, are arranging with one twelve-man crew to take a contract for the labor and perhaps for the entire job, at the Summit, provided I can assure them of a DMEA contract participation before they have to disband and look for other employment.

It is not my purpose to try to put on any pressure or to rush your processing of our application, but to advise you as to our situation and as to conditions in Utah-Arizona generally. Conditions are bad. There is already much unemployment. Only by getting such projects as ours in action will there be much if any activity, even in the great mining centers, and none in the smaller districts.

The Summit project means a lot to our district, and, I think to the objective of National Defense, for our program will open up a really comprehensive potential of base metal ore, which I believe is the objective of DMEA. Many of us believe that our potential volume will run into several million tons of ore.

If your Office approves the amount of work applied for, and particularly approves some increases in the estimated costs of drifting and sinking such as even a gross increase of only $6.00 or even $5.00 per foot of drift - half of which would be DMEA added participation - that would assure carrying out a really comprehensive exploration project, and furthermore, you will note in the application that I am offering to include the ore now opened up in the 360 ft. drift for royalty payments as an offset, for inducement to increase the estimated costs of drifting and sinking.

I am remaining in this area until the application is disposed of, and have asked Mr. King to advise me of developments.

Sincerely,

Ralph R. Langley

Ralph R. Langley

P. O. BOX 1266
KINGMAN

1156 S. HIGHLAND AVE.
LOS ANGELES 19, CALIFORNIA

ARIZONA METALS COMPANY

SUMMIT ALPHA MINES
KINGMAN, ARIZONA

Temple Square Hotel
Salt Lake City 1, Utah
April 11, 1953

Mr. C. O. Mittendorf, Administrator
Defense Minerals Exploration Administration
Department of Interior
Washington 25, D. C.

Dear Mr. Mittendorf:

Regarding the efforts to get H. R. 4294 enacted I am, on advice of Otto Herries and Bob Palmer eliminating from my letter to General Eisenhower the reference to Newmont Mining Company, and am stressing a little stronger the human element phase.

Mr. Herries is rather optimistic about the fate of the Bill, but urges as much persuasion as possible upon those members of Congress who have a voice - a vote - in the matter. That I am doing to the best of my ability.

Is there anything any of us can try to do, myself for instance - towards influencing a continuation of the DMEA authority?

Unless the DMEA is continued, the sliding scale of Tariff Bill will not be too important except to the Majors for there will be very little ore opened up for mining to be protected by a duty tax, except through DMEA aid.

Best wishes.

Very truly yours,

Ralph R. Langley

Ralph R. Langley

L/w

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 13 1953

224 New Customhouse
Denver 2, Colorado

April 7, 1953

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Contract Idm-E390, Docket DMEA 2463, Arizona Metals Co., Mohave County, Arizona

In conjunction with matter transmitted by the Field Team, Region IV, memorandum of March 30, 1953, there are enclosed for your information two copies of an interim report relative to a project inspection February 25, 1953.

W. H. King

W. H. King

Enclosures

MINING DIVISION
REGION IV

April 2, 1953

Memorandum

To : W. H. King, Chief, Mining Div., Region IV

From : Chief, Mining Methods Br., Mining Div., Region IV

Subject : Contract Idm-E390, Docket DMEA-2463, Arizona Metals Co., Mohave County, Ariz.

Enclosed are original and six copies of a short interim report on the above contract, by L. L. Farnham of the Bureau of Mines. Evidently the only work done under this contract was one round drilled in the drift face but not blasted.

Walter R. Storms

Walter R. Storms

CC W. H. King (6)
DMEA-2463
DF

WRStorms:frj

MINING DIVISION
REGION IV

April 2, 1953

Memorandum

To : Walter R. Storms, Chief, Mining Methods Branch, Mining Division, Region IV

From : L. L. Farnham, Mining Engineer, Tucson, Ariz.

Subject : Contract Idm-E390, Docket DMEA-2463, Arizona Metals Co., Mohave County, Arizona.

When the subject property was visited on February 25, 1953 it was found inactive and the drift had not been advanced beyond the starting point as established soon after the contract was signed. The only work accomplished since that time consisted of drilling a round of holes, which were not blasted, in the southeast face of the drift where the project work was to start.

L. L. Farnham, Mining Engineer
Mining Methods Branch, Mining
Division, Region IV

CC: W. H. King (Orig. & 6)
DMEA-2463
DF

LLFarnham:als

April 2, 1953

MEMORANDUM to G. C. Selfridge

From: W. R. Griswold, Chief, Base Metals Division

Subject: Docket No. DMEA-2463 (Lead-Zinc), Arizona Metals Co., Summit Mine, Mohave County, Arizona, Contract No. Idm-E390

As far as our knowledge goes work has never commenced on this project. Original date set for starting work was October 25, 1952. Time allocated for work was 9 months.

Upon request starting date was set forward, by amendment, to November 25, 1952.

Original program called for a reasonable amount of work -- 1,000 feet of drifting and 200 feet of raising -- yet before starting any work Operator wished to increase program to 5,675 feet of drifting, 100 feet of winze, etc., also to have higher cost allowances.

We do not concur that such a large program is indicated at the moment. The presently existing contract certainly should be sufficient as an initial step. If favorable results were shown additional work could then be approved.

The Operator states that he is having trouble financing his project. It appears dubious that work will be started. If we are correct in our assumption that no work has yet been undertaken, then the contract is in default, since November 25, 1952 was assigned starting date.

No equipment is involved.

If work should be undertaken it is obvious that the 9-month completion period, ending August 25, 1953 would be insufficient.

W. R. Griswold

W. R. Griswold

COPY

ARIZONA METALS COMPANY
Summit Alpha Mines
Kingman, Arizona

September 27, 1952.

Mr. W. H. King
Executive Officer
Field Team, Region IV
224 New Customhouse
Denver 2, Colorado.

Re: Arizona Metals Company
DMEA Docket 2463

Dear Mr. King:

I met Mr. Farnham at the Summit mine on the 23d. We marked the starting point and he gave me our copy of the contract.

I note that the contract is dated August 25 and we have 60 days from that time to start work. Therein is our problem. If we had 60 days from the time the contract was delivered to us that would be satisfactory--and no doubt that is what was intended--but when half of the 60 days is absorbed by DMEA in mailing the papers to Washington and back it seems to me that fact should be taken into consideration in the time element.

I do not wish to be regarded as complaining too much but we are caught in a tight spot. When we made our application we had arrangements under which we would have carried our part of the contract provided the contract had come through with reasonable promptness. We used up our own funds doing work which we supposed would be considered a part of the project, while awaiting the approval and execution of a contract. We did do 360 feet of drifting which we would have included in the project had the contract come through as promptly as expected.

Shortly before you advised me, nearly thirty days ago, that the contract had been sent to Tucson for delivery, I found that my people were about ready to "forget the whole thing" but upon receipt of your wire I was able to hold their interest. Since then there has been another long delay and the chief party concerned is in New York and will not be back or available for perhaps two weeks. Meantime an important matter in Alabama requiring my presence there on the 2nd of October has matured. That will absorb perhaps ten days--and cannot be postponed.

So it looks doubtful whether I can get started by or within the 60 days from date of contract. Furthermore, we had to let our crew take another job while awaiting this contract. Three of them are working on a contract which will not be completed for perhaps just about thirty days from now. Two others could wait no longer so left on the 20th on a contract at Bagdad--temporary but probably not convenient to return for possibly thirty days or more.

It is possible that I could borrow a crew of three men to start some work on October 25th if that is essential--and after a few days take a recess until we are prepared to push the work to conclusion. But that does not seem too good an idea.

We made the application in good faith never dreaming it would take so much time to process an application. We are very anxious to perform the contract and will definitely do so if given time enough to get started in a proper way.

If you can extend the starting time for 30 days--which would be as intended I think, and as it would have been had not so much time been absorbed at Washington and in the mail, that will enable us to start and continue to conclusion.

Since I have to leave here on the evening of the 30th there is nothing more I can do about the matter until I get back but I will appreciate it very much if you will advise me at Birmingham what may be done about the matter.

I am not complaining of you or your office or Tucson. Am quite sure that all the delays are in the Washington office. Am taking the liberty of writing Mr. Mittendorf as per attached copy--and am sending him a copy hereof.

Sincerely,

/s/ Ralph R. Langley

1823 Windsor Blvd.,
Birmingham,
Alabama

cc: C. O. Mittendorf
Walter R. Storms

P. O. BOX 1266
KINGMAN

1156 S. HIGHLAND AVE.
LOS ANGELES 19, CALIFORNIA

ARIZONA METALS COMPANY

SUMMIT ALPHA MINES
KINGMAN, ARIZONA

Lincoln Nebraska. March 3I-I953.

Mr. C. O. Mittendorf, Adminstrator,
Defense Minerals Exploration Administration,
Department of Interior,
Washington 25,
D.C.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 3 1953

Re; DMEA docket 2463
Contract Idm-E390

Attention Willis R. Greswold;

Your Denver office advised me last Friday that the Summit Mine reports and papers would be mailed to you the first of this week.

I will very much appreciate having the papers processed and a contract executed as quickly as possible for the reason that I am anxious to condlude some pending financing with local and Salt Lake City people which financing is somewhat contingent upon the execution of an amended contract and, to some extent, upon the terms with respect to the DMEA participation per unit of work to be done.

I had hoped that the uranium showing would be greater and would justify a higher rate of participation by DMEA but that reason is not now as forceful as it appeared to be, yet the showing is such that we should be on the alert for uranium values and provide ourselves with the necessry detection equipment--which does add to the costs somewhat.

However, costs have increased considerable simce the filing of our original application which fact I hope you will take into consideration in setting up an agreed estimate of costs.

I assume the contract will be returned via the Denver office so will keep in touch with that office.

Respectfully,
Ralph R. Langley
Ralph R. Langley
for
Arizona Metals Company.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 1 1953

224 New Customhouse
Denver 2, Colorado

March 30, 1953

AIRMAIL

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region IV

Subject: Docket DMEA 2463, (Lead-Zinc), Contract Idm-E390, Arizona Metals Company, Mohave County, Arizona

Enclosed is the following matter pertaining to a request for additional work and additional funds under the subject contract.

1. Original and one copy of request from the operator, dated February 20, 1953, which includes Form MF-103, maps and a copy of their mining lease.

2. Original and four copies of Form MF-203 "Owner's Consent to Lien", pertaining to the Fortunatus claim.

3. Original and three copies of the engineering report by the Bureau of Mines relative to the operator's request and memorandum of transmittal of the report from the Chief, Mining Methods Branch, dated March 17, 1953.

4. Original and six copies of the geologic report by the Geological Survey relative to the operator's request pertaining to exploration on the Fortunatus claim, and revision of the contract to effect Government participation on the basis of a combination of Lead-Zinc-Copper-Uranium ores at a higher percentage rate. The geologic report includes the memorandum of transmittal from A.H. Koschmann, Supervising Geologist for Colorado and Wyoming, dated March 20, 1953.

Under date of September 27, 1953, the operator complained of the delay in the processing of his contract and requested a 30-day extension of time for starting of the work. His request was the basis for the execution by this office of Amendment No. 1 to extend the starting time from 60 to 90 days, or to the date of November 25, 1952. The operator now requests additional work which cannot be accomplished until the work authorized by the contract is completed.

Under item "4-a" of Form MF-103 (data attached thereto) the applicant states as follows: "Applicant is not now in production but is exploring for ore reserves, working under DMEA Contract Idm-E390. We are drifting on the Summit vein within the boundaries of the Summit claim - Map A."

Relative to the foregoing quotation, telegraph advice from the Tucson office of the Bureau of Mines, dated March 23, 1953, states that no work has been accomplished to date under the contract except for a drilled but not blasted round in the drift heading. No claim for reimbursement has been received to date.

As the matter now stands the operator is in default for not having started work within the prescribed time. The matter is called to your attention for appropriate action.

We concur with the recommendations of the Engineer and Geologist that the request be denied except for the 600 feet of additional drifting in the Silver Monster claim. However, we recommend that authority for the additional work be deferred until such time as the work under present authority has progressed to a stage where it can be determined whether or not the additional work is desirable.

The matter is forwarded for your consideration and appropriate action.

W. H. King

W. H. King

Ogden Tweto

for A. H. Koschmann

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

200 New Customhouse
Denver 2, Colorado

March 20, 1953

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 1 1953

Memorandum

To: DMEA Field Team, Region IV

From: A. H. Koschmann

Subject: Proposed Amendment to Explore the Fortunatus Claim and Radioactive Areas, Summit Mine, under Contract Idm-E390, DMEA Docket 2463, Arizona Metals Company, Mohave County, Arizona.

Enclosed are 11 copies of a report on the above subject by Robert B. Raup, Jr., and David V. Haines of the U. S. Geological Survey, in answer to the Field Team's request of February 16.

It has been recommended that the request for exploration work on the Fortunatus claim be denied.

A. H. Koschmann
A. H. Koschmann
Supervising Geologist
Colorado-Wyoming

Enclosures (11)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
P.O.Box 4126, University Station
Tucson 5, Arizona

March 18, 1953

Memorandum

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 1 1953

To: A. H. Koschmann, Denver, Colorado

From: A. F. Shride, Tucson, Arizona

Subject: Proposed Amendment to Explore the Fortunatus Claim and Radioactive Areas, Summit Mine, under Contract Idm-E390 (DMEA 2463), Arizona Metals Company, Mohave County, Arizona

Enclosed is a report on the above subject by Messrs. Raup and Haines of the Geological Survey. This is in answer to the Field Team's request of February 16.

This report and the recommendations have my approval. It is recommended that the request for exploration work on the Fortunatus claim be denied because there is little geologic indication of a significant base-metal ore deposit on this claim. As now known, the potential for uranium is so small that amendment of the contract to allow for exploration for uranium is not warranted.

We have contacted the AEC field personnel and Mr. Thurlow of the AEC Salt Lake office in connection with this proposal. The AEC assay data are not yet complete. However, Mr. Thurlow has expressed an opinion like that of our examiners. The essentials of Mr. Thurlow's letter are incorporated in the report. If more data on the uranium are necessary, we can get the AEC report when it is completed in a few weeks.

Mr. Farnham of the Bureau will report on the advisibility of considering exploration on the Silver Monster and Miners Hope claims. This part of the proposal will not be considered by Survey personnel.

A. F. Shride

A. F. Shride
Acting District Supervisor
Arizona-New Mexico

Enclosures 11

MAR 1953
RECEIVED
U.S. Geological Survey
Mineral Deposits Branch
Denver

3-53

Mining Division
Date Rec'd
MAR 20 1953
BUREAU OF MINES
Denver, Colorado

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
MINING DIVISION
REGION IV

SOUTHWEST EXPERIMENT STATION
Box 4097
UNIVERSITY STATION
TUCSON, ARIZONA

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 1 1953

March 17, 1953

Memorandum

To : W. H. King, Chief, Mining Div., Region IV

From : Chief, Mining Methods Br., Mining Div., Region IV, Tucson, Ariz.

Subject: Requested Amendments, Contract Idm-E390, Docket DMEA-2463, Arizona Metals Co., Mohave County, Ariz.

As requested in your memoranda of February 10 and March 9, Mr. L. L. Farnham of this office visited the mine of the Arizona Metals Co. in Mohave County, Ariz. to re-examine the property in regard to certain amendments as proposed by the company. Farnham was accompanied by R. B. Raup and D. V. Haines of the Geological Survey, and by Ralph R. Langley, president of Arizona Metals.

Of the proposed additions to contract Idm-E390, Farnham recommends only one, the driving of 600 feet of drift in the Silver Monster claim, provided this work seems feasible when the work under the present contract terms has been completed. I concur with his recommendations.

Brochure material included with your March 9 memorandum is attached.

Walter R. Storms

Walter R. Storms

CC W. H. King (5)
DMEA-2463
DF

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

SOUTHWEST EXPERIMENT STATION
Box 4097
UNIVERSITY STATION

MINING DIVISION
REGION IV

TUCSON, ARIZONA

March 17, 1953

Memorandum

To : Walter R. Storms, Chief, Mining Methods Br., Mining Div., Region IV, Tucson, Ariz.

From : L. L. Farnham, Mining Engineer, Tucson, Ariz.

Subject : Requested Ammendments of Contract Idm-E390, Docket DMEA-2463, Arizona Metals Co., Mohave County, Ariz.

A field examination of the above property was made on February 25, 1953 for the purpose of determining the feasibility of amending the present contract as recently requested by the Arizona Metals Co. During the visit the writer was accompanied by R. B. Raup and D. V. Haines of the Geological Survey, and Ralph R. Langley, President of the applicant company.

The requested amendments are outlined as follows:

(a) On the lower adit level continue the present northwest drift for approximately 200 feet to the end line of the Summit claim and then continue this drift along the vein through the full length (1,455 feet) of the adjoining Fortunatus claim.

(b) Raise a distance of over 300 feet from this drift to the surface at a point near the common end line of the Summit and Fortunatus claims.

(c) After completing the 1,000 feet of drifting in a southeasterly direction as specified in the present contract, continue this drift an additional 1,500 feet through the full length of the Silver Monster claim which adjoins the Summit claim on the southeast. Prior to the examination the applicant had proposed the continuation of the drift on through the Miners Hope claim which lies still southeast of the Silver Monster. This request later was withdrawn when it was found that the Summit vein did not traverse the Miners Hope claim.

CC W. H. King (Orig. & 5)
DMA-2463
DF

(d) Sink a winze on the lower adit level to a depth of 125 feet, including a 25-foot sump and drift 100 feet from the bottom of this winze. The location of this work to be selected after the completion of further drifting on the lower adit level.

(e) The applicant asks that the unit costs of the work be increased over those specified in the present contract and that due to the recent discovery of radioactivity in the Summit vein, the Government's share of certain of the project costs should be reapportioned from a 50 to a 70 percent basis.

COMMENTS AND RECOMMENDATIONS

(a) Northwesterly end of the Summit claim and Fortunatus Claim.

The outcrop of the Summit vein was fairly well exposed over this area. The fracture filling ranged from 1.5 to 6 feet in width. The better mineralized portions contained limonite after pyrite with occasional small nodules and stringers of oxide lead minerals in a gangue of quartz and altered wall rock. Old exploratory openings, scattered along the outcrop, consisted of several shallow shafts and 3 short adits. Samples, taken over the portals of 2 of these caved adits and across the "pay streak" which the drifts evidently followed, gave the following results:

			Ounces		Percent		
Number	Location	Width	Au	Ag	Pb	Cu	Zn
12641	West adit	3.0 ft.	0.04	4.2	4.7	0.05	0.1
12642	East adit	1.5 ft.	0.05	3.0	5.7	0.12	0.1

A few hundred pounds of selected ore showing considerable cerussite remained at each adit. There were very little if any visible lead minerals in the larger dumps. No evidence was found that would indicate that any appreciable amount of ore had been found or produced from any of the openings on this portion of the vein.

Small scattered amounts of lead-zinc minerals are common and widespread throughout most of the numerous veins in the Wallapai district. However, the significant ore bodies formerly mined in the district have cropped out, and due to weathering enrichment, have contained a better gossan and a much higher content of silver and lead than was evident in the outcrop of this portion of the Summit vein. Thus it appears unlikely that a sizeable ore shoot exists on the surface over the northwesterly vein area which it is proposed to ~~xxxx~~ explore at greater depth.

On the lower adit level, a sample, 3.8 feet wide, was taken across the better mineralized portion of the vein in the face of the northwest drift from which the above work would start. This sample contained 0.01 ounces gold, 1.1 ounces of silver per ton, 0.25 percent lead, 0.17 percent copper, and 0.1 percent zinc.

As there was no evidence of the existence of a sizeable oreshoot in this area, it is the opinion of the examiners that the probability of making a significant discovery in this portion of the property is remote and <u>any further exploration northwest of the lower crosscut adit is not recommended</u>.

<u>(c) Silver Monster Claim</u>

The work proposed on the Silver Monster claim cannot be started until the 1,000 feet of drifting already authorized is completed for it involves a continuation of that original drift. The reason the applicant is requesting this work at this time is apparently due to the possibility the Government exploration loans may terminate before the completion of the work now allowed in the contract. This also is the reason why approval of the proposed winze is requested at this time.

When the 1,000 feet of drifting, already authorized, is completed the face of this drift will be near, if not somewhat within the northwest end of the Silver Monster claim. A portion of one of the oreshoots on the Summit claim overlaps to some extent into the Silver Monster ground. Old and now inaccessible workings extend along the outcrop of the Summit vein for several hundred feet southeast of the northwest end line of the Silver Monster claim. It is reported that car-lot shipments of ore were made from these various openings. Thus it appears quite possible that ore may extend for some unknown distance into this Silver Monster ground. If ore is present in the southeast face, after completing the drift now authorized, it would seem feasible to continue this drift into the Silver Monster claim so long as ore persisted. In view of this possibility it is recommended that the operator be permitted to do an additional 600 feet of drifting on the vein within the Silver Monster claim <u>provided that it appears warranted at the time</u>. This 600 feet of work would be set up in stages if it appears advisable.

(d) Proposed Winze

The object of the winze was to test a theory held by R. R. Langley that much richer copper and uranium ore would be found in the vein at some deeper horizon. In an area of the vein at some deeper horizon. In an area of the vein about 25 feet long, where it was first proposed to sink the winze, both the copper and uranium content were somewhat higher than the average of the rest of the vein as presently exposed on the lower adit level. The higher than normal copper content of this short locally enriched portion of the vein appeared to be due to an abnormal amount of sooty chalcocite which occurred largely as coatings on other sulphides. According to the field team of the Atomic Energy Commission, who had previously investigated the Summit, the principal uranium mineral present in the vein was uraninite which is considered a primary mineral. These men expressed the view that there was no reason to expect that the uranium content of the vein would necessarily increase at greater depth. The same may be said of copper in this instance for the lower adit level is at least 300 feet below the top of the sulphide zone at a horizon where it does not appear reasonable to expect any appreciable deeper zone of secondary enrichment.

It may be found, that after the drifting and raising is completed, the deposit will justify deeper exploration but at this time it does not appear necessary and consequently the sinking of a winze is not recommended.

(e) Uranium Possibilities

A detailed description of the uranium occurrences in the Summit vein is given in the report by Raup and Haines of the Geological Survey. To summarize, it appears sufficient to quote from a letter, dated March 5, 1953 from Ernest E. Thurlow, Chief of the Salt Lake Exploration Branch of the Atomic Energy Commission, which stated:

"I understand that your field team has now been in the area and has had the opportunity to discuss the property with our field men. Therefore, you may know that we do not, at this point, consider the Summit mine of sufficient importance to warrant Government participation in an investigation of its uranium potential. Although assay returns are not complete, we anticipate a grade of only about 0.03 percent U_3O_8 for the present radio active exposures in the mine. This is far below

present commercial uranium ores and the possibility of recovering uranium from this type of ore as a by-product, although now being tested, has not been proven. These are our tentative conclusions. However, we will be glad to send you a more complete report in two or three weeks when we have all of our data together".

From the above it does not appear that there is any justification at this time for re-apportioning the Government's share of any of the project costs because of the presence of uranium in the Summit vein.

Summary of Recommendations

It is recommended that all the present requests for amending the original contract of the Arizona Metals Co. be denied with the exception of the proposal pertaining to the Silver Monster claim where 600 feet of additional drifting is recommended, provided it appears warranted at the time the area is reached by the drifting authorized in the present contract.

L. L. Farnham, Mining Engineer
Mining Methods Branch
Mining Division, Region IV

P. O. BOX 1266
KINGMAN

1156 S. HIGHLAND AVE.
LOS ANGELES 19, CALIFORNIA

ARIZONA METALS COMPANY

SUMMIT ALPHA MINES
KINGMAN, ARIZONA

February 20, 1953

Mining Division
Date Rec'd.
MAR 5 - 1953
BUREAU OF MINES
Denver, Colorado

Mr. W.H. King,
Executive Officer DMEA
Field Team, Region IV,
224 New Custom House
Denver, 2, Colorado

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 1 1953

Re: Contract DMEA - Idm-E390
Docket DMEA 2463

Dear Mr. King:

In accord with your advice that we ask for an amendment to our present DMEA contract rather than file separate applications, I was about to mail such an application when I received notice from Mr. Walter R. Stroms that Mr. L.L. Farnham would visit our project on the 25th of February, in response to our preliminary application dated January 18, 1953.

As a result of considerable conversation with Mr. Farnham at the premises, we have revised and completed a more formal application which we enclose herewith.

Since the Fortunatus claim is owned separately, you will note that we propose to keep a separate record of the DMEA funds expended on that claim and also a separate record of the royalties paid therefrom.

We expect our exploration work to discover enough uranium values to add some income per ton of base metal ore, as an important by-product, and to increase the supply of uranium for the National economy. In order to detect uranium values we must obtain the necessary equipment and use it in all of our drifting, raising and sinking. That work requires one additional man and considerable analysis and assaying.

We also believe we will discover and open up important copper ore by sinking the winz.

We have included all such added costs and expense in our estimates and believe the participations should be adjusted accordingly.

Respectfully submitted,

Ralph R. Langley

Ralph R. Langley, President
ARIZONA METALS COMPANY

P. O. BOX 1266
KINGMAN

1156 S. HIGHLAND AVE.
LOS ANGELES 19, CALIFORNIA

ARIZONA METALS COMPANY

SUMMIT ALPHA MINES
KINGMAN, ARIZONA

Los Angeles, California
February 20, 1953

W.H. King
Executive Officer, DMEA
Field Team, Region IV,
224 New Custom House,
Denver, 2, Colorado

Re: Docket DMEA 2463
Contract Idm-E390

APPLICATION TO AMEND CONTRACT AND PROPOSAL
FOR REPAYMENT OF DMEA PARTICIPATION.

