☒ Audited

☐ Certified

WORK ANALYSIS SHEET - DMEA PROJECT

Analysis as of 12/17/54.
Incl. Voucher for July 1954.

☐ Actual Cost

☒ Agreed Unit Costs

Name Grandview Mines, Inc.

Docket No. DMEA-3073

State Washington

Commodity Lead-Zinc

Idm-E No. 605

OPERATION	AUTHORIZED Units	AUTHORIZED Cost	COMPLETED Units	COMPLETED Cost	NET COST
Drifting & Crosscutting					
Raising					
Shafts					
Winzes					
Drilling (Specify) Diamond	5,200'	$36,400.00	3,885'	$27,195.00	$27,195.00
Surface Excavation					
Underground Excavation					
Roads and Trails					
Operating Equipment Purchased					
Surface Rehabilitation & Repairs					
Underground Rehabilitation					
New Building, Improvements, etc.					
Other (Specify)					
Totals		$36,400.00		$27,195.00	$27,195.00

Prepared by W. R. Hugeschad.

71626

(Authority: Operating Committee letter dated 9/27/54)

DOCKET COPY

RECEIVED

J.W. Alp
Griswold
Chandler
Rubin

TERMINATION AGREEMENT

It is agreed this 28th day of October, 1954, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and Grandview Mines, Inc., hereinafter called the "Operator," parties to that certain Exploration Project Contract Idm-E605, Docket No. DMEA-3073, dated September 22, 1953, hereinafter called the "Contract," that:

1. Effective September 10, 1954, the Contract and all obligations of the parties thereunder, except as otherwise herein expressly provided, shall be and are hereby terminated.

2. The Government shall contribute only to the fixed unit costs of work performed prior to said effective date.

3. Any work or operations prosecuted or costs incurred by the Operator beginning with said effective date, except as otherwise provided in this termination agreement, shall be for the sole account of the Operator without contribution by the Government.

4. The Operator shall promptly perform all winding-up and settlement actions provided for in the Contract, including the rendering of the final report and final account.

5. All rights of the Government provided for in the Contract with respect to a certification of discovery or development and a percentage royalty and lien for its payment are preserved.

6. The Operator hereby releases and agrees to save the Government harmless from all claims or demands under or arising out of said Contract, except as otherwise provided in this termination agreement.

IN WITNESS WHEREOF, these parties have executed this agreement as of the day and year first above written.

THE UNITED STATES OF AMERICA

By A. E. Weissenborn
A. E. Weissenborn, Exec. Officer
DMEA Field Team, Region II

GRANDVIEW MINES, INC.
(Operator)

By Karl W. Jasper
President

DOCKET COPY
Rubin 2/9/54

EXPLORATION PROJECT CONTRACT
GRANDVIEW MINES, INC.
(DOSSER-MAKI-LOTZE PROSPECT)
DOCKET NO. DMEA-3073

AMENDMENT NO. 1

It is agreed this 14th day of January, 1954, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and Grandview Mines, Inc., that Exploration Project Contract Idm-E605, Docket No. DMEA-3073, dated September 22, 1953, is amended effective November 22, 1953, as follows:

1. During the period from November 22, 1953, to not later than July 1, 1954: (a) the project work shall be recessed; (b) the Government shall not contribute to any costs incurred by the Operator; and (c) the Operator shall save the Government harmless from any and all claims, and preserve and protect the project work and any property in which the Government has an interest.

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate total amount which the Government may be required to contribute, nor the amount of any item designated as "allowable maximum."

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

GRANDVIEW MINES, INC.

By Karl W. Jasper
Karl W. Jasper, Pres.

By A. E. Weissenborn
A. E. Weissenborn, Executive Officer
DMEA Field Team, Region II

MF-200 (A)
(February 1952)

DOCKET NO. DMEA-3073

COMMODITY Lead-Zinc

Docket Copy

Idm-E605

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

EXPLORATION PROJECT CONTRACT[1]
(Short Form)

IT IS AGREED this 22nd day of September, 1953, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and[2] GRANDVIEW MINES, INC., a corporation duly organized and existing under and by virtue of the laws of the State of Washington
310-311 Radio Central Building
Spokane 4, Washington

hereinafter called the "Operator," as follows: and as set forth in Annexes I and II attached hereto and made a part hereof.

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 the mineral rights in that certain land situated in the State of Washington, County of Stevens, described as follows:[3] xxx set forth in Annex I

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 claims, liens, or encumbrances: in the Operator's Consent to Lien is attached.~~

(*b*) That the Operator is a lessee, in possession and entitled to possession, and the Owner's Consent to Lien 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 30 days from the date of this contract shall commence work on a project of exploration for[5] Lead-Zinc

in or upon the described land; and shall bring the project to completion within a period of 13 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 $18,200.00, which is 50 percent of $36,400.00 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 called upon to pay under the terms of the contract. The Government may, as it sees fit, make payments direct to the Operator's independent 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 units of work performed under the contract, in quintuplicate (five copies), upon forms provided by the Government. These progress 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 concurrently with the advance in mineralized ground.

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

(*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: See Annex II, substituted for that part of 6(a) preceding the colon:

(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.

THE UNITED STATES OF AMERICA

GRANDVIEW MINES, INC.
(Operator)

By Karl W. Jasper

By Frank E. Johnson
ACTING Administrator, Defense Minerals Exploration Administration

I, F. K. Barnes, certify that I am the secretary of the corporation named as Operator herein; that Karl W. Jasper, President, who signed this contract on behalf of the Operator, was then of said corporation; that said contract was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

F. K. Barnes

[CORPORATE SEAL]

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

EXPLORATION PROJECT CONTRACT
GRANDVIEW MINES, INC.
DOCKET NO. DMEA-3073

ANNEX I

With reference to Article 2 of the contract form, the Operator has leased the mineral rights in the following properties in T. 39 N., R. 41 E., W. M.:

A - (Dosser Lease)

In Sec. 27, that part of Government Lot 5, except the north 450 feet thereof, lying south and east of the county road.

In Sec. 34, the S½ of the NE¼; Government Lot 1; that part of the SE¼ of the NW¼ lying south and east of Deep Creek; that part of Government Lot 2 lying south and east of Deep Lake and Deep Creek.

B - (Maki Lease)

In Sec. 35, the SW¼ of the NE¼, S½ of the NW¼, and NW¼ of the SW¼.

C - (Lotze Lease)

In Sec. 34, the NE¼ of the NE¼
In Sec. 35, the N½ of the NW¼
In Sec. 26, the S½ of the SW¼

excepting approximately 2 square acres in the extreme northwest corner, which area is enclosed by a line running 416 feet east from the northwest corner of the S½ of the SW¼ of Sec. 26; thence 208 feet south; thence 416 feet west; and thence north 208 feet to the point of beginning.

The properties are indicated on the maps attached hereto and made a part hereof entitled "Grandview Mines, Inc., Dosser-Maki-Lotze Prospect, Docket No. DMEA-3073," and "Proposed Diamond Drilling at Grandview Mines, Stevens County, Washington (Property East of Deep Lake), Docket No. 3073, Pb, Zn."

EXECUTIVE PLANNING COMMITTEE
CONTINUITY FILES, ETC.
CASE NO. [illegible]

ANNEX 3B

The following provisions are in lieu of all of paragraph (a) of Article 3 which precedes the colon:

If the Government considers that a discovery or development from which production may be made has resulted from the exploration work, the Government, at any time not later than six months after a sufficient, complete, final report and final account referred to in the contract has been rendered, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development. The Operator, or his successor in interest, shall pay to the Government a royalty on all minerals mined or produced from the land described in Article 2, as follows: (1) Regardless of any certification of discovery or development, from the date of the contract until the lapse of the time within which the Government may make such certification of discovery or development, or until the total net amount contributed by the Government, without interest, is fully repaid, whichever occurs first, unless the Government waives its right to a royalty; or (2) if the Government makes a certification of discovery or development, for a period of ten years from the date of the contract, or until the total net amount contributed by the Government, without interest, is fully repaid, whichever occurs first. Said royalty shall be a percentage of the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production (including any bonuses), in whatever form disposed of, including ore, concentrates, or metal, as follows:

EXPLORATION PROJECT CONTRACT
GRANDVIEW MINES, INC.
DOCKET NO. DMEA-3073

EXHIBIT "A"

Description of the Work

The purpose of this project is to explore by diamond drilling for lead-zinc. The work shall be done in two stages. Upon the completion of Stage I, if in the opinion of the Government the results indicate the advisability of further exploration work, the work under Stage II shall be undertaken. The depth, size, and inclination of all drill holes, any change in their location in Stage I, and their location in Stage II shall be subject to prior Government approval.

Stage I

Diamond drill four holes not in excess of 2000 feet at locations shown on attached map entitled "Proposed Diamond Drilling at Grandview Mines, Stevens County, Washington (Property East of Deep Lake), Docket No. 3073, Pb, Zn."

Stage II

Diamond drill not in excess of 3200 feet of holes.

Agreed Unit Costs

Diamond drill 5200 feet @ $7.00/ft.	1/ $36,400.00
Government Participation at 50%	$18,200.00

1/ This includes all costs of mobilization, preparation of roads and drill sites, necessary churn drilling through overburden, diamond drilling, core boxes, assaying, bookkeeping, engineering, supervision, and all costs necessary to complete the work of the project.

MF-203
(Revised July 1, 1953)

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 Washington, County of Stevens, described as follows:1/

[illegible], [illegible] 1, and N[illegible], all in Sec. 35, Twp. 39 N. R. 41 [illegible]

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/ Grandview Inc. [illegible] Pedro Central [illegible], Phase 4, Washington

hereinafter called the "Operator"; and

WHEREAS, under the provisions of said contract the Government is entitled to a percentage royalty on production (as set forth on the reverse side hereof) and to other rights and equities which do or may conflict with or be adverse to the rights of the undersigned:

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, there is hereby granted to the Government a lien upon the land above referred to and upon any production of minerals therefrom, until said royalty is fully paid or ten years have elapsed from the date of the contract, whichever occurs first.

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.

4. Changes and added provisions _____

Dated this 26th day of September, 1953.

Bertie Moore [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.

RELEVANT CONTRACT PROVISIONS

Repayment by Operator.--a. Certification.--If at any time the Government considers that a discovery or 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 final report and final account, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

b. Percentage royalty.--The Operator, or his successor in interest, shall pay to the Government a royalty on all minerals mined or produced from the land described in Article 2,--(1) regardless of any certification of discovery or development, from the date of the contract until the lapse of the time within which the Government may make such certification of discovery or development, or until the total net amount contributed by the Government, without interest, is fully repaid, whichever occurs first, unless the Government waives its right to a royalty; or (2) if the Government makes a certification of discovery or development, for a period of ten years (or other period fixed by the contract) from the date of the contract, or until the total net amount contributed by the Government, without interest, is fully repaid, whichever occurs first. Said royalty shall be a percentage of 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, as follows:

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

(b) 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.)

c. Definitions.--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 gross income from mining operations for percentage depletion purposes in income tax determination.

d. Lien for Payment.--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.

e. Notice to Purchasers.--The Operator shall notify any purchaser of the production of the Government's royalty interest, and shall authorize and direct the purchaser to pay the royalty directly to the Government and to furnish the Government with copies of the settlement sheets; but failure or refusal by the purchaser to comply shall not relieve the Operator of liability to pay any royalty falling due.

f. No Obligation to Produce.--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.

MF-203
(Revised July 1, 1953)

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 Washington, County of Okanogan, described as follows:1/

~~That part of Government Lot 6, Section 27, Township 33, North, Range 41 E.W.M., except the north 450 feet thereof, lying south and east of the County Road; the South half of the Northeast quarter (S½NE¼); Government Lot 1; that part of the Southeast quarter of the Northwest quarter(SE¼NW¼) lying south and east of Deep Creek; that part of Government Lot 2 lying south and east of Deep Lake and Deep Creek; all in Section 34, Township 33, North, Range 41, E.W.M.,~~

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/ ~~Granview Mines, 310 Rio Central Bldg., Spokane 4, Washington~~

hereinafter called the "Operator"; and

WHEREAS, under the provisions of said contract the Government is entitled to a percentage royalty on production (as set forth on the reverse side hereof) and to other rights and equities which do or may conflict with or be adverse to the rights of the undersigned:

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, there is hereby granted to the Government a lien upon the land above referred to and upon any production of minerals therefrom, until said royalty is fully paid or ten years have elapsed from the date of the contract, whichever occurs first.

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.

4. Changes and added provisions _____

Dated this 28th day of September, 1953.

George A Dosser [Seal]

Helen Dosser [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.

RELEVANT CONTRACT PROVISIONS

Repayment by Operator.--a. Certification.--If at any time the Government considers that a discovery or 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 final report and final account, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

b. Percentage royalty.--The Operator, or his successor in interest, shall pay to the Government a royalty on all minerals mined or produced from the land described in Article 2,--(1) regardless of any certification of discovery or development, from the date of the contract until the lapse of the time within which the Government may make such certification of discovery or development, or until the total net amount contributed by the Government, without interest, is fully repaid, whichever occurs first, unless the Government waives its right to a royalty; or (2) if the Government makes a certification of discovery or development, for a period of ten years (or other period fixed by the contract) from the date of the contract, or until the total net amount contributed by the Government, without interest, is fully repaid, whichever occurs first. Said royalty shall be a percentage of 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, as follows:

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

(b) 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.)

c. Definitions.--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 gross income from mining operations for percentage depletion purposes in income tax determination.

d. Lien for Payment.--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.

e. Notice to Purchasers.--The Operator shall notify any purchaser of the production of the Government's royalty interest, and shall authorize and direct the purchaser to pay the royalty directly to the Government and to furnish the Government with copies of the settlement sheets; but failure or refusal by the purchaser to comply shall not relieve the Operator of liability to pay any royalty falling due.

f. No Obligation to Produce.--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.

MF-203
(Revised July 1, 1953)

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 Washington, County of Stevens, described as follows:1/

~~NE¼NE¼ of Section 34; NW¼ of Section 35; SW¼ of Section 29; excepting approximately two square acres in the extreme northwest corner, which area is described in said option to purchase, all in Township 39 North, Range 41 E.W.M.~~

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/ ~~Grandview Mines, 310 Radio Central Bldg., Spokane 4, Washington~~

hereinafter called the "Operator"; and

WHEREAS, under the provisions of said contract the Government is entitled to a percentage royalty on production (as set forth on the reverse side hereof) and to other rights and equities which do or may conflict with or be adverse to the rights of the undersigned:

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, there is hereby granted to the Government a lien upon the land above referred to and upon any production of minerals therefrom, until said royalty is fully paid or ten years have elapsed from the date of the contract, whichever occurs first.

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.

4. Changes and added provisions Item 2 includes barite.

Dated this 26th day of September, 1953.

Albert G. Lobe [Seal]

Eva M. Lobe [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.

RELEVANT CONTRACT PROVISIONS

Repayment by Operator.--a. Certification.--If at any time the Government considers that a discovery or 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 final report and final account, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

b. Percentage royalty.--The Operator, or his successor in interest, shall pay to the Government a royalty on all minerals mined or produced from the land described in Article 2,--(1) regardless of any certification of discovery or development, from the date of the contract until the lapse of the time within which the Government may make such certification of discovery or development, or until the total net amount contributed by the Government, without interest, is fully repaid, whichever occurs first, unless the Government waives its right to a royalty; or (2) if the Government makes a certification of discovery or development, for a period of ten years (or other period fixed by the contract) from the date of the contract, or until the total net amount contributed by the Government, without interest, is fully repaid, whichever occurs first. Said royalty shall be a percentage of 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, as follows:

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

(b) 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.)

c. Definitions.--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 gross income from mining operations for percentage depletion purposes in income tax determination.

d. Lien for Payment.--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.

e. Notice to Purchasers.--The Operator shall notify any purchaser of the production of the Government's royalty interest, and shall authorize and direct the purchaser to pay the royalty directly to the Government and to furnish the Government with copies of the settlement sheets; but failure or refusal by the purchaser to comply shall not relieve the Operator of liability to pay any royalty falling due.

f. No Obligation to Produce.--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.

MF-200 (A)
(February 1952)

DOCKET NO. DMEA-3073

COMMODITY Lead-Zinc

Extra Copy

Idm-E605

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

EXPLORATION PROJECT CONTRACT[1]
(Short Form)

IT IS AGREED this 22nd day of September, 1953, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and[2] GRANDVIEW MINES, INC., a corporation duly organized and existing under and by virtue of the laws of the State of Washington, 310-311 Radio Central Building, Spokane 4, Washington

hereinafter called the "Operator," as follows: and as set forth in Annexes I and II attached hereto and made a part hereof.

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 Washington, County of Stevens, described as follows[3] the mineral rights in set forth in Annex I

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 [illegible]~~

(*b*) That the Operator is a lessee, in possession and entitled to possession, and the Owner's Consent to Lien 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 ____ days from the date of this contract shall commence work on a project of exploration for[5] Lead-Zinc

in or upon the described land; and shall bring the project to completion within a period of 13 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 $18,200.00, which is 50 percent of $36,400.00 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 called upon to pay under the terms of the contract. The Government may, as it sees fit, make payments direct to the Operator's independent 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 units of work performed under the contract, in quintuplicate (five copies), upon forms provided by the Government. These progress 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 concurrently with the advance in mineralized ground.

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

(*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: See Annex II, substituted for that part of 6(a) preceding the colon:

(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.

THE UNITED STATES OF AMERICA

CHANLYN MINES, INC.
(Operator)

By _____

By _____
Administrator, Defense
Minerals Exploration
Administration

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

_____ [CORPORATE SEAL]

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

EXPLORATION PROJECT CONTRACT
GRANDVIEW MINES, INC.
DOCKET NO. DMEA-3073

ANNEX I

With reference to Article 2 of the contract form, the Operator has leased the mineral rights in the following properties in T. 39 N., R. 41 E., W. M.:

A - (Dosser Lease)

In Sec. 27, that part of Government Lot 5, except the north 450 feet thereof, lying south and east of the county road.

In Sec. 34, the S½ of the NE¼; Government Lot 1; that part of the SE¼ of the NW¼ lying south and east of Deep Creek; that part of Government Lot 2 lying south and east of Deep Lake and Deep Creek.

B - (Maki Lease)

In Sec. 35, the SW¼ of the NE¼, S½ of the NW¼, and NW¼ of the SW¼.

C - (Lotze Lease)

In Sec. 34, the NE¼ of the NE¼
In Sec. 35, the N½ of the NW¼
In Sec. 26, the S½ of the SW¼

excepting approximately 2 square acres in the extreme northwest corner, which area is enclosed by a line running 416 feet east from the northwest corner of the S½ of the SW¼ of Sec. 26; thence 208 feet south; thence 416 feet west; and thence north 208 feet to the point of beginning.

The properties are indicated on the maps attached hereto and made a part hereof entitled "Grandview Mines, Inc., Dosser-Maki-Lotze Prospect, Docket No. DMEA-3073," and "Proposed Diamond Drilling at Grandview Mines, Stevens County, Washington (Property East of Deep Lake), Docket No. 3073, Pb, Zn."

ANNEX ____

The following provisions are in lieu of all of paragraph (a) of Article ____ which precedes the colon:

If the Government considers that a discovery or development from which production may be made has resulted from the exploration work, the Government, at any time not later than six months after a sufficient, complete, final report and final account referred to in the contract has been rendered, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development. The Operator, or his successor in interest, shall pay to the Government a royalty on all minerals mined or produced from the land described in Article 2, as follows: (1) Regardless of any certification of discovery or development, from the date of the contract until the lapse of the time within which the Government may make such certification of discovery or development, or until the total net amount contributed by the Government, without interest, is fully repaid, whichever occurs first, unless the Government waives its right to a royalty; or (2) if the Government makes a certification of discovery or development, for a period of ten years from the date of the contract, or until the total net amount contributed by the Government, without interest, is fully repaid, whichever occurs first. Said royalty shall be a percentage of the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production (including any bonuses), in whatever form disposed of, including ore, concentrates, or metal, as follows:

EXPLORATION PROJECT CONTRACT
GRANDVIEW MINES, INC.
DOCKET NO. DMEA-3073

EXHIBIT "A"

Description of the Work

The purpose of this project is to explore by diamond drilling for lead-zinc. The work shall be done in two stages. Upon the completion of Stage I, if in the opinion of the Government the results indicate the advisability of further exploration work, the work under Stage II shall be undertaken. The depth, size, and inclination of all drill holes, any change in their location in Stage I, and their location in Stage II shall be subject to prior Government approval.

Stage I

Diamond drill four holes not in excess of 2000 feet at locations shown on attached map entitled "Proposed Diamond Drilling at Grandview Mines, Stevens County, Washington (Property East of Deep Lake), Docket No. 3073, Pb, Zn."

Stage II

Diamond drill not in excess of 3200 feet of holes.

Agreed Unit Costs

Diamond drill 5200 feet @ $7.00/ft.	1/ $36,400.00
Government Participation at 50%	$18,200.00

1/ This includes all costs of mobilization, preparation of roads and drill sites, necessary churn drilling through overburden, diamond drilling, core boxes, assaying, bookkeeping, engineering, supervision, and all costs necessary to complete the work of the project.

DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMA Docket No. 3073

DO NOT DETACH THIS SLIP

Action on this document is recorded and controlled in Reports and Records Branch. Any movement of this document between divisions or offices of DMA or movement outside DMA must be reported to the Reports and Records Branch. Actions taken that affect status of the case must also be reported.

This document has been recorded as

Exploration Assistance

Any action taken to change the type of request for assistance must be promptly reported to the Reports and Records Branch. Use DMA Form 2 for submitting these reports.

Copies to USGS, USBM. One copy retained in Region II

Routing Slip

To:	Code 500, Rm. 4058	Date	6/11/53
To:	Oper. Com.	Date	9-2-53
To:	Oper Com	Date	9-4-53
To:	Code 500	Date	9-8-53
To:	Oper Com	Date	9-21-53
To:	Code 500	Date	9-22-53
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	

DO NOT DETACH

CONTROLLED DOCUMENT

UNITED STATES
DEPARTMENT OF THE INTERIOR 500
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

PROJECT SUMMARY REPORT

By: W. P. Klugescheid August 16, 1955

1. Docket No. DMEA-3073 (Lead-Zinc)
Contract No. Idm-E605
Property: Dosser-Maki-Lotze Prospect
Stevens County, Washington

Operator: Grandview Mines, Inc.
310 Radio Central Bldg.
Spokane 4, Washington

Operator's Property Rights: Lessee
Owners' Consents to Lien dated September 26, 1953, September 28, 1953, and September 26, 1953.

2. Contract dated September 22, 1953. To complete - 13 months.

Work Authorized

Work to be done in two stages, the work on Stage II to be undertaken only if, in the opinion of the Government, the results of Stage I indicate the advisability of further exploration.

STAGE I

Diamond drill four holes not in excess of 2,000 feet at locations shown on attached map entitled "Proposed Diamond Drilling at Grandview Mines, Stevens County, Washington."

STAGE II

Diamond drill not in excess of 3,200 feet of holes.

Agreed Unit Costs

Diamond drill 5,200 feet @ $7.00/ft.	$36,400.00
Government's participation @ 50%	18,200.00

Amendments

No. 1 Dated January 14, 1954

Allows a recess from November 22, 1953 to not later than July 1, 1954. No increase in total cost of the project.

Work Completed

3,885 feet of diamond drilling @ $7.00	$27,195.00
Government's participation @ 50%	13,597.50

Termination agreement signed October 28, 1954.