AMENDMENTS DESIRED:

(a) To drift on Summit vein, the full length of the Silver Monster claim which endlines the Summit claim on the east.

(b) To continue the present drift west from the present west face to the Summit-Fortunatus endline, a distance estimated at 175' or 200'.

(c) To continue said drift through the Fortunatus claim to the west endline of that claim.

(d) To put up a raise at a logical location near the Summit-Fortunatus endline, about 320 feet to the surface.

(e) To sink a winz 160 feet, including a 30' hoistway above and a 25' sump at bottom, in that section of the drift east of the intersection, where higher copper values are apparent, at a location to be chosen after further drifting has been done.

(f) To drift 100 feet or more on the vein at bottom of said winz.

The locations of these proposed explorations are shown and identified on sectional map A accompanying these papers.

We also wish to recalculate and reapportion the estimated costs of drifting, raising and sinking due to increased costs generally and to added costs on account of exploring for uranium.

REASONS FOR SEEKING AMENDMENT:

Since filing our application in March 1952 and the execution of our DMEA contract the following developments which have a material bearing on our project have occured:

(1) Applicant has driven 360 feet of drift on the Summit vein and put up a raise 35 feet, without drawing on DMEA funds. That work opened up an ore chute over 300 feet long carrying base metal ore of commercial grade. The ore ranges from 2 feet to 9 feet in width averaging 6 feet or more in width. See map A.

(2) In part of said drift the copper-silver values increased to an average of about 4% copper and 14 oz silver whereas the previous mine average was less than 1% copper. Map A.

(3) The Atomic Energy Field team have observed important radioactivity through out the 360 foot drift and particularly over the area where the copper-silver values are highest. One ore speciman tested 3% to 4% uranium content. See letter from Atomic Energy Commission--exhibit C.

(4) The applicant has taken a lease on the Fortunatus claim which endlines the Summit claim on the west thus consolidating the properties which should be operated as a unit and adding materially to the potential reserves to be explored.

These discoveries of increased copper-silver values and of uranium occurances together with the addition of the Fortunatus claim argue strongly for extending the exploration program to such extent as will more thoroughly explore the entire fissure for copper ore in large volume and for commercial uranium ore, along with the lead, zinc, gold values usually found in the area.

Applicant expects the exploration work proposed to discover and open up about 1,000,000 tons of ore for each 500 feet of depth and expects more than 3,000 feet of depth, thus adding greatly to the available metal reserves and assuring repayment of DMEA participations.

The estimated costs should be reconsidered and recalculated for the following reasons:

Since the original application was filed in March 1952 the costs of supplies and labor have materially increased. Sinking shafts and winzes is high cost work, particularly the labor cost. Shaft men are known to demand and get as high as $30.00 per shift for sinking in such wet ground as ours.

Applicant desires to continuously sample and explore for uranium as drifting and sinking progress. Such added work requires additional personnel, some costly detection equipment and frequent assaying and analysis thus increasing costs over normal base metal exploring, therefore the cost estimates should be recalculated, giving proper effect to the large investment made and necessary to make, by the operator as part of his participation. The ratio of participation by DMEA should be adjusted as between the 50% ratio for lead-zinc-copper and the 90% participation for uranium.

SEPARATE OWNERSHIPS TO REMAIN INDEPENDENT OF OTHERS:

That portion of the DMEA contribution applied to the Fortunatus claim exploration work will be separately recorded and reported by the operator and the royalty payments from Fortunatus ore shall apply only against the portion of the DMEA participation used on said Fortunatus claim.

PROPOSAL FOR REPAYMENT OF DMEA PARTICIPATION:

The 300 foot chute of ore opened up by applicant by driving the 360 feet of drift, without DMEA participation, is not a part of the present DMEA project and therefore not liable for or subject to any royalty payments to DMEA.

We propose however, as an inducement to DMEA and as consideration to DMEA for increasing the cost estimates and the rate of DMEA participation, to include that chute of ore and royalties therefrom, in the amender project thus materially increasing the amount of royalties which will be paid to DMEA--no doubt greater than the amount of any increase resulting from a more liberal DMEA participation.

OUR VIEWPOINT:

We believe the proposed exploration program will open up more ore per dollar of DMEA participation, than any other exploration project in Arizona--or possibly elsewhere.

We believe that the present investment and the additional large investment in equipment and facilities necessary, by the operator, without any DMEA contribution to that investment, should be regarded as a proper and logical, offset or credit to applicant against the DMEA participation.

We submit that our making available to DMEA the 5% royalty payments on the estimated 100,000 tons of ore now opened up by the 360 feet of drift, should be given most favorable consideration in considering the basis of calculation and apportionment.

Five executed "Owners Consent to Lien" forms are attached. The Landowners Subordination Agreement executed by the L.L. Robinson Estate Corporation covering the Summit claim filed with our original application also covers the Silver Monster claim.

The weather in our district will shortly be favorable for full scale operations and we therefore request as expeditious consideration as possible.

Respectfully submitted,

ARIZONA METALS COMPANY

BY Ralph R. Langley President
Ralph R. Langley

SUMMIT MINE
ARIZONA METALS COMPANY
MOHAVE COUNTY, ARIZONA

Proposed Amendment to Explore Fortunatus Claim and Radioactive Area, Summit Mine, under Contract Idm-E390, Arizona Metals Company

By
Robert B. Raup, Jr.
and
David V. Haines
Geologists, U. S. Geological Survey

SUMMIT MINE
ARIZONA METALS COMPANY
MOHAVE COUNTY, ARIZONA

Proposed Amendment to Explore Fortunatus Claim and Radioactive Area, Summit Mine, under Contract Idm-E390, Arizona Metals Company

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CONTENTS

	Page
Introduction	1
Description of Property	1
Conclusions	2
Radioactivity	3

INTRODUCTION

As the result of a proposed amendment to the Defense Minerals Exploration Administration Contract Idm-E390 for exploration in the Summit mine, Wallapai district, Mohave County, Arizona, the writers, on behalf of the DMEA, made a geologic and radiometric examination on February 25, 1953, of the outcrop of the Summit vein on the Fortunatus claim and of the mine workings on the 500-foot level of the Summit mine. The southeast end line of the Fortunatus claim is in common with the northwest end line of the Summit claim where current exploration is being done.

The present DMEA contract allows 1000 feet of drifting in a southeasterly direction on the 500-foot level through the Summit and Silver Monster claims. It is proposed by the applicant to amend the present contract to allow 1500 feet of additional drifting on the 500-foot level through the Fortunatus claim on the northwest. The purpose of the surface examination was to determine the extent and character of the Summit vein on the Fortunatus claim in order to ascertain whether the proposed drifting would be likely to encounter a significant ore deposit in depth.

DESCRIPTION OF PROPERTY

Several short adits and shallow prospect pits have been driven on the outcrop of the Summit vein on the Fortunatus claim; the deepest working is approximately 25 feet. The country rock in the vicinity of the vein consists chiefly of weathered biotite granite. A dark-green porphyritic dike rock crops out parallel to the Summit vein along the hanging wall. The leached outcrop of the vein itself extends throughout the entire length of the Fortunatus claim but is obscured in places by talus cover. The outcrop width of the vein averages between 4 and 5 feet on the Fortunatus claim ;

the average strike and dip of the vein is N. 40° W. and 85° E. The contact between the vein and wall rock is gradational. Oxidation and leaching of the vein have taken place but it is doubtful if the oxidized zone extends below a depth of 75-150 feet since primary sulfide minerals are dominant on the 160-foot level of the Summit mine.

The Summit vein consists predominantly of milky-white quartz which is frequently iron-stained and appears red or brown. Boxworks of pyrite, sphalerite, galena, and a little chalcopyrite were tentatively identified. Evidence supplied by these boxworks indicates that ore minerals are not uniformly distributed in the vein but are confined to abundant small and discontinuous stringers which appear to be erratically distributed. Estimates of the quantity of ore minerals in the vein before leaching suggest that the ore minerals are not concentrated more than the average mineralized veins in the district which are far below minable grade. Relict galena and sparse pyrite are present in some boxworks together with "limonite." Cerussite, nearly everywhere coated with manganese oxide, is commonly found in sparse amounts. Other oxidized minerals derived from sulfides of zinc, lead, and copper may be present in the gossan, but were not identified.

CONCLUSIONS

In the history of mining in the district, ore shoots have invariably cropped out; no significant hidden ore shoots have yet been discovered. The leached outcrop of the Summit vein on the Fortunatus claim shows little to indicate the existence of a former ore shoot. The fact that workings along the vein on this claim are shallow and have not disclosed any significant ore mineral content supports this belief.

Therefore, the probability of encountering a significant ore deposit in depth is very small.

RADIOACTIVITY

A radiometric survey of the vein along its outcrop on the Summit and Fortunatus claims was made using N.I.C.C. scintillation counter no. 707 (not calibrated). The background radioactivity in the area is 0.3 - 0.5 mr/hr. No significant increase over background was found.

The occurrence of radioactive material on the 500-foot level in the Summit mine is a relatively new discovery. The mine has already been mapped and sampled by Atomic Energy Commission geologists. The writers checked the 350-foot drift, the 900-foot adit crosscut, and the 30-foot raise on the 500-foot level of the Summit mine. Using the aforementioned scintillation counter, readings did not increase above the 0.8 mr/hr background in the adit crosscut until within several feet of the vein. A gradual increase to 1.0 mr/hr toward the vein is attributed to a mass reaction by the counter and possible presence of radon gas. Once in the drift, however, the radioactivity is consistently 1.0 - 1.5 mr/hr except for a 50-foot section of the vein, 100 to 150 feet SE of the adit crosscut, which has higher radioactivity. In the drift between 100 and 130 feet southeast of the crosscut readings of 1.5 - 2.0 mr/hr are obtained and between 130 and 150 feet southeast of the crosscut the radioactivity is slightly more than 2.0 mr/hr. With a Geiger counter (N.I.C.C. no. 1338, 6-inch probe, unshielded) readings of 0.7 - 1.0 mr/hr are obtained in the 50-foot section and in one small spot in the 20-foot section of highest radioactivity readings are just off the 2.0 mr/hr scale. Background as measured by the Geiger counter is 0.10 - 0.13 mr/hr. Radioactivity at the top of the raise is 1.5 - 2.0 mr/hr as measured with the scintillation counter.

Uraninite is the only uranium bearing mineral as yet tentatively identified. It occurs as finely divided particles similar in appearance to the sooty chalcocite with which it is associated in the most highly radioactive specimen thus far taken from the mine. Copper values are higher in the more radioactive section of the vein but it is not known whether this is a consistent association or is merely fortuitous.

Sample data are not yet available from the Atomic Energy Commission, but in correspondence with the Tucson office of the DMEA, E. E. Thurlow, Chief of the AEC Salt Lake Exploration Branch, Divison of Raw Materials, states, "Although assay returns are not complete, we anticipate a grade of only 0.03 percent U_3O_8 for the present radioactive exposures in the (Summit) mine. This is far below present commercial uranium ores, and the possibility of recovering uranium from this type of ore as a by-product, although now being tested, has not been proven. - - - - - - - we do not, at this point, consider the Summit mine of sufficient importance to warrant Government participation in an investigation of its uranium potential." The writers concur with this judgment, and consider the present showings of uranium inadequate as a basis for changing the present contract.

Los Angeles, California
February 20, 1953

W.H. King
Executive Officer, DMEA
Field Team, Region IV,
224 New Custom House,
Denver, 2, Colorado

Re: Docket DMEA 2463
Contract Idm-8390

APPLICATION TO AMEND CONTRACT AND PROPOSAL
FOR REPAYMENT OF DMEA PARTICIPATION.

AMENDMENTS DESIRED:

(a) To drift on Summit vein, the full length of the Silver Monster claim which endlines the Summit claim on the east.

(b) To continue the present drift west from the present west face to the Summit-Fortunatus endline, a distance estimated at 175' or 200'.

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(f) To drift 100 feet or more on the vein at bottom of said winz.

The locations of these proposed explorations are shown and identified on sectional map A accompanying these papers.

We also wish to recalculate and reapportion the estimated costs of drifting, raising and sinking due to increased costs generally and to added costs on account of exploring for uranium.

REASONS FOR SEEKING AMENDMENT:

Since filing our application in March 1952 and the execution of our DMEA contract the following developments which have a material bearing on our project have occured:

(1) Applicant has driven 360 feet of drift on the Summit vein and put up a raise 35 feet, without drawing on DMEA funds. That work opened up an ore chute over 300 feet long carrying base metal ore of commercial grade. The ore ranges from 2 feet to 9 feet in width averaging 6 feet or more in width. See map A.

(2) In part of said drift the copper-silver values increased to an average of about 4% copper and 14 oz silver whereas the previous mine average was less than 1% copper. Map A.

(3) The Atomic Energy Field team have observed important radioactivity through out the 360 foot drift and particularly over the area where the copper-silver values are highest. One ore specimen tested 3% to 4% uranium content. See letter from Atomic Energy Commission--exhibit C.

(4) The applicant has taken a lease on the Fortunatus claim which endlines the Summit claim on the west thus consolidating the properties which should be operated as a unit and adding materially to the potential reserves to be explored.

These discoveries of increased copper-silver values and of uranium occurances together with the addition of the Fortunatus claim argue strongly for extending the exploration program to such extent as will more thoroughly explore the entire fissure for copper ore in large volume and for commercial uranium ore, along with the lead, zinc, gold values usually found in the area.

Applicant expects the exploration work proposed to discover and open up about 1,000,000 tons of ore for each 500 feet of depth and expects more than 3,000 feet of depth, thus adding greatly to the available metal reserves and assuring repayment of DMEA participations.

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We believe that the present investment and the additional large investment in equipment and facilities necessary, by the operator, without any DMEA contribution to that investment, should be regarded as a proper and logical, offset or credit to applicant against the DMEA participation.

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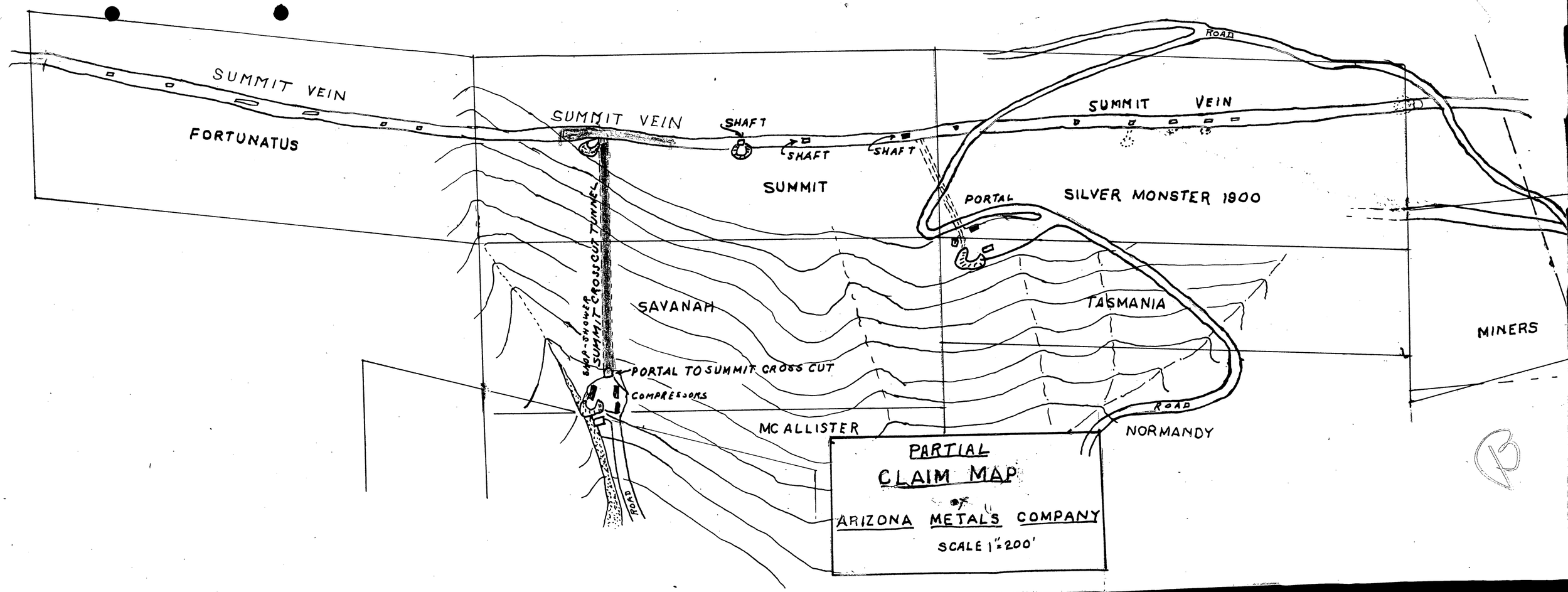
The weather in our district will shortly be favorable for full scale operations and we therefore request as expeditious consideration as possible.

Respectfully submitted,

ARIZONA METALS COMPANY

BY Ralph R. Langley President
Ralph R. Langley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PORTAL
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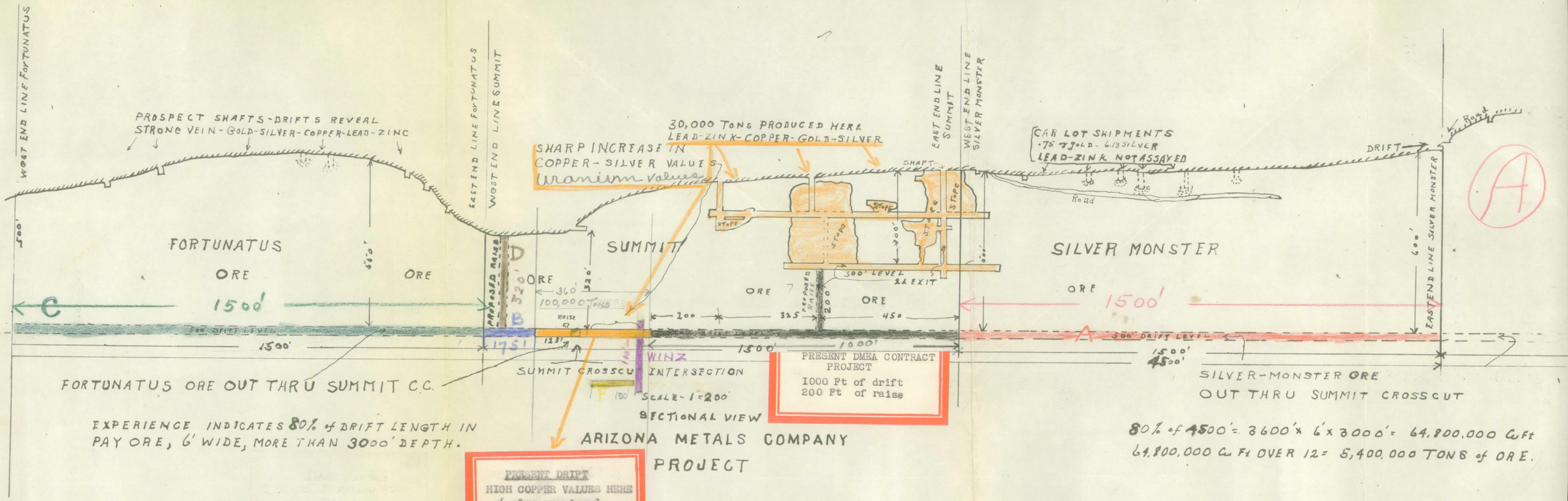
TASMANIA
MINERS
BATH-SHOWER
SUMMIT CROSS CUT TUNNEL
PORTAL TO SUMMIT CROSS CUT
COMPRESSORS
ROAD
MC ALLISTER
ROAD
NORMANDY
PARTIAL
CLAIM MAP
OF
ARIZONA METALS COMPANY
SCALE 1" = 200'


WEST END LINE FORTUNATUS
PROSPECT SHAFTS-DRIFTS REVEAL
STRONG VEIN-GOLD-SILVER-COPPER-LEAD-ZINC
EAST END LINE FORTUNATUS
WEST END LINE SUMMIT
30,000 TONS PRODUCED HERE
LEAD-ZINK-COPPER-GOLD-SILVER
SHARP INCREASE IN
COPPER-SILVER VALUES
Uranium values
EAST END LINE SUMMIT
WEST END LINE SILVER MONSTER
CAR LOT SHIPMENTS
.75 oz GOLD - 6.13 SILVER
LEAD-ZINK NOT ASSAYED
DRIFT
Road
SHAFT
STOPE
FORTUNATUS
ORE
ORE
SUMMIT
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ORE
SILVER MONSTER
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500'
600'
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B
A
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320'
360'
100,000 TONS
PROPOSED RAISE
RAISE
300' LEVEL
EXIT
200
325
450
1500'
1000'
1500'
4500'
300' DRIFT LEVEL
1751'
WINZ
SUMMIT CROSSCUT INTERSECTION
SCALE-1"=200'
SECTIONAL VIEW
ARIZONA METALS COMPANY
PROJECT
PRESENT DMEA CONTRACT
PROJECT
1000 Ft of drift
200 Ft of raise
PRESENT DRIFT
HIGH COPPER VALUES HERE
(also uranium)
REQUIRES EXPLORATION
at more depth
FORTUNATUS ORE OUT THRU SUMMIT C.C.
EXPERIENCE INDICATES 80% of DRIFT LENGTH IN
PAY ORE, 6' WIDE, MORE THAN 3000' DEPTH.
EAST END LINE SILVER MONSTER
SILVER-MONSTER ORE
OUT THRU SUMMIT CROSSCUT
80% of 4500' = 3600' x 6' x 3000' = 64,800,000 Cu Ft
64,800,000 Cu Ft OVER 12 = 5,400,000 TONS of ORE.
A

4

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved.
Budget Bureau No. 42-R1035.2.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 1 1953

APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

Not to be filled in by applicant

Docket No. dmea 2463
Metal or Mineral
Date Received 4-1-53
Estimated Cost
Participation (Government %)

Request for amendment to DMEA contract No. Idm-E390.

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: ARIZONA METALS COMPANY, Box 1266, Kingman, Arizona.
Ralph R. Langley Pres & Director John A. Warren Director
M. F. Langley V-Pres & Director J.R. Payne Director
C. G. Patterson Director Ralph R. Langley Jr., Sec-Treasurer.

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized. An Arizona Corporation.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers.

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract Applicant is Lessee of Fortunatus claim, mineral survey 3005, The Summit claim, mineral survey 955, and Silver-Monster claim, mineral survey 1900, all patented and all located in sections 29 and 32 Twp 23 Range 17 W of UNS, Mohave County, Arizona.

(*b*) State any mine name by which the property is known. Generally known as "Summit Mine".

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Lessee and operator.

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property. Copy Fortunatus lease attached--Ex D. Summit-Silver Monster lease part of original application.

(*e*) If you own the land, describe any liens or encumbrances on it Held under lease.

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. Patented.

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes. Page I attached.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades. Page I attached.

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you. Page 2--additional sheets

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points. Page 3 additional sheets

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power. Page 3 additional sheets.

16—66551-1

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore Page 3 attached sheets

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc. Page 3 additional sheets

(*c*) The work will start within ..... days and be completed within ..... months from the date of an exploration project contract. Page 3 attached sheets

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations. Page 3 attached sheets

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project:

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.). Page 4 attached sheets

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants. Page 4 attached sheets

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel. Page 5 attached sheets -also page 6

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be. Page 6 attached sheets also page 7

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project. Page 7 attached sheets

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project. Page 7

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes. Page 8 attached sheets

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above.

NOTE.—No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes), or any other indirect costs, or work performed or costs incurred before the date of the contract, should be included in the estimate of costs. Page 8 attached sheets.

7. (*a*) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)? Page 9 attached sheets.

(*b*) How do you propose to furnish your share of the costs?
Page 9 attached sheets.

☐ Money ☐ Use of equipment owned by you ☐ Other

Explain in detail on acompanying paper.

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief.

Dated February 16-1953., 195...

Arizona Metals Company
(Applicant)

By Ralph R. Langley
Ralph R. Langley, President.

Ralph R. Langley Jr.
Ralph R. Langley Jr. Secretary.

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

U. S. GOVERNMENT PRINTING OFFICE 16—66551-1

Instruction 4-(a)

PHYSICAL DESCRIPTION:

Applicant is not now in production but is exploring for ore reserves, working under DMBA contract Idm-E390. We are drifting on the Summit vein within the bounderies of the Summit claim--Map A. At the east end apex of the Summit claim there is a shaft 300 feet deep, an adit 400 feet long, about 1,000 feet of drift on the 160 level and about 600 feet of drift on the 300 level. Considerable stoping has been done in these workings.

About 300 feet from the west end line of the Summit claim, at an elevation equivelant to 500 feet below the collar of the 300 foot shaft, a crosscut has been driven, from the side of the mountain, a distance of 900 feet, which crosscut intersects the Summit vein. 360 feet of drifting has been done, both ways from the crosscut, on the vein and a raise has been put up 35 feet near the intersection.

On the silver Monster claim a number of workings have been made along the outcrops and on the Fortunatus claim there are a number of prospect shafts and tunnels which expose the vein and the character of vein filling.

These workings and improvements are all indicated on sectional map A and on claim map B.

Applicants production facilities, when augmented by the equipment which will be acquired for the exploration work, as listed under 6-(d) is ample for full scale production.

The mine workings and surface is readily accessible for examination purposes.

Applicants interest is that of Lessee and operator.