3. Audit - Report of Review issued November 12, 1954.

Total cost as billed by Contractor Exceptions - None	$27,195.00
Total accepted costs	$27,195.00
Government's participation @ 50%	$13,597.50

4. Certification of Discovery - none issued.

5. Comments

The purpose of the project was to explore for lead-zinc ore by diamond drilling the down-dip extension of a gossan which was exposed by bull-dozing and trenching during the summer of 1952. Channel samples cut across the gossan showed values in lead and zinc. The diamond drilling program was intended to test this zone at a depth sufficient to encounter the sulphide portion of the ore body and to test its extension laterally and at depth.

Nine diamond drill holes were completed for a total length of 3,885 feet.

The holes were all drilled to the north of the exposed gossan zone which, on the surface, strikes east-west and dips approximately 60° north.

The diamond drilling intersected only a strong pyrite zone containing very sparse amounts of galena and sphalerite. The Field Team did not recommend a Certification of Discovery. They do not consider the pyrite to be of commercial value as there is no market for it in the northwest at the present time and there are larger known bodies of this type which are not now being exploited.

Northeastern Stevens County, Washington, is underlain by a thick series of phyllite, schist, slate, marble, and dolomite of early Paleozoic age. Granitic intrusive rocks crop out in the northern and southern part of the area. The Dosser-Maki-Lotze property is in the south-eastern part of the area near a contact between granodiorite and dolomite.

The contact between the dolomite and the granitic rocks is an intrusive contact, in this area, as no faulting has been found along it.

Ore minerals occur at widely scattered localities within the dolomite. The ore minerals consist of galena and sphalerite in a pyritic, siliceous gangue.

No lead-zinc ore body is indicated by the drilling.

W. P. Klugescheid

W. P. Klugescheid

WPK/er

Copy to: Docket
Base Metals
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

April 11, 1955

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-3073 (lead-zinc)
Grandview Mines
Dosser-Maki-Lotze Prospect
Stevens County, Washington
Contract No. Idm-E605

Dear Mr. Selfridge:

Enclosed are four copies of the Field Team final report on the Dosser-Maki-Lotze prospect of Grandivew Mines in Stevens County, Washington, by Webster S. Anderson, mining engineer, Bureau of Mines, and Willard P. Puffett, geologist, Geological Survey.

The purpose of the exploration was to explore by surface diamond drilling a conspicuous gossan which showed some values in lead and zinc on the surface.

Diamond drilling has indicated that the lead-zinc content of the material underlying the gossan is very low and that the gossan represents a pyrite mass. This is not considered to have any economic value under forseeable conditions, and a Certification of Discovery or Development is not recommended.

By Field Team, Region I, NW District

A. E. Weissenborn for T.S.J.
A. E. Weissenborn, Exec. Officer
(U. S. Geological Survey)

Thomas E. Howard
Thomas E. Howard for
Wing G. Agnew, Member
(U. S. Bureau of Mines)

Enclosures
cc: DMEA(Orig.&3)
USBM(2)
Puffett

Reviewed by
DMEA OPERATING COMMITTEE
4-20-55
(date)

DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

FIELD TEAM, REGION I

Northwest District

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 15 1955

FINAL REPORT

Contract Idm-E605

by

Webster S. Anderson
Mining Engineer
U. S. Bureau of Mines

Willard P. Puffett
Geologist
U. S. Geological Survey

GRANDVIEW MINES
310 Radio Central Building
Spokane 4, Washington

Docket No.:	DMEA-3073
Commodity:	Lead-Zinc
Contract date:	September 22, 1953
Termination date:	October 28, 1954

Reviewed by
DMEA OPERATING COMMITTEE
4-20-55
(date)

DOSSER-MAKI-LOTZE PROSPECT
Northport Mining District
Stevens County, Washington

Spokane, Washington

March 1955

FINAL REPORT

GRANDVIEW MINES
Dosser-Maki-Lotze Prospect
Northport Mining District
Stevens County, Washington

Contract Idm-E605

* * * *

INTRODUCTION

This report describes an exploration project conducted jointly by Grandview Mines and the Defense Minerals Exploration Administration on the Dosser-Maki-Lotze prospect in the Northport mining district, Stevens County, Washington.

Summary

The purpose of the project was to explore for lead-zinc ore by diamond drilling the down-dip extension of a gossan which was exposed by bulldozing and trenching in the summer of 1952. Channel samples cut across the gossan showed values in lead and zinc. The diamond drilling program was intended to test this zone at a depth sufficient to encounter the sulfide portion of the ore body and to test its extension laterally and at depth.

Diamond drilling under the DMEA contract was started October 1, 1953. Boyles Bros. Drilling Company of Salt Lake City, Utah, had two drill rigs at the property, one drill operating on two shifts and the second drill operating on one shift.

Nine diamond drill holes were completed for a total length of 3,885 feet. The unit cost was $7.00 per foot for a total cost of $27,195.00 in which Government participation was 50 percent, or $13,597.50.

The holes were all drilled to the north of the exposed gossan zone which, on the surface, strikes east-west and dips approximately 60° N. Sulfide was intersected in DDH No. 1 approximately 300 feet down dip from the outcropping gossan. From 179.5 to 195 feet the core was predominantly pyrite and assayed 35.7 percent iron, 0.1 ounce of silver per ton, 0.4 percent lead, and 0.2 percent zinc. This same zone was intersected with DDH Nos. 4, 5, and 6 adjacent to DDH No. 1, as shown on the attached plan map. DDH Nos. 2, 3, and 7 to the west and north of DDH No. 1 did not intersect the pyrite zone. DDH Nos. 8 and 9 cut the same pyrite zone as was encountered in Holes No. 1, 4, 5, and 6, but it was not over 1 foot in thickness.

The pyrite zone indicated by the drilling is shown on figure 3. The western half of the zone is estimated to contain only from 5 to 10 percent iron. The eastern half of the zone, having a volume of about 230,000 tons, contains an estimated 30 to 40 percent iron. If all the iron indicated by assays of the diamond drill cores is in the form of pyrite, there is estimated to be 123,750 tons of iron and 138,600 tons of sulfur in the zone. Much larger pyrite bodies in the Pacific Northwest are known which are not being currently exploited, and it is doubtful that the pyrite zone on the Dosser-Maki-Lotze property is of commercial proportions.

Recommendations

As the diamond drilling intersected only a strong pyrite zone containing very sparse amounts of galena and sphalerite, it is recommended that no Certification of Discovery or Development be issued.

If a market for pyrite ever develops in the Northwest, then further exploration would be warranted; currently, there is no market for pyrite.

LOCATION AND ACCESSIBILITY

The Dosser-Maki-Lotze prospect is on the north side of Currant Creek, approximately half a mile southeast of Deep Lake in northern Stevens County, Washington. The property is in secs. 26, 27, 34, and 35, T. 39 N., R. 41 E., W.M., Northport mining district. Graveled roads connect the property with the Great Northern Railroad at Northport, Washington, 15 miles to the west, and with Leadpoint, Washington, 4½ miles to the north. The altitude at the property ranges from 2,150 feet at the west end to 2,800 feet at the east end. Currant Creek, a tributary of the North Fork of Deep Creek, flows westerly across the south of the property. Water for diamond drilling was pumped from this stream.

PROPERTY

Grandview Mines had leased the mineral rights in the following properties in T. 39 N., R. 41 E., W.M.:

A - (Dosser Lease)

In sec. 27, that part of Government Lot 5, except the north 450 feet thereof, lying south and east of the county road.

In sec. 34, the S½ of the NE¼; Government Lot 1; that part of the SE¼ of the NW¼ lying south and east of Deep Creek; that part of Government Lot 2 lying south and east of Deep Lake and Deep Creek.

B - (Maki Lease)

In sec. 35, the SW¼ of the NE¼, S½ of the NW¼, and NW¼ of the SW¼.

C - (Lotze Lease)

In sec. 34, the NE¼ of the NE¼
In sec. 35, the N½ of the NW¼
In sec. 26, the S½ of the SW¼

excepting approximately 2 square acres in the extreme northwest corner, which area is enclosed by a line running 416 feet east from the northwest corner of the S½ of the SW¼ of sec. 26; thence 208 feet south; thence 416 feet west; and thence north 208 feet to the point of beginning.

Owner's Consent to Lien forms, signed by the owners of the above properties, were attached to the contract.

Grandview Mines relinquished its lease on the Maki property on April 21, 1954; in October 1954, the company relinquished its lease on the Lotze property. As of March 1955, Grandview Mines still was leasing the Dosser property.

GEOLOGY

Northeastern Stevens County, Washington, is underlain by a thick series of phyllite, schist, slate, marble, and dolomite of early Paleozoic age that trend in a general northeast direction. Granitic intrusive rocks of late Mesozoic age crop out in the northern and southern part of the area. The Dosser-Maki-Lotze property is in the southeastern part of the area near a contact between granodiorite and dolomite.

Three formations are exposed on the Dosser-Maki-Lotze property. Dark-gray to black, carbonaceous, slaty argillite crops out in the northern part; light-gray to gray, thin-bedded, dolomitic limestone crops out in the central part; and coarse-grained biotite granodiorite crops out in the southern part of the property. In an open-file report showing maps of this area, Campbell 1/ has correlated the granitic rocks with the hornblende-biotite granodiorite of the Kaniksu batholith of Cretaceous(?) age, the dolomitic limestone with the Upper Metaline limestone of Cambrian age and the slaty argillites with the Ledbetter slate of Ordovician age. Campbell indicates that the dolomite and the slaty argillites form the south limb of a syncline overturned to the south, the axial plane of which dips about 35° NE.; thus, according to Campbell's interpretation the beds in the Dosser-Maki-Lotze area are on the normal limb of the syncline and are not overturned.

The bedding in the dolomite strikes from due west to N. 70° W.; dips range from 45° to 80° N. and NE. The slaty argillite conformably overlies the dolomite, strikes in a general east-west direction, and dips from 35° to 60° N.

The contact between the dolomite and the granitic rocks trends in a general east-west direction and probably dips to the north. Insofar as is known, the dolomite-granodiorite contact is an intrusive contact in the Dosser-Maki-Lotze area, as no faulting has been found along it. On the Farmer property (Docket No. DMEA-2166), about half a mile to the west, the contact is marked by a strong normal fault dipping about 60° NW.

Ore minerals occur at widely scattered localities within the dolomite. These ore minerals consist of galena and sphalerite in a pyritic, siliceous gangue. In general, the sulfides have been oxidized near the surface, resulting in a mixture of limonite and lead and zinc carbonates.

On the Maki property the ore minerals are confined to narrow stringers which parallel the bedding in the dolomite. In most exposures sphalerite predominates, but some of the stringers contain mostly galena. These stringers have been prospected in at least 10 shallow shafts. Observation strongly suggests that these stringers are distributed erratically throughout the dolomite near the granite contact.

To the west of the exposures on the Maki property, and in the same dolomite formation, trenching has disclosed a few small areas on the Dosser property near the granodiorite contact which contain disseminated lead, zinc, and iron minerals. Sampling has indicated

---

1/ Campbell, C. D., Northport district maps, Stevens County, Washington: U. S. Geol. Survey Open File, pls. 2 and 2a, January 1946.

that the zinc content ranges from less than 1.0 to slightly more than 5.0 percent, whereas the lead content is less than 1.0 percent. No production has been obtained from these areas.

A strongly oxidized zone crops out in the northeast part of the Dosser property near the slate-dolomite contact. This oxidized area, or gossan, has been well exposed by bulldozing which has revealed that the gossan is nearly 450 feet long in an east-west direction, and, in places, as much as 65 feet wide. The oxidized material consists mainly of limonite in a siliceous and dolomitic gangue. Channel samples across the central part of the zone indicate an area 130 feet long and from 60 to 65 feet wide which contains 0.8 ounce of silver per ton, 1.6 percent lead, 0.0 percent zinc, and 41.3 percent iron (fig. 1).

H. D. Hess, of the Petrographic Section, Bureau of Mines, Region I, made a detailed examination of samples of the oxidized material taken from the bulldozed area. He reports that the rock is an impure, carbonaceous, dolomitic limestone, with associated tremolite, chlorite, diopside, talc, chert, some calcite and clay minerals, plus plumbojarosite, anglesite, smithsonite, limonite, and goethite.

From his description it is suggested that the original rock was an impure, carbonaceous dolomitic limestone. The calcium-magnesium silicates were probably formed as a result of contact metamorphism related to the nearby igneous intrusion. The iron, lead, and zinc minerals, and possibly much of the silica, were probably introduced by hydrothermal solutions.

The drilling completed under the DMEA program explored the down-dip extension of the gossan. This drilling was successful in intersecting a strong pyrite zone which is evidently the unoxidized zone indicated by the gossan. The highest intersection of the pryite zone is about 250 feet down dip from the surface (Lotze DDH No. 1), and at this intersection there is no evidence of oxidation in the pyrite zone; thus, it is not known exactly to what depth the oxidized zone extends, but it is assumed that the oxidized zone may extend from 50 to 100 feet down dip from the surface.

The drilling indicated that the pyrite zone is somewhat lenticular in outline, being thicker and richer in pyrite in the eastern portion and narrowing to separate bands of sparsely disseminated pyrite in the western portion. DDH Lotze No. 9 intersected 1 foot of pyrite 740 feet down dip from the gossan, and this represents the deepest diamond drill hole intersection of the zone. This zone of pyrite is nearly parallel to the bedding and occurs within 100 to 150 feet of the dolomite-slate contact. There is a suggested plunge of the zone to the northeast.

Although the gossan is nearly 450 feet long and averages about 60 feet wide, the drilling indicates that the pyrite zone gradually thins with depth. At an altitude of 2,300 feet, nearly 550 feet down dip from the surface, the maximum length of the pyrite zone is from 450 to 500 feet, and the maximum thickness is less than 10 feet. The higher-grade portion of the pyrite zone contains from 30 to 37 percent iron.

The outline of the pyrite zone indicated by the drilling is shown on the attached plan map and sections (fig. 3). As is shown on this map, the drill holes were located to intersect the zone at intervals from 150 to 200 feet. As the indicated zone is from only 400 to 500 feet long, it has been necessary to do considerable extrapolation beyond known intersections in drawing the outlines of the indicated zone.

Only very sparse amounts of sphalerite and galena are associated with the pyrite zone at depth. There is no indication that the pyrite represents a halo of iron minerals around a lead-zinc ore body.

At depth the dolomite contains scattered amounts of calcium-magnesium silicates, mostly tremolite and some talc. Disseminated pyrrhotite occurs at scattered intervals.

THE PROJECT

During the summer of 1952 Grandview Mines exposed a rather wide oxidized zone in dolomite on the Dosser property. The indicated dip of this zone was to the north, dipping across the north boundary of the Dosser property into the Lotze property. Channel samples taken across the zone average 0.8 ounce per ton of silver, 1.6 percent lead, nil zinc, and 41.3 percent iron. It was believed that this oxidized and iron-stained zone might be a gossan representing the surface outcrop of a lead-zinc sulfide ore body. Diamond drilling appeared justified to explore for deeper extensions of the zone. Figure 1 shows the results of the channel samples taken across the gossan.

Diamond drilling at the Dosser-Maki-Lotze prospect was started October 1, 1953. As the exploration was unsuccessful in finding significant amounts of lead and zinc, the project was terminated by mutual agreement on September 10, 1954.

Amendment No. 1 to the contract authorized a recess in project work from November 22, 1953, to not later than July 1, 1954. This recess was granted as winter conditions were such that it was considered impractical to continue with the diamond drilling program.

The program as originally proposed was to test by diamond drilling the downward extension of the mineralized zones on the Maki property and the lateral and vertical extent of the gossan exposed in the northeast corner of the Dosser property. In a telegram to the Operating Committee, dated August 14, 1953, the Field Team recommended drilling eight holes totaling 4,000 feet from the Lotze property to test deeper extensions of gossan exposed on the Dosser property. Drilling on the Dosser-Maki property as proposed by the applicant was not recommended. The change of location from the Dosser-Maki property to the Lotze property was recommended as the Field Team considered that the drilling of the Lotze property would provide more information pertinent to an expanded exploration program if more drilling was indicated.

The contract specified that the diamond drilling be done in two stages. Stage I included four holes not to exceed a total length of 2,000 feet. If the results of these four holes indicated the advisability of further drilling, Stage II was to be undertaken; it included the drilling of an additional 3,200 feet of diamond drill hole.

The four holes under Stage I of the contract were completed by November 22, 1953. These holes indicated the existence of a sizable pyrite zone containing only sparse amounts of galena and sphalerite. Since some of the ore occurrences in the district are known to have a halo of iron sulfides surrounding the lead-zinc ore shoots, it was thought advisable not to overlook this possibility at the Dosser-Maki-Lotze property; consequently, Stage II work was authorized. The contract was recessed until April 28, 1954, when drilling under Stage II was commenced. Five drill holes were completed in the summer of 1954, but the results from these holes conclusively proved that, although the pyrite zone continues in depth, it did not represent a halo of iron sulfide minerals around the periphery of a lead-zinc sulfide ore body. Because of these findings, the contract was terminated by mutual agreement between the Operator and the Government prior to the completion of all the diamond drilling permitted by the contract.

The location of the drill holes are shown on figure 2, and sections through the holes showing the outline of the indicated pyrite zone are shown on figure 3. Copies of the logs of the DMEA diamond drill holes, compiled by the Operator, are in the map holder with this report; also included are logs of holes drilled on other parts of the property prior to the contract.

Reserves

Only very minor amounts of galena and sphalerite were found in the diamond drill core. Obviously, no lead-zinc ore body is indicated by the contract work.

The drilling indicated that the iron-stained and oxidized zone on the surface represents the outcrop of a pyrite zone in the dolomite. This pyrite zone extends from the surface to a known depth of 700 feet down dip. The zone averages more than 400 feet in strike length but thins from about 60 feet at the surface to less than 1 foot at its deepest extension. The eastern portion of the zone contains nearly solid pyrite, whereas its western extensions consist of separate bands of moderately to sparsely disseminated pyrite.

At the surface the oxidized zone contains slightly more than 41 percent iron. The diamond drill hole intersection nearest the surface is about 250 feet down dip from the outcrop. At this intersection there is no evidence of oxidation of the pyrite, and it contains about 36 percent iron.

Using a tonnage factor of 8.5 cubic feet per cubic ton (tonnage factor for solid pyrite is 6.3 cubic feet per ton), the indicated pyrite zone contains 560,000 tons. The higher grade or eastern half of the zone contains 230,000 tons of 30 to 40 percent iron. The lower-grade areas, which form an estimated 50 percent of the zone, are not expected to contain more than 5 to 10 percent iron.

The sulfur content of the indicated pyrite zone is perhaps of more economic interest than the iron content. It is assumed that practically no sulfur remains in the gossan area. If the oxidized zone persists to a depth of 100 feet, it would decrease the tonnage in which sulfur occurs by about 10,000 tons; therefore, for purposes of calculation it is assumed that there are 275,000 tons of 35 percent iron and 275,000 tons containing 10 percent iron. Assuming that all the iron is in the form of pyrite in which the sulfur-pyrite ratio is 1.14, the indicated zone contains 138,600 tons of sulfur and 123,750 tons of iron.

Summary of Factual Data

Boyles Bros. Drilling Contractors, Salt Lake City, Utah, completed a total of 3,885 feet of diamond drilling in nine holes at a unit cost of $7.00 per foot for a total cost of $27,195.00, of which the Government contributed 50 percent, or $13,597.50.

Exploitation Possibilities

Grandview Mines wrote the Texas Gulf Sulphur Company under date of August 13, 1954, describing the pyrite deposit at the Dosser-Maki-Lotze prospect and inquiring if that company would be interested in the deposit. In its reply of August 23 the Texas Gulf Sulphur Company stated that it was not interested in pyrite deposits of the type explored at the Dosser-Maki-Lotze prospect.

The pyrite deposit of the Lockwood Mining & Refining Company near Sultan, Washington, in Snohomish County, is much larger than the one at the Dosser-Maki-Lotze prospect. The Lockwood property has been examined by both the Bureau of Mines and the Washington State Division of Mines and Geology. Estimates of potential reserves range from 500,000 to 3,500,000 tons. The property has not been exploited commercially to date.

The acid plant of the Sullivan Zinc Smelter at Kellogg, Idaho, is currently inoperative due to lack of a market for sulfuric acid.

It seems unlikely that the pyrite body at the Dosser-Maki-Lotze property will be exploited for its sulfur and iron in the foreseeable future.

Enclosures
Distribution:
DMEA(4)
USBM(5)
USGS(SRO)
Docket
Puffett

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D. C.~~
So. 157 Howard Street
Spokane 4, Washington

DEPARTMENT OF THE INTERIOR
Douglas Edwards Administration
RECEIVED
NOV 22 1954

November 12, 1954

Mrs. Myrtle Purdy
Certifying Officer
DMEA Field Team, Region II
1201 N. Division Street
Spokane 2, Washington

Re: Docket No. DMEA 3073 (lead-zinc)
Grandview Mines, Inc.
Dosser-Maki-Lotze Prospect
Stevens County, Washington
Contract No. Idm-E605

Dear Mrs. Purdy:

The subject contract was terminated by mutual agreement before completion of the work. All work performed was completed to the satisfaction of the Government.

The Operator has submitted a final report evaluating the results of the work, which has been accepted as satisfactory by the Executive Officer.

There are no items of equipment, materials or supplies in which the Government has an equity.

The Field Team will not recommend a Certification of Discovery on the project.

It is requested that the Operator's final invoice be paid after the final audit is made, since all contract requirements have been met.

Sincerely yours,

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region II

cc: DMEA (2)
USBM (2)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

RECEIVED

November 4, 1954

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-3073 (lead-zinc)
Grandview Mines, Inc.
Dosser-Maki-Lotze Prospect
Stevens County, Washington
Contract No. Idm-E605

Dear Mr. Selfridge:

Enclosed are the original and two signed copies of an agreement mutually terminating the cited contract.

Distribution of this agreement is being made in the usual manner.

Sincerely,

A. E. Weissenborn

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region II

Enclosure
cc: Finance Office w/encl.
USBM (2)
Puffett

RECEIVED
NOV 12 1954
DEFENSE MINERALS
ADMINISTRATION

Department of the Interior
Central Records Administration
RECEIVED
OCT 3 - 1954

XXXXXXXXXXXXXXXXXX
c/o. 157 Howard Street
Spokane 4, Washington

October 22, 1954

Mr. Karl A. Jasper, President
Grandview Mines, Inc.
110-311 Radio Central Building
Spokane 4, Washington

Re: Docket No. DMA-3073 (Ima.-Lite)
Dosser-Maki-Lotic Prospect
Stevens County, Washington
Contract No. Ism-1605

Dear Mr. Jasper:

In your letter of September 7, 1954, you requested termination of the above-cited contract because, on the basis of results to date, further expenditures under the contract were not warranted. Our Washington office has agreed to a mutual termination agreement.

Enclosed are the original and 5 copies of this agreement, effective September 10, 1954. Would you please sign all copies, retain that copy marked for the Operator, and return the rest to this office.

Since this was a unit cost contract, the Government does not have an equity in any materials, supplies, or equipment. You have furnished us with a final engineering report, which has been accepted as adequate; and your final MF-104 has been received. As is customary, we are obliged to withhold approximately 10 percent of the amount due you on your last MF-104, which was in the amount of $4,081.00, pending a final audit. As soon as this audit review is made, we shall close out the contract.

We regret that the project was unsuccessful as finding lead and zinc. It's too bad pyrite does not have more value!

Very truly yours,

cc: DMEA (2)
USBM (2)
USBM (AD)
Auditor Turner
Puffett

[illegible]
Executive Officer, DMA
Field Team, Region II

Enclosure

Minerals Administration
RECEIVED
NOV 5 - 1954

xxxxxxxxxxxxxxxxxx
So. 157 Howard Street
Spokane 4, Washington

October 29, 1954

Mr. Karl W. Jasper, President
Grandview Mines, Inc.
310-311 Radio Central Building
Spokane 4, Washington

Re: Docket No. DMEA-3073 (lead-zinc)
Doesser-Maki-Lotze Prospect
Stevens County, Washington
Contract No. Idm-E605

Dear Mr. Jasper:

In your letter of September 7, 1954, you requested termination of the above-cited contract because, on the basis of results to date, further expenditures under the contract were not warranted. Our Washington office has agreed to a mutual termination agreement.

Enclosed are the original and 6 copies of this agreement, effective September 10, 1954. Would you please sign all copies, retain that copy marked for the Operator, and return the rest to this office.

Since this was a unit cost contract, the Government does not have an equity in any materials, supplies, or equipment; you have furnished us with a final engineering report, which has been accepted as adequate; and your final MF-104 has been received. As is customary, we are obliged to withhold approximately 10 percent of the amount due you on your last MF-104, which was in the amount of $4,081.00, pending a final audit. As soon as this audit review is made, we shall close out the contract.

We regret that the project was unsuccessful in finding lead and zinc. It's too bad pyrite does not have more value!

cc: DMEA (2)
USBM (2)
USBM (AD)
Auditor Turner
Puffett

Very truly yours,

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region II

Enclosure

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

OCT 25 1954

October 15, 1954

Mr. George C. Selfridge, Chairman
DMEA Operating Committee
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-3073 (lead-zinc)
Grandview Mines, Inc.
Dosser-Maki-Lotze Prospect
Stevens County, Washington
Contract No. Idm-E605

Dear Mr. Selfridge:

This is in reference to your letter of September 27, 1954, wherein the Field Team is requested to investigate the possibility of the pyrite ore body becoming of value within the next 10 years as a source of sulphur. We think that this is a very unlikely possibility, for it does not seem probable that pyrite ore bodies in this area are very likely to compete with the sulphuric acid produced from the Trail smelter and the Bunker Hill smelter, which has just gone into the production of sulphuric acid. There are pyrite bodies in the Cascades in Washington which, being much larger, undoubtedly would be mined before the Dosser-Maki-Lotze body which, after all, is of no tremendous size. As a matter of fact the Grandview management told us some time ago that they had made some inquiries in this direction but did not receive enough encouragement to follow this up.

It is our opinion then that although there is a possibility that pyrite ore bodies in this area may be mined as a source of sulphur at some time in the future, it will be much more than 10 years before such bodies as occur in the Dosser-Maki-Lotze prospect can be mined for this purpose.

By Field Team, Region II

A. E. Weissenborn

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew

Wing G. Agnew, Member
U. S. Bureau of Mines

cc: USBM (2)
Puffett

File Copy
Surname

J. W. Alt
Griswold
Chambers

Rewritten
9/24/54

J.W. Alt
Griswold
Selfridge
Chambers
Matthews

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

SEP 27 1954

Mr. A. E. Weissenborn
Executive Officer
DMEA Field Team, Region II
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA-3073 (Lead-Zinc)
Grandview Mines, Inc.
Dosser-Maki-Letze Prospect
Stevens County, Washington
Contract No. Idm-F605

Dear Mr. Weissenborn:

In reference to your letter of September 9, 1954, regarding the cited contract, we are in agreement with you that this contract should be terminated. This is your authority to terminate the contract by mutual agreement.

Please investigate the possibility of the pyrite ore body becoming of value within the next ten years as a source of sulphur. If this should appear possible, the Government's right to royalty should be preserved.

We would appreciate receiving the Field Team final report at your earliest convenience.

Sincerely yours,

George C. Selfridge (by EGS)

Chairman, Operating Committee

APPROVED:

J. H. Hodges

Member, Bureau of Mines

Thor H. Kiilsgaard

Member, Geological Survey

JWAlt/WRGriswold/bjl (9/24/54)
(rewrite)

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

File Copy
Surname

J. W. Alt.
Griswold
Chamberlin

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

500

Mr. A. E. Weissenborn
Executive Officer
DMEA Field Team, Region II
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA-3073 (Lead-Zinc)
Grandview Mines, Inc.
Dosser-Maki-Lotze
Stevens County, Washington
Contract No. Idm-E605

Dear Mr. Weissenborn:

In reference to your letter of September 9, 1954, regarding the cited contract, we are in agreement with you that this contract should be terminated. This is your authority to terminate the contract by mutual agreement.

We would appreciate receiving at your earliest convenience the final Field Team report and the final audit.

Sincerely yours,

Chairman, Operating Committee

APPROVED:

Member, Bureau of Mines

Member, Geological Survey

JWAlt:er 9/22/54
Copy to: Docket
Admr. R. File
Op. Committee
Base Metals
Mr. Kiilsgaard, Rm 5227
Mr. Bishop, USBM
Chron.

Verbally approved by
Mr. Hoffbund - under Circ. 33

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D. C.~~
So. 157 Howard Street
Spokane 4, Washington

SEP 16 1954

September 9, 1954

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-3073 (Lead-Zinc)
Grandview Mines
Dosser-Maki-Lotze
Stevens County, Washington
Contract No. Idm-E605

Dear Mr. Selfridge:

In our letter of September 8 we enclosed a report from Grandview Mines regarding the Dosser-Maki-Lotze contract and briefly discussed the results of the drilling under that contract.

In a letter dated September 7, copies of which are enclosed, Karl W. Jasper, president of the company, has made a formal request to terminate the contract on the basis that results to date do not warrant further expenditures under the contract. Of the 5,200 feet of drilling allowed under the contract, 3,885 feet have been utilized and 1,315 feet remain. We agree with the Grandview Mines Company that further drilling would not be justified and recommend termination of the contract by mutual agreement on the basis of the improbability of making a discovery. Will you please authorize us to terminate the contract.

By Field Team, Region II

A. E. Weissenborn
A. E. Weissenborn, Executive Officer
(U. S. Geological Survey)

Wing G. Agnew
Wing G. Agnew, Member
(U. S. Bureau of Mines)

Enclosure
cc: USBM(2)
Puffett
Certifying Officer

September 7, 1954

D M E A Field Office
U S G S
Mineral's Deposit Branch
S 157 Howard
Spokane, Washington

Attn: Mr. Puffet

Dear Sir:

Please be informed at this time that Grandview Mines wishes to terminate the D M E A Contract number 3073 commonly known as the Dosser, Maki, Lotz Diamond Drilling Contract.

We feel that results up to the present time do not warrant further expenditures under this contract and that minerals of insufficient values and quantities necessitate our discontinuance of the work on this ground.

Very truly yours,

Karl W. Jasper

Karl W. Jasper, President
GRANDVIEW MINES

KWJ:mh

RECEIVED
SEP 8 54
U. S. G. S.
SPOKANE, WASH.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

September 8, 1954

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-3073 (lead-zinc)
Grandview Mines, Inc.
Dosser-Maki-Lotze Prospect
Stevens County, Washington
Contract No. Idm-E605

Dear Mr. Selfridge:

Attached are the original and 2 copies of a final report from Grandview Mines, Inc., summarizing the results of the diamond drilling on the Dosser-Maki-Lotze property in Stevens County, Washington. It is acceptable to the Field Team.

The object of the project was to explore an iron-stained gossan. Six diamond drill holes were drilled and the results of the drilling have indicated a body of massive pyrite. Company engineers estimate that about 125,000 tons of this material have been indicated by the drilling. The body averages about 16 feet thick and assays 33.5 percent iron. 0.2 ounce silver, 0.3 percent lead, 0.0075 ounce gold, and less than 0.1 percent zinc.

On the basis of these assays no Certification of Discovery or Development will be recommended.

A final Field Team report will be prepared as soon as practicable.

By Field Team, Region II

A. E. Weissenborn

A. E. Weissenborn, Executive Officer
U. S. Geological Survey

Wing G. Agnew

Wing G. Agnew, Member
U. S. Bureau of Mines

Enclosure
cc: USBM (2)
Certifying Officer
Puffett

General Summary of Diamond Drilling Results from Lotze D.D. holes #1 to #9, Drilled Under DMEA Docket No. 3073.

Drilling on this project was initiated with the intention of exploring the projected extension at depth of a gossan zone 80 feet wide and several hundred feet long, which on the surface across about 40 feet of its width and for a distance of about 150 feet of its length assayed a little over 2% lead; plus 1 oz. Ag; and plus 40% Fe. The mineralized surface material is all oxidized and the gossan is composed mainly of limonitic iron oxides and other oxidation products, with minor cherty and dolomitic material.

Nine holes were drilled for a total length of 3885 feet. The holes were all drilled to the north of the exposed gossan which on the surface strikes east-west and dips about 80° north. The gossan lies within a bed of blue-gray dolomite which underlies black thin-bedded slate. Slate, dolomite, and gossan all have close, the same strike and all dip to the north at 80° and less.

Primary sulfide mineralization was first intersected in D. D. Hole #2 about 300 feet down dip from the outcropping gossan. This mineralization was composed of 10.5 feet of almost solid pyrite which assayed 23.7% Fe, 0.1 oz. Ag, 0.4% Pb, and 0.2% Zn. Similar mineralization of substantial width was encountered in D. D. #4, #5, and #8, holes adjacent to #1 on the east, northeast, and north. The pyrite zone varied from 6 to 30 feet thick in these holes.

Holes #6, #7, and #7 to the west and north of D. D. #1 did not encounter significant mineralization. Holes #8, about 100 feet to the east of #1, and #9 to the north, both cut the same dolomite band in which the strong pyrite zones were found but in each of these holes the thickness of the solid pyrite bands was only about one foot. It is possible that the thick pyrite zone continues down dip towards the northeast between holes #8 and #9. The purpose of this project, however, was to outline a possible ore body of lead and zinc and as drilling in hole #9, a distance of almost 300 feet down dip from the exposed gossan did not show an increase in lead and zinc mineralization, drilling and further exploration was discontinued.

A body of pyrite with minor precious metal content was outlined by holes #1, #4, #5, and #8. This pyrite body can reasonably be expected to be continuous for 300 feet from south to north down its dip at about 35 to 40 degrees, and for 200 feet east and west along its strike, and to average about 16 feet thick assaying about 31.5% Fe, 0.2 oz. Ag, 0.5% Pb, 0.0075 oz. Au, and less than 0.1% Zn. 185,000 tons of ore of this type is available as a result of the drilling. Continuity of the heavy pyrite zone downward and to the northeast could only be demonstrated by continued drilling. Holes drilled to the north and east could be little if at all longer than holes drilled under this project as the surface slope to the north is about the same as the expected northward dip of the mineralized zone.

Assays for sulfur were not made. The sulfur content of the pyrite ore, estimated from the iron-sulfur ratio in pyrite, would be about 38.6%.

RECEIVED
BUREAU OF MINES
AUG 16 1954
SPOKANE, WASH.

RECEIVED
SEP 7 1954
U. S. G. S.
SPOKANE, WASH.

Grandview Mines
Dosser-Maki-Lotze Prospect
Stevens County, Washington
Contract Idm-E605
Docket No. DMEA 3073 (lead-zinc)

No. 157 Howard Street
Spokane 4, Washington

September 8, 1954

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-3073 (lead-zinc)
Grandview Mines, Inc.
Dunner-Mahi-Lotus Prospect
Stevens County, Washington
Contract No. Ion-2505

Dear Mr. Selfridge:

Attached are the original and 2 copies of a final report from Grandview Mines, Inc., summarizing the results of the diamond drilling on the Dunner-Mahi-Lotus property in Stevens County, Washington. It is acceptable to the Field Team.

The object of the project was to explore an iron-stained gossan. Six diamond drill holes were drilled and the results of the drilling have indicated a body of massive pyrite. Company engineers estimate that about 125,000 tons of this material have been indicated by the drilling. The body averages about 16 feet thick and assays 33.5 percent iron, 0.2 ounce silver, 0.3 percent lead, 0.0075 ounce gold, and less than 0.1 percent zinc.

On the basis of these assays no Certification of Discovery or Development will be recommended.

A final Field Team report will be prepared as soon as practicable.

By Field Team, Region II

A. S. Weissenborn, Executive Officer
U. S. Geological Survey

Wing G. Agnew, Member
U. S. Bureau of Mines

Enclosure
cc: GMMM (2)
Certifying Officer
Puffett

No. 157 Howard Street
Spokane 4, Washington

September 8, 1954

Mr. George G. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Project No. DMEA-3073 (lead-zinc)
Grandview Mines, Inc.
Ranger-Maki-Lotus Prospect
Stevens County, Washington
Contract No. Ida-2605

Dear Mr. Selfridge:

Attached are the original and 2 copies of a final report from Grandview Mines, Inc., summarizing the results of the diamond drilling on the Ranger-Maki-Lotus property in Stevens County, Washington. It is acceptable to the Field Team.

The object of the project was to explore an iron-stained gossan. Six diamond drill holes were drilled and the results of the drilling have indicated a body of massive pyrite. Company engineers estimate that about 125,000 tons of this material have been indicated by the drilling. The body averages about 16 feet thick and assays 33.5 percent iron, 0.2 ounce silver, 0.3 percent lead, 0.0075 ounce gold, and less than 0.1 percent zinc.

On the basis of these assays no Certification of Discovery or Development will be recommended.

A final Field Team report will be prepared as soon as practicable.

By Field Team, Region II

A. E. Weissenborn, Executive Officer
U. S. Geological Survey

Wing G. Agnew, Member
U. S. Bureau of Mines

Enclosure
cc: DMEM (2)
Certifying Officer
Puffett

General Summary of Diamond Drilling Results from Lotze D.D. holes #1 to #9, Drilled Under DMEA Docket No. 3073.

SEP 16 1954

Drilling on this project was initiated with the intention of exploring the projected extension at depth of a gossan about 80 feet wide and several hundred feet long, which on the surface across about 40 feet of its width and for a distance of about 150 feet of its length assayed a little over 8% lead; plus 1 Oz. Ag; and plus 40% Fe. The mineralized surface material is all oxidized and the gossan is composed mainly of limonitic iron oxides and other oxidation products, with minor cherty and dolomitic material.

Nine holes were drilled for a total length of 3885 feet. The holes were all drilled to the north of the exposed gossan which on the surface strikes east-west and dips about 60° north. The gossan lies within a bed of blue-grey dolomite which underlies black thin-bedded slate. Slate, dolomite, and gossan all have about the same strike and all dip to the north at 60° and less.

Primary sulfide mineralization was first intersected in D. D. Hole #1 about 300 feet down dip from the outcropping gossan. This mineralization was composed of 15.5 feet of almost solid pyrite which assayed 35.7% Fe, 0.1 oz. Ag, 0.4% Pb, and 0.5% Zn. Similar mineralization of substantial width was encountered in D. D. #4, #5, and #6, holes adjacent to #1 on the east, northeast, and north. The pyrite band varied from 6 to 50 feet thick in these holes.

Holes #2, #3, and #7 to the west and north of D. D. #1 did not encounter significant mineralization. Holes #8, about 300 feet to the east of #1, and #9 to the north, both cut the same dolomite band in which the strong pyrite zones were found but in each of these holes the thickness of the solid pyrite bands was only about one foot. It is possible that the which pyrite zone continues down dip towards the northeast between holes #8 and #9. The purpose of this project, however, was to outline a possible ore body of lead and zinc and as drilling in hole #9, a distance of almost 600 feet down dip from the exposed gossan did not show an increase in lead and zinc mineralization, drilling and further exploration was discontinued.

A body of pyrite with minor precious metal content was outlined by holes #1, #4, #5, and #6. This pyrite body can reasonably be expected to be continuous for 300 feet from south to north down its dip at about 35 to 40 degrees, and for 200 feet east and west along its strike, and to average about 16 feet thick assaying about 33.5% Fe, 0.2 oz. Ag, 0.3% Pb, 0.0075 oz. Au, and less than 0.1% Zn. 125,000 tons of ore of this type is available as a result of the drilling. Continuity of the heavy pyrite zone downward and to the northeast could only be demonstrated by continued drilling. Holes drilled to the north and east would be little if at all longer than holes drilled under this project as the surface slope to the north is about the same as and the expected northward dip of the mineralized zone.

Assays for sulfur were not made. The sulfur content of the pyrite ore, estimated from the iron-sulfur ratio in pyrite, would be about 53.5%.

RECEIVED
BUREAU OF MINES
AUG 16 1954
SPOKANE, WASH.

RECEIVED
SEP 7 1954
U. S. G. S.
SPOKANE, WASH.

Grandview Mines
Dosser-Maki-Lotze Prospect
Stevens County, Washington
Contract Idm-E605
Docket No. DMEA 3073 (lead-zinc)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

June 22, 1954

Memorandum

To: DMEA Field Team, Region II

From: Willard P. Puffett, Geologist, U. S. Geological Survey, and Webster S. Anderson, Mining Engineer, U. S. Bureau of Mines

Subject: Docket No. DMEA-3073 (lead-zinc), Routine Inspection, Grandview Mines (Dosser-Maki-Lotze), Stevens County, Washington, Contract No. Idm-E605.

The Dosser-Maki-Lotze property was visited Thursday, June 17, 1954. Mr. Eskil Anderson, geologist for Grandview Mines, was at the property. Since the last inspection, on May 28, 1954, Lotze DDH Nos. 6 and 7 have been completed. The pyrite zone was intersected by DDH No. 6. DDH No. 7 was drilled vertically for 400 feet about 170 feet west of DDH No. 6. Only very thin, widely spaced bands of pyrite were found in this hole.

As drilling results to date indicate that the pyrite zone is plunging more to the east, further drilling to the east of DDH No. 5 is planned. Lotze DDH No. 8 was being started about 170 feet east of DDH No. 5 and is being drilled at a vertical angle of -70 degrees. On the date of the inspection, the hole had not penetrated deeply enough to intersect the projected location of the pyrite zone.

Distribution:
DMEA (orig. & 3)
USBM (2)
Docket
Puffett

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

June 17, 1954

Grandview Mines
Suite 310-311 Radio Central Building
Spokane 4, Washington

Re: Docket No. DMEA-3073 (lead-zinc)
Grandview Mines
Dosser-Maki-Lotze Prospect
Stevens County, Washington
Contract No. IDm-2605

Gentlemen:

Diamond drilling of Stage I of the cited contract has been successful in partially outlining a fairly large body of pyrite containing scattered quantities of lead-zinc mineralization. These results suggest the pyrite could be a halo around a lead-zinc ore body. For this reason it is believed the property warrants further exploration.

The contract specifies that work under Stage II may be undertaken only by approval of the Government. Therefore, you may accept this letter as DMEA's approval of the drilling authorized under Stage II.

By Field Team, Region II

Wing G. Agnew, Acting Executive Officer
U. S. Bureau of Mines

Thor H. Killsgaard, Acting Member
U. S. Geological Survey

cc: DMEA (2)
USBM (2)
Puffett
Cert. Officer

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

June 2, 1954

Memorandum

To: DMEA Field Team, Region II

From: Willard P. Puffett, Geologist, Geological Survey and Webster S. Anderson, Engineer, Bureau of Mines

Subject: Docket No. DMEA 3073 (lead-zinc) Routine inspection, Grandview Mines, Dosser-Maki-Lotze property, Stevens County, Washington, Contract No. Idm-E605

On Friday, May 28, 1954, W. S. Anderson, Bureau of Mines, and Willard P. Puffett, Geological Survey, made a routine inspection of the Grandview drilling project at the Dosser-Maki-Lotze property. Mr. Eskil Anderson, geologist for Grandview Mines, accompanied us on the inspection.

Diamond drilling was resumed during the second week in May. This is the drilling provided for in Stage II of the contract. Lotze DDH No. 5, drilled vertically, had been completed to a depth of 546 feet. Lotze DDH No. 6, drilled vertically, had reached a depth of 220 feet. The core from both holes was inspected and logged. Location of these two holes and holes drilled under Stage I of the contract are shown on the attached plan map.

In DDH No. 5, five feet of heavy pyrite was intersected. Just above this pyrite for 35 feet there are scattered very thin seams of dark-colored sphalerite. Below the pyrite is scattered pyrrhotite. No lead was seen in the core.

DDH No. 6 had just intersected the slate-limestone contact. According to the attached vertical section showing this hole and DDH No. 1, the deeper extension of the pyrite zone should be intersected at about 260 feet.

The presence of sphalerite in DDH No. 5 is interesting in that practically no sphalerite has been recovered in the core of the holes drilled under Stage I. In these holes the heavy pyrite zone was intersected and a few shines of lead were recovered in the core. It may be that more drilling to intersect the deeper extensions of the pyrite zone will be successful in intersecting higher grade zinc-bearing rock. This possibility was discussed with Mr. Anderson.

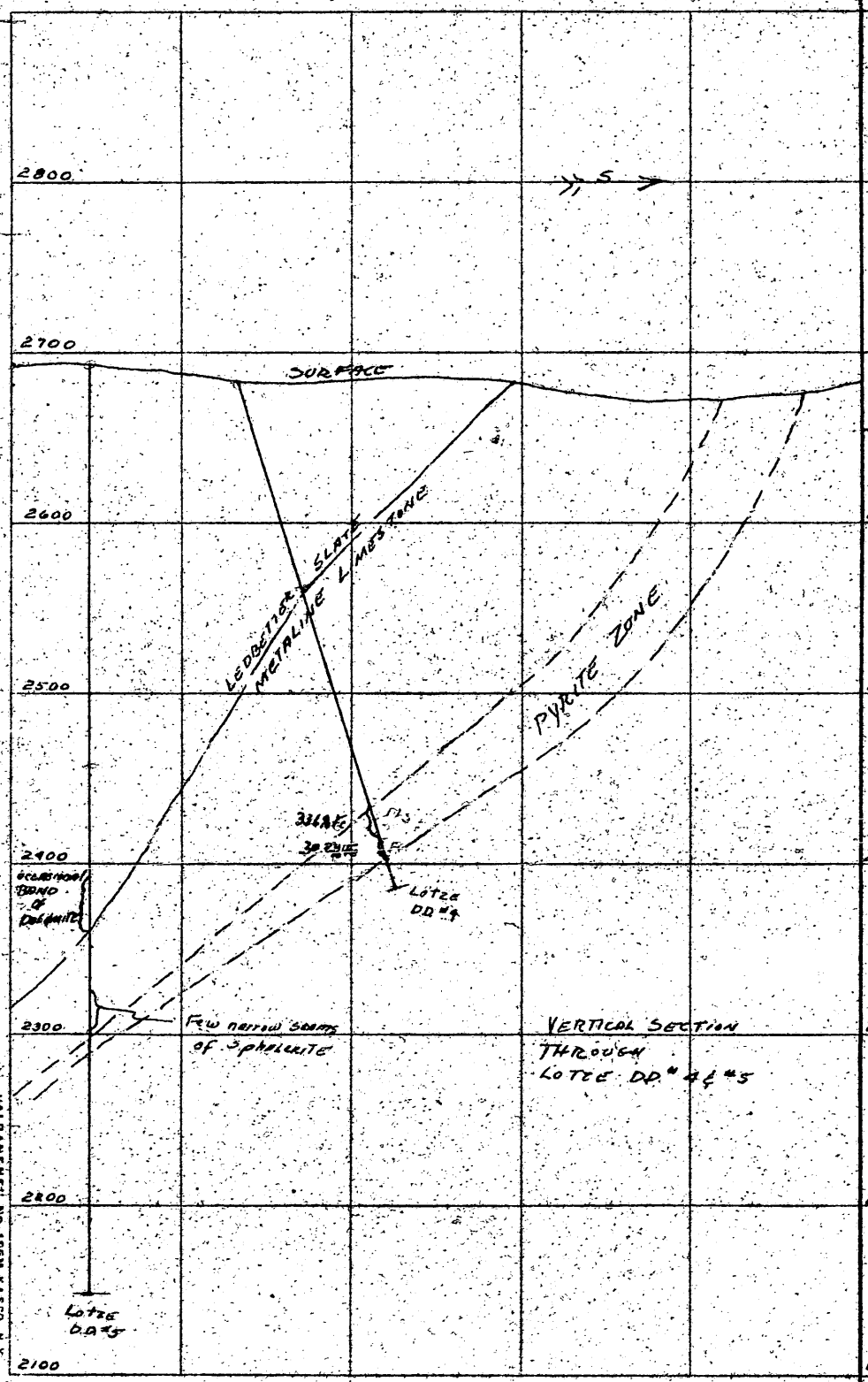
Drilling is being done by Boyles Brothers of Salt Lake City, Utah. All core is AX size.