Instruction 4-(b)

PAST PRODUCTION AND RESERVES:

About 30,000 tons of ore has been produced from the upper Summit workings and eleven cars of ore have been shipped as development ore from the 360' drift, off of the crosscut intersection, the values being lead, zinc, copper, gold and silver. The average grade of all ore shipped is about AU 0.07 - AG 6 oz-CU 0.70-PB 5.5%-ZN 6.5%, as indicated in the smelter and custom mill settlement sheets.

RE RESERVES:

e present ore reserves, lying between the vertical bounderies the 360 foot drift on the Summit vein, are estimated to be out 100,000 tons--indicated on Map A, between vertical lines.

Instruction 4-(c)

GEOLOGIC FEATURES ETC:

The ore occurs in a long, wide fissure, nearly vertical, averaging more than six feet wide and extending along and beyond the three endlining claim lengths.

The area is made up of complex Pre-cambrian metamorphic and igneous rocks. The veins are made up of brecciated, altered rock and quartz with sulphides of zinc, lead, copper (spalerite), galena, pyrite and chalcopyrite with a good content of gold and silver.

Our reasons for wishing to explore are that we believe an exploration drift the full length of the three claims, and a winz, will discover, locate and open up large reserves of ore not heretofore definitely known to exist. We believe there is an important reserve of copper ore beginning a short distance below the present workings, that uranium in commercial volume and values will be found at some greater depth and that the ore bodies expected to be found will extend downwards several thousand feet.

The copper-silver values are much higher in part of the 360 feet of drift than any ore heretofore found in the immediate district. We have discovered ore running as high as 5.8% CU and 41 oz of silver. We believe an exploration winz will open up a large, fairly high grade copper ore reserve.

We believe the entire length of the three endling claims will prove to be productive of commercial ore and that an exploratory drift the full length will open up important ore reserves.

We also believe the uranium occurances thus far found indicate or justify exploring for that mineral laterally and downward. Field men of the Atomic Energy Commission advise that the full length of the 360 foot drift is quite radioactive. One specimen of ore from the 360 foot drift indicates a uranium content of 3% to 4% uranium. See letter of Atomic Energy Commission Exhibit C.

We are including with this application a sectional map-A-, a claim map-B-. On these are shown the area from which considerable production was had, where the crosscut intersects the Summit vein, where we have drifted on the vein, where the encouraging copper-silver ore was discovered and where the speciman of uranium ore was found. We are also including a copy of a letter from the Atomic Energy Commission with respect to that speciman, Exhibit C, a copy of the Fortunatus lease, Exhibit D,

Instruction 4-(d)

The project is readily accessable, paved highway within five miles and County graded rock road from paving to portal.

The shipping and supply point is 17 miles from portal of crosscut and residences are available 10 miles away and on premises.

Instruction 4-(e)

Manpower, materials, supplies, equipment, water and power are readily available. Diesel power is used--however, electric power is available 2½ miles from property.

Instruction 5-(a)

THE EXPLORATION PROJECT:

We wish to explore for lead, zinc, copper, gold, silver and uranium.

Instruction 5-(b)

The proposed work is indicated on the accompanying sectional map A in colors, for your convenience. (A)--in red, is the proposed drift the length of the Silver Monster claim; (B)--in blue, is the 175 feet of drift from the present west face to the Summit-Fortunatus end line. (c)--in green, is the proposed drift the length of the Fortunatus claim. (D)--in brown, is the proposed raise of 320 feet near the Summit-Fortunatus end line. (E)--in purple, is the proposed winz and (F)--in yellow, is the proposed drift at the bottom of the winz. Present DMEA contract work with dimensions shown in black. The 360' drift and the mined out areas, in orange.

Instruction 5-(c)

The work will start within 60 days and be completed 12 months thereafter, from the date the contract is delivered to us.

Instruction 5-(d)

The applicant Corporation succeeded the personal operations of Ralph R. Langley, its President, about five years ago and has carried on operations since that time. The combined experience covers a period of Over 15 years development and production activity. Ralph R. Langley will continue supervising the work.

Instruction 6.

ESTIMATES OF COSTS:

Instruction 6-(a)

INDEPENDENT CONTRACTORS:

Applicant plans on contracting the entire work or such portions thereof as is possible, subject to general supervision by an officer of the applicant Corporation. Whether by contractor or by applicant, the costs are estimated to be about as follows:

Instruction 6-(b)

LABOR, SUPERVISION-CONSULTANTS:

Labor--

Drifting--2 shifts	Rate	Per day	Per foot
2 Miners	$18.00	$36.00	
2 Muckers	15.00	30.00	
2 Trammers	16.00	32.00	
2 Timbermen	16.00	32.00	
1 Foreman	20.00	20.00	
10 feet -- 2 shifts - - - - -		$150.00	$15.00
Compensation Ins.	10.80		
Unemployment "	2.70		
Social Security	1.50		
	15%	22.50	2.25

- - - - - - - - - - - - -

Raise--2 shifts			
2 Miners	18.00	36.00	
2 Helpers	15.00	30.00	
2 Timbermen	16.00	32.00	
10 feet -- 2 shifts		98.00	9.80
Compensation Ins. etc.	15%	14.70	1.47

- - - - - - - - - - - - -

Sinking--2 shifts			
2 Miners	25.00	50.00	
2 Muckers	25.00	50.00	
2 Timbermen	25.00	50.00	
2 Trammers	16.00	32.00	
2 feet--2 shifts - - - - - - -		$ 182.90	91.00
Compensation Ins. etc.	15%	20.93	10.46
1 Foreman @ $20.00 plus	15%	23.00	2.30

Continued next page.

Instruction 6-(b) Continued.	Per day	Per foot
Sampling--(uranium)	20.00	
Compensation Ins. ETC	3.00	
	23.00	2.30
Supervision-Consultation.		
1 Supervisor	24.00	
Compensation Ins. etc. -- 15% - - - - - -	3.60	
10 feet per day basis - - - - - - - - -	27.60	2.76

Instruction 6-(c)

OPERATING MATERIALS & SUPPLIES.

Steel Drifting & Raising

1 steel length drills 200' cost $23.00
200' @ $23..is .087¢ per foot
40--6½' holes is 40 x 6½--260'x .087¢ - 22.62 — 2.26

For sinking - twice drifting amount — 4.52

Power--fuel

80 gallons diesel -- 2 shifts @ 20¢ per gal including lube	16.00	1.60

Explosives

Dynamite	$24.00 per 100# of 300 sticks
Fuse	50.00 per 3000' -- 1.7¢
Caps	25.00 per 1000' -- 2½¢ each

7 sticks x 40 holes @ 8¢	22.40	
240' fuse @ 1.7¢	4.18	
40 caps @ 2½¢	1.00	
	27.58	2.86

For sinking electric blasting equipment and material necessary entailing twice the cost of fuse blasting - - - - — 5.12

Timber--drifting.

58'-8" x 8"	330Bf		
10' x 5' x 3" top	150		
10' x 14' x 2"-sides	280		
	760Bf		
75% of length	570Bf @$125M	71.25	7.12

Continued next page

Instruction 6-(c) continued.

Timber--raise & winz.		Per day	Per foot
80'--8" x 8" x 5.5Bf	440 Bf		
150'-2" x 12"	300		
20'-2" x 4" (ladder)	14		
20'-1"x 4" (ladder)	6		
	650 Bf x $125 M---	85.00	17.00
Frame hangers.			
25'-5/8 rod @ 1.04# @ $7.25	1.80		
Nuts-threads labor	1.20		
5 feet - - - - - - - - - -	3.00	3.00	.60
Vent Pipe			
10' of 12" pipe @ 85¢		8.50	.85
Track.			
7 yds x 20# x 9c ($165)	12.60		
Fishplates-spikes-bolts	2.40		
Ties-30"x4"x6" - 5 Bf			
5 Bf @ $125.00	6.25		
	21.25	21.25	2.13
Air & Water lines			
10' of 3" x 75¢	7.50		
10' of 1" x 15¢	1.50		
	9.00	9.00	.90

- - - - - - - - - - - - - - - - -

Instruction 6-(d)
OPERATING EQUIPMENT

EQUIPMENT NOW OWNED BY APPLICANT

2	Portable 315 CUF diesel driven air compressors	18,000.00	
2	Air receivers	600.00	
2	Rock drills with legs etc	2,000.00	
1	Loading machine	2,750.00	
6	Mine cars	1,500.00	
1	Blacksmith shop, change room, tools, etc etc.	2,500.00	
1	Camp--houses and facilities	2,500.00	
1	Dump truck	1,500.00	
1	Automobile	500.00	
	Equipment owned		32,350.00

NECESSARY TO ACQUIRE

1	Battery trammer $5,974.00 Freight est 206.00	6,180.00	
1	Loading machine	2,750.00	
2	Rock drills & leggs	1,500.00	
2	Stand-by drills	1,000.00	
10	,2½ton mine cars @ $500 est	5,000.00	
1	Steel sharpener--grinder	500.00	
1	Water heater for change room	300.00	
1	Blower for vent system	250.00	
1	Replacement vent pipe 1000"@ 85¢	850.00	
1	Air hoist for sinking winz	1,250.00	
1	Skip for winz	500.00	
1	Set guides for winz	100.00	
1	Scintillometer--for uranium detct	975.00	
2	100 KW generators installed	7,000.00	
2	75 HP Motors	1,600.00	
	To be acquired - - - - - - - - - - - - - - - - - -		29.755.00

NOTE: The latter two items for electrifying diesel power plant--cost will be largely offset by saving of laying 2,000 feet of 4" air line and other operating items.

Value of equipment owned and needed - - - -$62,105.00

This equipment is either now owned or must be provided by the operator in order to accomplish the work proposed. It is believed that a reasonable figure for the use of such an amount of equipment would be $2,500 per month or $10.00 per foot of work. - - - 10.00

Instruction 6-(e)

REHABILITATION & REPAIRS:

1. Electrify diesel power unit as indicated in NOTE at 6-(d) "Necessary to acquire"

2. Improve ventilating system (as indicated) by installing larger blower and larger vent pipe- see note under 6-(d) "Necessary to acquire".

3. Replacement of water heater for change room as indicated in 6-(d).

Instruction 6-(f)

NEW BUILDINGS, IMPROVEMENTS, INSTALLATIONS.

Nothing needed other than as stated in 6-(d)

Instruction 6-(g)

MISCELLANEOUS:

Repairs & Maintenance of equipment when in use, that is, air compressors, battery trammers, loading machines, rock drills, vent system, hoists, uranium machines, or testing equipment,--all estimated at a use value of $450.00 per month which, at 250 feet of drift per month - - - - - - - - - $1.80 Per Ft.

Assaying, accounting, analytical work, including uranium assaying and research work, estimated at $750.00 per month--$30.00 per day 3.00

Workmens Compensation, employers liability and payroll taxes are regarded as part of general overhead.

Instruction 6-(h)

CONTINGENCIES:

There should be an allowance for breakdowns, weather stoppages, unforseen expenses of--$250.00 per month -- 1.00

Instruction 6-estimates of costs:

The reasonable calculated costs then, for drifting, raising and sinking are listed below from the above items;

Instruction 6 -- estimates of cost. Continued

Item of cost	For drifting and raising per foot	For sinking per foot
Labor	17.25	103.76
Sampling	2.30	2.30
Supervision	2.76	2.76
Steel	2.26	4.52
Explosives	2.86	5.62
Power	1.60	1,60
Timber	7.12	17.00
Hangers		.60
Vent Pipe	.85	.85
Track	2.16	
Air & Water lines	.90	.90
Repairs & Maintenance	1.80	1.80
Assays etc.	3.00	3.00
Contingencies	1.00	1.00
Use of equipment	10.00	10.00
	55.83	155.71

50% of 55.83 would be 27.96
70% of 155.71 would be 108.99

Instruction 7-(a)

Yes--as we understand them.

Instruction 7-(b)

We propose to provide our share of the costs by furnishing all equipment and facilities, at our own cost and expense, as a contractor would have to do, without DMEA contribution to such cost and expense, and to also supply all cash necessary to accomplish the work to be done, in addition to the participation contributed by DMEA.

We understand that DMEA will review the costs and evaluations submitted on the foregoing pages and agree with us as to what the all over estimated costs would be and to agree to remit an agreed proportion of such estimated cost, in units per foot of drift, raise and winz, the footages to be measured once each month by a representative of DMEA and certified to by such representative, and that the DMEA will remit its agreed participation with reasonable promptness.

Respectfully submitted,

ARIZONA METALS COMPANY
Applicant

By Roger R. Langley
President

February 16, 1953

FILE COPY
SURNAME:

500

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

Keating
Hoffman
Selfridge
Kinsen
Wat

FEB 20 1953

BW.

Mr. W. H. King, Executive Officer
DMEA Field Team, Region IV
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-2463 (Lead-Zinc)
Arizona Metals Company
Summit Mine
Mohave County, Arizona
Contract No. Idm-E390

Dear Mr. King:

This is in response to your letter of January 23, 1953, relative to the request of the Operator for revisions of the above-cited contract.

We concur with your opinion that a long-range program involving 4,000 feet of drifting in a southeasterly direction and 1,675 feet of drifting in a northeasterly direction is not justified in this instance. As you suggest, additional drifting may be considered later, contingent upon the evidence disclosed up to that time.

As to the Fortunatus claim, the owners consent to a lien limited to an amount expended for work on that claim would not be acceptable to the Government. Therefore it appears that the drift should not be driven to the Fortunatus end line under the present contract until such time as this claim is included in the contract.

Concerning the Operator's request to review the items of cost as allowed by the terms of the present contract, it is the opinion of our Chief Counsel that it would not be possible in this instance to amend the contract to allow for increased unit costs (see paragraph 1, page 8, of DMEA Circular 21). It is the Chief Counsel's further opinion that low cost estimates for the work or increased cost of operation and decreased metal prices are not valid bases for increasing unit costs.

However, it is possible to amend a contract prepared on a short form (MF-200) which may increase the total estimated cost of the project provided it is for the purpose of undertaking approved additional work.

Regarding a proposal to amend the present contract to provide for additional work by sinking a 100-foot winze and drifting 100 feet from the bottom of the winze, this would, of course, be dependent on the strength of the substantiating data supporting such request and could only be properly considered by this office upon receipt of a report by the Field Team re-evaluating the project in view of the Operator's additional requests.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (2/13)

APPROVED:

J. H. Hedges (2/13)

Member, Bureau of Mines

D. M. Lemmon (2/13)

Member, Geological Survey

S.N. 2/20/53

AGKeating/bjl (written 2/13/53)

Copy to: Docket
Amdr. R. File
Op. Committee
Base Metals Division
Mr. Bishop
Mr. Kinkel
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

February 6, 1953

Memorandum

To: Administrator 4624

From: Chief Counsel

Subject: Arizona Metals Company - Docket No. DMEA-2463
Contract Idm-E390

Mr. Keating has asked this office to consider the legal questions involved in Mr. King's memorandum dated January 23, to you concerning the above-described project. A letter dated January 18 from the operator to Mr. King is attached to Mr. King's memorandum.

It appears that the contract as written includes two adjoining claims -- Summitt and Silver Monster. The operator contemplates extending the present work in northwesterly and southeasterly directions from these claims. The owner of the claims now covered by the contract also owns the claims to the east thereof. The Fortunatus claim to the northwest is owned by someone else.

The legal questions involved in the memorandum are:

1. Could the present contract be amended to include the Fortunatus claim if the Owner's Consent to Lien covering this claim was limited to the total amount of the Government's contribution to the costs of work on that claim?

Such an amendment may be made if the amendment provides that the Fortunatus claim is included in Article 2 of the contract and that the Owner's Consent to Lien is attached to the amendment. An Owner's Consent to Lien form attached hereto has been modified to illustrate this case. However, although such an amendment may be made, whether an Owner's Consent to Lien which is so limited should be accepted is an administrative matter.

2. "We do not believe that it would be advisable to authorize drifting up to the Fortunatus line unless we

have the Owner's Consent to Lien executed so as to protect us in the event any ore were discovered near the property line."

This question raised in this statement, does not raise a legal problem. Again, as in question 1, it is a matter for administrative determination as to whether to accept a limited Owner's Consent to Lien with the risk that the only, or major discovery will be near the boundary line of or on the claim for which a limited Owner's Consent to Lien has been executed.

3. "Mr. Langley wants to review the cost estimates * * * on the short form * * * we do not believe it would be possible to amend this contract to allow for an increased unit cost." In regard to the question presented by this statement, Mr. Langley's letter states "* * * and since metal prices have fallen and costs have risen substantially since last April, we will wish to review the cost estimates somewhat in the same amendment."

The answer to this question is that the agreed unit price for work now described in the contract may not be increased by amendment merely because the estimate of the cost of the work was too low. Increased costs of the work or decreased metal prices are not valid bases for increasing agreed unit costs. Thus, the unit prices agreed upon for the work of 1000 feet of drifting and 200 feet of raising specified in the contract, may not be increased. (See paragraph 1, page 8 of DMEA Circular 21).

for J. L. Hofflund
Chief Counsel

Attachments

MF-203

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of _____, County of _____, described as follows:1/

_____

_____

_____

_____

which is the subject of a proposed exploration project contract, hereinafter called the "contract", between the United States of America, hereinafter called the "Government", and

2/_____

_____

_____

hereinafter called the "Operator"; and

WHEREAS, under certain provisions of said contract which are set forth on the reverse side hereof, the Government is entitled to a percentage royalty on production and to certain other rights and equities which do or may conflict with or be adverse to the interest of the undersigned in said property;

NOW THEREFORE, the undersigned, in consideration of said contract and as an inducement to the Government to enter into same, undertakes and agrees as follows:

1. The Government's equity in and right to dismantle, sever, take possession of, and remove and dispose of facilities, buildings, fixtures, equipment, or other items as provided in the contract, or any amendment thereof, shall prevail over and be prior and superior to any conflicting or adverse rights of the undersigned, and the Government is authorized to enter upon the land for such purposes.

2. To secure the payment to the Government of the percentage royalty on production3/ provided for under the terms of said exploration project contract, or any amendment thereof which does not increase the maximum amount of the Government's claim here stated or alter the provisions for repayment, there is hereby granted to the Government a lien upon the land herein described and upon any production of minerals therefrom, until the royalty claim is fully paid in the amount of the Government's contribution, not in excess of 4/$ _____, or ten years have elapsed from the date of the contract.

3. The undersigned shall commit no act nor assert any claim that may contravene or conflict with the lien, claim, or rights of the Government under the provisions of said contract. This agreement shall be binding upon the heirs, executors, administrators, successors, and assigns of the undersigned.

Dated this _____ day of _____, 195 ___.

_____ [Seal]

_____ [Seal]

_____ [Seal]

1/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [or contract, deed, or other document] dated _____, and recorded in book _____ page _____ official records of said county." If (b) is used, the book and page of recordation cannot be dispensed with. If the space provided is insufficient, use an Annex, and refer to the Annex in the space.

2/ Insert the name of the Operator as it will appear in the exploration project contract.

3/ Mining or production from the land is not required, and in the absence of production there is no obligation to repay the Government.

4/ Insert the maximum amount of the Government's contribution.

RELEVANT CONTRACT PROVISIONS

Repayment by Operator. (a) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than six months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) per cent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) per cent of any such net amounts, plus one-half (½) per cent such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) per cent of such net amounts.

(For instance: the percentage royalty on a net amount of five dollars ($5.00) per ton, would be one and one-half (1½) per cent; on a net amount of ten dollars ($10.00) per ton, three and one-half (3½) per cent.)

(b) As here used, "net smelter returns", "net concentrator returns", and "other net amounts realized from the sale or other disposition", mean gross revenue from sales; or if not sold, the market value, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be gross income from mining operations for percentage depletion purposes in income tax determination.

(c) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(d) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

Title to and disposition of property. All facilities, buildings, fixtures, equipment, or other items costing more than $50.00 each, paid for or purchased with funds contributed jointly by the Operator and the Government, although title may be taken in the name of the Operator, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the completion of the work or the termination of the contract shall be disposed of promptly by the Operator for the joint account of the Government and the Operator, either by return to the vendor, by sale to others, or purchase by the Operator at a price at least as high as could otherwise be obtained, as may appear to be for the best interest of the Government, unless the Government, in writing, waives its interest in any such item. If necessary to accomplish such disposition, the Operator shall dismantle, sever from the land, and remove any such item, the cost thereof to be for the joint account of the parties in proportion to their respective interests. If the Operator, within 90 days after the receipt of written notice from the Government, fails, neglects, or refuses to dispose of such property, the Government may itself enter upon the land, take possession of, and remove and dispose of any such property as above provided.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration

224 New Customhouse
Denver 2, Colorado

January 23, 1953

RECEIVED
JAN 29 1953
GENERAL COUNSEL
DEFENSE MINERALS
ADMINISTRATION

Memorandum

To: C. O. Mittendorf, Administrator, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Docket DMEA 2463, Contract Idm-E390, Arizona Metals Company

Enclosed is a copy of a letter dated January 18, 1953, from Ralph R. Langley, President, Arizona Metals Company, requesting revisions of Contract Idm-E390.

Contract Idm-E390 authorized 1000 feet of drifting in a southeasterly direction on the Summit vein on the lower adit level. The property involved is the Summit claim and the Silver Monster claim. We have a Landlord's Subordination Agreement executed by L.L. Robinson Estate Company.

Paragraph 3 of the enclosed letter states that the applicant is desirous of extending the drift through the Fortunatus claim and through the Silver Monster and Miners Hope claims. This long range program would involve 4000 feet of drifting in a southeasterly direction and 1675 feet of drifting in a northwesterly direction. We do not believe that we should consider extending the southeasterly heading more than 1000 feet at this time. When this work is nearly completed we may consider authorizing additional drifting based on the evidence obtained up to that time.

Mr. Langley states that the Summit and all claims east thereof are owned by the same owner, whereas the Fortunatus claim is owned by a different owner and that the owner of the Fortunatus claim is willing to execute an Owner's Consent to Lien Form to the extent expended on the Fortunatus claim. Could the present contract be amended to authorize this work in the Fortunatus if the owners of that claim only agreed to be responsible for royalties totaling the amount expended on that claim, or would it be necessary to execute a separate contract for this work?

Mr. Langley would like to shorten the southeasterly drift by 200 feet and in lieu thereof extend the northwesterly drift a distance of 175 feet to the Fortunatus end line. We do not believe that it would be advisable to authorize drifting up to the Fortunatus line unless we have the Owner's Consent to Lien executed so as to protect us in the event any ore were discovered near the property line.

Mr. Langley wants to review the cost estimates. Inasmuch as this contract was prepared on the short form and the operator agreed to complete the work at a definite cost per foot, we do not believe it would be possible to amend this contract to allow for an increased unit cost.

We believe that the present contract could be amended to sink a 100 foot winze and drift 100 feet from the bottom of the winze providing the examining engineers approved the proposal.

Please give us an opinion regarding the proposals presented by Mr. Langley so that we may instruct him how to proceed.

W. H. King

W. H. King

Enclosure

ARIZONA METALS COMPANY

Kingman Arizona.

Los Angeles California.
January 18- 1853.

Mr. W. H. King,
Executive Officer, DMEA
Field Team, Region IV,
224 New Customhouse,
Denver,
Colorado.

Re; DMEA Docket 2463
Contract Idm-E390.

Dear Mr. King;

As a result of developments at the Summit mine since we filed our application for a DMEA contract last April it seems wise to revise and expand our program.

With that objective in mind I am sending you herewith claim maps and sectional maps in triplicate,to illustrate the points discussed herein. The area marked in green indicates the distance we have drifted on the vein from the crosscut intersection.

The program we now have in mind is (a) to extend the drift,at crosscut level, through the Fortunatus claim endlining the Summit on the west, and through the Silver Monster and Miners Hope claims east of the Summit claim; (b) sink a winz 100 feet deep and drift 100 feet from the bottom of the winz,in the copper-silver-uranium area indicated in yellow color,east of the crosscut intersection ,and (c) amend our present DMEA contract so as to shorten the prescribed 1,000 feet of drift to the east of the starting point by about 200 feet and in lieu thereof,finush the present drift from its west face ,west of the intersection,to the Fortunatus end line,a distance of about 175 feet--and since metal prices have fallen and costs have risen substantially since last April,we will wish to review the cost estimates somewhat in the same amendment.

OWNERSHIP OF CLAIMS.

The Summit and all claims east thereof are owned by the same owner whereas the Fortunatus claim is owned by a different owner. We are taking a lease on the Fortunatus claim. That owner is willing to execute an " Owners Consent to Lien" form if its terms are confined to the Fortunatus claim but is not willing to have his royalty obligations or titles involved with those of other owners therefore it seems necessary to have a seperate DMEA contract on the Fortunatus claim, or have some writing having that effect.

So the questions we are submitting to herewith are (a) shall we submit a seperate application on the Fortunatus claim, (b) will an amendment to our present DMEA contract substituting 175 feet of drift to the west end line for about 200 feet of drift off the east end be acceptable,and

(c) shall we file seperate applications on the Silver Member and Miners Hope claims and a seperate one for sinking a winz in the copper,silver, uranium area in the Summit claim, in each case holding the Government participation within the Center office authority of not to exceed $25,000 under each contract, thus saving time in processing, or shall we or must we file a new application for one contract covering all the work to be done on all claims owned by the same owner? This latter would have advantages except for the longer time required by Washington to process the applications.

As to the merit of such a revised program, the outcrops, prospect and development shafts, trenches, the fissure formation and the character of the ore exposed all indicate continuing and reoccuring ore chutes the full length of the Summit fissure, so the advisability of that part of the revision seems obvious.

With respect to the proposed winz,that part of the drift indicated in orange color, cuts across the top of a chute or lens or kidney of ore which runs higher in copper and silver than any ore hertofore found in the district. The seams and openings between the slabs of lead-zinc-copper ore are filled with uraninite ore,estimated by the Atomic Energy Commission at Grand Junction to run 3 to 4 % uranium. According to the AEC and other geologists, the formation and the character of the ore and vein filling indicate a continuing increase in copper,silver and uranium as more depth is attained.

We are prepared to file applications covering the suggested expansion of our exploration program as soon as you advise us which way to proceed, and meantime we will proceed with the performance of our existing contract.

Respectfully submitted,

Ralph R. Langley

Ralph R. Langley, Pres.,
Arizona Metals Company.

Enclosures in triplicate.

P. O. BOX 1266
KINGMAN

~~1040 S. BEDFORD STREET~~
LOS ANGELES 19 CALIFORNIA
1156 So. Highland Ave.

ARIZONA METALS COMPANY

SUMMIT ALPHA MINES

KINGMAN, ARIZONA

BEV.

Los Angeles California.
December 15-1952.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
DEC 17 1952

Mr. C. O. Mittendorf, Administrator,
Defense Minerald Exploration Administration,
Department of Interior,
Washington 25,
D.C.

Re: Docket No DMEA 2463
Contract No Idm #390

Dear Mr. Mittendorf;

A couple weeks ago a Scout for the Atomic Energy Commission took his instruments through the Summit drift and over the dump and got some interesting readings. I took some samples of what I thought might be the ore that caused the radio activity to the people here in Los Angeles who make some of the instruments used by the Commission--and others interested in uranium. Some of the samples--one in particular--was quite radio-active. Since one of the engineers--Mr Walt Bilicke--was going to Grand Junction he took that sample and today I have a letter from the Commission advising that their test indicates the equivalent of 3 to 4 % uranium content. They ask for larger samples--which will try to get for them this week.

It is a black sooty material. I have noticed some of it in the seams and divisions between slabs of lead-zinc ore but did not associate it with uranium. The only uranium I have known about is yellow ore.

My purpose in writing you now is this: I notice in reading MO-5 that the Government participation in DMEA contracts with respect to uranium is 90%. I would like to know how that phase of the situation might work out if we actually find that we do have a marketable uranium content--or a seperate uranium ore--along with our lead-zinc ore that we drift through in doing our exploration work.

In other words--since ours is an exploration project --would the presence of uranium ore in our drift be sufficient showing to rate an increase of Government participation up to 90% instead of the present 50% ? Naturally that would be a great advantage to me. How would we go about such an arrangement--by way of an amendment?

Yours very truly,

Ralph R. Langley

Ralph R. Langley, Pres.,
Arizona Metals Company.

UNITED STATES
ATOMIC ENERGY COMMISSION
GRAND JUNCTION, COLORADO

ADDRESS REPLY TO:

MANAGER,
COLORADO RAW MATERIALS OPERATIONS
U. S. ATOMIC ENERGY COMMISSION
P. O. BOX 270
GRAND JUNCTION, COLORADO

December 11, 1952

AND REFER TO MI:CAR

Mr. Ralph R. Langley
1156 South Highland Avenue
Los Angeles 19, California

Re: URANIUM BEARING SPECIMEN FROM SUMMIT MINE, MOHAVE COUNTY, ARIZONA

Dear Mr. Langley:

Mr. Walt Bilicke of Engineers Syndicate, Ltd., Hollywood, California, dropped in at the office and said he had a specimen of ore from an old friend of mine. It really has been some time since I last saw you at the Summit Mine.

The specimen which Mr. Bilicke left consists of crystalline pyrite and quartz and covered with a sooty black material. It has been checked with our radiation detection equipment and on one side the intensity of the radiation indicates an equivalent of 3-4% U_3O_8. It is thus assumed that the black sooty material may contain uraninite.

As the Summit Mine is in the territory of the Salt Lake Exploration Branch, I am bringing this occurrence to their attention as they have examined other mines in the Kingman area. However, we would appreciate receiving from you a representative sample of the uranium bearing ore for assaying, and should it contain sufficient U_3O_8 more information could be made available to you in locating a processing plant for treating the ore.

You may send a 5-10 pound sample to Frank H. MacPherson, Director of Production Division, Grand Junction Operations Office, P. O. Box 270, Grand Junction, Colorado.

Best regards for the New Year.

Sincerely,

Charles A. Rasor

Charles A. Rasor
Geologist

Ex C

FILE COPY
SURNAME:

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

500

NOV 21 1952

Mr. Ralph R. Langley
Arizona Metals Company
1156 South Highland Ave.
Los Angeles 19, California

Re: Docket No. DMEA-2463 (Lead-Zinc)
Contract No. Idm-E390

Dear Mr. Langley:

Reference is made to your letter of November 12, concerning the procurement of a loan from DMEA after the successful completion of the subject exploration project contract that your company recently executed.

For complete information concerning the procurement of such a loan, I suggest that you write to:

Mr. Jesse Larson, Administrator
Defense Materials Procurement Agency
General Services Administration Building
Washington 25, D. C.

In a general way, I shall answer the questions in your letter in the order in which they were written.

(1) A project is eligible for a DMEA loan after the successful completion of a DMEA exploration project contract, but at the present time only under exceptional conditions are such loans being made for mines producing only lead and zinc. The apparent surplus supply of these two metals makes it rather improbable that a loan would be granted your company with which to increase production of those metals.

(2) DMEA is organized and authorized to make and consider loans.

(3) Loans, if granted, are not necessarily limited to $50,000.00. For a loan in excess of that figure, the application should be filed on a different form than DF-103.

I hope that this letter will be useful to you in obtaining the information you require from Mr. Larson.

Sincerely yours,

C. O. Mittendorf

Administrator

HFKeller/bw
(written 11/20/52)
Copy to: Docket
Adm R. File
Op. Comm
H. F. Keller (2)
Mr. Bishop
Kinkle, Jr.
Reg. III (2)
Chron.

P. O. BOX 1266
KINGMAN

1156 SO. HIGHLAND AVE.
LOS ANGELES 19, CALIFORNIA

ARIZONA METALS COMPANY

SUMMIT ALPHA MINES
KINGMAN, ARIZONA

Los Angeles California
November I2-I952.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 14 1952

Mr. C. O. Mittendorf, Administrator,
Defense Minerals Exploration Administration,
Washington 25,
D.C.

Dear Mr. Mittendorf;

Thanks for your letter dated the I0th.

I understand now that neither a DMPA loan nor any other financing is available to aid in performing a DMEA contract but is a project eligible for a DMPA loan after a DMEA contract is completed and a large volume of ore upened up for economical mining?

And if so is DMPA now organized and authorized to make or consider loans?

Our Summit DMEA contract will open up a really large volume of ore by drifting through some long ore chutes having 400 foot backs and much greater depth.

If such loans are available to qualifying applicants what is the proceedure and are such loans limited to $50,000 as stated on the Form MF-I03-- printed April I95I.

In our instance we could show a large amount of available ore and could give fee title to our mining claims and our equipment--and if could get a sizable loan we could also secure it with title to milling and treating facilities.

We will not be ready for such a loan until we have completed our current exploration contract but would like to know what may be available so we can plan accordingly.

Sincerely,

Ralph R. Langley

Ralph R. Langley

FILE COPY
SURNAME:

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

NOV 10 1952

Mr. Ralph R. Langley
President, Arizona Metals Company
1156 South Highland Avenue
Los Angeles 19, California

Dear Mr. Langley:

Reference is made to your letters dated October 27 and 30 and your telegram of the latter date, which concerned the difficulty you have experienced in financing your share of the captioned exploration project and inquired as to the possibility of other forms of Government assistance which will enable you to carry on the approved project.

Shortly after receiving your letter of the 28th, I was informed by Mr. Broadgate that you had sought his counsel for a solution of your financial problem, and Mr. Broadgate related to me over the phone the substance of his reply, for my comment. In my opinion, Mr. Broadgate's reply was made in a straight-forward and frank manner.

During the early discussions which preceded the establishment of the exploration program it was agreed between the interested Government agencies that "financial assistance by means of exploration grants will not be supplemented by direct loans to the applicant under Section 302 of the Defense Production Act for the purpose of supplying him with funds for his participation in exploration projects in which the Government has participated under this program."

In view of the foregoing, I regret that I am unable to offer any constructive suggestions which might solve your immediate problem.

Sincerely yours,

C. O. Mittendorf (fw)

Administrator

original mailed by Frances Webster
J.H. 11-12-52

COMittendorf/fw
cc: Admr Reading File
Mails & Files
Base Metals Div.
Field Team, Reg.IV
Mr. Bishop
Mr. McKnight
Mr. Mittendorf

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 1952

224 New Customhouse
Denver 2, Colorado

November 3, 1952

Memorandum

To: C. O. Mittendorf, Administrator, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Amendment No. 1 to Contract Idm-E390, Docket DMEA 2463, Arizona Metals Company

Enclosed are the original and two copies of Amendment No. 1 to Contract Idm-E390. Copies of this amendment have been given to the operator, the Fiscal Officer, Region IV, and a copy has been retained for our files.

Also enclosed are three copies of a letter from the operator requesting this amendment.

W. H. King
W. H. King

Enclosures

RECEIVED
NOV 14
GENERAL COUNSEL
DEFENSE MINERALS
ADMINISTRATION

P. O. BOX 1266
KINGMAN

II56 South
Highland Avenue
~~1045 S. BEDFORD STREET~~
LOS ANGELES ~~35~~ 19, CALIFORNIA

ARIZONA METALS COMPANY

SUMMIT ALPHA MINES

KINGMAN, ARIZONA

Los Angeles California
October 30th-1952.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 3 1952

Mr. C. O. Mittendorf,
Administrator, DMEA,
Washington 25,
D.C.

Dear Mr. Mittendorf;

I intended to talk with you today but in today's mail am advised by Mr. W. C. Broadgate that there seems no possibility of obtaining any loans or other financing from or through DMPA or RFC--therefore there seems no point in telephoning you--at least until I hear from you by mail.

It could be that Mr. Broadgate is mistaken . I hope he is.

Perhaps you can suggest some other way of financing the smaller mine operators--my situation in particular.

Awaiting whatever advice you can send me, I am

Sincerely,

Ralph R. Langley

Ralph R. Langley

CLASS OF SERVICE

This is a full-rate Telegram or Cablegram unless its deferred character is indicated by a suitable symbol above or preceding the address.

WESTERN UNION

W. P. MARSHALL, PRESIDENT

FX-1201

SYMBOLS
DL=Day Letter
NL=Night Letter
LT=Int'l Letter Telegram
VLT=Int'l Victory Ltr.

The filing time shown in the date line on telegrams and day letters is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination

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1952 OCT 30 AM 4 01

DMEA-2463

L.LSA019 NL PD=LOS ANGELES CALIF 29=

C O MITTENDORF, ADMINISTRATOR=

DEFENSE MINERALS EXPIRATION ADMINSTRATION DEPT OF

INTERIOR WASHDC=

WILL TELEPHONE YOU THURSDAY AAFTERNOON REGARDING

SUBJECT MATTER MY LETTER 27TH. MEANTIME IF YOU THINK

ADVISABLE PLEASE CONTACT DMPA ADMINSTRATOR WILL TALK

WITH HIM ALSO IF YOU SO ADVISE REGARDS

RALPH R LANGLEY=..

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 30 1952

P. O. BOX 1266
KINGMAN

1156 SO. HIGHLAND AVE.
LOS ANGELES 19, CALIFORNIA

ARIZONA METALS COMPANY

SUMMIT ALPHA MINES
KINGMAN, ARIZONA

Los Angeles California.
October 27-1952.

Sas

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 28 1952

Dmea-2463

Mr. C. O. Mittendorf,
Defense Minerals Administration,
Washington 25,
D.C.

Re; Arizona Metals Company financing.

Dear Mr. Mittendorf;

I have had some correspondence with Mr. Frank Eichelberger, who has operated in our district, and with Mr. W. C. Broadgate a member of the Department of Mineral Resources of Arizona, regarding our Summit project. Perhaps one or both of them may discuss our situation with you.

Whether they do or not, I desire to lay our situation before you personally in the hope that you can suggest a solution.

At the time we applied for a DMEA contract, a group here and at San Francisco, agreed to finance our exploration, development and production program, provided the DMEA approved our project and granted us a DMEA contract. At that time lead was I9 and zinc I9½ ¢ per pound and we were advised that applications wherein the DMEA participation did not exceed $25,000 were processed at Denver and would be approved or disapproved quite promptly. But several months were absorbed and meantime there were two or more reductions in metal prices.

The long time element plus the drop in prices resulted in this group abandoning the matter. They took on another venture.

I then tentatively interested an oil operator on Texas but this last drop to I2½ for zinc and I3½ for lead has, or no doubt will, knock out that negotiation and will probably make it impossible to do any private or public financing for an indefinite period.

That leaves us in the very unfortunate position of having, at heavy cost to us, developed a very comprehensive project to within reach of realization only to be stymied for want of $25,000 of capital with which to meet the terms of the DMEA contracts and round out our objective.

If we are unable to complete our program the project will as you well know, deteriorate and fail, at great loss to me personally, and I believe at unnecessary failure of the objective of the Defense Minerals Administration.

Ours is not a small project. We are opening up and partly developing a very large reserve of base metal ore--not a few tons

but several hundreds of thousands of tons , if we can reach our objective. The objective being to perform the present DMEA contract on the Summit claim and to also take out similar contracts on the two endlining claims thus having three claim lengths of drifting under 320 to 600 feet of backs,with expected ore probably 2/3ds of the way,and with strongly indicated depth.

With $25,000 of working capital, together with DMEA funds, we can accomplish that result. I believe that objective is consistent with the purpose and objective of the Defense Production Act and with DMEA activities. If we fail to reach our objective then the Government loses also in that it fails to increase and to make available for economical mining,the supply of base metals for National economy and defense.

It seems to me there must be some way under which some Government Agency can loan or otherwise provide that amount of capital. Perhaps it can be done by taking out a loan under form MF-I03 which as indicated on the form dated April I95I, is limited to $50,000

Such a loan would serve two purposes--it would enable us to complete our program and also to take title to the Old Colony Group (Summit) group of about 40 claims--four of which are patented-- thus enabling us to secure the loan by a lien on those claims,which loan can be paid and would most surely be paid,on a royalty basis.

The above method was suggested to me and the forms handed to me by your Denver office some time ago. But at that time there had been no price reductions and we were counting on our private financing arrangement being effective,so defered filing such an application until we had performed the Summit DMEA contract. Furthermore, I was advised by others-- no one in your offices-- that such applications were processed by the DMPA and thereafter by the RFC with endless delay. So we have never filed that form but could do so on very short notice.

That may be our way and the DMA way out of this situation. I would like to have your frank advice in the matter--and if you should advise that procedure,will you please discuss the matter with the DMPA and advise me just what procedure to follow and estimate the time element. Would the fact that our project has been examined and approved by the Bureau of Mines and U.S.G.S engineers expedite such an application?

If that is not an available solution ,what do you suggest?

The matter is quite urgent. I may telephone you about the matter later in the week--but write me your reactions.

I regret very much missing Mr. Keller when he was here. I was away trying to arrange for this $25,000 at that time.

Sincerely,

Ralph R. Langley

Ralph R. Langley

P. O. BOX 1266
KINGMAN

1156 SO. HIGHLAND AVE.
LOS ANGELES 19, CALIFORNIA

ARIZONA METALS COMPANY

SUMMIT ALPHA MINES
KINGMAN, ARIZONA

File

Los Angeles California.
October I5th, I952.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 16 1952

Mr. C. O. Mittendorf,
Administrator DMEA,
Interior Department,
Washington 25,
D.C.

Dear Mr. Mittendorf;

Thanks for your letter of the 8th,

It was not my intention to criticize but to report the facts and their effect upon some of the applicants--particularly on myself.

The time element has been most serious. It may have cost me the original contact I had for our financing. It has also resulted in a labor problem in our district. We held our key men together as long as our own funds permitted but finally had to release them to other work. Some have gone to other mining districts. However, I can and will work out those phases now that one DMEA contract is actually effective, with some time in which to do so.

I appreciate the information in your letter and am surely pleased with your arrangements for expediting the processing DMEA applications. If our financing plans work out, and I think they will, we will be asking for additional exploration and development assistance.

I believe a base metal mining project must operate at I50 tons or more and have its own milling and treating facilities in order to operate continuously and make any money. That requires opening up large ore reserves--and we have really large ore reserves in our immediate district. There is also an idle and available I50 ton mill in the district.

With the aid of DMEA exploration contracts and perhaps a DMPA loan on milling facilities, I hope to finance the consolidation of those elements into a strong, long range entity.

Sincerely

Ralph R. Langley

Ralph R. Langley

P. O. BOX 1266
KINGMAN

1156 SO. HIGHLAND AVE.
LOS ANGELES 19, CALIFORNIA

ARIZONA METALS COMPANY

SUMMIT ALPHA MINES
KINGMAN, ARIZONA

Dmea-2463

Los Angeles California
October 15th-1952.

Mr. Howard F. Keller, Chief
Base Metals Division, DMEA
Department of Interior,
Washington 25,
D.C.

Dear Mr. Keller;

I have your letter of the 7th and regret very much having missed you when you were in this part of the country. I had to leave here on September 30th on a trip to Alabama from which trip I returned only three days ago.

While at Birmingham I had a letter from Mr. King advising that he would prepare an amendment extending the time for starting work under our DMEA contract. I will take the matter up with him without delay.

I also have a letter from Mr. Mittenrodf covering the whole field and in it he stated that the matter of an extension can be solved without difficulty. I am writing him today.

Any base metal mining project must, as you no doubt know, be established and operated in considerable volume--which in turn requires considerable capital--and capital is hard to get in this part of the country.

I particularly regret not having the opportunity to take you into and over the Summit project while you were out here--and to show you some collateral property which may be important to the Summit, and for which some additional financing may be applied for soon.

Sincerely,

Ralph R. Langley

Ralph R. Langley

cc C.O. Mittendorf.

File.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

224 New Customhouse
Denver 2, Colorado

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 13 1952

October 8, 1952

Memorandum

To: Administrator, Defense Minerals Exploration Administration
Attention: 210

From: Field Team, Region IV

Subject: Final Report, DMEA Docket 2463, (Lead-Zinc-Copper), Arizona Metals Co., Mohave County, Arizona

Enclosed are the original and three copies of the final report on DMEA 2463.

The contract has been signed and is in effect.

John F. Shaw
for W. H. King

A. H. Koschmann

Enclosures

FILE COPY
SURNAME:

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

OCT 8 1952

Mr. Ralph R. Langley
Arizona Metals Company
P.O. Box 1266
Kingman, Arizona

N.S. in R. & R.

Dear Mr. Langley:

I regret the delay which has occurred in replying to your letter dated September 17, 1952, which has been caused, in part, by my absence from the office. On my return from Denver, where I attended the American Mining Congress Convention and conferred with the Regional Field Team, I found an unusual accumulation of personal correspondence, which also included your letter to me of September 27 transmitting a copy of your letter to Mr. King of the same date. I shall, therefore, reply to both letters at this time.

I regret exceedingly that you have seen fit to criticise the administration of the DMEA for so many reasons. In reviewing your letters, it appears to me that your principal complaint is over the delay which occurred in approving the exploration contract which was prepared in the Denver office, and the subsequent problem which arose on account of your inability to commence actual operations within 60 days of the date of the contract, as provided for therein.

The problem which you have explained to Mr. King by your letter of September 27 can be solved very easily, and I am sure that he will amend the contract to extend the starting date of your project to suit your requirements. We have found it necessary to make similar amendments in a great number of cases, and some months ago we adopted the policy of not fixing the starting date in Article 3 of the contract here in Washington, in order to allow the Field Teams to insert whatever period of time is acceptable to the operator. It is regretted that this procedure was not followed in your case.

Our records indicate that the contracts covering your proposed project were received in Washington on August 25, 1952 and, after review, were assigned contract number Idm-E390 and forwarded to Denver on September 15. I agree that this does appear to be an excessive period of time, in spite of the fact that the Labor Day holidays interrupted our operations during the period, that several

key members of the staff were on field trips, and the further fact that your case was one of two, received at the same time, which required policy decisions in Washington.

For the past few months our procedures have undergone considerable changes designed to facilitate the processing of applications and, more important, to standardize those procedures within the eight Regional Districts. I know you will understand the importance of forwarding all contracts to Washington for review during a period when standardization of legal and fiscal aspects was being made and that, had not such a procedure been adopted, we soon would have found a situation where each of the eight Regional Districts could be handling a given problem by that many different methods. Your proposed contract, therefore, was not forwarded to Washington for the simple stamping of a number, as you surmise, but was, in fact, reviewed by the Base Metals Division to determine its conformity with established policy, and by the Legal and the Contracts Administration Divisions for compliance with their new regulations. As a result of those reviews, two minor defects were cited to the Denver office for their consideration.

I know you will be pleased to learn that such a practice, established some months back, has now resulted in a clearer understanding of procedures to be followed between the Washington office and the Regional Districts, and that recently we modified our delegation to Region IV to permit the finalization of an exploration contract requiring less than $25,000 Government contribution by the simple medium of teletyping a contract number in lieu of forwarding the documents to Washington.

I am especially concerned by your charges of general inefficiency in the Washington office, the existence of an antagonistic and disinterested attitude toward the small operators, and of favoritism shown to the major operators. These charges cannot be substantiated by the records. I take this opportunity to advise you that two-thirds of all of the exploration contracts which have been approved to date are with small operators whose projects require a Government contribution of $30,000 or less. One-half of these contracts, or one-third of all those issued to date, are with very small operators, who themselves will contribute an average of only $3000 or less to the cost of their projects. To be sure, the small percentage of contracts approved for larger mining operations do require substantially greater contributions on the part of both the Government and the applicant, but you must admit that this situation reflects the true pattern of the mining industry, in that we always find a smaller number of large concerns who are financially able to undertake major projects, and, on the other hand, a much larger number of small operators who are capable of and interested only in the undertaking of small exploration projects.

I wish to point out that almost 90 percent of the time of our staff is devoted to the processing of applications received from small operators; also that many unavoidable delays occur because of the inadequacy of the data submitted, defects in titles, and for other reasons. On the other hand, we find that applications received from the larger mining concerns are usually presented in excellent form and in full compliance with all the regulations, due, of course, to the fact that the firms have their own technical, accounting, and legal staffs, who prepare their applications in strict accordance with the published instructions. Even though such applications can be processed more quickly and, generally speaking, may present greater potentials for making significant discoveries, we have never given the slightest preference to them. We conduct our affairs strictly on an "agenda basis," which accounts for the very large percentage of all contracts approved thus far going to the small mining operators.

If you will please consider, without prejudice, the facts as I have briefly outlined them above, I feel that you will agree with me that your criticism is not fully justified. I remember well our dealings during World War II when you were operating under the Premium Price Plan. I wish to extend my sincere hopes that your new plan of exploration will be highly successful.

Sincerely yours,

C. O. Mittendorf (fw)

Administrator

COMittendorf/fw

cc: Admr Reading File
Mails & Files
Base Metals Division
Field Team, Reg. IV
C. O. Mittendorf

10/8/52

Copy to Los Angeles address

September 30, 1952

Memorandum for the Files

Arizona Metals Mining Company DMEA 2463

March 17, 1952	Application made to Field Office
March 31, 1952	Application received DMEA Washington
June 5, 1952	Letter from Langley to Storms USBM discussion of economic phases re policy
June 19, 1952	Memorandum from King to Mittendorf re submarginal project and policy
June 27, 1952	Letter to King from Mittendorf re policy submarginal projects
August 9, 1952	Letter from Langley to King. Langley has gone over proposed contract and finds it satisfactory.
August 12, 1952	Letter from King to Langley replying to Langley letter
August 12, 1952	Memo from King to Langley re Langley request regarding DO number
August 19, 1952	Memo from King to Operating Committee enclosing original and copies of contract drawn in the Field requesting assignment contract number
August 28. 1952	Letter from Operating Committee to King re Langley request DO number
Sept. 15, 1952	Letter from Operating Committee to King returning copies of contract drawn in Field and calling attention to exceptions and assigning contract No. Idm-E390
Sept. 17, 1952	Teletype from King re contract number
Sept. 19, 1952	Teletype from Operating Committee contract mailed Field September 15, 1952
Sept. 22, 1952	Letter from King to Operating Committee enclosing executed original and two copies of contract No. Idm E390, stating they cannot replace Landlord's Subordination Agreement by Owner's Consent to Lien. Therefore, they are delivering contract in its present form.

Keating

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

BL

224 New Customhouse
Denver 2, Colorado

September 30, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 3 1952

Memorandum

To: C. O. Mittendorf, Administrator, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Docket DMEA 2463, Contract Idm-E390, Arizona Metals Company

Enclosed are two copies of our reply to Mr. Langley's letter dated September 27, 1952, a copy of which was sent to you by Mr. Langley.

John F. Shaw
For W. H. King

Enclosures

cal

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

224 New Customhouse
Denver 2, Colorado

September 30, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 3 1952

Mr. Ralph R. Langley
1823 Windsor Boulevard
Birmingham, Alabama

Re: Arizona Metals Company
Docket DMEA 2463
Contract Idm-E390

Dear Mr. Langley:

This will acknowledge receipt of your letter dated September 27, 1952, regarding an extension of the starting time under Contract Idm-E390.

We will prepare a formal amendment extending the starting time of your contract an additional 30 days.