As drilling is proceeding on a two-shift basis, DDH No. 6 will soon be completed. Upon the completion of this hole, an analysis of the results obtained to date will be made to determine if further drilling is warranted.

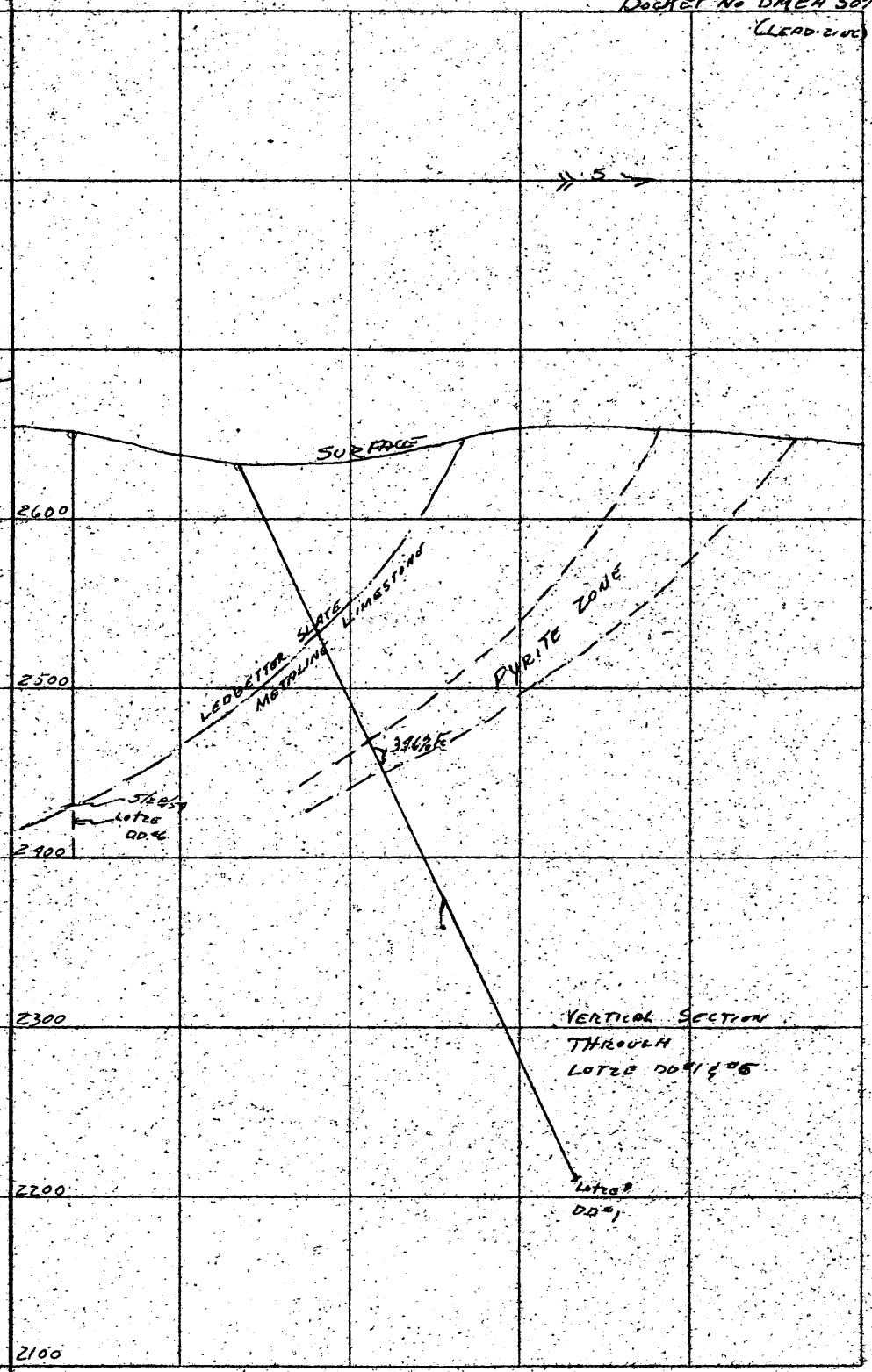
Enclosures (2)

Distribution:
DMEA (Orig. & 3)
USBM (2)
Docket
Puffett

DOCKET No DMEA 3073
(LEAD-ZINC)

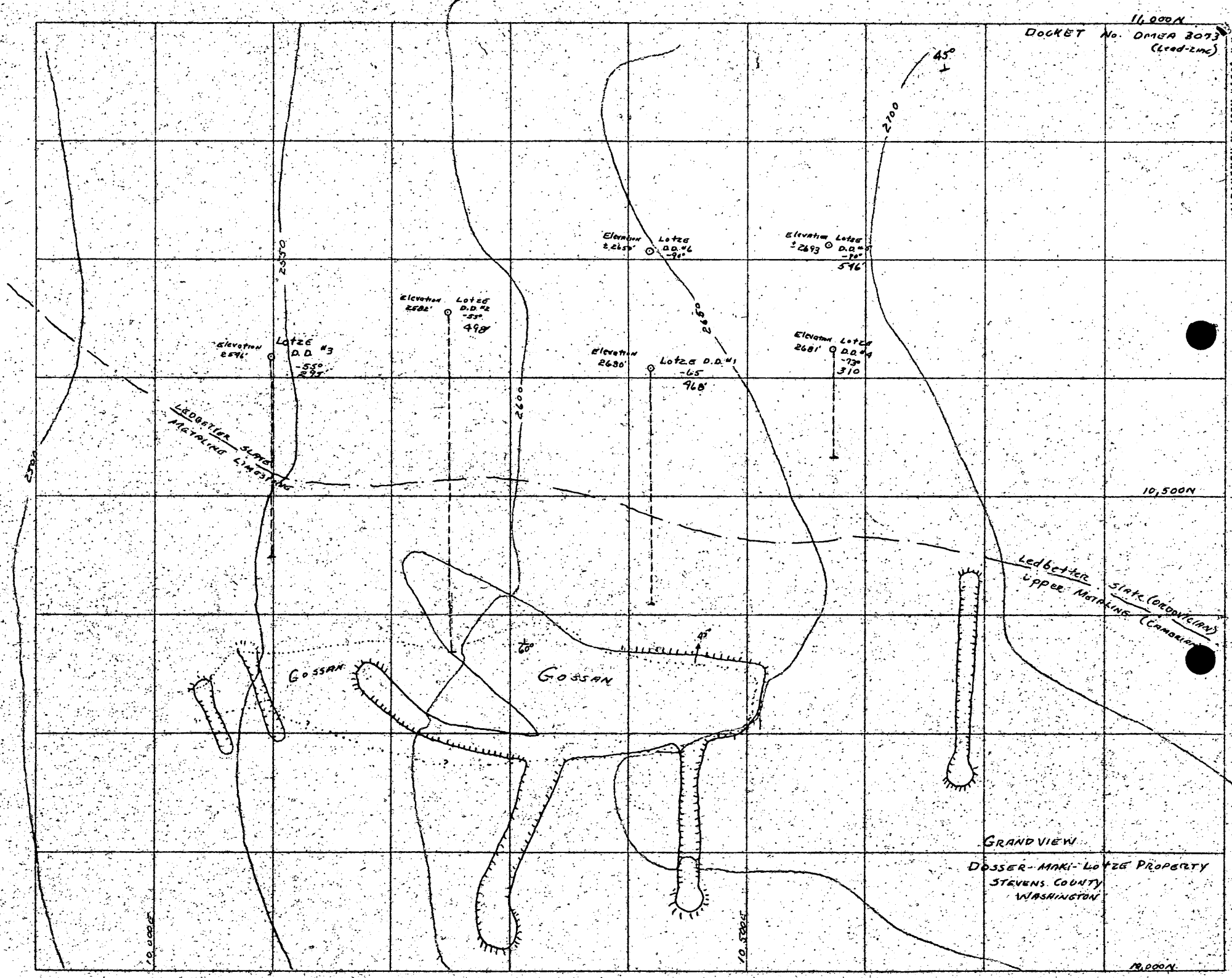


VERTICAL SECTION THROUGH LOTZE DD #4 & #5



VERTICAL SECTION THROUGH LOTZE DD #1 & #6

ALBANENE NO. 196M K&E CO. N.Y.


DOCKET No. OMEA 3073
(Lead-zinc)
11,000N
10,500N
10,000N
10,000E
10,500E
45°
2700
2650
2600
2550
2500
Elevation 2591'
Lotze D.D. #3
-55°
295'
Elevation 2682'
Lotze D.D. #2
-55°
498'
Elevation 2630'
Lotze D.D. #1
-65
468'
Elevation ±2655'
Lotze D.D. #6
-90°
Elevation ±2693
Lotze D.D. #5
-70°
546'
Elevation 2681'
Lotze D.D. #4
-73°
310
Ledbetter Slate
Metaline Limestone
Ledbetter Slate (Ordovician)
Upper Metaline (Cambrian)
Gossan
Gossan
60°
45°
GRANDVIEW
DOSSER-MAKI-LOTZE PROPERTY
STEVENS COUNTY
WASHINGTON

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

FEB 18 1954

Mr. A. E. Weissenborn
Executive Officer
DMEA Field Team, Region II
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA-2929 (Lead-Zinc)
Hartbauer Prospect
Grandview Mines, Inc.
Contract Idm-E587
and
Docket No. DMEA-3073 (Lead-Zinc)
Dosser-Maki-Lotze Prospect
Grandview Mines, Inc.
Contract Idm-E605
Stevens County, Washington

Dear Mr. Weissenborn:

This responds to your letter of January 19 informing us of the recess amendments executed in connection with the subject contracts and raising the question, in general, as to the necessity for such recess amendments in connection with short-form contracts.

In connection with the question raised, your letter stated that Government contribution is required under the short-form contract only for units of work performed; that the contract does not require that the Operator work continuously, so long as the work is completed within the time stated in Article 3; and that winter shutdowns are usually taken into account when estimating the time for completion of the project. In these circumstances, your letter concluded that an informal understanding with the Operator, confirmed either by a letter or by a statement in the monthly report that the Operator intends to shut down for winter, would suffice and make unnecessary a formal agreement.

We concur in the understanding which you have of the necessity for formal recess agreements in connection with short-form contracts. However, there may be occasions when, under a short-form contract, a recess is desired by the Operator for reasons other than winter weather. In such cases, it might be well to have a formal agreement with the

Operator specifying the date when work should be resumed. Then, in the event that work was not resumed as specified in the formal agreement, the Operator's default would be clear.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (JB)

Approved:

J. H. Hedges

Member, Bureau of Mines (JB)

Philip W. Guild

Member, Geological Survey (JB)

HCRubin/emd
2/10/54
Copy to: Docket (2)
Adm. R. File
Op. Comm.
Mr. Kinkel
Mr. Bishop
W. R. Griswold (2)
J. L. Hofflund
H. C. Rubin
chron.
pending

FILE COPY
SURNAME:

500

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

N.S. in R.R.

February 5, 1954

Memorandum

To: Chief Counsel

From: Base Metals Division

Subject: Reply to letter of January 19, 1954, from A. E. Weissenborn, Executive Officer, Region II, regarding Docket No. DMFA-3023 (Lead-Zinc), Contract No. Idm-E605, Grandview Mines, Inc., Dosser-Maki-Lotze Prospect, and Docket No. DMFA-2929 (lead-Zinc), Contract No. Idm-E587, Grandview Mines, Hartbauer Prospect

Will you please answer A. E. Weissenborn's letter of January 19, 1954. He would like an opinion regarding the recessing of unit cost contracts.

/s/
J. W. Alt

JWAlt/bjl

Copy to: Docket (2)
Base Metals (2)
Chron

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

January 19, 1954

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-3073 (lead-zinc)
Dosser-Maki-Lotze Prospect
Contract Idm-E605
and
Docket No. DMEA-2929 (lead-zinc)
Hartbauer Prospect
Contract Idm-E587

Dear Mr. Selfridge:

Attached are the original and two signed copies of Amendment No. 1 to each of the above-mentioned contracts. These two amendments were prepared in accordance with your request of January 8, 1954. These amendments are also discussed in another letter of January 19 to the Operating Committee.

Distribution of these two amendments is being made in the usual manner.

Sincerely yours,

A. E. Weissenborn

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region II

Attachments

cc: Finance Officer w/encls.
USBM (2)
Puffett

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-3073 (lead-zinc)
Dosser-Maki-Lotze Prospect
Contract Idm-E605
and
Docket No. DMEA-2929 (lead-zinc)
Hartbauer Prospect
Contract Idm-E587

Dear Mr. Selfridge:

In response to your letter of January 8, we have obtained an amendment to the two above-mentioned contracts permitting a winter recess until July 1, 1954. Naturally, the operator hopes to resume operations before that date but bad mud conditions have sometimes made an early start to drilling rather costly. As we interpret the standard form of the amendment, the Dosser-Maki-Lotze project, for instance, would be recessed from November 22, 1953, to not later than July 1, 1954, which means, as we understand it, that the operator could start work sooner than July 1 without any amendment to the contract.

We have not always made amendments to permit recess of unit-cost contracts because we are somewhat unclear as to the situation. With a unit-cost contract, no cost is incurred by the Government unless work is actually done. There is nothing in the contract which states that the operator must work continuously on the contract; the only provision is that he must do the work in such a manner as to bring the contract to a close at a specified time. Usually winter shutdowns have been taken into consideration in fixing the duration of the contract. We have thought therefore that a simple understanding with the operator, confirmed either by means of a letter or by a statement in his monthly report attached to his MF-104 form that he intends to shut down for winter would be sufficient and make unnecessary a formal amendment. In the case

of an actual-cost contract the situation is in some respects the same, but there is a difference in that there has to be a clear understanding that the Government will not contribute to any costs incurred during the shutdown, and therefore a formal amendment is usually desirable.

We would appreciate your comments on this matter of recessing of unit-cost contracts.

Sincerely yours,

A. E. Weissenborn

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region II

cc: USBM (2)
Puffett

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.
[illegible] 17th Avenue, [illegible]
[illegible], Washington

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 18 1954

January [illegible], 1954

Mr. [illegible], Manager, President
[illegible] Mines, Inc.
[illegible] Mining
[illegible], [illegible] Norton

Re: Contract No. [illegible]-1073 (Nonferrous)
Asbestos-bearing rock
Contract Mine [illegible]
and
Contract No. [illegible]-2-21 (Nonferrous)
Ambler Prospect
Contract Mine [illegible]

Dear Mr. [illegible]:

In accordance with our telephone conversation of this morning, I am enclosing two of amendments to the two captioned contracts to permit winter recess.

You will note that the amendments state that the prospect work shall be resumed during the period from November 22, 1953 (or October 1, 1953) to not later than July 1, 1954. [illegible] interpretation, I construe "not later than" will not prevent the resuming of work sooner than July 1, if this is practicable.

Please sign all copies of the amendment, retain for your files three copies marked "Operator's Copy" and return the rest to us.

Sincerely yours,

[illegible] Simmons, Jr., Chief
[illegible], Exploration

Enclosures
[illegible]

FILE COPY
SURNAME:

J.W. Alt
Selfridge
Mathewson

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

JAN - 8 1954

Mr. A. Z. Weissenborn
Executive Officer
DMA Field Team, Region II
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMA 3073 (Lead-Zinc)
Grandview Mines, Inc.
Dosser-Maki-Lotze Prospect
Stevens County, Washington
Contract No. Idm-W605

Dear Mr. Weissenborn:

We have received the Operator's Monthly Report and Voucher (Form MF-104) for the above contract for the month of November 1953. On this report it states: "Partial payment, $250.00 withheld as project is recessed for winter."

If you have not already done so, and are in agreement, will you please prepare an amendment allowing the Operator to recess the work of this contract from the time that work had stopped until the date that you think operations should be resumed.

Sincerely yours,

George C. Selfridge (245)
Chairman, Operating Committee

APPROVED:

J. H. Hedges (245)
Member, Bureau of Mines

D. M. Larrabee (245)
Member, Geological Survey

JWAlt/hmj (1-6-54)
CC to: Docket
Adm. R. File
Op. Committee
Base Metals Div.
Mr. Kinkel
Mr. Bishop
Chron.

R.C.S. 1-8-54

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

1201 N. Division St.
Spokane 2, Washington
November 24, 1953

MEMORANDUM

To: DMEA Field Team, Region II

From: W. S. Anderson, Mining Engineer, Bureau of Mines, and Willard Puffett, Geologist, U. S. Geological Survey

Subject: Routine inspection, Grandview Mines, Dosser-Maki-Lotze Prospect, Stevens County, Washington, Contract Idm-E605, Docket No. DMEA 3073 (lead-zinc)

The subject property was visited November 19, 1953. Mr. Eskil Anderson, geologist for Grandview Mines, was at the property during the visit.

Boyles Brothers Drilling Company had two diamond drill rigs at the property with one being operated on two shifts and the other on one shift. The wage rates for drilling are $2.000/hr. for drillers and $1.75/hr for helpers. The drillers are under a bonus system in which every foot drilled over 24 feet per day averaged over a six-day period they receive 1/4 hour pay bonus.

Holes drilled under the exploration project contract are as follows:

DDH #	Hole size	Angle	Depth	Bearing
Lotze #1	AX	-65°	468	South
" #2	AX	-55°	498	South
" #3	AX	-55°	235 Not bottomed	South
" #4	AX	-73°	271 Not bottomed	South

Logs and assays of core will be submitted with the next report and a sketch will be attached showing location of holes.

As soon as DDH Lotze #3 and #4 are bottomed, Stage I of the contract will be completed. Strong pyrite mineralization in the cores indicates that the gossan zone is more shallow than originally believed.

As only a few scattered specks of zinc and lead were observed in the core the results are not considered promising enough to justify initiation of Stage II of the contract.

W. S. Anderson

Orig. & 3 cys - Wash.
USGS (2)
DMEA
M/D
AD
WSA/he

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

Nov 2 1953

October 19, 1953

Memorandum:

To: DMEA Field Team, Region II

From: Willard P. Puffett, Geologist, U. S. Geological Survey and W. S. Anderson, Mining Engineer, U. S. Bureau of Mines

Subject: Docket No. DMEA 3073 (lead-zinc) routine inspection of Grandview Mines, Dosser-Maki-Lotze prospect, Contract Idm-E605

A routine inspection of the drilling program at the Dosser-Maki-Lotze property was made on Wednesday, October 14, 1953, by W. Puffett and Robert Yates, U. S. Geological Survey, and W. S. Anderson, U. S. Bureau of Mines. No official representative of the Grandview Mines was at the property.

Boyles Brothers Drilling Company of Salt Lake City, Utah had two drill rigs in operation at the property. Diamond Drill hole, Lotze No. 1, being drilled south at a minus 65 degree angle, had penetrated to 145 feet. Nineteen feet of casing was necessary on this hole. Slate with intercalated bands of limy material had been recovered in the core. No ore minerals were seen in the core.

Drill hole Lotze No. 2B, located 200 feet west of Lotze No. 1, was being drilled south at minus 55 degrees. This hole had penetrated 265 feet as of the date of the inspection. Slate was penetrated to 145 feet, after which gray limestone was recovered in the core. It had been necessary to case this hole to a depth of 182 feet. No ore minerals were seen in the core, although sparsely disseminated pyrite occurs in the limestone.

Distribution:
DMEA (Orig. & 3)
USBM (2)
Docket
Puffett

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT - 5 1953

October 1, 1953

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-3073 (lead-zinc)
Grandview Mines, Inc.
Dosser-Maki-Lotze Prospect
Stevens County, Washington
Contract Idm-E605

Dear Mr. Selfridge:

Enclosed are the original and two signed copies of the above-referenced contract. Distribution of this contract is being made in the usual manner.

Regarding the third paragraph of your letter dated September 22, 1953, forwarding the contract to the field for signature, we wish to point out that the designation of Lots 1, 2, and 5 is a descriptive surveying term only and should not be construed ~~with~~ as ground owned by the Government.

Sincerely yours,

A. E. Weissenborn
A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region II

Enclosure

cc: Finance Officer w/encl.
USBM (2)
Puffett

cae
10-5

FILE COPY
SURNAME:

500

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

J. W. Abl
Fernald
Gallagher
Johnson

SEP 22 1953

Mr. A. E. Weissenborn
Executive Officer
DMEA Field Team, Region II
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA-3073 (Lead-Zinc)
Grandview Mines, Inc.
Dosser-Maki-Lotze Prospect
Stevens County, Washington

Dear Mr. Weissenborn:

We are enclosing the original and five copies of the above contract, signed by this office for the Government, together with Annex I, Exhibit "A" (1 page), and two maps, and Annex II.

In reference to a telephone conversation with Mr. Thor Kiilsgaard on September 15, 1953, regarding the Owners' Consents to Lien for the above contract, we have consulted the Chief Counsel's Office and have been advised that it will be necessary to have the revised forms of the Owners' Consent to Lien executed as requested in our letter of September 8, 1953. The old executed forms are not acceptable because various amounts of money were stipulated on these forms, and also because it is now required that the revised forms be used as they conform to the terms stipulated in the contract. When the revised forms have been properly executed please attach them to the contract.

The Chief Counsel's Office advises that inquiry should be made of the lessors as to their right to lease or sublease Government Lots 1, 2, and 5 to the Operator. If they have the right to lease or sublease this property, then the contract may be delivered to the Applicant. If you have any doubt as to the Applicant's rights in these Government lots, the matter should be referred to the Washington office for further study.

If the contract meets with your approval, kindly present it to the Applicant for approval and signature and, when completed, distribute the copies in the usual manner. In the event that the contract is not satisfactory and cannot be amended within your delegated authority, return all copies with your recommendation concerning any modification.

R.C.G.
9-22-53

It will be necessary to insert in the contract, in the space provided under Article 3, the number of days from the date of the contract in which work shall commence.

Sincerely yours,

George C. Selfridge (JHB)

Chairman, Operating Committee

Enclosures 6

APPROVED:

J. H. Hedges

Member, Bureau of Mines (JHB)

A. R. Kinkel, Jr.

Member, Geological Survey (JHB)

JWAlt/bjl (9/21/53)

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

P.S. In Item 4 of the Owner's Consent to Lien for the Lotze property, insert "Item 2 includes barite".