Very truly yours,

John F. Shaw
For W. H. King
Executive Officer, DMEA
Field Team, Region IV

JFS:jp
cc Contract
Chron
COMittendorf (2)
WRSterns
AHKoschmann (2)

P. O. BOX 1266
KINGMAN

1156 SO. HIGHLAND AVE.
LOS ANGELES 19, CALIFORNIA

ARIZONA METALS COMPANY

SUMMIT ALPHA MINES
KINGMAN, ARIZONA

September 27th, 1952.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 29 1952

Mr. C. O. Mittendorf,
Administrator DMEA,
Washington,
D.C.

Re DMEA Docket -2463

Dear Mr. Mittendorf;

I assume you are interested in knowing about the delays that occur in your office in Washington and in the effect of such delays on applicants, hence the attached copy of letterto Mr. King.

Sincerely,

Ralph R. Langley

Ralph R. Langley

September 27th, 1952.

Mr. W. H. King,
Executive Officer,
Field Team, Region IV
22$ New Customhiuse,
Denver 2, Colorado.

Re: Arizona Metals Company
DMEA Dicket-2463

Dear Mr. King;

I met Mr. Farnham at the Summit mine on the 23d. We marked the starting point and he gave me our copy of the contract.

I note that the contract is dated August 25 and we have 60 days from that time to start work. Therein is our problem. If we had 60 days from the time the contract was delivered to us that would be satisfactory--and no doubt that is what was intended --but when half of the 60 days is absorbed by DMEA in mailing the papers to Washington and back it seems to me that fact should be taken into consideration in the time element.

I do not wish to be regarded as complaining too much but we are caught in a tight spot. When we made our application we had arrangements under which we could have carried our part of the contract provided the contract had come through with reasonable promptness. We used up our own funds doing work which we supposed would be considered a part of the project, while awaiting the approval and execution of a contract. We did do 360 feet of drifting which we would have included in the project had the contract come through as promptly as expected.

Shortly before you advised me ,nearly thirty days ago, that the contract had been sent to Tucson for delivery, I found that my people were about ready to " for get the whole thing" but upon receipt of your wire I was able to hold their interest. Since then there has been another long delay and the chief party concerned is in New Yrok and will not be back or available for perhaps two weeks. Meantime an important matter in Alabama requiring my presence there on the 2nd of October has matured. That will absorb perhaps ten days--and cannot be postponed.

So it looks doubtful whether I can get started by or within the 60 days from date of contract. Furthermore, we had to let our crew take another job while awaiting this contract. Three of them are working on a contract which will not be completed for perhaps just about thirty days from now. Two others could wait no longer so left on the 20th on a contract at Magdad--temporary but probably not convenient to return for po sibly thirty days or more.

So, having given you the facts I must ask you for a solution.

It is possible that I could borrow a crew of three men to start some work on October 25th if that is essential--and after a few days take a recess until we are prepared to push the work to conclusion. But that does not seem too good an idea.

We made the application in good faith never dreaming it would take so much time to process an application. We are very anxious to perform the contract and will definitely do so if given time enough to get started in a proper way.

If you can extend the starting time for 30 days--which would be as intended I think,and as it would have been had not so much time been absorbed at Washington and in the mail, that will enable us to start and continue to conclusion.

Since I have to leave here on the evening of the 30th there is nothing more I can do about the matter until I get back but I will appreciate it very much if you will advise me at Birmingham what may be done about the matter.

I am not complaining of you or your office or Tucson. Am quite sure that all the delays are in the Washington office. Am taking the liberty of writing Mr. Mittendorf as per attached copy--and am sending him a copy hereof.

Sincerely,

Ralph R. Langley

1823 Windsor Blvd.,
Birmingham,
Alabama.

cc C.O. Mittendorf.
Walter R. Stormes.

FILE COPY
SURNAME:

Keating

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

500

DMEA

A. G. Keating
3669 2616

September 19, 1952

Mr. W. E. King, Executive Officer, DMEA Field Team, Region IV, Denver, Colorado

Deurtt September 17 Docket No. DMEA-2463, Arizona Metals Company contract mailed your office September 15, 1952.

(signed) FRANK E. JOHNSON
Chairman, Operating Committee

AGKeating/bjl

Copy to: Docket
Admr. R. File
Op. Committee
Mr. Keller (2)
Mr. Keating
Mr. Bishop
Mr. McKinight
Confirmation
Chron.

n.s. in R. & R

SENT
C.O.
SEP 19

Clerical Service Section

C. O. Mittendorf
Sept. 17, 1952
1:38

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 17 1952

9/15 †

DN 235 BUREAU MINES 9-17-5 2 10-38 AM

C O MITTENDORF

PLEASE TELETYPE STATUS OF DOCKET DMEA 2463 WHCXXXX WIXXXX WHICH WAS SENT YOU AUGUST 19, 1952 FOR CONTRACT NUMBER.

W H KING

letter and contracts mailed 9/15/52

Arizona Metals Co.
Ralph R. Langley, Pres.

Denver, Colorado

SEP 17 2 14 PM '52
BUREAU OF MINES
MAIL ROOM
WASHINGTON, D.C.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

224 New Customhouse
Denver 2, Colorado

September 18, 1952

REGISTERED

DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
SEP 26 1952

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Executive Officer, Field Team, Region IV

Subject: Contract Idm-E390, Docket DMEA 2463, Arizona Metals Company (Lead-Zinc)

Enclosed are the original and two copies of Contract Idm-E390.

When the completed contract was transmitted to this office, the Chairman of the Operating Committee suggested that the Landlord's Subordination Agreement should be replaced by the Owner's Consent to Lien. In a letter dated July 3, 1952, the Chairman of the Operating Committee stated that in any case where the applicant has submitted the completed Landlord's Subordination Agreement form it can be used with the new contract form. We acted in accordance with these instructions.

If we should replace the Landlord's Subordination Agreement by an Owner's Consent to Lien, the printed form MF-200(A) would have to be rewritten and sent to the operator for signature. Form MF-203 would have to be sent to the L.L. Robinson Estate Company for signature. This would involve considerable loss of time, therefore we are delivering the contract in its present form to the operator.

W. H. King
W. H. King

Enclosure

RECEIVED
OCT 13 1952
GENERAL COUNSEL
DEFENSE MINERALS
ADMINISTRATION

500

DMEA

A. G. Keating
3669 2616

September 19, 1952

Mr. W. H. King, Executive Officer, DMEA Field Team, Region IV, Denver, Colorado

Recent September 17 Docket No. DMEA-2463, Arizona Metals Company contract mailed your office September 15, 1952.

(signed) FRANK E. JOHNSON
Chairman, Operating Committee

AGKeating/bjl

Copy to: Docket
Admr. R. File
Op. Committee
Mr. Keller (2)
Mr. Keating
Mr. Bishop
Mr. McKinight
Confirmation
Chron.

file in contract

SENT
SEP 19 1952
Service Section

1-1027
(April 1946)

UNITED STATES
DEPARTMENT OF THE INTERIOR

AGENCY Mines, Region IV

TELETYPE

Originator:
Ext.: Room:

Appro.:
Date: September 17, 1952
Time:
No.:
To: C. O. Mittendorf

Subject:

Please teletype status of docket DMEA 2463 which was sent you August 19, 1952 for contract number.

W. H. King
W. H. King

file in docket file

CONFIRMATION

Authorized:

Sign original message and transmit to Room ..... in duplicate

U. S. GOVERNMENT PRINTING OFFICE 16—60915-1

P. O. BOX 1266
KINGMAN

1156 SO. HIGHLAND AVE.
LOS ANGELES 19, CALIFORNIA

ARIZONA METALS COMPANY

SUMMIT ALPHA MINES
KINGMAN, ARIZONA

Los Angeles California
September I7th, I952.

Mr. C. O. Mittendorf,
Administrator, DMEA,
Department of Interior,
Washington 25,
D.C.

RE; Arizona Metals Company
DMEA Docket 2463

Dear Mr. Mittendorf;

About two months ago it was reported in Pay Dirt, and confirmed by Mr. R.I.C. Manning, that you were quite concerned about the small number of DMEA applications from Arizona.

Some time after that I was about to write you on the subject when a member of your Tucson Field Team appeared in Kingmen with the Arizona Metals Company Exploration Projects Contracts for our signature--so I defered writing you upon the assumption that our contract would thereafter be concluded with reasonable dispatch. But it is now more than one month since that contract prepared by DMEA and executed by us, was mailed out of the Denver office to Washington for the simple purpose of having a serial number stamped thereon and returned to us via Denver.

In my own district two matching fund contracts have been made effective, one after I3 months and the other after I8 months of Washington ineffeciency and dis-interest.

The antagonistic attitude towards small mine operators began shortly after you left the organization when War II was supposed to be over. You may recall that while you were handling the Premium Price and Exploration Premium programs you authorized Exploration funds for the Summit mine with which to drive a crosscut about 900 feet long.

That program worked all right while you were there but your successor took an obstructive attitude which proved very costly to Arizone Metals Company and to me. He held up about $I4,000 of both production and exploration premium payments on the dumb pretext that such items as a short roadway to the portal, a change room, blacksmith shop and tool room and other similar items were no part of a crosscut project and that the cost thereof were improper charges against exploration funds. That interference stopped our work. I finally got the funds released, in two allotments, but it was necessary to employ a Certified Public Accountant for an audit and to inlist the aid of three U.S. Senators to accomplish it.

The time element required was about 18 months and the cost and expense absorbed a large part of the funds finally released. We finally completed the crosscut with private funds.

The above is a very gentle and tolerant way of indicating to you why very few operators in Arizona apply for DMEA aid. It is believed, in fact the information occasionally made public indicates, that only the strong major entities, who do not need any assistance, get any aid.

The record is quite well known in Arizona--and now comes these absurd and perhaps designed delays in what should be prompt and efficient service, not in your field offices but at Washington.

The mining industry, other than the Majors who need no help, has indeed been practically exterminated by the treatment it has had at Washington.

Sincerely,

Ralph R. Langley

Ralph R. Langley

FILE COPY
SURNAME:

H F Keller
A E Kane
Hofflund

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

Mr. W. H. King, Executive Officer,
DMEA Field Team, Region IV
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-2463 (Lead-Zinc)
Arizona Metals Company
Summit Lead-Zinc Mine
Mohave County, Arizona

Dear Mr. King:

We are returning to you in this letter the original and five copies of the contract between the Government and the Arizona Metals Company, which were prepared in your office and enclosed in your memorandum of August 19, 1952. As requested in your memorandum, we have had assigned to this contract, No. Idm-E390. It is necessary to return all copies to you, as they were not signed by you as stated in the memorandum of transmittal. Upon your signature to this contract, kindly return the Government's copy, Division copy and Docket copy to this office, and distribute the other copies in the usual manner.

We call your attention to footnote 2 of the contract which means that if the Operator is a corporation, that fact should be stated in the contract itself and the State of incorporation indicated as well.

We also note that attached to the contract there is a Landlord's Subordination Agreement instead of an Owner's Consent to Lien. The former should be replaced by the latter.

HFKeller/AEKane/em
Copy to: Mails and Files
Adm. R. File
Oper. Comm.
Bishop
McKnight
H.F.Keller
A.E.Kane
J.L.Hofflund
chron.

Sincerely yours,

9/15/52

Frank E. Johnson (B.H.)

Chairman, Operating Committee

Enclosures 6

Approved:

J. H. Hedges

Member, Bureau of Mines

S/ T. P. Thayer

Member, Geological Survey

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

224 New Customhouse
Denver 2, Colorado

September 9, 1952

AIR MAIL

Memorandum

To: C. O. Mittendorf, Administrator, DMEA

From: Executive Officer, Field Team, Region IV

Subject: DMEA Docket 2463, Arizona Metals Company

Enclosed is a copy of a letter from Ralph R. Langley, President, Arizona Metals Company, inquiring about the status of his Exploration Project Contract.

According to our records the original and five copies of this contract were sent to you on August 19 to be assigned a contract number. Please expedite the processing of this contract.

W. H. King

W. H. King

Enclosure

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 11 1952

C O P Y

P.O.Box 1266
Kingman

1156 So. Highland Ave.
Los Angeles 19, California

ARIZONA METALS COMPANY
Summit Alpha Mines
Kingman, Arizona

September 5-1952

Mr. W.H. King
Executive Officer
DMEA Field Team, Ragion IV
224 New Customhouse
Denver 2, Colorado.

Re Docket No DMEA-2463

Dear Mr. King;

I fear that our Exploration Project Contract is buried in someone's desk at Washington.

If it has not been returned to you when you get this will you please wire Mr. Mittendorf for some attention.

Please advise me to Los Angeles with copy here at Kingman.

Best wishes,

/s/ Ralph R. Langley

Ralph R. Langley, Pres.,

Arizona Metals Company

Docket

FILE COPY
SURNAME:

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

500
Keating
Miller
Mittendorf

AUG 28 1952

Mr. W. H. King
Executive Officer, Region IV
DMEA Field Team
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-2463 (Lead-Zinc-Copper)
Arizona Metals Mining Company
Kingman, Arizona

Dear Mr. King:

This refers to your memorandum of August 12, 1952, addressed to Mr. Mittendorf, in which you made inquiry regarding a D. O. application, submitted on Form MF-103, by the above-named company.

An explanation of the application to which you refer is contained in Mineral Order 7, as amended May 23, 1951, titled, "Serialization of Mines, Smelters and Mineral Processing Plants", copy of which is enclosed. This order provides priority and allocation assistance under its programs relating to the maintenance and acquisition of facilities, machinery, equipment and operating supplies by the mining industry.

An application for a serial number is not obligatory, but may be beneficial to an Operator in obtaining scarce mining equipment and supplies. Since a serial number was unnecessary for DMEA consideration, the application was not referred to the Mining Requirements Division of the Defense Materials Procurement Agency, which has jurisdiction of such matters. We have asked this Agency to communicate with the Arizona Metals Mining Company with reference to their request for a serial number.

Sincerely yours,

N. L. Keller (HB)

ACTING Chairman, Operating Committee

P.N. 8-28-52

Enclosure
APPROVED:

C. N. Johnson (HB)
Member, Bureau of Mines

S. M. Lemmon (HB)
Member, Geological Survey

AGKeating-mb
August 26, 1952
Copy to: Docket
Adm. Reading File
Operating Committee
Mr. Keller (2)
Mr. Keating
Mr. Bishop
Mr. McKnight
Region IV

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

224 New Customhouse
Denver 2, Colorado

August 19, 1952

Memorandum:

To: Secretary to the Operating Committee

From: Executive Officer, Field Team, Region IV

Subject: DMEA Docket 2463, Arizona Metals Co's. Summit Lead-Zinc Mine, Mohave County, Ariz.

Enclosed are the original and five copies of a contract between the Government and the Arizona Metals Company. All copies have been signed by the President of the Arizona Metals Company, the signatures certified by the Secretary, and the corporate seal affixed. All copies have also been signed by the Executive Officer, DMEA Field Team, Region IV.

Please assign a contract number and return all the required number of contracts to this office.

for John F. Shaw
W. H. King

Enclosures

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
AUG 25 1952

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

224 New Customhouse
Denver 2, Colorado

August 12, 1952

Memorandum

To: C. O. Mittendorf, Acting Administrator
Defense Minerals Exploration Administration

From: Executive Officer, DMEA Field Team, Region IV

Subject: Docket Number DMEA-2463, Arizona Metals Mining Company, (Zinc-Lead-Copper-Silver)

Enclosed is a copy of a letter from Mr. Ralph R. Langley and a copy of our reply.

We appreciate your obtaining any information regarding the DO application referred to in paragraph 4 of the enclosed letter.

W. H. King

W. H. King

Enclosure

AUG 18 1952

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

224 New Customhouse
Denver 2, Colorado

August 12, 1952

Mr. Ralph R. Langley
1156 South Highland Avenue
Los Angeles 19, California

Re: Docket No. DMEA-2463

Dear Mr. Langley:

This is in reply to your letter, dated August 7, 1952, regarding docket number DMEA 2463. Please leave the date of the contract blank. It will be filled in at this office before the contract is returned to Washington. This will leave ample time to start work under the terms of the contract.

Under the terms of the contract your property will be checked monthly by an engineer from the Tucson Office. You will be required to fill out the monthly Progress Report forms, a copy of which will be sent to you when the contract is completed. These forms must be accompanied by a brief narrative report describing the work done and conditions encountered. The only information required on the forms is the amount of work done, unit costs, and total amount for which reimbursement is claimed.

We have written our Washington Office regarding your DO application.

Very truly yours,

W. H. King

W. H. King
Executive Officer
DMEA Field Team, Region IV

cc: C.O.Mittendorf

P.O. Box 1266
Kingman

1156 So. Highland Ave.
Los Angeles 19, California

ARIZONA METALS COMPANY
Summit Alpha Mines
Kingman, Arizona

August 7, 1952

Mr. W. H. King,
Executive Officer, Field Team IV.,
Defense Minerals Administration
224 New Custom house
Denver 2, Colorado

COPY

RE: Arizona Metals Company
DMEA Docket 2463

I have gone over the matching fund contract with Mr. Farnham today, It is quite satisfactory but would like certain information which Mr. Farnham was unable to give me.

Naturally we want all the proper advantage we can have with respect to the date of the contract. We have to send the contract to Alabama for one signature and it will no doubt take two weeks in all to send it the rounds--to Washington and back--so, may we leave the date open for you to fill in after it is returned from Washington?

As we understand the contract, under this form, we will be checked up monthly as to the distance we have drifted--but will not be required to do the accounting that was or would be required under contract form MF-100?

I am wondering what has become of our D.O. application filed on Form MF-100?

I appreciate very much the service you and the Tucson office have given this matter.

I will be in Los Angeles all next week--so please address me there for the present.

Sincerely,

s/ Ralph R. Langley

Mining Division
Region IV

July 9, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 13 1952

Memorandum

To: Field Team, Region IV

From: Acting Chief, Mining Division, Region IV

Subject: Final Report, DMEA Docket 2463, (Lead-Zinc-Copper) Arizona Metals Co., Summit Mine, Mohave County, Arizona

Enclosed are nine copies of the engineering report on DMEA-2463 by L. L. Farnham.

The estimated cost of the proposed exploration is $46,128. Government participation is 50%, or $23,064.

The proposed work consists of drifting 1000 feet on the lower adit level. If the findings in this drift warrant, a 200 foot raise to connect with the old 300 foot level is proposed.

The examining engineer recommends the approval of this application.

We concur in this recommendation.

W. H. King
W. H. King

Reviewed by
DMEA OPERATING COMMITTEE
10-17-52
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

224 New Customhouse
Denver 2, Colorado

July 8, 1952

BL

Memorandum

To: Acting Administrator, Defense Minerals Exploration Administration - Code 210

From: Field Team, Region IV

Subject: Final Report, DMEA Docket 2463, (Lead-Zinc-Copper) Arizona Metals Co., Summit Mine, Mohave County, Arizona

The application for Government assistance in exploration work estimated to cost $46,128, has been approved by us and a contract is being prepared.

Government participation will be 50 percent, or $23,064.

Four copies of the Final Report will be forwarded when the contract is processed.

The original and one copy of Form 3b is attached.

W. H. King
W. H. King

A. H. Koschmann
A. H. Koschmann

DEPARTMENT OF THE INTERIOR
Bureau of Mines
JUL 28 1952

RFG. 4 case

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

200 New Customhouse
Denver 2, Colorado

July 2, 1952

Memorandum

To: DMEA Field Team, Region IV

From: A. H. Koschmann

Subject: DMEA Docket 2463, Summit Mine, Arizona Metals Company, Mohave County, Arizona (Lead-zinc)

Enclosed are the original and 8 copies of the geologic report by C. S. Bromfield of the U. S. Geological Survey covering the above docket.

It has been recommended that the final decision whether the loan be approved or denied be made at a higher level.

A. H. Koschmann
Supervising Geologist
Colorado-Wyoming

Enclosures (9)

FILE COPY
SURNAME:

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

Mr. W. H. King
Executive Officer
DMEA Field Team, Region IV
224 New Customhouse Building
Denver 2, Colorado

Dear Mr. King:

This is with reference to your memorandum dated June 19, 1952, which transmitted the Field Team reports and summary conclusions and recommendations in connection with DMEA-2463. Your memorandum and enclosures were furnished pursuant to our recent telephone conversations, during which you stressed the necessity for a statement of policy as to what effect the downward trend in the market price of lead and zinc should govern your final action on an exploration application.

As I stated to you during our recent conversations, we here in Washington are not allowing our decisions to be influenced by the recent drop in the price of lead and zinc and that, provided we would have approved a given exploration project a month or so ago, before the decline in prices, we would approve the application under the present price situation. I have since discussed that stated policy with representatives of DMPA and members of the Policy and Coordinating Committee and the Operating Committee, all of whom concur. As a consequence of these discussions, the Operating Committee has included a special notice in their minutes of the 67th meeting, dated June 25, which serves as a guidance for you and the other Regional Field Teams. I feel that the question which you have precipitated is important and timely, and I wish to thank you for bringing it to our attention.

The enclosures which you requested to be returned are transmitted herewith.

Sincerely yours,

C. O. Mittendorf (fw) 6/27

Acting Administrator

Enclosure-1

COMittendorf/fw 6-27-52

cc: Admr. Reading file
Mails & Files
Base Metals Div.
Rare & His. Metals Div.

Operating Committee
Mr. Hedges
Mr. Thayer
Mr. Mittendorf

BL

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
P.O.Box 4126, University Station
Tucson, Arizona

June 10, 1952

Memorandum

To: A. H. Koschmann, Denver, Colorado

From: A. F. Shride, Tucson, Arizona

Subject: Geologic Report, IN&A 2463, Summit Mine, Arizona Metals Company, Mohave County, Arizona (Lead-Zinc)

Enclosed are the original and 8 copies of the above report by C. S. Bromfield of the Geological Survey.

The examiners concluded that at present market prices the potential ore that might reasonably be expected would be submarginal; therefore from economic considerations alone, denial must be recommended. However, a creditable amount of submarginal lead-zinc ore might be exposed by the proposed exploration. Therefore it is recommended that a policy decision be made at higher levels as to an exploration project. It is very possible that, on review of the geologic and engineering reports, exploration will be recommended.

This report and the conclusions have my approval.

A. F. Shride
Acting District Supervisor
Arizona-New Mexico

Enclosures 9

Mining Division
Date Rec'd.
JUN 13 1952
BUREAU OF MINES
Denver, Colorado

MINING DIVISION
REGION IV

June 10, 1952

Memorandum

To : W. H. King, Acting Chief, Mining Div., Region IV

From : Chief, Arizona-New Mexico Br., Mining Div., Region IV

Subject: Final Report, DMEA Docket 2463, Arizona Metals Co's. Summit Lead-Zinc-Copper Mine, Mohave County, Ariz.

Enclosed are original and 8 copies of the section on Summary, Conclusions and Recommendations by C. S. Bromfield of the Geological Survey and L. L. Farnham of the Bureau of Mines, and the section on Engineering by Farnham for the above report. A separate section on Geology will be submitted by the Geological Survey.

Although no profit will be made from any ore discovered on this property with 16.5 cent zinc and 15 cent lead, it seems that the mine would become a commercial operation if these prices went up a few cents. As there seems to be a good chance for the price of zinc to go up when the present steel strike is ended, I would recommend that this project be approved.

Brochure is enclosed; also Landlord's Subordination Agreements.

Walter R. Storms

Walter R. Storms.

CC W. H. King (8)
C. A. Anderson
DMEA-2463
DF

WRStorms:frj

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

224 New Customhouse
Denver 2, Colorado

June 19, 1952

Airmail
Special Delivery

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
JUN 20 1952

Memorandum

To: C. O. Mittendorf

From: Executive Officer, DMEA Field Team, Region IV

Subject: Sub-marginal Lead-Zinc-Copper ore - Field Team memo June 13 (DMEA 2463)

In accordance with our telephone conversation of this morning we have assembled one copy of the following:

Summary Conclusions and Recommendations, by C. S. Bromfield and L. L. Farnham

Geology, by C. S. Bromfield

Engineering report by L. L. Farnham

Unsigned letters of transmittal from A. F. Shride and W. R. Storms

This report was prepared in connection with the application of the Arizona Metals Company, Docket DMEA 2463.

Our letter of June 17 requesting information as to your reaction to entering into a contract for exploration of a sub-marginal deposit stemmed from these reports.

We are not entirely in accord with some of the statements in the reports, namely, the last page of "Summary, Conclusions and Recommendations" which states: "Thus the decision as to whether the requested loan should be denied or approved becomes a matter of policy. If that policy is based on present day economics, then it is recommended that the loan be denied."

As we discussed in the telephone conversation this morning, there is need for a stronger declaration of policy concerning the exploration

of sub-marginal deposits and we will appreciate your assistance in this matter.

Along these same lines we have prepared copies of a letter from Mr. Langley to Mr. Storms for the attention of Mr. Farnham, who prepared the Bureau's report. These copies are enclosed herewith.

When this material has served its purpose, please return it to this office so we can make corrections which may be necessary. We will send you the regular 4 copies as soon as the report has been processed.

W. H. King

W. H. King

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

224 New Customhouse
Denver 2, Colorado

June 17, 1952

Memorandum

To: C. O. Mittendorf, Acting Administrator, Defense Minerals Exploration Administration

From: Field Team, Region IV

Subject: Submarginal lead-zinc-copper ore

We have examined a property and conclude that there is a reasonable geologic possibility of indicating 25,000 tons of submarginal lead-zinc-copper ore between the 300 and 500 foot levels. It is estimated that the ore would average 0.58% copper, 4.3% lead, 6.3% zinc, 4.5 oz. silver and 0.066 gold per ton. Exploration is estimated to cost $46,000.

Mining, milling and smelting costs indicate that the applicant could not recover his share of the proposed cost of exploration at the present metal prices.

Considering the declining metal prices, please give us your reaction to entering into a contract for the exploration of such a deposit.

W. H. King
W. H. King

A. H. Koschmann
A. H. Koschmann

Arg Metals
Kingman
Langley

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
JUN 18 1952

June 5, 1952

COPY

Mr. Walter R. Storms, Chief
Arizona-New Mexico Branch
U. S. Bureau of Mines
University Station
Tucson, Arizona

Re: DMEA Docket 2463
Arizona Metals Company

Attention: L. L. Farnham

Dear Mr. Farnham:

In our telephone conversation yesterday you rather emphasized the economic phase of potential Summit production which leads me to discuss that phase herein in so far as anyone can foresee what the metal prices or the metal values in the ore we are exploring for will be.

In my opinion the economic phase does not enter into the consideration of an exploration project. No one can know or estimate what the ore values will be--nor can we be certain we will locate any ore. The objective of an exploration project is to try to locate some ore--not to estimate in advance what the values will be or what the market will be in the future. The supposition was, when Congress enacted the Defense Production Act, that the national economy required an increase in the supply of base metals and so the Congress authorized exploration aid to mine operators. Nothing was said or required in or by the Act about what ore values might be discovered or whether the values or the markets would be such that an operator could make any money by the production thereof. Seems to me that any consideration as to what the values of the ore being explored for is "out of bounds" in connection with applications for matching funds. However, we who have lived with these properties have some very definite ideas as to what grade of ore we will discover and what the recoveries will be and, since we know to a very close margin what the mining, milling and marketing costs will be, I will set up herein about the minimum figures we feel we can expect, at today's metal prices.

From our experience in this district, together with the values thus far found in the exploration work ore we have taken out, we would not "settle" for a lower average value estimate than the mill head values listed below. As is always the case, we have to do considerable estimating as to recoveries and ratio. The following are based upon experience.

We expect these recoveries--Gold 90%-Silver 80%-Copper 85%-Lead 90% and Zinc 85%. We figure the lead concentrate at 14 to 1 and the zinc concentrate at 10 to 1, using the mill heads indicated.

The cost of mining and milling ore depends upon volume and continuous operation, proper preparation, particularly with respect to opening up and making room for men to work, each at his specialty, without interruption. Such operation requires a minimum of three, and preferably five, live stopes, each 100 feet long exclusive of manways. That is why we wish to drift several hundred feet into and under ore chutes before starting to do any mining, and to otherwise prepare our workings for continuous efficient work and to thoroughly mechanize our mine.

A base-metal mine should actually produce 150 tons every day to the mill ore bin and should have its own milling and treating facilities located at or near the mine. We have had several years experience with our type of ore and formations and we know what can be done in the way of production by proper placement of men and use of modern improved mining equipment, such as the jackleg drifters and stopers we are now using. As an example--with this new drill we drill out a face round--20 holes--in 2 hours, whereas, it formerly required two men eight hours to drill the same round, and we now use much less air, power, steel and labor.

We are satisfied the chutes in the Summit vein will continue to average better than 5 feet in width. Two men can drill backs 100 feet in length in 8 hours if kept drilling steadily. Such a round, 5' x 100' x 5', will break 200 tons of ore, allowing usual shrinkages, that will be sure to deliver 150 tons to a mill daily.

The drill men should do nothing but drill. They should be followed by two explosives men, two timber men, two trammers and one outside man. As soon as the drill men have finished one stope they should move to another, thus making for efficiency.

A 150-ton mill requires six shift men, an assayer, two general men and one foreman--ten men in all. The mine requires the same number. 18 of these men should draw $15.00 per day and two of them $20.00 per day, or a total of $310.00 per day, plus compensation insurance and other charges amounting to about 15%, or a total labor cost of $356.00 per day. The cost of mine supplies and power will be about $250.00 per day, and likewise the mill in the same amount, or a total operating cost of $856.00 per day, which, at 150 tons daily, is equal to $5.70 per ton. Add to that sum a royalty of $1.50 and overhead of $1.00 and we have a total operating cost of $8.20 per ton of ore. We know from experience that this can be done; in fact, it must be done at any mine in order to operate.

The mill heads, recoveries, etc., etc., which we are sure can be had, are set out in the following tables. The result, as you will see, will yield a net after taxes of $10.56 per ton of ore of the grade estimated.

Assuming mill heads -

Gold	0.04 oz.
Silver	5.00 oz.
Copper	1.50 %
Lead	4.50 %
Zinc	6.00 %

Lead Concentrates

Concentration ratio 14 to 1, Saving,
Gold 90%, Silver 80%, Copper 85%, Lead 90%

Gold	0.50 oz.
Silver	56.00 oz.
Copper	17.78 %
Lead	56.70%

Smelter payments:

Gold,	Pay 0.50 oz. @ 32.00	$16.00
Silver,	" 95% of 56 oz. @ 90c	47.88
Copper,	" 17.78 less 1%-335.60 lb. @ 18c	60.40
Lead	" 56.70 less 1½% x 90-993.60 lbs. @ 11.65¢	115.75
	Smelter payments for lead	$240.03

Deductions from gross returns:

Base charge after lead credit	$6.50	
Freight and tax	13.00	21.50
Haul	2.00	
Net smelter payments after deductions		$218.53

At ratio of 14 to 1--value of lead in ore is $15.60

Zinc Concentrates

Concentration ratio 10 to 1, savings 85%

Gold	0.05 oz.
Silver	5.00 oz.
Zinc	51.00 %

Smelter payments:

Gold,	Pay 80% of 0.05 ozs. @ $32.00	1.28
Silver,	" 90% of 5.00 ozs. @ 90¢	4.05
Zinc,	" 85% of 51% = 867 lbs. @ 17½¢	151.72
	Payments for zinc concentrate,	$157.05

Deductions:

Base charge	$55.00	
Freight and tax	12.00	
Haul	2.00	69.00
Net smelter payment for zinc		$88.05

At ratio of 10 to 1-- value of zinc in ore is 8.80

Value lead, copper, gold, silver in ore		15.60 per ton
Value zinc, gold and silver in ore		8.80 " "
Value per ton of ore		$24.40
Less cost of operations		8.30 per ton of ore
Net before taxes		$16.20
Gross value lead (240.03 ÷ 14)	17.14	
Gross value zinc (157.95 ÷ 10)	15.70	
Gross per ton ore		$32.85
Tax exempt 15% of gross		4.92 per ton
Net before taxes	16.20	
Exemption	4.92	
Taxable income-	11.28	
Assuming 50% tax	5.64	
Net after tax	5.64	
Add exemption	4.92	
NET AFTER ALL COSTS AND AFTER TAX		$10.56 per ton ore.

So the economics seem quite OK. Values and metal prices can fluctuate considerable and still the economics are all OK.

I have gotten these figures up rather hurridly, with my very limited office facilities, in order to get them to you tomorrow if possible.

I hope you can get your report mailed to Denver yet this week or the first of next week, and that you will please advise me when mailed.

Sincerely,

/s/ Ralph R. Langley
RALPH R. LANGLEY
President, Arizona Metals Company.

EXHIBIT "D"

From
REPORT ON SUMMIT MINE
by
J. D. McPherson, E.M.

TOPOGRAPHY: The slopes of the Cerbat Range are generally steep and provide posibilities of tunnel development of veins to considerable depths. The east end of this group of claims lies at an elevation of about 3500 feet while the west end at the Summit is 2000 feet higher.

Southwest from the Summit shaft the ground drops off at a steep angle, and there is a good possibility of opening up the Summit vein to a depth of about 500 feet by tunneling from that side.

GEOLOGY: A detailed description of the geology of the Stockton Hill district is given in United States Geological Survey, Bulletin 397, 1909, by F. C. Schrader, titled "Mineral Deposits of Cerbat Range, Black Mountains, and Grand Wash Cliffs, Mohave County, Arizona."

The Summit vein occurs in a pre-Cambrian gneiss and schist complex, similar in every respect to other veins in this district, as well as those of the Chloride and Cerbat districts, which have produced several millions of dollars in lead-silver and lead-zinc ores in the past. It is a true fissure vein and a strong one, and strikes N. 40° W. and dips about 85° to the northeast, again similar to the other veins in this district.

The reported production of ores from the mines of the Cerbat Range is reliably reported to be in excess of $25,000,000.

The deeper mines of the district are the Tennessee, which is now operating from a depth of 1700 feet, and has produced large quantities of good grade base metal ores for a long period of time, aggregating over $8,000,000 in production; and the Golconda mine which is not now operating, but which reached a depth of 1400 feet at the time it ceased operations due to the destruction of the mill by fire.

Many other mines have produced smaller tonnages of good grade ores from shallower depths, but the aggregate is considerable and important. Some of these more important smaller producers are the Alpha, C.O.D., Towne, Oro Plata and Keystone mines.

This vein outcrops strongly on the Summit and Silver Monster claims, with a width from 6 to 10 feet, the quartz being iron

stained from leaching of pyrite. At intervals along the outcrop, rich but relatively shallow and small pockets of gold ore have been found by leasers.

So far, when underground work has penetrated underneath such pockets of surface ores, they have revealed the presence of good grade lead-zinc ores, with minor amounts of copper, silver and gold content.

To the east of the Summit shaft, on the Silver Monster claim, and some 500 feet east from the most easterly underground development work on the 160-ft. level (the tunnel level), considerable ore has been shipped by leasers in the past, which would indicate a chance for another ore body containing eastward along the vein.

.....

The ore bodies (Summit Claim) shown up to date on the 160-ft. level are separated from each other by an apparent pulling apart of the vein along strike faults, which would indicate subsequent movement along the vein fissure. The west face of the 160-ft. level is in this broken up condition at present, but the chances are good that if this heading were continued more ore would be found as indicated above. The east face of this same level is partially caved from this same pulling-apart condition of the vein. Apparently former operators were easily discouraged as to finding ore.

.....

EXHIBIT "E"

From Report of

E. ROSS HOUSHOLDER, E.M.
on
SUMMIT MINE

TOPOGRAPHY: The crest line of the mountain range in which the project is located ranges from 5400 to 6000 feet elevation. The claims lie at the top of the mountain and extend down the Southwest slope. The present workings are located near the top. The immediate foot of the mountain lies more than 2000 feet below the crest. Thus, affording opportunity to operate the property through drifts and cross cuts rather than by hoisting ore and pumping water through deep shafts.

Six miles of good gravel road, maintained by the County Highway Department, connects the project with paved U. S. Highway #93, which highway connects Kingman, Arizona, and Las Vegas, Nevada, passing over the Hoover Dam near Boulder City, Nevada.

INDICATIONS OF DEPTH: A base metal mine at Chloride, ten miles Northwest, is operating at a depth of approximately 3,600 feet below the Summit Alpha workings. One and one-half miles Southeast of the Summit-Alpha project is the Golconda Mine, which when it discontinued operations on account of a fire was producing from a depth 1400 feet below the collar of its shaft or 3000 feet below the outcrop of the Summit-Alpha project. A winz was sunk a depth of 300 feet, in high grade lead zinc ore, in the Jemison drift which is located near the base of Stockton Hill Mountain. The bottom of that winz is 1800 feet below the Summit-Alpha workings. These deeper ore occurrences are not conclusive proof that the Summit-Alpha vein system and ore content extend to the same depth, but those facts together with the known character of the Summit-Alpha formations and favorable geologic conditions offer rather conclusive evidence that economically recoverable ore bodies do extend to a great depth in the Summit-Alpha vein system.

VEIN SYSTEM: .....

A lateral faulting action occurred beginning approximately 150 feet east of the shaft and extending west 500 feet. The vein or fissure shows up clearly and strongly on the surface in both directions immediately beyond the fault. Considerable prospecting has been done with some resulting production from surface workings which extend several hundred feet along the vein.

METALLURGY AND VALUES: The predominating metals in this vein system are lead and zinc with substantial values in gold and silver and a nominal amount of copper.

The average values of all of the 18,215 tons of ore produced from these properties the past four years, including development ore which was considerably diluted, are:

AU 0.067 -- AG 4.18 -- CU 0.55 -- PB 4.02 -- ZN 5.90

Excluding the diluted development ore from the calculations will raise the averages of the remaining 15,900 tons to

AU 0.068 -- AG 4.48 -- CU 0.58 -- PB 4.22 -- ZN 6.22

.....

ORE RESERVES: There is no question as to the continuity both in lateral extent and depth of the well defined veins on this estate, judging from the similarity of the geological conditions already exposed, to those of the deeper developed mines existing in similar formations.

There are five veins extending over the 4500 feet length of the mine group. Estimated tonnages of expectant ore from all these veins would be large.

The Summit vein itself averages six feet in width. The mill grade ore in the ore chutes of this vein have the same average width. In drifting along this vein from the intersection with the crosscut now being driven, for the length of the claim (a distance of 1500 feet), the average vertical depth above the crosscut level would be approximately 300 feet. Should the ore contained in this portion of the vein have an average of 6 feet in width, and should 60% of the 1500 feet of length carry mill grade ore, it would represent 135,000 tons of possible ore above the crosscut level.

By installing high speed and large capacity hoisting and other deep mining equipment and facilities ore can be economically hoisted and taken out through the crosscut to whatever depths the values continue, but such deep mining equipment is not necessary for economical production to a depth of as much as 500 feet. Therefore using the same width, length and percentage of mill grade ore content, I calculate 216,000 tons in the first 500 feet of depth below the crosscut tunnel or a total of 351,000 of possible ore economically available through the crosscut tunnel in the Summit claim without having to install deep mining equipment; such volume might be trebled by continuing to drift the full length of the other two endlining claims.

Should the values continue to greater depth, as is fully expected, it would be better economy to drive another crosscut into the ore from another available location about 1000 feet lower down the mountain side than to sink suitable shafts and install deep mining hoists and supporting equipment.

EXHIBIT "F"

In Mine Inspector's report dated September eleven, 1951, the Mine Inspector, under the heading-

"INSTRUCTIONS TO BE GIVEN OPERATOR"

instructs that

" Before any stoping is done, raise to surface for ventilation and second exit"

Instruction signed,

" Deputy- C.C. Newens.

Arizona Metals Company
Box 1266,
Kingman, Arizona.

Exhibit "F"
Form MF-103.

"X"

Drift--2 shifts -- 10 feet in 16 hours

		Per day		Per foot
Labor				
8 men @ $14.00 per shift		$112.00		
Compensation, etc., 15%		16.80		
		$128.80	128.80	
Supervisor	15.00			
Compensation 10%	1.20		16.20	
			145.00	14.50
Explosives				
40 holes x 6 sticks-240 x 10¢			24.00	2.40
Power				
100 gals. x 16¢			16.00	1.60
Steel			12.00	1.20
Timber				
60' of 8x8 --	318 Bf			
5x10x3" (cover)	72			
14x10x2" (sides)	140			
	530 BF @ $120--1/2 dist		31.80	3.18
Rails 3.3 Yds 20# @ 8¢# ($150.00 Ton)			4.80	.48
Spikes-bolts-fisplates, estimated			1.40	.14
Ties 30"x4"x6" -- 5 BF x 5-25 BF @ $120			3.00	.30
Vent pipe 10" @ 60¢			6.00	.60
Air line 2" pipe @ 35¢			3.50	.35
Water line 1" pipe @ 15¢			1.50	.15
Extra timber			18.20	1.82
Rental Trammer			5.00	.50
Compressor allowance $250 monthly				
Mucking machine " 150 "				
	$400 @ 26 days		15.30	1.53
Gas,etc. for pickup truck, etc.,etc.			12.50	1.25
			$300.00	$30.00

500 feet @ $30.00 15,000.00
700 feet @ 30 21,000.00

- - - - - - - - - - - - -

Acquire:	Blower-extra Vent pipe and engine	$ 700.00
	Generator and motor	350.00
	2 Sweed Drifters and steel	2,500.00
	Grinder--bit	450.00
	Repairs, tools, hose, etc.,etc.	1,000.00
	New equipment	$5,000.00

Arizona Metals Company
Box 1266
Kingman, Arizona

Form MF-103
Page 7.

"Y"

Raise -- 2 shifts -- 5 x 16 -- break 6 feet

			Per Foot
Labor	2 shifts 8 men and supt.	145.00	24.17
Explosives	45 holes @ 6 sticks @ 10¢	27.00	4.50
Power	100 gal. x 16¢	16.00	2.70
Steel		14.00	2.30
Timber	Double crib - 3" @ $120.00	75.00	12.50
Vent pipe	6' @ 60¢	3.60	.60
Air & Water Lines		3.00	.50
Rentals		20.30	3.38
Gas, Tires, etc., etc.		14.10	2.35
		$318.00	$53.00

* * * * * * * *

Raise 320' x 53.00	$ 16,960.00
Drift 700 feet	21,000.00
New Equipment	5,000.00
	$ 42,960.00
1/2 Government	21,480.00
Arizona Metals Company	21,480.00
	$ 42,960.00

Distribution of estimated total costs of project compiled from attached sheets "X" and "Y" listing detail for drifting 700 feet and raising 320 feet.

LABOR & SUPERVISION		
For drifting	$10,150.00	
For raising	7,734.40	$17,884.40
EXPLOSIVES		
Drifting ($21.00 per 100#)	1,680.00	
Raising(with caps & fuse)	1,440.00	3,120.00
POWER		
Drifting (Diesel oil plus	1,120.00	
Raising lub. at 16¢)	864.00	1,984.00
STEEL		
Drifting (Jackleg carboloy	840.00	
Raising steel)	736.00	1,576.00
TIMBER		
Drifting	3,500.00	
Raising ($120.00 per M)	4,000.00	7,500.00
TRACK		
Rails, plates, spikes, bolts @ $150 Ton		434.00
Ties 4"x6"x30" @ $120.00		210.00
VENT PIPE 10" @ 60¢ per foot		612.00
AIR & WATER LINES 2" @ 35¢ and 1" @ 15¢		510.00
* **RENTALS** - Trammer, compressor, mucking machine		2,502.60
MISCELLANEOUS		1,627.00
Total		$37,960.00
ACQUIRE:		
a. Blower, motor, extra vent pipe	700.00	
b. Generator & motor	350.00	
2 jackleg drifters & steel	2,500.00	
Bit & steel grinder	450.00	
Repairs and miscellaneous	1,000.00	5,000.00
		$42,960.00

* NOTE: We prefer to electrify diesel motor as stated in application. If that is done the rental item and most of items a and b will be eliminated, thus resulting in about the same overall costs.

Arizona Metals Company
Box 1266
Kingman, Arizona

UNITED STATES
DEPARTMENT OF THE INTERIOR
OSCAR L. CHAPMAN, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

DMEA-2463, Arizona Metals Co's. Summit Mine

Mohave County, Ariz. (Lead-Zinc-Copper)

C. S. Bromfield, Geologist
U. S. Geological Survey

L. L. Farnham, Mining Engineer
U. S. Bureau of Mines

June 1952

Dm. 5,7e
Rd7

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

By C. S. Bromfield[1] and L. L. Farnham[2]

In March 1952, the Arizona Metals Co. applied to the Defense Minerals Exploration Administration, under the Defense Production Act of 1950 as amended, for an exploration loan amounting to $42,960. The application was docketed as DMEA-2463. The funds requested were to be used for the deeper exploration of a formerly productive zinc-lead area of the Summit vein situated in the Wallapai mining district of Mohave County, Ariz. The property was visited by the examining team during the week of May 12, 1952.

The Summit vein probably was discovered in the mid-sixties but no serious attempts were made to develop the property until 1924. Since that time the further development of the mine was carried on intermittently by various operators. The total production of the property has amounted to some 30,000 tons of zinc-lead ore containing gold, silver, and small amounts of copper. Over one-half of the total production was made by the applicant during the period of the Premium Price Plan in World War II. After several years of inactivity, exploration work was resumed late in 1951 and was still in progress at the time of this examination.

The Summit vein, a strong fracture zone cutting pre-Cambrian rocks, trends for several thousand feet in a northwesterly direction and dips steeply eastward. The vein zone attains a width of as

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much as 30 feet. The gangue is composed of quartz and altered wall rocks. The sulfides consist principally of pyrite, sphalerite, and galena with minor amounts of chalcopyrite and chalcocite. Within the explored portion of the vein 5 narrow lenticular oreshoots were found and exploited. The largest of these was 200 feet long and averaged about 4 feet wide. It was mined continuously from the surface to the deepest point of development. The other shorter ore bodies were less persistent along the dip and appeared to be of a sporadic and recurrent nature.

The developed portion of the vein was limited to a length of 900 feet along the strike and to a depth of 300 feet. The proposed work would explore the course of the vein for 1,000 feet and to an additional depth of 200 feet below the former productive area.

The cost of the proposed project, as estimated by the examiners, would amount to $46,128, one half of which would be borne by the applicant.

Based on the former production, the potential of the vein area, proposed for exploration, would be of the order of 25,000 tons averaging 0.06 ounces of gold and 4.5 ounces of silver per ton, 0.58 percent copper, 4.3 percent lead and 6.3 percent zinc. At present metal prices,[3/] this grade of ore would have a net value after marketing of $19.75 a ton. Estimates of the mining, milling and smelting costs indicated that the property could not be profitably

3/ Zinc, 16.5 cents; lead, 15 cents; and copper, 24.5 cents a pound.

operated under present conditions. Consequently it would not constitute an immediate source of lead and zinc. However, if the loan was approved it probably would result in the establishment of a creditable future reserve of lead and zinc ore.

In the event that the objectives of the exploration program are of longer range than those associated with immediate supply problems, then it is recommended that the application for exploration assistance be approved.

SUMMIT MINE
ARIZONA METALS COMPANY
MOHAVE COUNTY, ARIZONA
DMEA 2463

LEAD-ZINC

Geology

By
Calvin S. Bromfield
Geologist, U. S. Geological Survey

SUMMIT MINE
ARIZONA METALS COMPANY
MOHAVE COUNTY, ARIZONA
DMEA 2463

LEAD-ZINC

CONTENTS

	Page
Introduction	1
Rocks	1
Ore Deposits	1
Ore Reserves	3
Geologic Conclusions	4

ILLUSTRATIONS

Fig. 1 Location	See Engineering Report
Fig. 2 Claim Map	" " "
Fig. 3 Mine Workings	" " "

INTRODUCTION

The Summit Mine is in the Wallapai Mining District near the crest on the west slope of the northerly trending Cerbat Mountains. The altitude of the claims ranges between 5,000 and 5,500 feet. The Summit Mine has reportedly produced about 30,000 tons of lead-zinc ore from a steeply dipping composite quartz vein in gneissoid granite.

ROCKS

The Cerbat Mountains are in large part composed of a pre-Cambrian complex of granite, gneiss, and schist. The crystalline complex is cut by a Mesozoic (?) granite intrusive near Mineral Park in the center of the district, about a mile-and-a-half northeast of the Summit Mine. Some geologists have related genetically the widespread lead-zinc mineralization in the district to this intrusive. Pegmatite, rhyolite, and basic dikes cut the complex, and in part, the Mesozoic (?) granite. Later Tertiary and Quaternary volcanics occur on the south end of the Cerbat Mountains and in scattered outcrops around the margin of the range.

The dominant rock type in the Summit Mine area is a gneissoid biotite granite of fine to coarse grain. The granite is cut by a few dark green basic dikes which are in few places more than a few feet in thickness.

ORE DEPOSITS

In the Wallapai district the prevailing vein pattern consists of generally northwest and less commonly north-trending structures. All the productive lead-zinc mines have been on fissures of these trends. For the most part the veins of the district are narrow and steeply dipping. The wider veins are as much as 5 to 15 feet wide; vein widths of 6 inches

to 3 feet are more common. The gangue is quartz, which in outcrop is stained in shades of red and brown with iron oxides. The veins contain varying amounts of galena, sphalerite and pyrite, and minor quantities of chalcopyrite, silver and gold.

The Summit vein has an average strike of N. 40° W. and dips steeply east at an angle of about 85°. The vein is developed at the south end of the Summit claims by a 300-foot shaft and two drifts on the 160 and 300-foot level respectively (Fig. 3). A haulage crosscut-adit intersects the 160 level drift near the shaft. Stoping, largely in two shoots, has resulted in the production of approximately 30,000 tons of lead-zinc ore. To the northeast, at the other end of the Summit claim, and from lower down the mountain slope, a 900-foot crosscut-adit intersects the Summit vein at approximately the 500-foot level (Fig. 3). From the intersection drifts have explored the vein 140 feet northwest and 90 feet southeast.

At several exposures both on the surface and underground the Summit vein is revealed to be a composite vein zone. This zone is from 20 to 30 feet wide. Mineralized quartz ore shoots are found in this zone, in places in an echelon pattern, or in other places as adjacent shoots separated by a horse of altered country rock or by basic dikes which commonly parallel the vein structure. Shoots may branch. Shoot No. 1, the largest, had a maximum shoot length of 180 feet on the 160-foot level. The individual quartz veins may range in width from narrow mineralized quartz stringers up to veins 10 feet in width. The average width is probably 3 to 4 feet. The vertical extension of individual shoots is unknown. Ore shoot No. 1 (Fig. 3) has been mined from near the surface

to the 300-foot level, and is reportedly still good on that level. This level was flooded and not accessible to the examining team. Veins in the district have been mined to depths of 1,700 feet.

The applicant proposes to drift 1,100 feet south along the vein from the 500-foot level workings on the northwest end of the Summit claims (Fig. 3). This work would have as its primary object the exploration of the downward extension of the mineralization from the old workings, and incidentally would explore the virgin ground in the interval of Block C (Fig. 3).

ORE RESERVES

From reliable records and past reports the total production from the Summit Mine is about 30,000 tons of ore. Smelter returns and mill records for 18,000 of these tons shows an average grade as follows:

Oz. Au	Oz. Ag	% Cu	% Pb	% Zn
0.066	4.5	0.58	4.3	6.3

This is thought to be a fair estimate of the average grade of the ore, and indicative of the tenor of ore that might be encountered in exploration at depth.