FILE COPY
SURNAME:
140

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

N. S. in R. R. September 17, 1953

Base

Memorandum

To: The Administrator
Through: Mr. W. R. Griswold

From: Chief Counsel

Subject: Grandview Mines, Inc., Docket No. DMEA-3073 (Lead-Zinc)

Attached in satisfactory legal form for execution is a contract covering the above-described project, subject to the following:

Inquiry should be made of the lessors as to their right to lease or sublease Government Lots 1, 2, and 5 to the Operator. If they have the right to lease or sublease this property to the Operator, then the contract may be executed and delivered to the Operator. If the Executive Officer has any doubt about the Operator's rights in these Government lots, the matter should be referred to the Washington office for further study.

Albert E. Kane

for J. L. Hofflund
Chief Counsel

Attachments

AEKane:ep

Copy to: Mails & Files
Mr. Griswold
Mr. Hofflund
Mr. Kane
Chron.

P.S.—This contract is also subject to the attachment of three Owners' Consents to Lien.

A.E.K.

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

September 17, 1953

Memorandum

To: The Administrator
Through: Mr. W. R. Griswold

From: Chief Counsel

Subject: Grandview Mines, Inc., Docket No. DMEA-3073 (Lead-Zinc)

Attached in satisfactory legal form for execution is a contract covering the above-described project, subject to the following:

Inquiry should be made of the lessors as to their right to lease or sublease Government Lots 1, 2, and 5 to the Operator. If they have the right to lease or sublease this property to the Operator, then the contract may be executed and delivered to the Operator. If the Executive Officer has any doubt about the Operator's rights in these Government lots, the matter should be referred to the Washington office for further study.

J. L. Hofflund
Chief Counsel

Attachments

P.S.—This contract is also subject to the attachment of three Owners' Consents to Lien.

A.E.K.

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

September 17, 1953

Memorandum

To: The Administrator
Through: Mr. W. R. Griswold

From: Chief Counsel

Subject: Grandview Mines, Inc., Docket No. DMEA-3073 (Lead-Zinc)

Attached in satisfactory legal form for execution is a contract covering the above-described project, subject to the following:

Inquiry should be made of the lessors as to their right to lease or sublease Government Lots 1, 2, and 5 to the Operator. If they have the right to lease or sublease this property to the Operator, then the contract may be executed and delivered to the Operator. If the Executive Officer has any doubt about the Operator's rights in these Government lots, the matter should be referred to the Washington office for further study.

Albert E. Kane

for J. L. Hofflund
Chief Counsel

Attachments

P.S.—This contract is also subject to the attachment of three Owners' Consents to Lien.

A.E.K.

September 17, 1953

Memorandum

To: The Administrator
Through: Mr. W. R. Griswold

From: Chief Counsel

Subject: Grandview Mines, Inc., Docket No. DMEA-3073 (Lead-Zinc)

Attached in satisfactory legal form for execution is a contract covering the above-described project, subject to the following:

Inquiry should be made of the lessors as to their right to lease or sublease Government Lots 1, 2, and 5 to the Operator. If they have the right to lease or sublease this property to the Operator, then the contract may be executed and delivered to the Operator. If the Executive Officer has any doubt about the Operator's rights in these Government lots, the matter should be referred to the Washington office for further study.

Albert E. Kane

for J. L. Hofflund
Chief Counsel

Attachments

AEKane:ep

Copy to: Mails & Files
Mr. Griswold
Mr. Hofflund
Mr. Kane
Chron.

P.S.—This contract is also subject to the attachment of three Owners' Consents to Lien.

A.E.K.

FILE COPY
SURNAME:

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

3669 JWAlt/bjl 4058

September 16, 1953

A. E. Weissenborn, Executive Officer, DMEA Field Team, Region II, Spokane Washington

Re phone conversation with Kiilsgaard September 15 regarding Docket DMEA-3073, Grandview Mines Inc. Have new Owner's Consents to Lien forms signed per letter September 8. Air mail letter follows.

George C. Selfridge
Chairman, Operating Committee

JWAlt/bjl

Copy to: Docket
Admr. R. File
Op. Committee
Base Metals
Audits
Mr. Bishop (USBM)
Mr. Kinkel (USGS)
Chron.

9-16-53

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

September 14, 1953

Mr. Ernest W. Ellis, Acting Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-3073 (Lead-Zinc)
Grandview Mines, Inc.
Dosser-Maki-Lotze Prospect
Stevens County, Washington

Dear Mr. Ellis:

Reference is made to your letter of September 3, 1953, and to the accompanying memorandum from the Chief Counsel pertaining to the applicant's right to exercise its mineral rights on the Lotze property.

In accordance with instructions in the Chief Counsel's memorandum, the applicant has obtained signatures from Albert and Eva Lotze to an instrument giving rights to exercise its mineral rights as requested. Copies of this instrument are enclosed.

The applicant and his attorney both were in agreement that paragraph 2(b) of the Lotze's Option to Purchase Agreement granted the applicant the right to exercise their minteral rights before full payment for the property had been made. They noted that by making the initial payment, due on October 1, 1952, they had given intent of exercising their option, which automatically granted them the right to win, work, and carry away all minerals they might be interested in excepting barite. However, rather than contest the Chief Counsel's decision, they obtained the requested instrument which is enclosed.

It is hoped that the subject contract can be dispatched to the field with a minimum of delay so that project work may commence before winter weather sets in.

Sincerely yours,

Thor H. Kiilsgaard

Thor H. Kiilsgaard
for A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region II

Enclosures
cc: USBM(2)
Puffett

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

September 14, 1953

Mr. Ernest W. Ellis, Acting Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-3073 (Lead-Zinc)
Grandview Mines, Inc.
Dosser-Maki-Lotze Prospect
Stevens County, Washington

Dear Mr. Ellis:

Reference is made to your letter of September 3, 1953, and to the accompanying memorandum from the Chief Counsel pertaining to the applicant's right to exercise its mineral rights on the Lotze property.

In accordance with instructions in the Chief Counsel's memorandum, the applicant has obtained signatures from Albert and Eva Lotze to an instrument giving rights to exercise its mineral rights as requested. Copies of this instrument are enclosed.

The applicant and his attorney both were in agreement that paragraph 2(b) of the Lotze's Option to Purchase Agreement granted the applicant the right to exercise their minteral rights before full payment for the property had been made. They noted that by making the initial payment, due on October 1, 1952, they had given intent of exercising their option, which automatically granted them the right to win, work, and carry away all minerals they might be interested in excepting barite. However, rather than contest the Chief Counsel's decision, they obtained the requested instrument which is enclosed.

It is hoped that the subject contract can be dispatched to the field with a minimum of delay so that project work may commence before winter weather sets in.

Sincerely yours,

Thor H. Kiilsgaard
for A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region II

Enclosures
cc: USBM(2)
Puffett

STATEMENT

Albert G. Lotze and Eva M. Lotze, husband and wife, of Northport, Washington, parties of the first part in that certain Agreement dated August 30, 1952, granting to Grandview Mines an option to purchase the mineral rights to certain lands in Stevens County, Washington, subject to the terms of said agreement, do hereby declare that Grandview Mines now has the right to exercise its mineral rights in and to said lands in accordance with the terms of paragraph 2(b) of said agreement and as long thereafter as it does not default in making the payments at the times and in the manner in said agreement specified and in the modification thereof dated September 9, 1952.

Dated September 11 1953.

Albert G. Lotze
Eva M. Lotze

Witnessed by
Ethel Anderson
John A. Rotter

STATEMENT

Albert G. Lotze and Eva M. Lotze, husband and wife, of Northport, Washington, parties of the first part in that certain Agreement dated August 30, 1952, granting to Grandview Mines an option to purchase the mineral rights to certain lands in Stevens County, Washington, subject to the terms of said agreement, do hereby declare that Grandview Mines now has the right to exercise its mineral rights in and to said lands in accordance with the terms of paragraph 2(b) of said agreement and as long thereafter as it does not default in making the payments at the times and in the manner in said agreement specified and in the modification thereof dated September 9, 1952.

Dated September 11 1953.

Albert G. Lotze
Eva M. Lotze

Witnessed by
Ethel Anderson
John A Rotter

STATEMENT

Albert G. Lotze and Eva M. Lotze, husband and wife, of Northport, Washington, parties of the first part in that certain Agreement dated August 30, 1952, granting to Grandview Mines an option to purchase the mineral rights to certain lands in Stevens County, Washington, subject to the terms of said agreement, do hereby declare that Grandview Mines now has the right to exercise its mineral rights in and to said lands in accordance with the terms of paragraph 2(b) of said agreement and as long thereafter as it does not default in making the payments at the times and in the manner in said agreement specified and in the modification thereof dated September 9, 1952.

Dated September 11 1953.

Albert G Lotze
Eva M. Lotze

Witnessed by
Ethel Anderson
John A Rotter

STATEMENT

Albert G. Lotze and Eva M. Lotze, husband and wife, of Northport, Washington, parties of the first part in that certain Agreement dated August 30, 1952, granting to Grandview Mines an option to purchase the mineral rights to certain lands in Stevens County, Washington, subject to the terms of said agreement, do hereby declare that Grandview Mines now has the right to exercise its mineral rights in and to said lands in accordance with the terms of paragraph 2(b) of said agreement and as long thereafter as it does not default in making the payments at the times and in the manner in said agreement specified and in the modification thereof dated September 9, 1952.

Dated September 11 1953.

Albert G Lotze
Eva M. Lotze

Witnessed by
Eskil Anderson
John A. Rotter

STATEMENT

Albert G. Lotze and Eva M. Lotze, husband and wife, of Northport, Washington, parties of the first part in that certain Agreement dated August 30, 1952, granting to Grandview Mines an option to purchase the mineral rights to certain lands in Stevens County, Washington, subject to the terms of said agreement, do hereby declare that Grandview Mines now has the right to exercise its mineral rights in and to said lands in accordance with the terms of paragraph 2(b) of said agreement and as long thereafter as it does not default in making the payments at the times and in the manner in said agreement specified and in the modification thereof dated September 9, 1952.

Dated September 11 1953.

Albert G Lotze
Eva M. Lotze

Witnessed by
Eskil Anderson
John A Rotter

STATEMENT

Albert G. Lotze and Eva M. Lotze, husband and wife, of Northport, Washington, parties of the first part in that certain Agreement dated August 30, 1952, granting to Grandview Mines an option to purchase the mineral rights to certain lands in Stevens County, Washington, subject to the terms of said agreement, do hereby declare that Grandview Mines now has the right to exercise its mineral rights in and to said lands in accordance with the terms of paragraph 2(b) of said agreement and as long thereafter as it does not default in making the payments at the times and in the manner in said agreement specified and in the modification thereof dated September 9, 1952.

Dated September 11 1953.

Albert G Lotze
Eva M. Lotze

Witnessed by
Eskil Anderson
John A. Rotter

STATEMENT

Albert G. Lotze and Eva M. Lotze, husband and wife, of Northport, Washington, parties of the first part in that certain Agreement dated August 30, 1952, granting to Grandview Mines an option to purchase the mineral rights to certain lands in Stevens County, Washington, subject to the terms of said agreement, do hereby declare that Grandview Mines now has the right to exercise its mineral rights in and to said lands in accordance with the terms of paragraph 2(b) of said agreement and as long thereafter as it does not default in making the payments at the times and in the manner in said agreement specified and in the modification thereof dated September 9, 1952.

Dated September 11 1953.

Albert G Lotze
Eva M. Lotze

Witnessed by
Eskil Anderson
John A. Rotter

FILE COPY
SURNAME:

500

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

J. W. Alt.

September 15, 1953

Memorandum for the Files

Subject: Grandview Mines, Inc., Dosser-Maki-Lotze Prospect, Docket No. DMEA-3073 (Lead-Zinc)

In a telephone conversation of this date with Mr. Thor Kiilsgaard, he asked if it would not be possible to use the Owner's Consents to Lien that were executed on the old forms.

It was the advice of the Chief Counsel's Office that the Applicant be required to execute on the revised Owner's Consent to Lien forms. On September 8, we informed the Field Team of the above suggestion and requested them to have the Applicant obtain the signatures of the lessors on the revised Owner's consent to Lien forms. We informed Mr. Kiilsgaard that we would take this matter up with legal again, and would teletype him the results of the conversation.

Legal again informed us that the executed revised Owner's Consents to Lien forms would be necessary, that these were revised to conform with the terms of the contract, and that furthermore the old forms submitted with the application stipulated various amounts of money for the different leases.

JWAlt/bjl

J. W. Alt

Copy to: Docket
Admr. R. File
Op. Committee
Chron.

FILE COPY
SURNAME:

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

SEP 8 - 1953

Mr. A. E. Weissenborn, Executive Officer
DMEA Field Team, Region II
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMA 3073 (Lead-Zinc)
Grandview Mines, Inc.
Dosser-Maki-Lotze Prospect
Stevens County, Washington

Dear Mr. Weissenborn:

We are returning the Owner's Consents to Lien, which accompanied the application. It will be necessary for the Applicant to obtain the signatures of the lessors on the revised Owner's Consent to Lien forms. When these forms have been signed, they can be held in your office and attached to the contract when it is mailed to you for the Operator's signature.

The contract will be ready for mailing as soon as we receive the information requested in our letter to you dated September 3, 1953.

Sincerely yours,

Ernest Wm. Eisenberg
ACTING Chairman, Operating Committee

Enclosure
APPROVED:

E. H. Hedges
Member, Bureau of Mines

A. R. Kinkel, Jr.
Member, Geological Survey

JWALt/hmj (9/3/53)
CC to: Docket
Adm. R. File
Op. Committee
Base Metals Div.
Mr. Kinkel
Mr. Bishop
Chron.

R.C.G. 9-8-53

500 FILE COPY
SURNAME:

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

SEP 3 1953

Air Mail

Mr. A. F. Weissenborn
Executive Officer
DMEA Field Team, Region II
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA-3073 (Lead-Zinc)
Grandview Mines, Inc.
Dosser-Maki-Lotze Prospect
Stevens County, Washington

Dear Mr. Weissenborn:

With reference to the above application, and for your information, we are enclosing a copy of the memorandum of September 3, 1953, from the Chief Counsel regarding the property rights of the Applicant.

The contract has been prepared and is now in our legal Division where it is being completed. When the points brought up by the Chief Counsel have been properly clarified, the copies of the covering documents must be mailed to us for legal review and approval, after which the usual contract and copies will be mailed to you.

Sincerely yours,

Ernest Wm. Ellis
657
ACTING Chairman, Operating Committee

Enclosure

APPROVED:

M. H. Kline 657
Member, Bureau of Mines

A. R. Kinkel, Jr. 657
Member, Geological Survey

JWAlt/hmj (9/2/53)
CC to: Docket
Adm. R. File
Op. Committee
Base Metals Division
Mr. Kinkel
Mr. Bishop
Chron.

Reviewed by
DMEA OPERATING COMMITTEE
9-2-53
(date)

Files

140

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

September 3, 1953

Memorandum

To: The Administrator
Through: Mr. W. R. Griswold

From: Chief Counsel

Subject: Grandview Mines, Inc., Docket No. DMEA-3073 (Lead-Zinc)

At Division request, the contract in this case is being prepared. However, your attention is invited to the fact that the Operator has only an option to purchase the mineral rights in the property owned by Albert G. and Eva M. Lotze. A deed to this "property" has been placed in escrow with the Seattle First National Bank to be delivered after payments due in 1952, 1954, 1955, 1956, and 1957 have been made for a total purchase price of $20,000.

The sellers have signed an Owner's Consent to Lien. However, there is no explicit permission in any of the agreements allowing the Operator to enter upon the property and mine it before the purchase is consummated by payment of the full purchase price. Since some of the project work is to be conducted on this property, before a contract can be entered into, the Operator must obtain a written statement from Albert G. and Eva M. Lotze to the effect that the Operator now has the right to exercise its mineral rights in the property, and as long thereafter as it does not default in making payments.

The Dosser lease leases to the Operator all or part of Government Lots 1, 2, and 5. Inquiry should be made of the lessors as to their right to lease Government property to the Operator. If this is a sublease, the lessors' own lease should be examined to ascertain whether subleasing is permissible. It may be that the use of the term "Government Lot" is only a method of description and that the property is not really Government property at all.

Robert E. Kane
for J. L. Hofflund
Chief Counsel

FILE COPY
SURNAME:

140

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

AEKane

September 3, 1953

Memorandum

To: The Administrator
Through: Mr. W. R. Griswold

From: Chief Counsel

Subject: Grandview Mines, Inc., Docket No. DMEA-3073 (Lead-Zinc)

At Division request, the contract in this case is being prepared. However, your attention is invited to the fact that the Operator has only an option to purchase the mineral rights in the property owned by Albert G. and Eva M. Lotze. A deed to this "property" has been placed in escrow with the Seattle First National Bank to be delivered after payments due in 1952, 1954, 1955, 1956, and 1957 have been made for a total purchase price of $20,000.

The sellers have signed an Owner's Consent to Lien. However, there is no explicit permission in any of the agreements allowing the Operator to enter upon the property and mine it before the purchase is consummated by payment of the full purchase price. Since some of the project work is to be conducted on this property, before a contract can be entered into, the Operator must obtain a written statement from Albert G. and Eva M. Lotze to the effect that the Operator now has the right to exercise its mineral rights in the property, and as long thereafter as it does not default in making payments.

The Dosser lease leases to the Operator all or part of Government Lots 1, 2, and 5. Inquiry should be made of the lessors as to their right to lease Government property to the Operator. If this is a sublease, the lessors' own lease should be examined to ascertain whether subleasing is permissible. It may be that the use of the term "Government Lot" is only a method of description and that the property is not really Government property at all.

AEKane/emd
Copy to: Docket
W.R.Griswold
J.L.Hofflund
A.E.Kane
chron.

(S) AEKane
for J. L. Hofflund
Chief Counsel

FILE COPY
SURNAME:

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

September 1, 1953

MEMORANDUM FOR THE FILES

Subject: Docket No. DMEA-3073, Grandview Mines, (Dosser-Maki-Lotze Prospect), Stevens County, Washington.

On September 1, 1953, I discussed with Mr. Kane the legality of the Applicant's property rights regarding the Lotze Option to purchase agreement. I referred him to the letter of August 21, 1953, and map that had been received from Mr. Thor Kiilsgaard of Region II.

Mr. Kane was of the opinion that everything was in good order and that it would be all right to proceed with the drawing up of the contract.

/s/
J. W. Alt

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

Department of the Interior
Defense Minerals Administration
RECEIVED
AUG 25 1953

August 21, 1953

8/27/53 - Received by J. W. A.

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-3073 (lead-zinc)
Grandview Mines
Dosser-Maki-Lotze prospect
Stevens County, Washington

Dear Mr. Selfridge:

This letter will bear on recent telephone conversations between Mr. Jake Ault, Lead-Zinc Division, Washington, D. C., and Mr. Thor Kiilsgaard of this office. These conversations dealt with certain exceptions to exploration within subject property limits, and on the exercising of the Lotze option agreement held by the applicant.

We are enclosing 6 copies of a map showing the limits of the applicant's property and on which are plotted the exceptions noted in the Lotze and Dosser option agreements. These excepted blocks have been checked both with the option agreement and with Mr. Karl Jasper, president of Grandview Mines. It will be noted that these blocks are sufficiently removed from the site to be drilled, and far enough from the geologic structure to be tested, as to be unaffected by the proposed project. The excluded blocks are believed to be summer cabin sites fronting or near to Deep Lake, which, because of their scenic location, have not been included in the mining agreement.

We are also enclosing 4 copies of a section and township plot showing the location of the ground to be tested. It will be noted that the excluded blocks of ground do not show on this map.

Concerning the Lotze option agreement, we have discussed the matter of excercising the purchase option with Mr. Jasper and have agreed that the company's intention to purchase, and thus exercise their option, is made clear in the agreement. We wish to call your attention to that part of the agreement wherein it is stated:

1. (a) Grandview Mines agrees to pay to parties of the first part:
$1,000.00 on or before October 1, 1952
$2,500.00 on or before October 1, 1954
and so forth.

Mr. Jasper assures us that the required payment was made before October 1, 1952. As proof, he points out that the option agreement would not be valid at the present time if payment had not been made, and, consequently, that Mr. Lotze would not have signed the Consent to Lien agreement in 1953, as he has done. The fact that the company made the initial payment, coupled with the fact that another payment is not due until October 1954, seems to us to be adequate proof that the company has exercised their option and therefore have acquired the stated rights to the property. It would seem superfluous for the company to have to present receipt of payment when the owner has signed a Consent to Lien agreement, thereby acknowledging the fact that Grandview has exercised their option.

It is recommended that the barite agreement in the Lotze option agreement be ignored. Barite is not strategic and we are not exploring for it, therefore, if the company is willing to waive its barite rights it would seem that the Government also should.

The Modification of Agreement to the Lotze agreement was explained by Mr. Jasper who stated that the initial agreement was a "stump" agreement signed on the property by Mr. Eskil Anderson and that the modification was merely to put the agreement in more legalized terms.

Sincerely yours,

Thor H. Kiilsgaard

Thor H. Kiilsgaard
For: A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region II

Enclosures

cc: USBM (2)
Puffett

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.
So. 157 Howard Street
Spokane 4, Washington

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 24 1953

August 21, 1953

. George C. Selfridge, Chairman
perating Committee, DMEA
epartment of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-3073 (lead-zinc)
Grandview Mines
Dosser-Maki-Lotze prospect
Stevens County, Washington

Dear Mr. Selfridge:

This letter will bear on recent telephone conversations between Mr. Jake Ault, Lead-Zinc Division, Washington, D. C., and Mr. Thor Kiilsgaard of this office. These conversations dealt with certain exceptions to exploration within subject property limits, and on the exercising of the Lotze option agreement held by the applicant.

We are enclosing 6 copies of a map showing the limits of the applicant's property and on which are plotted the exceptions noted in the Lotze and Dosser option agreements. These excepted blocks have been checked both with the option agreement and with Mr. Karl Jasper, president of Grandview Mines. It will be noted that these blocks are sufficiently removed from the site to be drilled, and far enough from the geologic structure to be tested, as to be unaffected by the proposed project. The excluded blocks are believed to be summer cabin sites fronting or near to Deep Lake, which, because of their scenic location, have not been included in the mining agreement.

We are also enclosing 4 copies of a section and township plot showing the location of the ground to be tested. It will be noted that the excluded blocks of ground do not show on this map.

Concerning the Lotze option agreement, we have discussed the matter of exercising the purchase option with Mr. Jasper and have agreed that the company's intention to purchase, and thus exercise their option, is made clear in the agreement. We wish to call your attention to that part of the agreement wherein it is stated:

1. (a) Grandview Mines agrees to pay to parties of the first part:
$1,000.00 on or before October 1, 1952
$2,500.00 on or before October 1, 1954
and so forth.

Mr. Jasper assures us that the required payment was made before October 1, 1952. As proof, he points out that the option agreement would not be valid at the present time if payment had not been made, and, consequently, that Mr. Lotze would not have signed the Consent to Lien agreement in 1953, as he has done. The fact that the company made the initial payment, coupled with the fact that another payment is not due until October 1954, seems to us to be adequate proof that the company has exercised their option and therefore have acquired the stated rights to the property. It would seem superfluous for the company to have to present receipt of payment when the owner has signed a Consent to Lien agreement, thereby acknowledging the fact that Grandview has exercised their option.

It is recommended that the barite agreement in the Lotze option agreement be ignored. Barite is not strategic and we are not exploring for it, therefore, if the company is willing to waive its barite rights it would seem that the Government also should.

The Modification of Agreement to the Lotze agreement was explained by Mr. Jasper who stated that the initial agreement was a "stump" agreement signed on the property by Mr. Eskil Anderson and that the modification was merely to put the agreement in more legalized terms.

Sincerely yours,

Thor H. Kiilsgaard
For: A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region II

Enclosures

cc: USBM (2)
Puffett

FILE COPY
SURNAME:

J.W.A.

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

August 20, 1953

Memorandum for the Files

Subject: Docket No. DMA 3073, Granview Mines (Dosser-Maki-Lotze Prospect), Stevens County, Washington

On August 20, 1953, I phoned Mr. Thor Kiilsgaard, Region II, in regard to the above application. I told him that the Option to purchase and the Modification of Agreement for the Lotze Property do not give the Operator the right to mine and explore until it takes title and that we have no evidence in our files that it has taken title. Therefore the Applicant will have to give us evidence that it has the right to mine or explore by ownership or lease.

J. W. Alt

Docket
Adm. R. File
Op Com.
Chron.

500 FILE COPY
SURNAME:

J. W. Alt

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

August 19, 1953

MEMORANDUM FOR THE FILES

Subject: Docket No. DMSA 3073, Grandview Mines, Inc. (Dosser-Maki-Lotze Prospect), Stevens County, Washington.

On August 19, 1953, I phoned Mr. Thor Kiilsgaard, Region II, in regard to a property map for the above application. I told him that we had received the map from them but that this map would not suffice because it does not show the locations of these properties and the exceptions as made in the leases of the Dosser and Lotze properties.

I informed Mr. Kiilsgaard that the contract would be drawn in 2 stages on the short form. Stage I would allow 4 holes and 2,000 feet of diamond drilling. Stage II would be allowed, if approved by the Government, after the completion of Stage I. This stage would allow 3,200 feet of diamond drilling. He was also informed that this contract would be drawn up and would be presented to the Legal Department while we are waiting for the map.

/s/
J. W. Alt

DOCKET
OP. COMMITTEE
ADM. R. FILE
CHRON.

STANDARD FORM No. 14
APPROVED BY THE PRESIDENT
MARCH 10, 1926

TELEGRAM

OFFICIAL BUSINESS—GOVERNMENT RATES

FROM

BUREAU

CHG. APPROPRIATION

U. S. GOVERNMENT PRINTING OFFICE 10—1723

TELETYPE

AUGUST 14, 1953

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 17 1953

MR. GEORGE C. SELFRIDGE, CHAIRMAN
OPERATING COMMITTEE, DMEA
DEPARTMENT OF THE INTERIOR
WASHINGTON 25, D. C.

ATTENTION: GEORGE KEATING

RE RECENT TELEPHONE CONVERSATION ON DOCKET 3073, GRANDVIEW MINES, DOSSER, MAKI, LOTZE, PROPERTY. FIELD TEAM RECOMMENDS 8 HOLES TOTALING 4,000 FEET FROM LOTZE PROPERTY TO TEST DEEPER EXTENSION OF GOSSAN EXPOSED ON DOSSER PROPERTY. DRILLING ON MAKI PROPERTY AS ORIGINALLY PROPOSED BY APPLICANT NOT RECOMMENDED. IF PRELIMINARY DRILLING ON LOTZE PROPERTY IS SUCCESSFUL, MORE HOLES TO THE EAST, NOT TO EXCEED A TOTAL LENGTH OF 1,200 FEET RECOMMENDED. THESE HOLES MAY BE LOCATED ON MAKI PROPERTY. MAXIMUM TOTAL FOOTAGE OF DRILLING RECOMMENDED 5,200 FEET. PROPERTY MAPS FORWARDED TO YOU ON JULY 31. DESCRIPTIONS OF PROPERTY IN APPLICATION BELIEVED TO BE ADEQUATE. IF FURTHER INFORMATION DESIRED, PLEASE WIRE.

THOR H. KIILSGAARD
ACTING EXECUTIVE OFFICER
DMEA FIELD TEAM, REGION II

255 WA SP /I-GS-G/

SPOKANE 8-14-53 415P

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 17 1953

GEORGE SELFRIDGE, CHAIRMAN
OPERATING COMMITTEE, DMEA
DEPARTMENT OF THE INTERIOR

WA /DC/

ATTN.. GEORGE KEATING-.

RE RECENT TELEPHONE CONVERSATION ON DOCKET 3073, GRANDVIEW MINES, DOSSER, MAKI, LOTZE, PROPERTY. FIELD TEAM RECOMMENDS 8 HOLES TOTALING 4,000 FT. FROM LOTZE PROPERTY TO TEST DEEPER EXTENSION OF GOSSAN EXPLSED ON DOSSER PROPERTY. DRILLING ON MAKI PROPERTY AS ORIGINALLY PROPOSED BY APPLICANT NOT RECOMMENDED. IF PRELIMINARY DRILLING ON LITZE PROPERTY IS SUCCESSFUL, MORE HOLES TO THE EAST, NOT TO EXCEED A TOTAL LENGTH OF 1,200 FT RECOMMENDED. THESE HOLES MAY BE LOCATED ON MAKI PROPERTY. MAXIMUM TOTAL FOOTAGE OF DRILLING RECOMMEND 5,200 FT. PROPERTY MAPS FORWARDED TO YOU ON JULY 31. DESCRIPTION OF PROPERTY IN APPLICATION BELIEVED TO BE ADEQUATE. IF FURTHER INFORMATION DESIRED, PLEASE WIRE.

THOR KIILSGAARD
ACTING EXECUTIVE OFFICER DMEA FIELD TEAM REGION II.

3073 4,000 1,200 5,200 31

VA 418P

68

AUG 17 9 31 AM
BUREAU OF MINES
MAIL ROOM
WASHINGTON, D.C.

AUG 17 9 31 AM '53
BUREAU OF MINES
MAIL ROOM
WASHINGTON, D.C.

SPECIAL

August 11, 1953

Memorandum for the Files

Subject: Docket No. DMEA 3073 Grandview Mines
Dosser-Maki-Lotze Prospect, Stevens County,
Washington (Lead-Zinc)

After completing the conversation with Mr. Kiilsgaard regarding Docket No. DMEA 3071, I talked to him in reference to the above application and informed him that we would need a map showing where these claims are located. We received a map from them, but this map does not show the location of the claims and on this map it shows the location of 8 drill holes which would be for 4,000 feet of diamond drilling. The Applicant requests 10 drill holes or 5,200 feet of diamond drilling. I asked Mr. Kiilsgaard if it was their intention to reduce the amount of drilling by only showing the location of 8 drill holes.

Mr. Kiilsgaard said he would take the matter up with the person who was familiar with the project.

/s/

J. W. Alt

CC to: Docket
Adm. R. File
Op. Committee
Docket

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

DEPARTMENT OF THE INTERIOR
General Minerals Administration
RECEIVED
AUG 3 1953
8/5/53. Received by

July 31, 1953

Air Mail

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-3073 (lead-zinc)
Grandview Mines
Dosser-Maki-Lotze Prospect
Stevens County, Washington

Attention: Mr. George Keating

Dear Mr. Selfridge:

Enclosed are four copies of a map on which is shown proposed diamond drill sites in relation to the various property lines included in the subject application. These maps were requested in a telephone conversation with Mr. Keating on July 31, 1953.

Yours very truly,

Willard P. Puffett

Willard P. Puffett
For: A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region II

Enclosure

cc: USBM (2)
Puffett

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

xxxxxxxxxxxxxxxxxx
So. 157 Howard Street
Spokane 4, Washington

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 3 1953

July 31, 1953

Air Mail

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-3073 (lead-zinc)
Grandview Mines
Dosser-Maki-Lotze Prospect
Stevens County, Washington

Attention: Mr. George Keating

Dear Mr. Selfridge:

Enclosed are four copies of a map on which is shown proposed diamond drill sites in relation to the various property lines included in the subject application. These maps were requested in a telephone conversation with Mr. Keating on July 31, 1953.

Yours very truly,

Willard P. Puffett
For: A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region II

Enclosure

cc: USBM (2)
Puffett

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

July 30, 1953

Memorandum

Re: DMEA-3073
Dosser-Maki-Lotze Properties
Stevens County, Washington
$36,400
Lead, zinc

To: Mr. W. R. Griswold

From: E. L. Newcomb, USGS
O. M. Bishop, USBM

Subject: Recommendation for approval as a 2-stage project

The field team recommends exploration work involving 5200 feet of drilling be approved for the subject properties. A total of 4000 feet (8 holes) will test a possible sulfide zone beneath the prominent gossan zone on the Dosser property. If this drilling indicates a possible eastward extension of mineralization toward the Maki property, an additional 1200 feet (3 holes) will be drilled on the Maki.

Previous drilling by the applicant in the oxidized zone on the Dosser property did not give any conclusive information because the holes were shallow and the core and sludge recovery was very poor. The proposed drilling for the Dosser property is planned to reach the sulfide zone and apparently reasonable recovery is expected at depth. However, any drilling on the property will require considerable care if recovery of core and sludge are to be satisfactory.

On the basis of sample results across the Dosser gossan, further drilling to test for a sulfide zone at depth is justified. This drilling should be limited to four holes (2000 feet) and comprise Stage I of a possible 2-stage project. If results of this first stage indicate significant sulfide mineralization, then further drilling on the Dosser and Maki properties could be allowed as a second stage. The location of all holes should be acceptable to the field team and subject to their prior approval as the drilling progresses.

We recommend the proposed work be divided into two stages and that State II be undertaken only if initial drilling is successful in indicating the presence of a significant sulfide zone.

E. L. Newcomb
E. L. Newcomb
Geologist

O. M. Bishop
O. M. Bishop
Base Metals Branch

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

July 30, 1953

Memorandum

Re: DMEA-3073
Dosser-Maki-Lotze Properties
Stevens County, Washington
36,400
Lead, zinc

To: Mr. W. R. Griswold

From: E. L. Newcomb, USGS
O. M. Bishop, USBM

Subject: Recommendation for approval as a 2-stage project

The field team recommends exploration work involving 5200 feet of drilling be approved for the subject properties. A total of 4000 feet (8 holes) will test a possible sulfide zone beneath the prominent gossan zone on the Dosser property. If this drilling indicates a possible eastward extension of mineralization toward the Maki property, an additional 1200 feet (3 holes) will be drilled on the Maki.

Previous drilling by the applicant in the oxidized zone on the Dosser property did not give any conclusive information because the holes were shallow and the core and sludge recovery was very poor. The proposed drilling for the Dosser property is planned to reach the sulfide zone and apparently reasonable recovery is expected at depth. However, any drilling on the property will require considerable care if recovery of core and sludge are to be satisfactory.

On the basis of sample results across the Dosser gossan, further drilling to test for a sulfide zone at depth is justified. This drilling should be limited to four holes (2000 feet) and comprise Stage I of a possible 2-stage project. If results of this first stage indicate significant sulfide mineralization, then further drilling on the Dosser and Maki properties could be allowed as a second stage. The location of all holes should be acceptable to the field team and subject to their prior approval as the drilling progresses.

We recommend the proposed work be divided into two stages and that State II be undertaken only if initial drilling is successful in indicating the presence of a significant sulfide zone.

E. L. Newcomb
Geologist

O. M. Bishop
Base Metals Branch

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

July 30, 1953

Memorandum

Re: DMEA-3073
Dosser-Maki-Lotze Properties
Stevens County, Washington
36,400
Lead, zinc

To: Mr. W. R. Griswold

From: E. L. Newcomb, USGS
O. M. Bishop, USBM

Subject: Recommendation for approval as a 2-stage project

The field team recommends exploration work involving 5200 feet of drilling be approved for the subject properties. A total of 4000 feet (8 holes) will test a possible sulfide zone beneath the prominent gossan zone on the Dosser property. If this drilling indicates a possible eastward extension of mineralization toward the Maki property, an additional 1200 feet (3 holes) will be drilled on the Maki.

Previous drilling by the applicant in the oxidized zone on the Dosser property did not give any conclusive information because the holes were shallow and the core and sludge recovery was very poor. The proposed drilling for the Dosser property is planned to reach the sulfide zone and apparently reasonable recovery is expected at depth. However, any drilling on the property will require considerable care if recovery of core and sludge are to be satisfactory.

On the basis of sample results across the Dosser gossan, further drilling to test for a sulfide zone at depth is justified. This drilling should be limited to four holes (2000 feet) and comprise Stage I of a possible 2-stage project. If results of this first stage indicate significant sulfide mineralization, then further drilling on the Dosser and Maki properties could be allowed as a second stage. The location of all holes should be acceptable to the field team and subject to their prior approval as the drilling progresses.

We recommend the proposed work be divided into two stages and that State II be undertaken only if initial drilling is successful in indicating the presence of a significant sulfide zone.

E. L. Newcomb
Geologist

O. M. Bishop
Base Metals Branch

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

RECEIVED
JUL 21 1953

July 17, 1953

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-3073 (lead-zinc)
Grandview Mines, Inc.
Dosser-Maki-Lotze prospect
Stevens County, Washington

Dear Mr. Selfridge:

Enclosed are four copies of a memorandum report by Harold Kirkemo, U. S. Geological Survey, on the Grandview Mines' application for exploration assistance to diamond drill the Dosser-Maki-Lotze prospect, Stevens County, Washington (Docket No. DMEA-3073).

Please refer also to a memorandum dated July 3, 1953, by E. A. Magill, U. S. Bureau of Mines engineer (4 copies of which are enclosed) wherein is outlined the unit costs of the diamond drilling programs for both Grandview's subject application (Docket DMEA-3073) and Hartbauer application (Docket DMEA-2929); the latter is the subject of another letter to the Operating Committee.

Mr. Kirkemo recommends approval of a diamond drilling program to test the deposit at sufficient depth to encounter the sulphide portion of the ore body and to test its lateral extension. The proposed program entails the drilling of 5,200 feet of holes at an estimated unit cost of $7.00 per foot or a total cost of $36,400.00 (Government's share $18,200.00).

The Field Team concurs with Mr. Kirkemo's recommendation for favorable consideration of the proposed drilling program. The Field Team also concurs with Mr. Magill's cost estimate and recommends that a short form contract allowing a unit price of $7.00 per foot, to include all costs, for diamond drilling be granted in order to undertake the proposed program.

By DMEA Field Team, Region II

Thomas E. Howard
Thomas E. Howard, Acting Exec. Officer
(U. S. Bureau of Mines)

James J. Quinlan
James J. Quinlan, Acting Member
(U. S. Geological Survey)

Reviewed by
DMEA OPERATING COMMITTEE
7-24-53
(date)

Enclosure
cc: USBM (2)
Puffett

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

1201 N. Division St.
Spokane 2, Washington
July 3, 1953

MEMORANDUM

To: DMEA Field Team, Region II

From: E. A. Magill, Mining Engineer, Bureau of Mines

Subject: Exploration loan applications, Grandview Mines, Inc., Stevens and Pend Oreille Counties, Washington, Docket No. DMEA-2929 and DMEA-3073.

Grandview Mines, Inc. has requested unit cost exploration project contracts for diamond drilling in Stevens and Pend Oreille Counties, Washington. The unit cost requested is $7.00 per foot for surface drilling to include all costs of the work. To support this figure they have presented a copy of a contract (attached) which they entered into with Boyles Bros. Drilling Company, Inc., Salt Lake City, Utah, for drilling on the same properties in 1952. This contract shows a base price of $5.00 per foot for AX core, plus extra charges for reaming, casing, etc.

The DMEA has had two contracts in the area which included diamond drilling and on which costs can be compared. These are American Lead, Zinc & Smelting Co., Contract No. Idm-E76, under which 22,354.7 feet of drilling was completed at a total cost of $5.368 per foot. The holes drilled under this contract were vertical and 1000 to 1200 feet deep with EX core in the ore zone, the remainder (about 800 feet) of the hole being drilled by churn drill and plug bit. The costs of drilling under this contract were further lowered by the small amounts charged to supervision and bulldozing. Also, core boxes were not included in the costs. Charges for supervision were $0.12½ per foot of hole and for costs for bulldozing access roads and drilling sites $0.04 per foot of hole. The low cost of supervision was due to the fact that the American Zinc Company is in production and had engineers available for supervision of the drilling program concurrent with their other duties.

The Goldfields Consolidated Mines Contract No. Idm-E85 is perhaps more comparable as to conditions. Their costs were $6.44 per foot for 1,139.5 feet of drilling. The cost of $6.44/ft. included only contract drilling and supervision. With the addition of costs for core boxes, assaying, bulldozing access roads and drilling sites, the costs would have approximated $7.00/ft.

Reviewed by
DMEA OPERATING COMMITTEE
7-24-53
(date)

It is believed that a figure of $7.00 per foot to include all costs is a fair figure and represents a figure less than the work will actually cost. It will include the following:

Diamond drilling (all charges)
Supervision
Preparation of drill sites
Core boxes
Assaying
Bookkeeping
Miscellaneous

It is recommended that a unit cost of $7.00 per foot, to include all costs, be used in the contracts entered into with Grandview Mines, Inc.

E. A. Magill

Orig. & 3 cys - Wash.
USGS (2)
DMEA
M/D
EAM/he

GRANDVIEW MINES SPOKANE 4, WASHINGTON
SUITE 310-311 RADIO CENTRAL BLDG.
OFFICE PHONE MAdison 2501

PROPERTIES: PEND OREILLE AND STEVENS COUNTIES

Karl W. Jasper.....President
Paul T. Hoetzel.....Vice-Pres.
E. K. Barnes.....Sec.-Treas.
John H. Roberts.....Director
E. O. Dressel.....Director
Fred Trumbull.....Director
Eskil Anderson.....Director

June 19, 1953

Mr. Elwin A. Hagill
U. S. Bureau of Mines, Defense Minerals Administration
North 1205 Division
Spokane, Washington

Dear Mr. Hagill:

Enclosed is a photostatic copy of the bid from Boyle's Bros. Drilling Company which was accepted by Grandview and provided the base for our drilling costs in northeastern Stevens County in 1952. Diamond drilling was continued at the Dosser-Maki-Lotse property in 1952 on the above bid basis by verbal agreement. Early experiments with E X core were not satisfactory and A X core was obtained from all later drilling with greatly improved results.

Direct drilling costs on the Hartbauer property were $7.06 per foot.

In addition to the direct drilling costs listed above, Grandview Mines bore the costs of bulldozing access roads and diamond drilling stations at an average of $10.00 an hour for a D. 6, and $9.00 for a somewhat smaller bulldozer. Costs of assaying, core boxes, sludge sacks and boxes, core splitting and sampling, and all supervisory expenses were also paid by Grandview in addition to the direct drilling charges.

Very truly yours,

Karl W. Jasper

Karl W. Jasper, Pres.
GRANDVIEW MINES

KWJ:mh

Boyles Bros. DRILLING COMPANY INCORPORATED

DIAMOND DRILLING CONTRACTORS AND MANUFACTURERS
Phone 6-8555 1321 South Main
SALT LAKE CITY 4, UTAH

August 4, 1952

Grandview Mines.
Radio Central Bldg.,
Spokane, Washington.
Gentlemen:

To comfirm our verbal quotations for your drilling program at the Plug & Anderson Project near Northport, Washington, we submit the following for your approval.

1. Mobolization $200.00
2. Drilling Rates

	EX	AX
From 0 to 250ft.	$4.50	$5.00
250 to 500ft.	5.00	5.50

3. Reaming
   Reaming for EX casing $1.75 per ft.
4. Casing
   (A) Handling EX casing .25¢ per ft.
   (B) All casing ruined or lost in hole to be charged for at list price.
5. Cementing
   Cementing $6.00 per hour plus cment or cement substitutes.
6. Delays
   Delays beyond our control and caused by your Company will be charged for at $6.00 per hour.
7. Stations
   All access roads and drill stations to be at your expense.

it is agreed that Grandview Mines will not be held responsible for any debts incurred by Boyles Bros. Drilling Co. in connection with the above drilling program.

Should this proposed meet with your approval, we will be glad to make arrangements to have the work underway as soon as access to the area is possible. We would appreciate acknowledgement at your convenience.

Yours Very Truly,
O. C. Bouquot
O. C. Bouquot
Drill Superintendent

cc. Boyles Bros. Drilling Co.
Salt Lake City, Utah
Grandview Mining Co.
Spokane, Washington

Signed:
Karl Jasper, President,
Grandview Mines.

By: Esk Anderson
Eskil Anderson,
Agent Grandview Mines.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 3 1 1953

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

July 1, 1953

MEMORANDUM

To: DMEA Field Team, Region II

From: Harold Kirkemo, Geologist, U. S. Geological Survey

Subject: Docket No. DMEA-3073 (Lead-Zinc), Field Examination, Dosser-Maki-Lotze Prospects, Stevens County, Washington, Grandview Mines, Spokane, Washington.

RECOMMENDATIONS

The proposed diamond drilling program to test possible extensions of a lead-zinc ore deposit on the subject property is recommended for approval. A program totaling 5,200 feet of drilling at an estimated cost of $36,400.00 (Government's share $18,200.00) is planned.

A gossan at least 300 feet long and 60 feet wide was uncovered by bulldozing and trenching in the summer of 1952. Fifty samples from four channels taken across the 60-foot wide gossan averaged 1.06 ounce silver, 1.68 percent lead, trace zinc, and 42.64 percent iron. One sample from a channel assayed 10.2 percent lead across five feet. Preliminary diamond drilling to test extension of this gossan at depth gave little information because the recovery of core through the oxidized zone was very poor. The proposed diamond drilling is intended to test at a depth sufficient to encounter the sulphide portion of the ore body and to test its lateral extension.

INTRODUCTION

Application for DMEA aid in an exploration project at the Dosser-Maki-Lotze prospect was submitted April 24, 1953, by the Grandview Mines Company, Spokane, Washington. Examination of the property was made on June 16 by Harold Kirkemo and Willard P. Puffett, Geologists, U. S. Geological Survey, assisted by Eskil Anderson, Geologist-Engineer, for the Grandview Mines Company.

Reviewed by
DMEA OPERATING COMMITTEE
7-24-53
(date)

LOCATION

The Dosser-Maki-Lotze prospect is located on the north side of Current Creek approximately half a mile southeast of Deep Lake in northern Stevens County, Washington. The property lies in sections 26, 27, 34, and 35 in T. 39 N., R. 41 E., W. M. Graveled roads connect the property with the Great Northern Railroad at Northport 15 miles to the west and with Leadpoint 4½ miles to the north. The altitude at the west end of the property is approximately 2,150 feet and at the east end about 2,800 feet. Grassy slopes are common though scattered stands of second growth fir, pine, and tamarack are present. Current Creek, tributary to Deep Lake, flows westerly across the south side of the property. Water for diamond drilling can be pumped from this creek.

The prospect is half a mile due east of the Farmer prospect where a DMEA project (Docket No. DMEA-2166) was completed in December 1952, and discovery of a zinc and lead deposit was certified. The presence of galena at the Maki prospect has been known for a number of years, and ten shafts, some fifty feet deep, and several trenches have been driven on stringers of galena, lead and zinc oxides in dolomitic limestone. In 1952, the Grandview Company drilled seven diamond drill holes totaling 1,544.5 feet and stripped extensively on the Maki and Dosser properties. No work has been done on the Lotze property.