Detailed information of the bottom (300-foot) level of the main workings is not available and the workings are flooded and inaccessible. Lacking this information the potential of the deposit may be best estimated on the assumption that the productivity of the vein at the depth proposed for exploration will be similar to the productivity of the vein above the 300-foot level. This assumption is based on four considerations: (1) the fact that mineralization in the district is found over a vertical range of several thousand feet; (2) the probability that Ore Shoot No. 1 continues below the 300-foot level; (3) the strong

vein structure of the Summit vein; and (4) the fact that ore of the above average tenor has been encountered on the 500-foot level where the lower adit and drift explore the vein, indicating that new ore shoots may be developed. The vein as thus far mined has produced 100 tons per vertical foot. It is inferred, then, that if this ratio persists 20,000 tons of ore may be indicated by the proposed exploration in the 200 foot interval between the 300 and 500-foot level. Allowing a 50 foot extension below the 500-foot level and assuming some ore will be indicated in the virgin Block C it is estimated that exploration might indicate a total of 25,000 tons in Block B and C (Fig. 3).

GEOLOGIC CONCLUSIONS

The Summit Mine is on a strong composite vein structure which has produced at least 30,000 tons of ore above the 300-foot level. Mining in the district has reached depths of 1,700 feet. Ore of average tenor has been encountered on the 500-foot level at the northeast end of the Summit claim. It is thought that there is a reasonable geologic chance of indicating 25,000 tons of ore between the 300- and 500-foot levels by carrying out the proposed exploration work. This ore would have an average grade of about 11 percent combined lead-zinc-copper, 4 ounces of silver, and .06 ounces of gold per ton. As discussed under the engineering section this grade under present mining conditions is probably sub-marginal. If economic considerations are not overriding and if it is in line with a long range policy of increasing ore reserves to develop this amount of sub-marginal ore, it is recommended the project be approved.

DMEA-2463, ARIZONA METALS CO., SUMMIT MINE
WALLAPAI MINING DISTRICT
MOHAVE COUNTY, ARIZ.

Engineering Report

By L. L. Farnham
Mining Engineer
U. S. Bureau of Mines

June 1952

DMEA-2463, ARIZONA METALS CO., SUMMIT MINE
MOHAVE COUNTY, ARIZ.

CONTENTS

Engineering report	Page
Introduction	1
Acknowledgments	1
Location and physical features	1
History and production	2
Ownership and extent	3
Description of the deposit	4
Ore reserves	5
Present status	7
Proposed exploration	9
Estimated cost of project	9
Estimated operating costs	11
Conclusions and recommendations	16

ILLUSTRATIONS

Figure		Following page
1	Location map	1
2	Claim map	4
3	Mine workings	5

INTRODUCTION

In March 1952, the Arizona Metals Co. through its president, Ralph R. Langley, applied to the Defense Minerals Exploration Administration for an exploration loan amounting to $42,960. The application was docketed as DMEA-2463. The funds requested were to be used for the deeper exploration of a formerly productive zinc-lead area in the Summit vein. The property was visited by the examining team during the week of May 12, 1952.

ACKNOWLEDGMENTS

Thanks are due Ralph R. Langley for the help he gave the examiners during the investigation of the property.

LOCATION AND PHYSICAL FEATURES

The Summit property is situated near the crest of the western slope of the Cerbat Mountains in the Wallapai mining district of Mohave County, Ariz. Kingman, the nearest shipping and supply point, is about 18.5 miles south of the mine. The Summit claim upon which the exploration was proposed lies in the NW$\frac{1}{4}$ of sec. 32, T. 23 N., R. 17 W.

The property is accessible over graded roads from either Kingman or Chloride (figure 1). It is perhaps more easily reached by driving northwest from Kingman on paved U. S. Highway 93 for 12.8 miles, thence eastward on a graded dirt road for 5.3 miles to a road fork where the left-hand branch is followed for 0.3 miles to the portal of the lower adit. The last 1.5 miles of this road has sharp curves and steep grades.

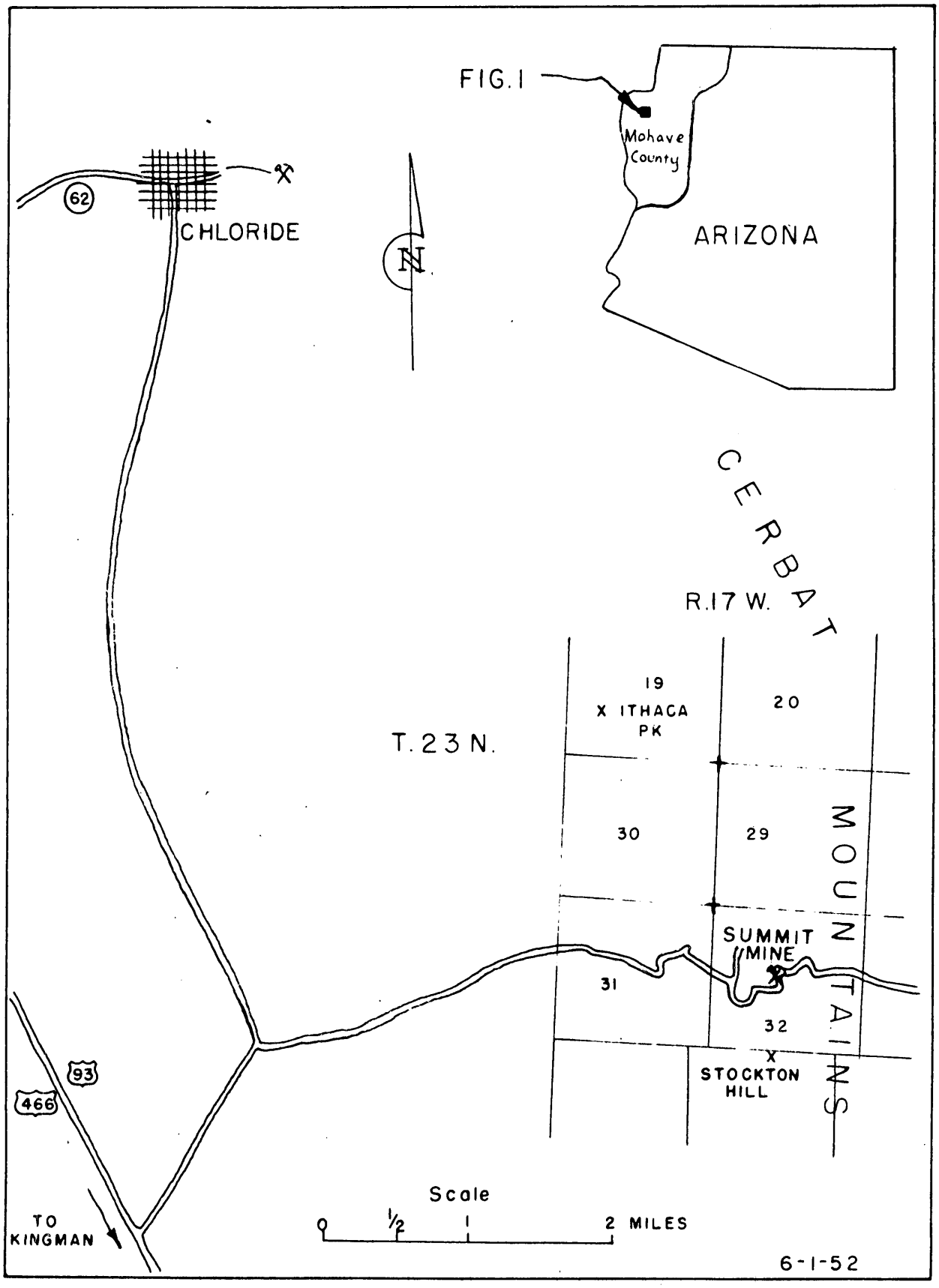


Figure I— Location Map, Summit Mine, Mohave County, Arizona
DMEA 2463

The topography surrounding the property is rugged with altitudes ranging from about 5,200 feet at the lower adit to 5,700 feet on the outcrop of the vein.

Vegetation is sparse, owing to the arid climate.

HISTORY AND PRODUCTION

The first serious attempts in the underground development of the Summit property were made in 1924, when the United States Smelting, Refining & Mining Co. sank the upper portion of the present shaft. In 1936, the Keystone Mining Co. leased the property and during the following 2 years reportedly mined over 10,000 tons of ore. After a period of inactivity, the El Dorado Mining Co. in 1942 acquired the mine and with the aid of a Reconstruction Finance Corporation loan completed additional development and shipped 23 cars of ore. Ralph R. Langley, the president of the applicant company, leased the property in 1943 and it has remained under his control to the present time.

Prior to 1943 the estimated production from the Summit amounted to about 12,000 tons. No information is available as to the value of this early production. Authentic records of the later production show that 18,454 tons of ore were mined between April 1944 and November 1947. About 11,100 tons of this ore were milled in a 75-ton custom plant which was located some 4 miles from the Summit mine. The balance of the 18,454 tons or some7,350 tons, were shipped to the mill of the United States Smelting, Refining & Mining Co. at Midvale, Utah.

The operation of the property ceased late in 1947 when premium prices were discontinued. Deeper exploration of the vein was resumed during the latter part of 1951 and the lower crowscut adit was completed to the vein. To date several hundred tons of ore have been shipped from the vein as a result of this recent work.

OWNERSHIP AND EXTENT

Although the applicant holds a lease and option agreement covering 39 mining claims, only the Summit patented claim, Lot No. 47, patent 353, is involved in the proposed project. The property is owned by the L. L. Robinson Estate Co. of Los Angeles, Calif. On September 1, 1949, this company gave a 10-year lease and option on the Summit group to the Arizona Metals Co. Under the terms of the agreement the lessee has an option to purchase the Summit group for $75,000, if exercised before January 1, 1955, or for $100,000 if exercised after that date. The purchase price was payable by either cash or royalties. The royalty payments are as follows:

On all ores having a market value of $10 or less per ton, the royalty payments would be 5 percent of the net amount[1/] received by the lessee. On the ores having a market value in excess of $10, but not more than $20 a ton, the royalty would be 7.5 percent of the net amount. On ore of the value of $20 to $30 a ton, the royalty would be 10 percent; $30 to $35 a ton, 12.5 percent; $35 to $50 a ton, 15

1/ Net amount as defined in the lease is the sum remaining after deducting all transportation, treatment, penalties and sales taxes from the gross mill value of the ore.

percent; and on ore having a market value in excess of $50 a ton the royalty would be 20 percent of the net amount received by the lessee.

So far as known, the lease agreement is in good standing at this time.

The landlord's subordination agreements executed by L. L. Robinson Estate Co. are enclosed in the docket.

As ore has been mined from the Summit vein on the patented claim known as the Silver Monster, it should be included in this project. The Silver Monster, owned by the L. L. Robinson Estate and held under lease by the applicant, adjoins the Summit claim on the southeast (figure 2). The Fortunatus claim adjoining the Summit on the northwest is not owned or controlled by the applicant.

DESCRIPTION OF THE DEPOSIT

The Summit vein, one of the stronger structures in the Wallapai district, cuts pre-Cambrian crystalline rocks. It trends northwesterly and dips steeply eastward. The fissure is traceable on the surface for several thousand feet. The vein filling, composed of quartz, and brecciated and altered wall rocks, attains widths of as much as 30 feet. The sulphide minerals, arranged largely in bands within the gangue, consist of pyrite, sphalerite, galena, small amounts of chalcopyrite, and chalcocite. Varying quantities of gold and silver accompany the sulphides.

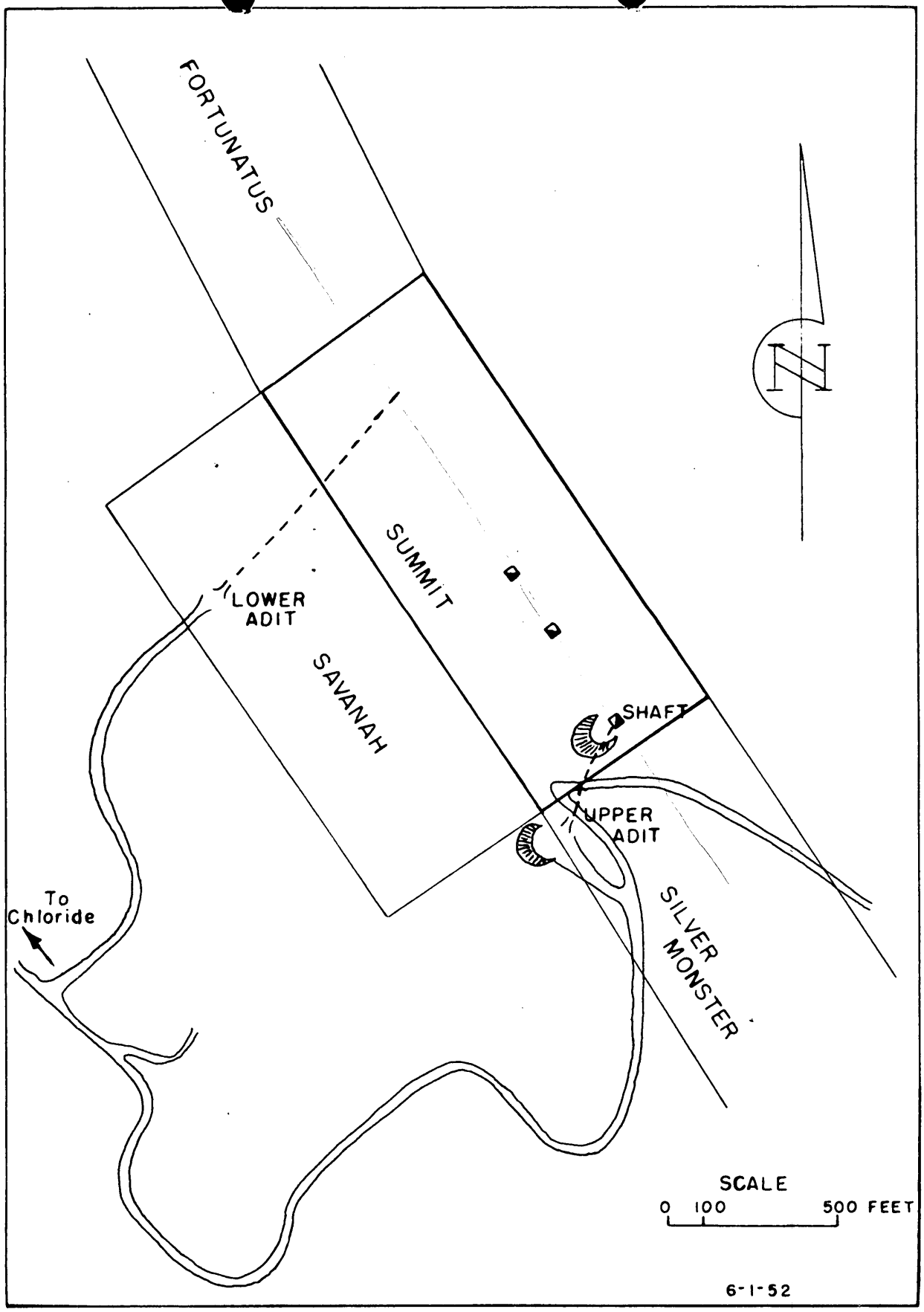


FIG. 2 — Claim Map, Summit Mine, Mohave County, Ariz.
DMEA 2463

Only the southeasterly portion of the vein has been developed underground. There one level has continuously followed the fissure for 900 feet. Within this explored portion 5 lenticular oreshoots, two of which overlapped, were found and exploited (figure 3). The strike length of the ore bodies ranged from 50 to 200 feet, their width varied from 2 to 5 feet, apparently averaging as mined about 4 feet. Some of the oreshoots occurred on or near the hanging wall of the fracture zone, others on the footwall, while one occupied the central portion of the vein matter (figure 3). Thus, frequent short crosscuts within the wider parts of the vein zone would be necessary in order not to overlook possible overlapping and parallel ore bodies. One of the larger oreshoots was mined continuously from the surface to the 300-foot or bottom level, while some of the shorter ones evidently persisted along the dip for only a few tens of feet. This variation in the size and vertical extent of individual ore bodies seems to be a characteristic of the district. In the Tennessee mine, which was developed to a depth of over 1,400 feet, some of the oreshoots were found to persist continuously along the dip for many hundreds of feet, while other smaller bodies, though much less persistent, were of a recurrent nature.

ORE RESERVES

The lower levels of the productive portion of the Summit vein were flooded at the time of this examination. There was no appreciable quantity of ore remaining in the accessible workings and probably little if any measured or indicated reserves were left above the developed portion of the lower, or 300-foot level (figure 3).

In the absence of sampling data or other information concerning the lower levels, it was necessary to judge the future potential of the property on the basis of its past productivity. The examiners' calculations of the stoped areas indicate that about 30,000 tons were mined from the surface to a depth of 300 feet. Thus the former yield of the developed portion of the vein has been about 100 tons per vertical foot. The proposed work contemplates the exploration of the vein at a depth of 200 feet below the present lowest level. If the downward extension of this portion of the vein proves as productive as the upper area then the potential of block "B" would be of the order of 20,000 tons (figure 3).

A short lens of ore, located some 400 feet northwest of the northerly end of the productive vein area, has been exposed by recent work on the 500-foot level. Thus it appears possible that other oreshoots may be found by the proposed drift in the virgin vein area marked "C" on figure 3. By allowing a further depth extension of 50 feet for the ore that may be disclosed above the proposed drift, it appears that 25,000 tons could be inferred as the potential of blocks "B" and "C".

Mill returns were available covering 18,454 tons of ore that were mined from the Summit vein between April 1944 and November 1947. The metal content of this recorded production, as calculated by the examiners, averaged 0.06 ounces of gold and 4.5 ounces of silver per ton, 0.58 percent copper, 4.3 percent lead, and 6.3 percent zinc. As this grade was established from about 60 percent of the total ore

mined, it probably is fairly well representative of the average value of the prospective ore in the Summit vein. The mill returns on some 342 tons recently recovered from the vein in the vicinity of the lower crosscut had about the same average value as that of the former production.

PRESENT STATUS

Exploration and Development

The Summit vein has been developed by a 300-foot vertical shaft from which 3 levels were driven (figure 3). The uppermost, or 160-foot level follows the vein for about 900 feet and is connected with the surface by a crosscut adit. The 300-foot level as shown on the available maps was about 470 feet long. The stopes and raises from these various levels are shown on the longitudinal section. At a point some 1,100 feet northwest of the shaft the vein was recently cut by a crosscut adit, 900 feet long. Drifting on the vein from this intersection was in progress at the time of this examination. The faces of the drifts at that time were 145 feet northwest and 85 feet southeast from the intersecting crosscut. This new level, known as the 500, is about 200 feet vertically below the 300-foot level (figure 3).

Fixtures and Improvements

The buildings and fixtures now existing on the property appeared to be adequate for the purposes of the proposed project. According to the applicant, it would be necessary to purchase a new oil-fired hot water heater for the change room. This was estimated to cost $350.

Operating Equipment

The equipment now installed on the property and which would be furnished by the applicant is as follows:

		Value	Monthly depreciation
1	Two-stage 315-cfm compressor, direct connected to a D-13000 Caterpillar diesel engine	$8,000	$133.30
1	Eimco 12B Mucker	3,000	50.00
1	Copco rock drill with jackleg	500	8.30
1	Copco bit grinder	450	7.50
1	R48 stoper	360	6.00
1	JB-55 Jackhammer	200	3.30
4	18-cu. ft. ore cars @ $80	320	5.30
1	Truck	600	10.00
	Total	$13,430	$223.70

Operating Equipment to be Rented

1 Mancha Trammer @ $100 a month, said to be available at the Tennessee mine.

Operating Equipment to be Purchased

1	Air-driven ventilation blower	$750
1	Battery charger for Mancha (used)	350
	Total to be purchased	$1,100

The present access roads are adequate.

No great trouble should be experienced in securing the few miners that would be required for the proposed exploration. The present crew reside in Chloride, and drive to and from the mine daily.

At the time the mine was visited about 20 gallons of water per minute were flowing out of the lower adit.

PROPOSED EXPLORATION

The applicant proposes to explore the Summit vein at greater depths by continuing the southeasterly drift on the lower adit level for a distance of 1,000 feet. Upon the satisfactory completion of this drift, it was proposed to raise a distance of 200 feet and thus connect this lower level with the old 300-foot level. The exact location of the exploratory raise was to be selected after the completion of the drifting (figure 3).

As lenses of ore may occur in various parts of the vein zone, which in places was as much as 30 feet wide, it would be necessary during the drifting to frequently crosscut or drill the entire mineralized zone so as to expose and follow the better strands of ore. In that case it would appear that this could be more cheaply accomplished by long-hole drilling from the walls of the drift.

ESTIMATED COST OF THE PROJECT

The applicant has estimated the cost of drifting at $30 a foot. This was based upon an average advance of 10 feet in 16 hours and included the rental and depreciation of certain equipment. As it appears doubtful that an advance of 10 feet a day could be constantly maintained, the costs of drifting were recalculated by the examiners.

Drifting

Based on a rock section of 5 by 7 feet, working 2 shifts daily and 6 days a week with an average advance of 8 feet a day, the estimated cost of drifting follows:

Labor:

	Cost/day	Cost/foot drift
8 men @ $14 a shift	$112.00	
1 supervisor @ $16	16.00	
Overtime for 48-hr. week	10.69	
Compensation insurance (10.58%)	14.67	
Unemployment insurance (2.7%)	3.74	
F.I.C.A. - (1.5%)	2.08	
	$159.18	$19.90
Power - fuel and oil		1.50
Explosives		2.80
Bits and steel		1.30
Track		1.00
Pipe lines		0.50
Ventube		0.70
Total without timber		$27.70
If it were found necessary to timber one half the distance as estimated by applicant, the timber cost would be		3.60
Total cost of drift with one half the distance timbered		$31.30

Estimated cost of Raise

Based on a rock section of 5 by 12 feet with cribbed manway

4 by 5 feet:

Labor: based on average advance of 6 feet daily, working 2 shifts for 6 days a week:

	Cost/day	Cost per foot
6 men @ $14 a shift	$84	
1 supervisor @ 16 a shift	16	
Overtime for 48-hr.	8.33	
Compensation Insurance (10.58%)	11.73	
Unemployment Insurance (2.7%)	2,92	
F.I.C.A. (1.5%)	1.62	
	124.60	$20.77
Power		1.50
Explosives		4.50
Bits and steel		2.20
Pipe lines		.40
Ventube		.70
Timber - 60 bf @ $120 M		7.20
Raise - total		$37.30

Estimated total cost of the project

1,000 feet of drifting @ $31.30	$31,300
200 feet of raising @ $37.30	7,460
Depreciation - 7 months @ $224	1,568
Additional facilities and equipment	1,450
Rental of equipment - 7 months @ $100	700
Sampling and assaying	450
Accounting	200
Contingencies	3,000 (1)
Total	$46,128

(1) Based on the uncertainty of the timber requirements and the cost of exploring the wider portion of the vein zone.

The above amount exceeds the applicant's estimate by $3,168.

Time Schedule

The proposed work could be started immediately after the approval of the contract. Working continuously on a 2-shift basis for 6 days a week the project could be completed in 7 months.

ESTIMATED OPERATING COSTS

Mining Methods and Costs

The ore that has been produced from the Summit vein was mined by shrinkage and open-stope methods. The widths of the material removed from the principal stopes ranged from 3 to 6 feet. Cut-and-fill mining would no doubt result in producing cleaner ore than was previously recovered and its adoption probably would be found necessary in certain portions of the deposit.

The actual cost records of the former mining operations of the Summit mine were not available, so the following estimates are based upon other operations in the district. Reliable data covering the detailed costs of mining and milling at the neighboring Tennessee-

Schuylkill mine during 9 months of 1938 were published in the Bureau of Mines Information Circular 7077. A recalculation of these figures on the basis of the present-day costs of labor and supplies showed that the current development and mining costs at the Tennessee would be $15.50 a ton. This is some 282 percent greater than existed when the mine was operating in 1938. Heavy ground in the Tennessee necessitated mining with square-sets, which at the present time would cost about $3.00 per ton of ore. Square-setting does not appear necessary at the Summit where the timber costs should not exceed $1.00 a ton. Pumping and hoisting from depths of 1,400 feet at the Tennessee amounted to $1.50 a ton. No hoisting or pumping would be necessary at the Summit during the mining of the ore lying above the 500 adit level. In view of these differences between the two properties it appears that the cost of development and mining at the Summit probably would not exceed $12 a ton.

Milling Methods and Costs

There are no mills operating in the district, hence ores produced at this time must be shipped to either Deming, N. Mex. or Midvale, Utah. The outcome on the average indicated grade of the Summit mine ore, if shipped to the Deming plant of the American Smelting & Refining Co. would be as follows (based on 15 cents a pound for lead and 16.5 cents for zinc):

	Per ton
Gold - 0.06 less 0.02 = .040 x .5 @ $31.00	$0.62
Silver - 4.5 less 0.2 = 4.3 x .78 @ 88.5¢	2.97
Copper - 0.58 less 0.2 = 7.6 lbs. x .85 @ (24.5 less 6.945¢)	1.13
Lead - 4.3 less 0.3 = 80 lbs. x .80 @ (15.0 less 3.4¢)	7.42
Zinc - 6.3 less 0.5 = 116 lbs. x .70 @ (16.5 less 7.85¢)	7.02
Gross mill value	$19.16
Treatment, $4.00; freight, Kingman to Deming, $6.73	10.73
	8.43
Trucking from mine to Kingman	2.12
Net on crude ore before royalty	$6.31

It is obvious from the above that no possibility exists for the profitable operation of the Summit mine by shipping crude ore to outside custom mills.