PROPERTY

The Grandview Company holds leases on the Dosser and Maki property and an option to purchase the Lotze property. Detailed descriptions of the land involved, copies of leases and options, and consents of mortgagees to lease accompanied the original application. It will be noted on the attached map that the Dosser property occupies the southwest portion of the area to be tested; the Maki property occupies the southeast portion of the area; and the Lotze property adjoins the Dosser-Maki properties on the north. There are no surface facilities on the property.

THE APPLICANT

Grandview Mines has been engaged in the zinc and lead mining business in northeastern Washington since 1927. The company owns the Grandview mine, second largest producer of zinc and lead ore in the Metaline district. This mine is being operated at the present time by the American Zinc, Lead & Smelting Company on an operating lease basis. Profits from the operation are split 53½ percent to American Zinc and 46½ percent to Grandview Mines, Inc. Grandview Mines is conducting widespread prospecting in northeastern Washington. It has increased its prospecting expenditures from $900.00 in 1951 to $38,000.00 in 1952. Prospecting has been concentrated in four areas:

northwest of Leadpoint, southeast of Deep Lake, on Jim Creek in Stevens County, and on Slate Creek in Pend Oreille County. Applications for DMEA aid have been submitted for further exploration on three of the prospects. If loans are approved for exploration work, each project will be under the immediate supervision of Eskil Anderson, a 1941 graduate of the University of Alaska, with degrees in geology and mining. Mr. Anderson has been directing geologic and exploration work for the company since 1951.

GEOLOGY

Ledbetter slate (Ordovician) is exposed on the northern portion of the Dosser-Maki-Lotze prospect; Metaline limestone (Cambrian) occupies the central portion, and coarse-grained biotite granite (Kaniksu batholith) Mesozoic(?) is exposed in the south portion of the property. Ore minerals are found in the limestone near the limestone-granite contact and near the limestone-slate contact. The Metaline limestone and the overlying Ledbetter slate dips 50° to 75° to the north and strikes about N. 75° W. The contact between the granite and the limestone was not seen but dips of 45° to the north are noted by the applicant.

Shafts and pits on the Maki property have been sunk on stringers of iron oxide, lead carbonate, lead sulphide, and zinc carbonate in dolomite. These stringers are 1 to 3 inches wide and are parallel to the limestone beds and the granite-limestone contact. The stringers exposed on the surface are too widely spaced to permit profitable mining the whole zone. A similar occurrence of scattered zinc and lead minerals was noted on the Dosser prospect near the dolomite-granite contact.

Bulldozer stripping and trenching in the northeast corner of the Dosser prospect exposed gossan 300 feet long and 50 feet wide. The gossan contains red and yellow limonite and brown iron oxides and galena. This zone is apparently conformable to the limestone beds and the limestone-slate contact and appears to be a massive replacement in the limestone.

SAMPLES AND ASSAYS

The applicant has cut fifty samples in four channels spaced at 10-foot intervals across the exposed gossan. The samples were cut from south to north in each channel. The sample intervals and assays are as follows:

Sample Interval (Feet)	oz. Ag	% Pb	% Zn	% Fe
		Channel 1		
0-5	2.9	0.7	0.3	47.9
5-10	3.0	2.7	0.0	44.2
10-15	1.7	2.6	0.0	48.0
15-20	1.3	2.4	0.0	41.0
20-25	0.8	1.6	0.0	37.6
25-30	1.6	3.5	0.0	30.0
30-35	1.8	3.0	0.0	32.0
35-40	1.4	1.6	0.0	35.0
40-45	0.3	0.7	0.0	38.8
45-50	0.5	1.5	0.0	36.2
50-55	0.2	0.6	0.0	48.2
55-60	0.2	0.3	0.0	47.6
60-63	0.3	0.3	0.0	31.9
Averages				
5-35	1.70	2.63	0.0	38.80
0-63	1.26	1.70	Tr.	40.13
		Channel 2		
0-5	--	10.2	0.0	--
5-10	--	1.4	0.0	--
10-15	--	4.4	0.0	--
15-20	--	3.1	0.0	--
20-25	--	1.2	0.0	--
25-30	--	2.1	0.0	--
30-35	--	2.6	0.0	--
35-40	--	2.5	0.0	--
40-45	--	0.0	0.0	--
45-50	--	1.3	0.0	--
50-55	--	0.0	0.0	--
55-60	--	1.0	0.0	--
Averages				
0-40	--	3.43	0.0	--
0-60	--	2.48	0.0	--

Sample Interval (Feet)	oz. Ag	% Pb	% Zn	% Fe
		Channel 3		
0-5	3.2	4.5	0.0	39.9
5-10	1.8	4.3	0.0	36.4
10-15	1.6	1.8	Tr.	33.4
15-20	0.9	2.3	0.4	39.4
20-25	1.6	3.1	0.0	35.4
25-30	1.0	2.0	0.0	45.8
30-35	1.6	1.5	0.0	41.0
35-40	0.5	0.0	0.0	52.0
40-45	0.2	0.0	0.0	51.4
45-50	0.2	0.0	0.0	50.2
50-55	0.1	0.0	0.0	52.2
55-60	0.2	1.1	0.0	51.6
60-62	0.2	0.0	0.0	49.6
Averages				
0-35	1.67	2.79	Tr.	38.76
0-62	1.05	1.66	Tr.	44.24
		Channel 4		
0-5	2.1	2.1	0.0	43.0
5-10	0.8	0.7	0.0	48.8
10-15	1.4	0.0	0.0	46.6
15-20	1.7	0.0	0.0	47.6
20-25	1.1	2.2	0.0	46.2
25-30	1.4	3.0	0.0	46.8
30-35	0.2	0.0	0.0	23.2
35-40	0.2	0.0	0.0	33.4
40-45	0.5	2.4	0.0	35.4
45-50	0.2	0.0	0.0	49.6
50-55	0.4	0.0	0.0	51.6
55-60	0.5	0.4	0.0	51.4
Averages				
0-60	0.87	0.90	0.0	43.63

AVERAGES

Channel Number	No. of Samples	Length of Channel Sampled (Feet)	oz. Ag	% Pb	% Zn	% Fe
1	13	63	1.26	1.70	Tr.	40.13
2	12	60	--	2.48	0	--
3	13	62	1.05	1.66	Tr.	44.24
4	12	60	0.88	0.90	0	43.63
Total and Average	50	245	1.06	1.68	--	42.64

No core was obtained through the ore zone from either Dosser #1 or #2 holes, but some sludge was recovered from certain sections of the holes. Recovery of sludge is reported to have been less than 50 percent.

SLUDGE ASSAYS

Sample Interval (Feet)	oz. Ag	% Pb	% Zn
	D.D.H. Dosser #1		
0-60	(No sludge retained)		
60-65	0.1	0.6	0.1
65-70	0.4	0.8	0.1
75-80	--	0.1	0.0
80-85	0.2	0.1	0.3
85-90	0.4	0.8	0.4
90-95	0.3	0.9	0.5
	D.D.H. Dosser #2		
0-57	(No sludge retained)		
57-65	0.4	1.0	0.0
65-70	--	0.0	0.1
70-75	--	0.2	0.1
75-80	--	0.2	0.1
80-85	--	0.3	0.2
90-95	--	0.2	0.3
95-100	--	0.3	0.2
100-105	--	0.2	0.3
125-130	--	0.1	0.1
186-189	--	0.2	0.2

DISCUSSION OF THE APPLICANT'S PROPOSAL

The applicant proposes to test by diamond drilling the downward extension of the mineralized zones on the Maki property and the lateral and vertical extensions of the gossan exposed in the northeast corner of the Dosser property.

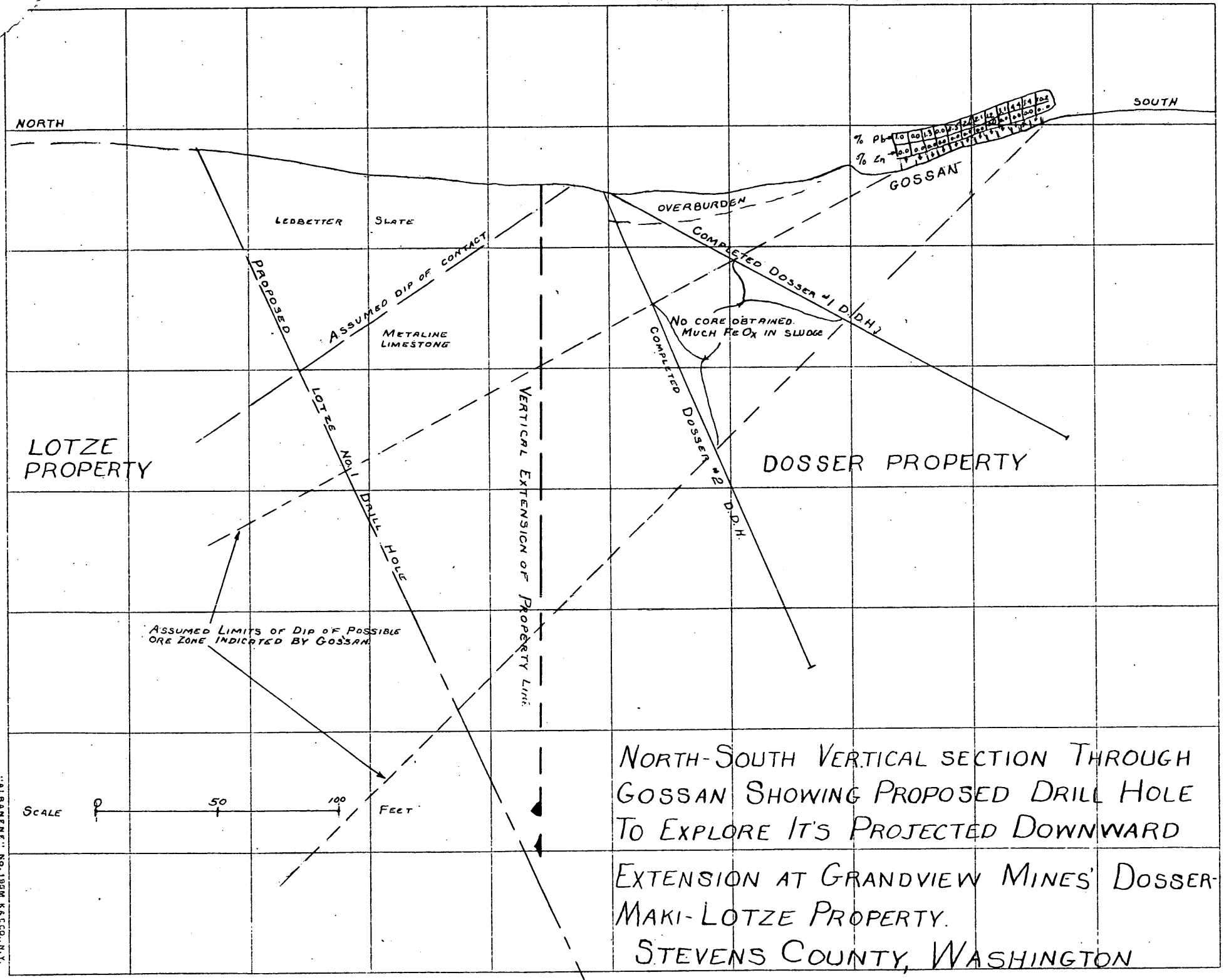
The examining team concurs with the applicant's plan to test beneath the gossan on the Dosser property at sufficient depth to intersect the sulphide zone. Drill sites must be established on the Lotze property so the proposed holes can be directed properly. The sites for the Lotze holes 1-4 on the Lotze property, as indicated on the applicant's map showing proposed work, are well planned. The proposed depth of 500 feet for each hole may not be necessary if the ore zone is conformable to the observed dip of the limestone beds. Available information indicates that the ore zone should be penetrated with holes 300 feet long, but additional footage should be allowed to make certain the full width of the ore zone is cut.

Care to obtain a maximum recovery of core is important and sludges should be collected at regular intervals across the ore zone.

D. D. H. Maki #1 was drilled 400 feet horizontally to a depth of 290 feet beneath the mineralized outcrops in the central portion of the Maki property and encountered only granite. The applicant proposes three more holes to test these stringers, but as the remnant of limestone overlying the granite is small, there is little possibility of finding an appreciable amount of ore in this block, and the examining team does not recommend DMEA participation in further drilling here. The applicant has a work commitment to drill an additional 600 feet on the property before September 15, 1953. If preliminary drilling shows that the mineralized zone beneath the gossan on the Dosser property extends to the east, diamond drilling beneath the Maki property from the Lotze property will be warranted.

Enclosures
Distribution
DMEA(4)
USBM(5)
USGS(SRO)
Docket
Puffett
Kirkemo

Docket No. DMEA 3073 (Lead-Zinc)



North-South Vertical Section Through Gossan Showing Proposed Drill Hole To Explore It's Projected Downward Extension at Grandview Mines' Dosser-Maki-Lotze Property.
Stevens County, Washington

"ALBANENE" REG. U.S. PAT. OFF. No. 195M K&E CO., N.Y.

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

No. 157 Howard Street
Spokane 4, Washington

July 17, 1953

7/22/53 Received

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-3073 (lead-zinc)
Grandview Mines
Doeser-Maki-Lotes prospect
Stevens County, Washington

Dear Mr. Selfridge:

Enclosed are four copies of a memorandum report by Harold Kirkemo, U. S. Geological Survey, on the Grandview Mines' application for exploration assistance to diamond drill the Doeser-Maki-Lotes prospect, Stevens County, Washington (Docket No. DMEA-3073).

Please refer also to a memorandum dated July 3, 1953, by E. A. Magill, U. S. Bureau of Mines engineer (4 copies of which are enclosed) wherein is outlined the unit costs of the diamond drilling programs for both Grandview's subject application (Docket DMEA-3073) and Barthauer application (Docket DMEA-2989); the latter is the subject of another letter to the Operating Committee.

Mr. Kirkemo recommends approval of a diamond drilling program to test the deposit at sufficient depth to encounter the sulphide portion of the ore body and to test its lateral extension. The proposed program entails the drilling of 5,200 feet of holes at an estimated unit cost of $7.00 per foot or a total cost of $36,400.00 (Government's share $18,200.00).

The Field Team concurs with Mr. Kirkemo's recommendation for favorable consideration of the proposed drilling program. The Field Team also concurs with Mr. Magill's cost estimate and recommends that a short form contract allowing a unit price of $7.00 per foot, to include all costs, for diamond drilling be granted in order to undertake the proposed program.

By DMEA Field Team, Region II

Thomas E. Howard, Acting Exec. Officer
(U. S. Bureau of Mines)

James J. Quinlan, Acting Member
(U. S. Geological Survey)

Enclosures
cc: USBM (2)
Puffett

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

1201 N. Division St.
Spokane 2, Washington
July 3, 1953

MEMORANDUM

To: DMEA Field Team, Region II

From: E. A. Magill, Mining Engineer, Bureau of Mines

Subject: Exploration loan applications, Grandview Mines, Inc., Stevens and Pend Oreille Counties, Washington, DOCKET No. DMEA-2929 AND DMEA-3073.

Grandview Mines, Inc. has requested unit cost exploration project contracts for diamond drilling in Stevens and Pend Oreille Counties, Washington. The unit cost requested is $7.00 per foot for surface drilling to include all costs of the work. To support this figure they have presented a copy of a contract (attached) which they entered into with Boyles Bros. Drilling Company, Inc., Salt Lake City, Utah, for drilling on the same properties in 1952. This contract shows a base price of $5.00 per foot for AX core, plus extra charges for reaming, casing, etc.

The DMEA has had two contracts in the area which included diamond drilling and on which costs can be compared. These are American Lead, Zinc & Smelting Co., Contract No. Idm-E76, under which 22,354.7 feet of drilling was completed at a total cost of $5.368 per foot. The holes drilled under this contract were vertical and 1000 to 1200 feet deep with EX core in the ore zone, the remainder (about 800 feet) of the hole being drilled by churn drill and plug bit. The costs of drilling under this contract were further lowered by the small amounts charged to supervision and bulldozing. Also, core boxes were not included in the costs. Charges for supervision were $0.12½ per foot of hole and for costs for bulldozing access roads and drilling sites $0.04 per foot of hole. The low cost of supervision was due to the fact that the American Zinc Company is in production and had engineers available for supervision of the drilling program concurrent with their other duties.

The Goldfields Consolidated Mines Contract No. Idm-E85 is perhaps more comparable as to conditions. Their costs were $6.44 per foot for 1,139.5 feet of drilling. The cost of $6.44/ft. included only contract drilling and supervision. With the addition of costs for core boxes, assaying, bulldozing access roads and drilling sites, the costs would have approximated $7.00/ft.

It is believed that a figure of $7.00 per foot to include all costs is a fair figure and represents a figure less than the work will actually cost. It will include the following:

Diamond drilling (all charges)
Supervision
Preparation of drill sites
Core boxes
Assaying
Bookkeeping
Miscellaneous

It is recommended that a unit cost of $7.00 per foot, to include all costs, be used in the contracts entered into with Grandview Mines, Inc.

E. A. Magill

Orig. & 3 cys - Wash.
USGS (2)
DMEA
M/D
EAM/he

GRANDVIEW MINES SPOKANE 4, WASHINGTON
SUITE 310-311 RADIO CENTRAL BLDG.
OFFICE PHONE MAdison 2501

PROPERTIES: PEND OREILLE AND STEVENS COUNTIES

Karl W. Jasper.....President
Paul T. Hoetzel.....Vice-Pres.
E. K. Barnes.....Sec.-Treas.
John H. Roberts.....Director
E. O. Dressel.....Director
Fred Trumbull.....Director
Eskil Anderson.....Director

June 19, 1953

Mr. Elwin A. Magill
U. S. Bureau of Mines, Defense Minerals Administration
North 1205 Division
Spokane, Washington

Dear Mr. Magill:

Enclosed is a photostatic copy of the bid from Boyle's Bros. Drilling Company which was accepted by Grandview and provided the base for our drilling costs in northeastern Stevens County in 1952. Diamond drilling was continued at the Dosser-Maki-Lotze property in 1952 on the above bid basis by verbal agreement. Early experiments with E X core were not satisfactory and A X core was obtained from all later drilling with greatly improved results.

Direct drilling costs on the Hartbauer property were $7.06 per foot.

In addition to the direct drilling costs listed above, Grandview Mines bore the costs of bulldozing access roads and diamond drilling stations at an average of $10.00 an hour for a D. 6, and $9.00 for a somewhat smaller bulldozer. Costs of assaying, core boxes, sludge sacks and boxes, core splitting and sampling, and all supervisory expenses were also paid by Grandview in addition to the direct drilling charges.

Very truly yours,

Karl W. Jasper

Karl W. Jasper, Pres.
GRANDVIEW MINES

KWJ:mh

Boyles Bros.
DRILLING COMPANY
INCORPORATED

DIAMOND DRILLING CONTRACTORS AND MANUFACTURERS
Phone 6-8555 1321 South Main
SALT LAKE CITY 4, UTAH

August 4, 1952

Grandview Mines.
Radio Central Bldg.,
Spokane, Washington.
Gentlemen:

To comfirm our verbal quotations for your drilling program at the Plug & Anderson Project near Northport, Washington, we submit the following for your approval.

1. Mobolization $200.00
2. Drilling Rates

	EX	AX
From 0 to 250ft.	$4.50	$5.00
250 to 500ft.	5.00	5.50

3. Reaming
   Reaming for EX casing $1.75 per ft.
4. Casing
   (A) Handling EX casing .25¢ per ft.
   (B) All casing ruined or lost in hole to be charged for at list price.
5. Cementing
   Cementing $6.00 per hour plus cment or cement substitutes.
6. Delays
   Delays beyond our control and caused by your Company will be charged for at $6.00 per hour.
7. Stations
   All access roads and drill stations to be at your expense.

it is agreed that Grandview Mines will not be held responsible for any debts incurred by Boyles Bros. Drilling Co. in connection with the above drilling program.

Should this proposed meet with your approval, we will be glad to make arrangements to have the work underway as soon as access to the area is possible. We would appreciate acknowledgement at your convenience.

Yours Very Truly,
O. C. Bouquot
O. C. Bouquot
Drill Superintendent

cc. Boyles Bros. Drilling Co.
Salt Lake City, Utah
Grandview Mining Co.
Spokane, Washington

Signed:
Karl Jasper, President,
Grandview Mines.

By: Eskil Anderson
Eskil Anderson,
Agent Grandview Mines.

O'Neil

DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Adm.
RECEIVED
JUL 21 1953

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

July 1, 1953

gcl 9/3/53

MEMORANDUM

To: DMEA Field Team, Region II

From: Harold Kirkemo, Geologist, U. S. Geological Survey

Subject: Docket No. DMEA-3073 (Lead-Zinc), Field Examination, Dosser-Maki-Lotze Prospects, Stevens County, Washington, Grandview Mines, Spokane, Washington.

RECOMMENDATIONS

The proposed diamond drilling program to test possible extensions of a lead-zinc ore deposit on the subject property is recommended for approval. A program totaling 5,200 feet of drilling at an estimated cost of $36,400.00 (Government's share $18,200.00) is planned.

A gossan at least 300 feet long and 60 feet wide was uncovered by bulldozing and trenching in the summer of 1952. Fifty samples from four channels taken across the 60-foot wide gossan averaged 1.06 ounce silver, 1.68 percent lead, trace zinc, and 42.64 percent iron. One sample from a channel assayed 10.2 percent lead across five feet. Preliminary diamond drilling to test extension of this gossan at depth gave little information because the recovery of core through the oxidized zone was very poor. The proposed diamond drilling is intended to test at a depth sufficient to encounter the sulphide portion of the ore body and to test its lateral extension.

INTRODUCTION

Application for DMEA aid in an exploration project at the Dosser-Maki-Lotze prospect was submitted April 24, 1953, by the Grandview Mines Company, Spokane, Washington. Examination of the property was made on June 16 by Harold Kirkemo and Willard P. Puffett, Geologists, U. S. Geological Survey, assisted by Eskil Anderson, Geologist-Engineer, for the Grandview Mines Company.

LOCATION

The Dosser-Maki-Lotze prospect is located on the north side of Current Creek approximately half a mile southeast of Deep Lake in northern Stevens County, Washington. The property lies in sections 26, 27, 34, and 35 in T. 39 N., R. 41 E., W. M. Graveled roads connect the property with the Great Northern Railroad at Northport 15 miles to the west and with Leadpoint 4½ miles to the north. The altitude at the west end of the property is approximately 2,150 feet and at the east end about 2,800 feet. Grassy slopes are common though scattered stands of second growth fir, pine, and tamarack are present. Current Creek, tributary to Deep Lake, flows westerly across the south side of the property. Water for diamond drilling can be pumped from this creek.

The prospect is half a mile due east of the Farmer prospect where a DMEA project (Docket No. DMEA-2166) was completed in December 1952, and discovery of a zinc and lead deposit was certified. The presence of galena at the Maki prospect has been known for a number of years, and ten shafts, some fifty feet deep, and several trenches have been driven on stringers of galena, lead and zinc oxides in dolomitic limestone. In 1952, the Grandview Company drilled seven diamond drill holes totaling 1,544.5 feet and stripped extensively on the Maki and Dosser properties. No work has been done on the Lotze property.

PROPERTY

The Grandview Company holds leases on the Dosser and Maki property and an option to purchase the Lotze property. Detailed descriptions of the land involved, copies of leases and options, and consents of mortgagees to lease accompanied the original application. It will be noted on the attached map that the Dosser property occupies the southwest portion of the area to be tested; the Maki property occupies the southeast portion of the area; and the Lotze property adjoins the Dosser-Maki properties on the north. There are no surface facilities on the property.