If ore of similar grade was concentrated in a local mill and the resulting lead and zinc concentrates shipped to custom smelters, the outcome at current metal prices would be as shown below.

The former mill experience in the district has shown that the ores gave the following approximate metal recoveries:

	Percent mill recovery in	
	Lead concs.	Zinc concs.
Gold	75	10
Silver	72	8
Copper	80	5
Lead	85	(1)
Zinc	(1)	70

(1) Not paid for.

From ore containing .06 ounces gold, 4.5 ounces of silver per ton, 0.58 percent copper, 4.3 percent lead and 6.3 percent zinc, the concentrates produced from 100 tons of such ore would be as follows:

		Ounces/ton		Percent			Ratio of
Kind	Tons	Gold	Silver	Copper	Lead	Zinc	Concentration
Lead	6.08	0.74	53.3	7.6	60.0	8.0	16.4
Zinc	8.85	0.07	4.1	0.33	(1)	50.0	11.3

(1) Not paid for.

The outcome on the above lead concentrates, if shipped to El Paso, would be under present smelter schedules as follows:

Gold - 0.74 ozs. (100% @ $32.32)	23.91
Silver - 53.3 ozs. (95% @ 90¢)	45.57
Copper - 7.6% less 1.0% = 132 lbs. @ (24.5 less 7.5¢)	22.44
Lead - 60.0% less 1.5% = 1,170 lbs. (90% @ 15 less 2¢)	136.89
	$228.81

Marketing Costs:

Trucking from mill to Kingman -	$2.29(1)	
Freight - Kingman to El Paso	9.54(1)	
Smelting charges	7.15(2)	
Sampling and assaying	0.20	
Total marketing		19.18
Net value per ton of lead concentrates		$209.63
Net value per ton of crude ore (16.4 into 1)		12.79

(1) Based on 12% moisture
(2) Base charge - $10.00 a ton less credit of 10¢ a unit for over 31.5 percent lead.

The outcome on the zinc concentrates if shipped to Amarillo, Texas would be as follows:

Gold - .07 ozs. (80% @ 32.21	$1.80
Silver - 4.1 ozs. (80% @ 90¢)	2,95
Copper	no pay
Zinc - 1,000 lbs. (85% @ 16.5¢ less 0.53¢)	135.75
	140.50

Marketing costs:

Trucking - mill to Kingman	$2.29	
Base treatment	37.00	
Zinc price adjustment	10.50	
Labor adjustment	2.87	
Freight - Kingman to Amarillo	9.08	
Sampling and assaying	0.20	
Total marketing		$61.94
Net per ton of zinc concentrate		$78.56
Net per ton crude ore (11.3 into 1)		6.96

Realized per ton of ore from the

Lead concentrates	$12.79
Zinc concentrates	6.96
Total value per ton of ore f.o.b. mine	$19.75

On the basis of former milling costs in the district it is estimated that the present day costs of selective flotation, when treating 100 tons of ore daily, would amount to $4.50 a ton, including the cost of trucking the ore to a local mill.

Royalty:

According to the terms of the applicant's lease, on an ore with a market value of between $10 and $20 the royalty would be 7.5 percent of the net amount received by the lessee. Thus the royalties would be as follows:

Leasor (7.5% of $19.75)	$1.48
Government (5%)	0.99
Total royalty per ton	$2.47

Summary of estimated operating costs:

	Per ton
Mining - including development	$12.00
Milling	4.50
Marketing (1)	----
Royalty	2.47
Total direct costs	$18.97

(1) Included with smelting costs.

When the indeterminate costs, such as overhead, taxes and depreciation, are added to these direct costs, it seems safe to assume that the total operation costs would exceed $19.75 which was the calculated net value of the ore. When amortization and a reasonable return on the investment are considered there is no likelihood that the property could be operated profitably under present conditions.

CONCLUSIONS AND RECOMMENDATIONS

So far as the plan in itself is concerned, the proposed exploration of the Summit property appears feasible. The dead work of reaching the vein through a long crosscut adit has been completed so that all of the proposed work would be confined to exploring the mineralized zone.

The total cost of the project, as estimated by the examiners ($46,128), probably would be sufficient to complete the proposed program. The applicant company has stated its willingness and ability to participate to the extent of $25,000 if the loan is approved.

Although Ralph R. Langley, the president of the applicant company, is considered by some to be an extravagant mine manager, the direct supervision of the proposed work is to be undertaken by C. G. Patterson of Chloride. Patterson has resided in the district for many years, bears a good reputation, and is no doubt an experienced and capable miner.

Based on the previous production, the potential of the vein area to be explored is of the order of 25,000 tons, averaging 0.06 ounces of gold and 4.5 ounces of silver per ton, 0.58 percent copper, 4.3 percent lead, and 6.3 percent zinc. In terms of total metals, the block could be expected to contain in addition to the gold and silver, 3,150,000 pounds of zinc, 2,150,000 pounds of lead, and 290,000 pounds of copper.

An estimate of the costs of mining, milling and smelting indicates that the Summit ore is sub-marginal under present conditions and therefore probably would not constitute an immediate source of the desired metals. Judged strictly on this basis it is recommended that the loan be denied.

However, in this case the margin between profit and loss is so small that slight improvements in future conditions would make it possible to profitably operate the property. In addition to a more critical future need for metals, there are other possibilities that could favorably effect the economics of this property, such as:

1. The adoption of cut-and-fill mining could be expected to yield a higher grade ore, through less dilution, than was formerly produced by shrinkage and open-stope methods.

2. It is not unreasonable to assume that better mill recoveries could be made in the future than those used in the calculation of this report.

3. Improvements in the metallurgy of zinc by such methods as are suggested by the caustic leach and electrolytic precipitation of the zinc. This or similar processes are thought by some competent metallurgists to offer promise of eventually effecting substantial economies over the present costs[2/] of marketing and smelting of zinc concentrates.

2/ The present costs of transportation and smelting of zinc concentrates produced in the Wallapai district amount to over $5 per ton of crude ore.

Thus it appears probable that at some time these sub-marginal ores will become a source of zinc and lead. If the loan were approved it could be expected to establish a creditable future reserve of such metals. Therefore, from the long range standpoint it is recommended that the exploration loan be approved.

DMEA-2463

ARIZONA METALS COMPANY
P. O. Box 1266
Kingman, Arizona

March 17, 1952

Mr. J. H. East, Jr.,
Executive Officer
Region IV
Defense Minerals Administration
224 New Customhouse
Denver 2, Colorado

Dear Mr. East:

We are submitting herewith an application for a matching fund contract for exploration work on the Summit mining claim.

According to the definitions in Mineral Order 5 and the implications of the fifth question and answer on page four of your "questions and answers" pamphlet, ours qualifies as an "exploration" project.

We would have preferred some form of financial assistance that does not require us to provide fifty percent of the cost, but if there is no such character of assistance we can and will provide our fifty percent.

I believe a field examination could add nothing to the information and exhibits submitted herein and therefore I hope such an examination will not be required, thus saving much valuable time.

Executed subordination agreements and a more formal statement of requirements by the Mine Inspector with respect to putting up a raise will be forwarded under separate cover shortly.

Respectfully submitted,

ARIZONA METALS COMPANY

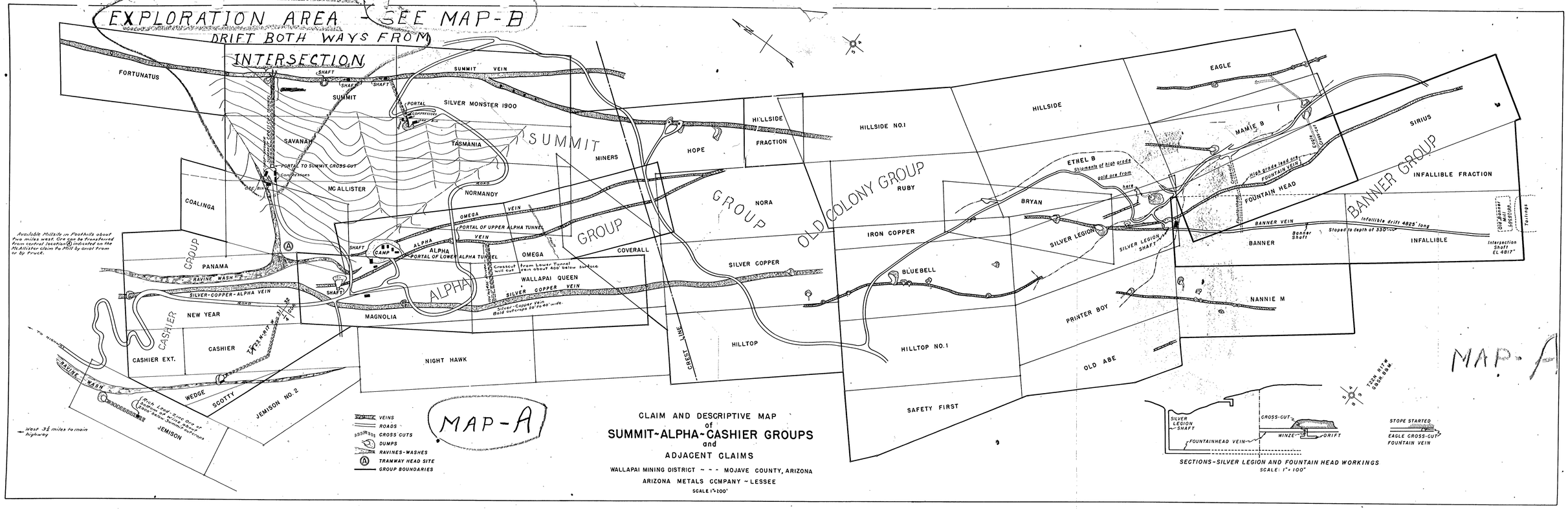
By Ralph R. Langley
Ralph R. Langley
President

1156 So.Highland Ave.
Los Angeles 19,
California

RRL:M

EXPLORATION AREA - SEE MAP-B

DRIFT BOTH WAYS FROM INTERSECTION



CLAIM AND DESCRIPTIVE MAP
of
SUMMIT-ALPHA-CASHIER GROUPS
and
ADJACENT CLAIMS

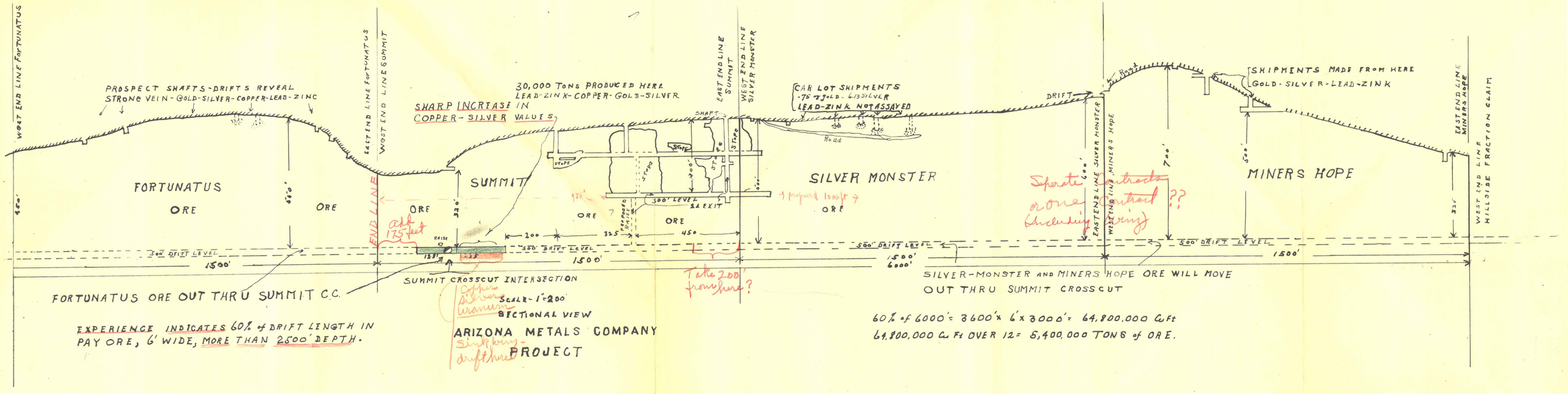
WALLAPAI MINING DISTRICT ~ ~ ~ MOJAVE COUNTY, ARIZONA

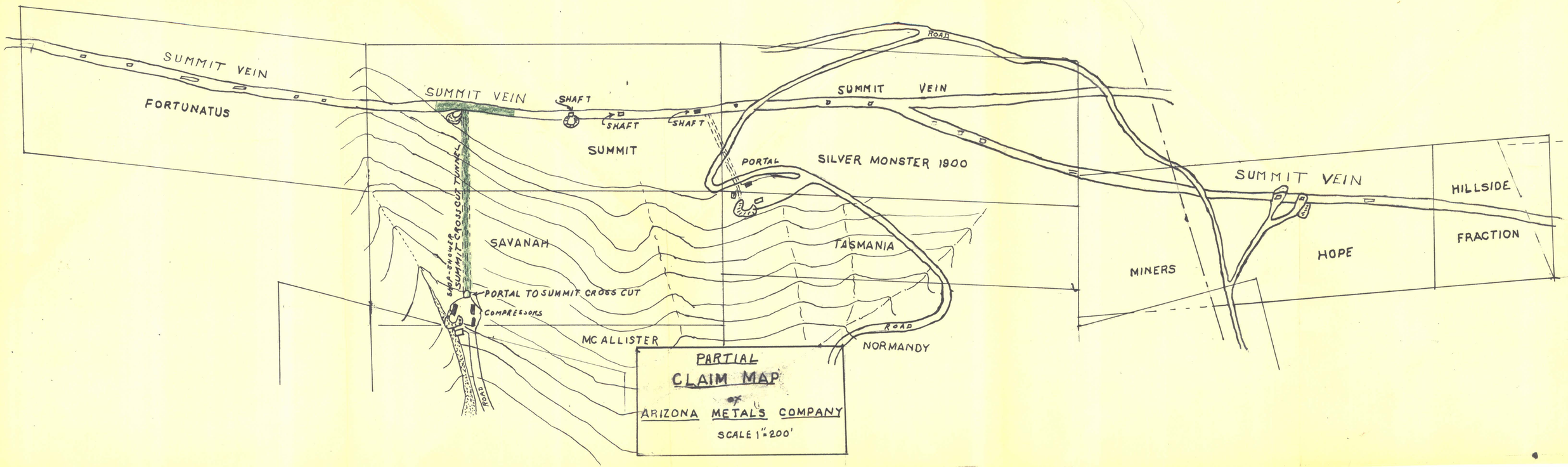
ARIZONA METALS COMPANY ~ LESSEE

SCALE 1"=200'

SECTIONS-SILVER LEGION AND FOUNTAIN HEAD WORKINGS

SCALE: 1" = 100'


WEST END LINE FORTUNATUS
PROSPECT SHAFTS-DRIFTS REVEAL
STRONG VEIN-GOLD-SILVER-COPPER-LEAD-ZINC
EAST END LINE FORTUNATUS
WEST END LINE SUMMIT
30,000 TONS PRODUCED HERE
LEAD-ZINK-COPPER-GOLD-SILVER
SHARP INCREASE IN
COPPER-SILVER VALUES
EAST END LINE SUMMIT
WEST END LINE SILVER MONSTER
CAR LOT SHIPMENTS
.75 OZ GOLD - 6.13 SILVER
LEAD-ZINK NOT ASSAYED
DRIFT
Road
SHIPMENTS MADE FROM HERE
GOLD-SILVER-LEAD-ZINK
EAST END LINE MINERS HOPE
WEST END LINE HILLSIDE FRACTION CLAIM
FORTUNATUS
ORE
ORE
END LINE
ORE
SUMMIT
ORE
ORE
SILVER MONSTER
ORE
MINERS HOPE
SHAFT
STOPE
STOPE
STOPE
STOPE
STOPE
300' LEVEL
EXIT
RAISE
300' DRIFT LEVEL
500' DRIFT LEVEL
500' DRIFT LEVEL
500' DRIFT LEVEL
1500'
1500'
1500'
6000'
1500'
200
325
450
EAST END LINE SILVER MONSTER
WEST END LINE MINERS HOPE
FORTUNATUS ORE OUT THRU SUMMIT C.C.
SUMMIT CROSSCUT INTERSECTION
SILVER-MONSTER AND MINERS HOPE ORE WILL MOVE
OUT THRU SUMMIT CROSSCUT
SCALE-1"=200'
SECTIONAL VIEW
ARIZONA METALS COMPANY
PROJECT
EXPERIENCE INDICATES 60% of DRIFT LENGTH IN
PAY ORE, 6' WIDE, MORE THAN 2500' DEPTH.
60% of 6000' = 3600' x 6' x 3000' = 64,800,000 Cu Ft
64,800,000 Cu Ft OVER 12 = 5,400,000 TONS of ORE.
Add 175 feet
Take 200' from here?
Copper
Silver
Uranium
Sinking
drift here
Separate contracts
or one contract
including sinking
??


SUMMIT VEIN
FORTUNATUS
SUMMIT VEIN
SHAFT
SHAFT
SHAFT
SUMMIT
ROAD
SUMMIT VEIN
PORTAL
SILVER MONSTER 1900
SUMMIT VEIN
HILLSIDE
FRACTION
HOPE
MINERS
SAVANAH
TASMANIA
SNOW-SHOWER SUMMIT CROSS CUT TUNNEL
PORTAL TO SUMMIT CROSS CUT
COMPRESSORS
MC ALLISTER
ROAD
NORMANDY
ROAD
PARTIAL
CLAIM MAP
of
ARIZONA METALS COMPANY
SCALE 1" = 200'

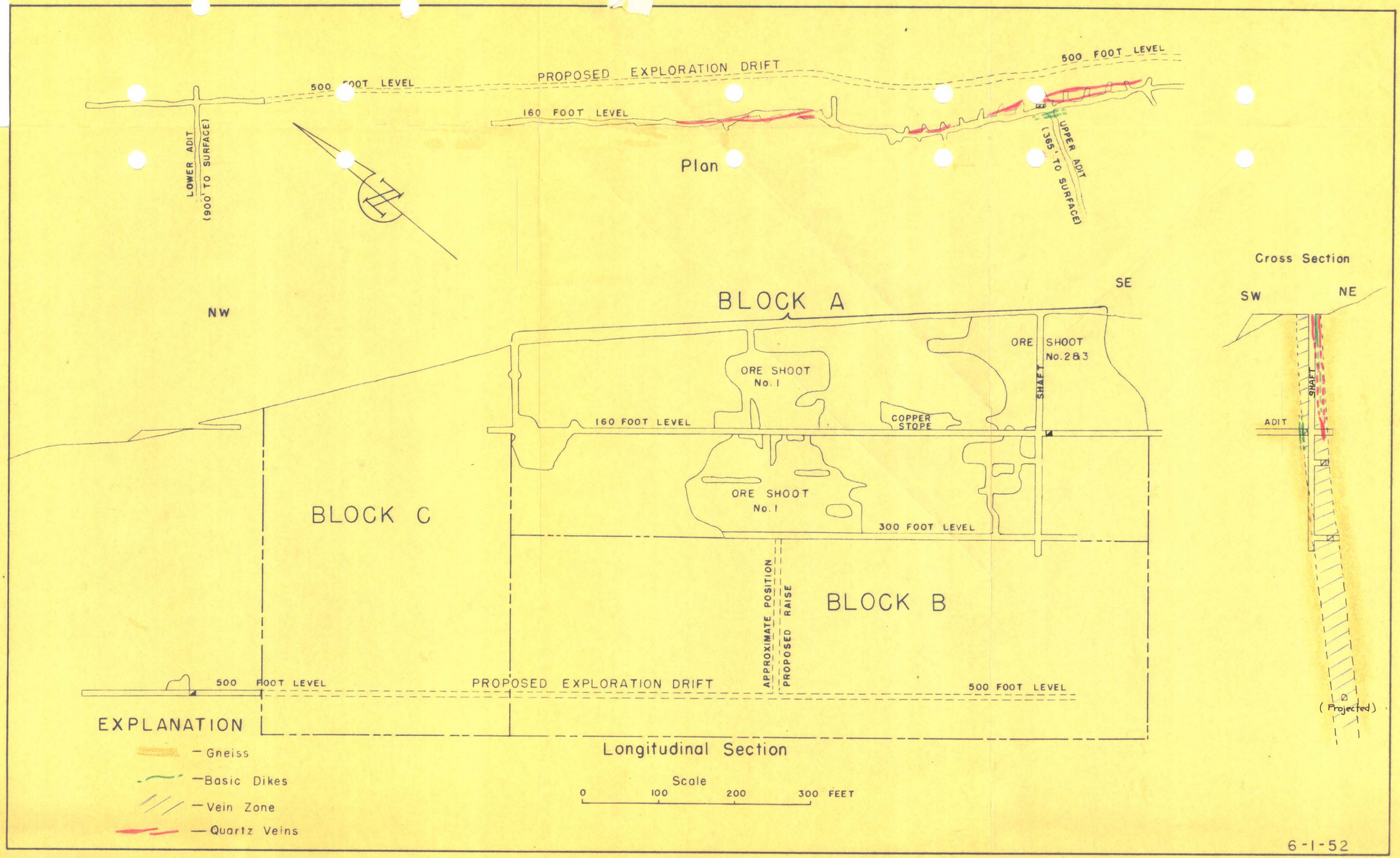


FIGURE 3-PLAN AND SECTIONS SHOWING PROPOSED EXPLORATION, SUMMIT MINE, MOHAVE COUNTY, ARIZONA

DMEA 2463

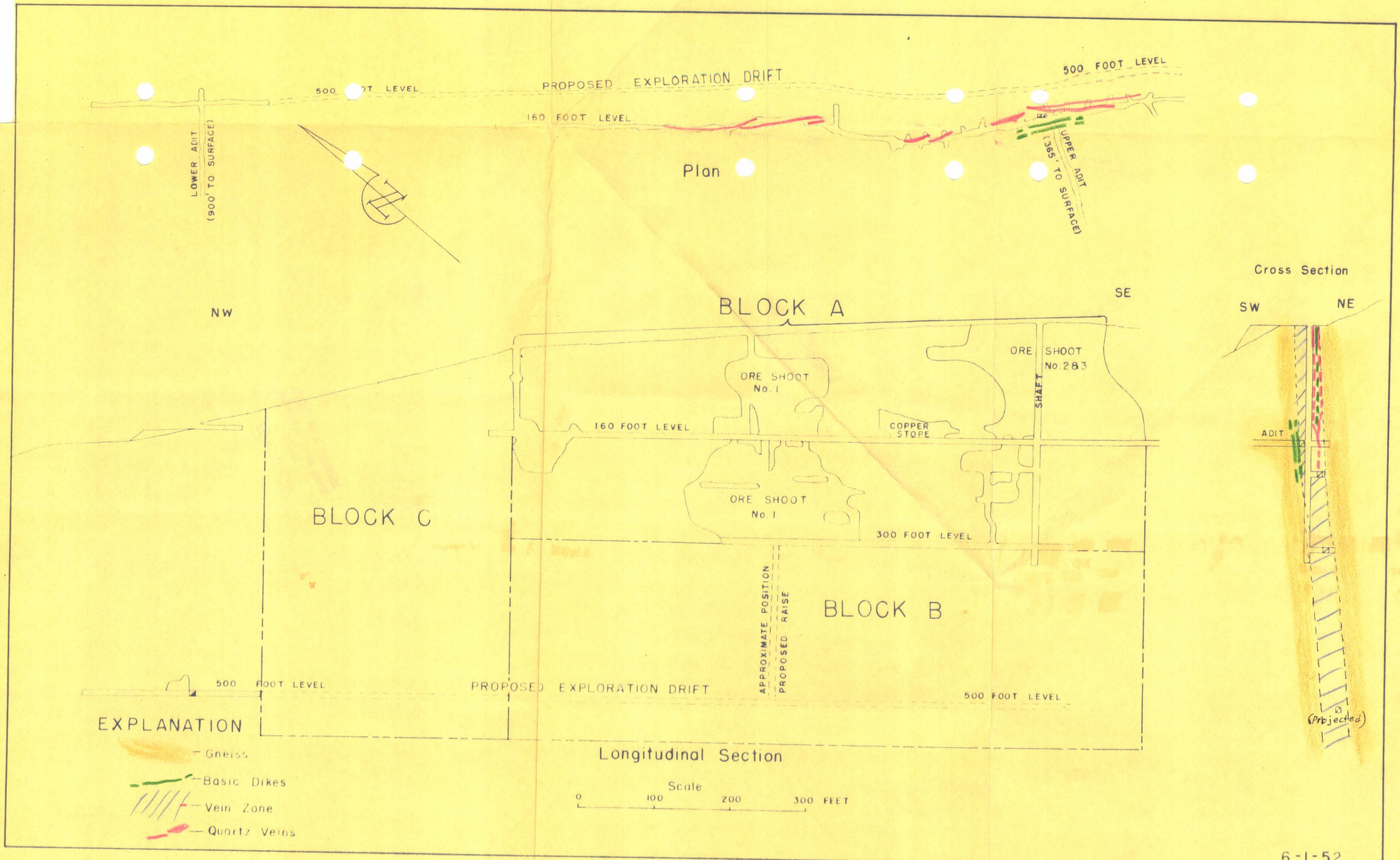


FIGURE 3-PLAN AND SECTIONS SHOWING PROPOSED EXPLORATION, SUMMIT MINE, MOHAVE COUNTY, ARIZONA

DMEA 2463