THE APPLICANT

Grandview Mines has been engaged in the zinc and lead mining business in northeastern Washington since 1927. The company owns the Grandview mine, second largest producer of zinc and lead ore in the Metaline district. This mine is being operated at the present time by the American Zinc, Lead & Smelting Company on an operating lease basis. Profits from the operation are split 53½ percent to American Zinc and 46½ percent to Grandview Mines, Inc. Grandview Mines is conducting widespread prospecting in northeastern Washington. It has increased its prospecting expenditures from $900.00 in 1951 to $38,000.00 in 1952. Prospecting has been concentrated in four areas:

northwest of Leadpoint, southeast of Deep Lake, on Jim Creek in Stevens County, and on Slate Creek in Pend Oreille County. Applications for DMEA aid have been submitted for further exploration on three of the prospects. If loans are approved for exploration work, each project will be under the immediate supervision of Eskil Anderson, a 1941 graduate of the University of Alaska, with degrees in geology and mining. Mr. Anderson has been directing geologic and exploration work for the company since 1951.

GEOLOGY

Ledbetter slate (Ordovician) is exposed on the northern portion of the Dosser-Maki-Lotze prospect; Metaline limestone (Cambrian) occupies the central portion, and coarse-grained biotite granite (Kaniksu batholith) Mesozoic(?) is exposed in the south portion of the property. Ore minerals are found in the limestone near the limestone-granite contact and near the limestone-slate contact. The Metaline limestone and the overlying Ledbetter slate dips 50° to 75° to the north and strikes about N. 75° W. The contact between the granite and the limestone was not seen but dips of 45° to the north are noted by the applicant.

Shafts and pits on the Maki property have been sunk on stringers of iron oxide, lead carbonate, lead sulphide, and zinc carbonate in dolomite. These stringers are 1 to 3 inches wide and are parallel to the limestone beds and the granite-limestone contact. The stringers exposed on the surface are too widely spaced to permit profitable mining the whole zone. A similar occurrence of scattered zinc and lead minerals was noted on the Dosser prospect near the dolomite-granite contact.

Bulldozer stripping and trenching in the northeast corner of the Dosser prospect exposed gossan 300 feet long and 50 feet wide. The gossan contains red and yellow limonite and brown iron oxides and galena. This zone is apparently conformable to the limestone beds and the limestone-slate contact and appears to be a massive replacement in the limestone.

SAMPLES AND ASSAYS

The applicant has cut fifty samples in four channels spaced at 10-foot intervals across the exposed gossan. The samples were cut from south to north in each channel. The sample intervals and assays are as follows:

Sample Interval (Feet)	oz. Ag	% Pb	% Zn	% Fe
		Channel 1		
0-5	2.9	0.7	0.3	47.9
5-10	3.0	2.7	0.0	44.2
10-15	1.7	2.6	0.0	48.0
15-20	1.3	2.4	0.0	41.0
20-25	0.8	1.6	0.0	37.6
25-30	1.6	3.5	0.0	30.0
30-35	1.8	3.0	0.0	32.0
35-40	1.4	1.6	0.0	35.0
40-45	0.3	0.7	0.0	38.8
45-50	0.5	1.5	0.0	36.2
50-55	0.2	0.6	0.0	48.2
55-60	0.2	0.3	0.0	47.6
60-63	0.3	0.3	0.0	31.9
Averages				
5-35	1.70	2.63	0.0	38.80
0-63	1.26	1.70	Tr.	40.13
		Channel 2		
0-5	--	10.2	0.0	--
5-10	--	1.4	0.0	--
10-15	--	4.4	0.0	--
15-20	--	3.1	0.0	--
20-25	--	1.2	0.0	--
25-30	--	2.1	0.0	--
30-35	--	2.6	0.0	--
35-40	--	2.5	0.0	--
40-45	--	0.0	0.0	--
45-50	--	1.3	0.0	--
50-55	--	0.0	0.0	--
55-60	--	1.0	0.0	--
Averages				
0-40	--	3.43	0.0	--
0-60	--	2.48	0.0	--

Sample Interval (Feet)	oz. Ag	% Pb	% Zn	% Fe
		Channel 3		
0-5	3.2	4.5	0.0	39.9
5-10	1.8	4.3	0.0	36.4
10-15	1.6	1.8	Tr.	33.4
15-20	0.9	2.3	0.4	39.4
20-25	1.6	3.1	0.0	35.4
25-30	1.0	2.0	0.0	45.8
30-35	1.6	1.5	0.0	41.0
35-40	0.5	0.0	0.0	52.0
40-45	0.2	0.0	0.0	51.4
45-50	0.2	0.0	0.0	50.2
50-55	0.1	0.0	0.0	52.2
55-60	0.2	1.1	0.0	51.6
60-62	0.2	0.0	0.0	49.6
Averages				
0-35	1.67	2.79	Tr.	38.75
0-62	1.05	1.66	Tr.	44.24
		Channel 4		
0-5	2.1	2.1	0.0	43.0
5-10	0.8	0.7	0.0	48.8
10-15	1.4	0.0	0.0	46.6
15-20	1.7	0.0	0.0	47.6
20-25	1.1	2.2	0.0	46.2
25-30	1.4	3.0	0.0	46.8
30-35	0.2	0.0	0.0	23.2
35-40	0.2	0.0	0.0	33.4
40-45	0.5	2.4	0.0	35.4
45-50	0.2	0.0	0.0	49.6
50-55	0.4	0.0	0.0	51.6
55-60	0.5	0.4	0.0	51.4
Averages				
0-60	0.87	0.90	0.0	43.63

AVERAGES

Channel Number	No. of Samples	Length of Channel Sampled (Feet)	oz. Ag	% Pb	% Zn	% Fe
1	13	63	1.26	1.70	Tr.	40.13
2	12	60	--	2.48	0	--
3	13	62	1.05	1.66	Tr.	44.24
4	12	60	0.88	0.90	0	43.63
Total and Average	50	245	1.06	1.68	--	42.64

No core was obtained through the ore zone from either Dosser #1 or #2 holes, but some sludge was recovered from certain sections of the holes. Recovery of sludge is reported to have been less than 50 percent.

SLUDGE ASSAYS

Sample Interval (Feet)	oz. Ag	% Pb	% Zn
	D.D.H. Dosser #1		
0-60	(No sludge retained)		
60-65	0.1	0.6	0.1
65-70	0.4	0.8	0.1
75-80	--	0.1	0.0
80-85	0.2	0.1	0.3
85-90	0.4	0.8	0.4
90-95	0.3	0.9	0.5
	D.D.H. Dosser #2		
0-57	(No sludge retained)		
57-65	0.4	1.0	0.0
65-70	--	0.0	0.1
70-75	--	0.2	0.1
75-80	--	0.2	0.1
80-85	--	0.3	0.2
90-95	--	0.2	0.3
95-100	--	0.3	0.2
100-105	--	0.2	0.3
125-130	--	0.1	0.1
186-189	--	0.2	0.2

DISCUSSION OF THE APPLICANT'S PROPOSAL

The applicant proposes to test by diamond drilling the downward extension of the mineralized zones on the Maki property and the lateral and vertical extensions of the gossan exposed in the northeast corner of the Dosser property.

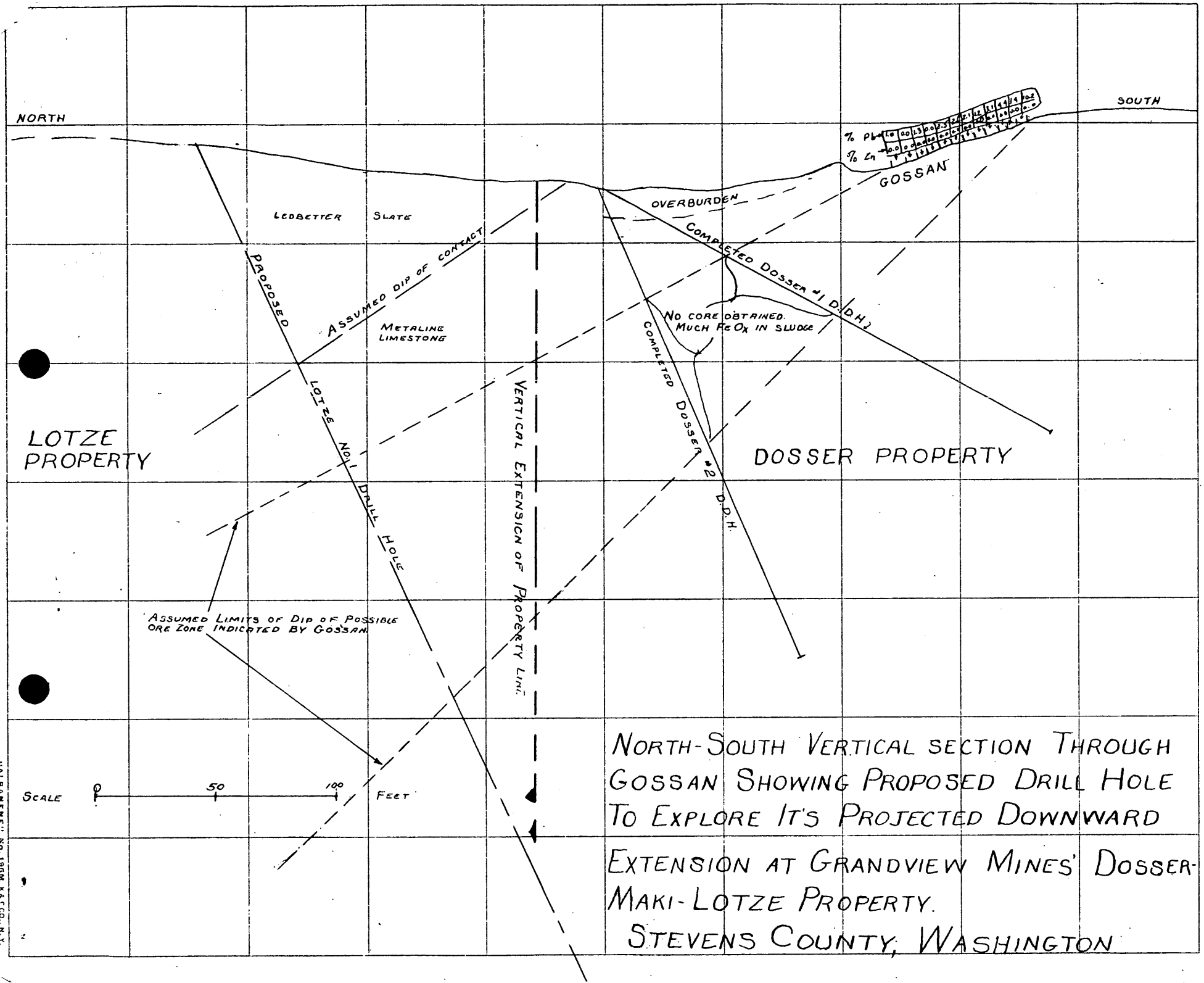
The examining team concurs with the applicant's plan to test beneath the gossan on the Dosser property at sufficient depth to intersect the sulphide zone. Drill sites must be established on the Lotze property so the proposed holes can be directed properly. The sites for the Lotze holes 1-4 on the Lotze property, as indicated on the applicant's map showing proposed work, are well planned. The proposed depth of 500 feet for each hole may not be necessary if the ore zone is conformable to the observed dip of the limestone beds. Available information indicates that the ore zone should be penetrated with holes 300 feet long, but additional footage should be allowed to make certain the full width of the ore zone is cut.

Care to obtain a maximum recovery of core is important and sludges should be collected at regular intervals across the ore zone.

D. D. H. Maki #1 was drilled 400 feet horizontally to a depth of 290 feet beneath the mineralized outcrops in the central portion of the Maki property and encountered only granite. The applicant proposes three more holes to test these stringers, but as the remnant of limestone overlying the granite is small, there is little possibility of finding an appreciable amount of ore in this block, and the examining team does not recommend DMEA participation in further drilling here. The applicant has a work commitment to drill an additional 600 feet on the property before September 15, 1953. If preliminary drilling shows that the mineralized zone beneath the gossan on the Dosser property extends to the east, diamond drilling beneath the Maki property from the Lotze property will be warranted.

Enclosures
Distribution
- DMEA(4)
- USBM(5)
- USGS(SRO)
- Docket
- Puffett
- Kirkemo

Docket No. DMEA 3073 (Lead-Zinc)



NORTH-SOUTH VERTICAL SECTION THROUGH GOSSAN SHOWING PROPOSED DRILL HOLE TO EXPLORE IT'S PROJECTED DOWNWARD EXTENSION AT GRANDVIEW MINES' DOSSER-MAKI-LOTZE PROPERTY.

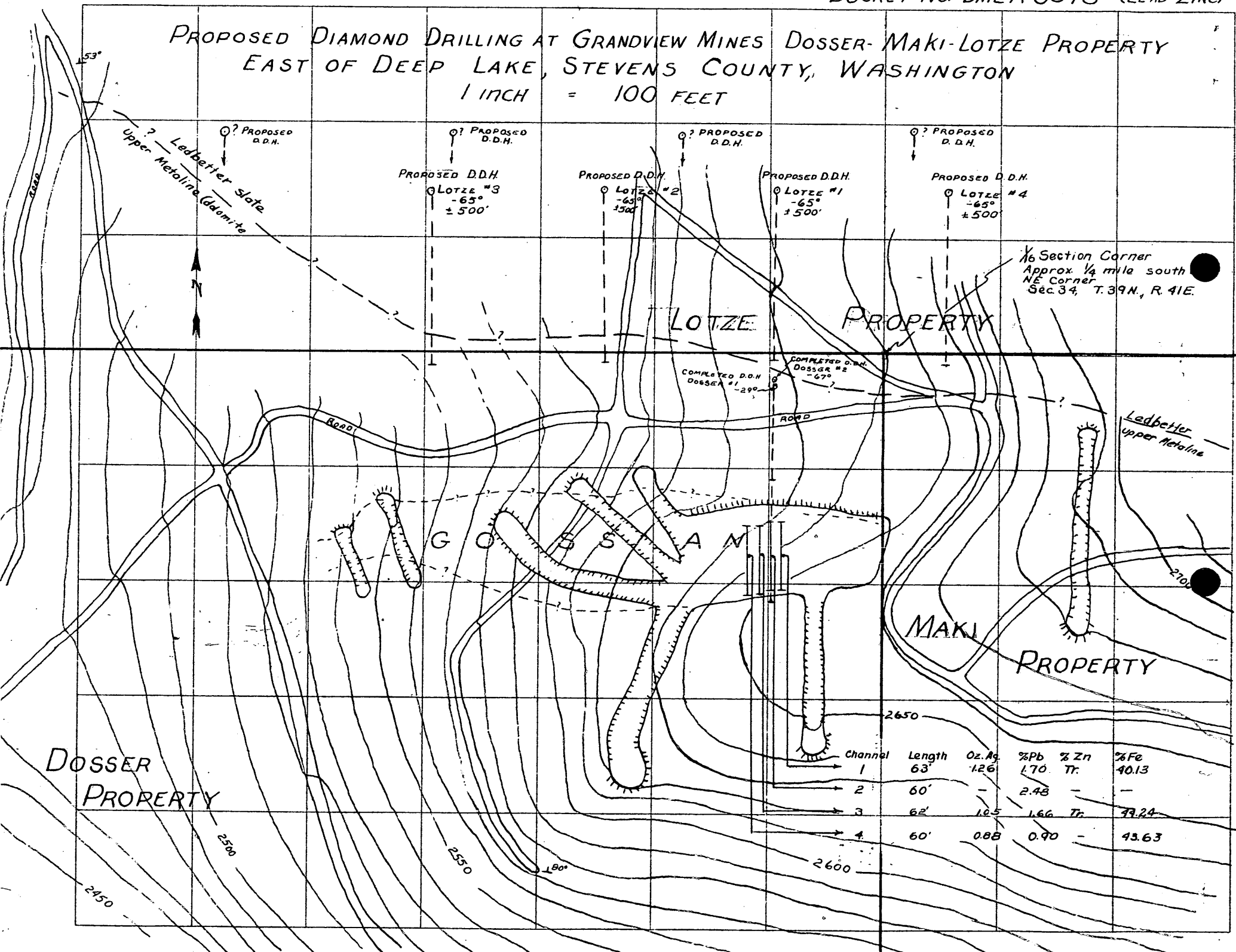
STEVENS COUNTY, WASHINGTON

"ALBANENE" No. 195M K&E CO., N.Y. REG. U.S. PAT. OFF.

DOCKET NO. DMEA 3073 (LEAD-ZINC)

PROPOSED DIAMOND DRILLING AT GRANDVIEW MINES DOSSER-MAKI-LOTZE PROPERTY EAST OF DEEP LAKE, STEVENS COUNTY, WASHINGTON

1 INCH = 100 FEET



Channel	Length	Oz. Ag.	%Pb	% Zn	%Fe
1	63'	1.26	1.70	Tr.	40.13
2	60'	—	2.48	—	—
3	62'	1.05	1.66	Tr.	49.24
4	60'	0.88	0.90	—	43.63

"ALBANENE" NO. 19GM K&E CO., N.Y. REG. U.S. PAT. OFF.

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

June 11, 1953

Memorandum

To: Executive Officer, DMEA Field Team, Region II

From: Chief, Operation's Control and Statistics Division

Subject: Assignment of Docket Number

There is listed below the assigned docket number to an application recently received from Region II

DMEA - 3073 Grandview Mines, Inc. - Dosser-Maki-Lotze.

ROBERT E. ADAMS

Robert E. Adams,
Chief, Operation's Control
and Statistics Division

38226

June 11, 1953

Mr. Karl W. Jasper, President
Grandview Mines, Inc.
310-311 Radio Central Bldg.
Spokane 4, Washington

Subject: DMEA-3073
Re: Exploration Assistance
Dosser-Maki-Lotze Properties

My dear Mr. Jasper:

The receipt of your application dated April 24, 1953, for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-3073 and referred to the Base Metals Division.

Kindly refer to DMEA-3073 in any future correspondence relating to your application.

Sincerely yours,

ROBERT E. ADAMS

Robert E. Adams
Chief, Operations Control
and Statistics Division

MF-403
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

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-3073
Metal or Mineral
Date Received 6/8/53
Estimated Cost
Participation (Government %)

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: Grandview Mines
310-311 Radio Central Building
Spokane 4, Washington

(*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.

(*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

(*b*) State any mine name by which the property is known.

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise

(*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.

(*e*) If you own the land, describe any liens or encumbrances on it

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice.

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.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades.

(*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.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.

5. *The exploration project.*—(a) State the mineral or minerals for which you [illegible] to explore .....

(*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.

(*c*) The work will start within ..... days and be completed within ..... months from the date of an exploration project contract.

(*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.

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.).

(*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.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel.

(*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.

(*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.

(*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.

(*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.

(*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.

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)?

(*b*) How do you propose to furnish your share of the costs?

☐ 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 April 27, 1953

Grandview Mines
(Applicant)

By Karl W. Jaeger
Pres

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

APPLICATION FOR AID

1. (a) Grandview Mines
310-311 Radio Central Building
Spokane 4, Washington

(b) Corporation of State of Washington

(c) Officers:

Karl W. Jasper, 310-311 Radio Central Bldg., Spokane 4, Washington.
Paul T. Hoetzel, 416 W. 25th Ave., Spokane, Washington.
E. K. Barnes, Sec.-Treas., 1008 W. 19th Ave. Spokane, Washington.

2._____

3. (a) All in Township 39 North, Range 41 E.W.M., Stevens County, Washington.

NE¼ NE¼ of Section 34; N½ NW¼ of Section 35, S½ SW¼ of Section 26; excepting approximately two square acres in extreme northwest corner, which area is described in Grandview option to purchase.

That part of Government LOt 5, Section 27 except the north 450 feet thereof, lying south and east of the county road; S½ NW¼ of Section 34; Government Lot 1 of Section 34; that part of SE¼ NW¼ of Section 34 lying south and east of Deep Creek; that part of Government Lot 2 of Section 34 lying south and east of Deep Lake and Deep Creek.

SW¼ NE¼; S½ NW¼; and NW¼ SW¼, all in Section 35

(b) Dosser-Maki-Lotze properties.

(c) Grandview holds leases on the Dosser and Maki properties; an option to purchase the Lotze property.

(d) Copies of leases and option accompany application.

(e) See- Dosser-Grandview lease, and consents of mortgagees to Lease.

(f) _____

4. (a) Maki property.

Since about 1900 ten shafts, ranging from ten to about fifty feet in depth, and about a dozen pits and open cuts, have been sunk on zones of iron, zinc, or lead oxides or carbonates and sulfides, in dolomite (see "Maki Prospect" map). In 1952 Grandview Mines diamond drilled one four hundred foot horizontal hole attempting to intersect these mineralized bands below the zones of oxidation. The hole remained in granite for its entire distance and was abandoned because of bad caving before it was to have intersected the mineralized zone of the upper shafts at a vertical depth of about 250 feet below the surface outcrops.

Dosser Property.

Several small pits and open cuts had been dug on occurrences of zinc and lead sulfides in dolomite before 1952. During that year Grandview Mines did a considerable amount of stripping and diamond drilled six holes on the property (see "Plane Table Map of Dosser-Maki-Lotze properties", and diamond drill logs

and sections). Over a dozen occurrences of lead and zinc sulfides or oxidation products in dolomite were exposed on the surface. The best sulfide showing assayed 6% combined lead and zinc across 10 feet. Dosser D.D.#3 drilled below that outcrop did not intersect commercial ore.

In the northeast corner of the Dosser Property near the common corner of the Lotze-Maki-Dosser properties a large gossan zone was exposed by bulldozer stripping. Samples taken across 40 feet of the completely oxidized material assayed 3.4% Pb. Twenty feet of this width assayed 4.8% Pb. because of a high 10.2% Pb assay in one five foot section. The gossan, over half of which is exposed by stripping, averages more than 60 feet in width and is exposed for almost five hundred feet in length.

Lotze Property.

No work has been done on the Lotze Property. It is of importance because the dolomite beds in which the mineralized zones occur dip about 60° N. under the slate which forms the bedrock of most of the Lotze land. If the primary ores from which the Dosser gossan was formed occur in depth, most of the ore will be found on the Lotze property.

(b) There has been no recorded production from any of these properties and there are no blocked out ore reserves.

(c) The south edge of the Dosser-Maki properties is underlain by a part of the northern edge of the granite batholith around which the most productive mines of northeastern Stevens County are located. The contact of the intrusive and the limestone band to the north strikes east and west. Currant Creek flows from east to west paralleling the granite-limestone contact in the granite several hundred feet south of the contact.

North of the granite contact, the Upper Metaline limestone, striking roughly east and west to northwest and dipping about 60° to the north, forms the bedrock. The Upper Metaline limestone (Cambrian) beds here total from 500 feet to 1000 feet in thickness and are generally dolomitized. The important mineralization on the Dosser-Maki-Lotze properties is confined to the dolomites. They outcrop north of the granite and south of the Ordovician Ledbetter slate which forms a large part of the bedrock on the Lotze property. The Ledbetter slate strikes east-west to northwest and dips 60° to 25° to the north. It is underlain by the north dipping Metaline limestone.

On the Dosser and Maki properties there are about three dozen exposed outcrops containing iron, lead, and zinc sulfides or their oxidation products in dolomite. All are replacement deposits.

The mineralized zones exposed in the Maki shafts and pits are largely the result of selective replacement of 1" to 6" beds of banded dolomite giving a somewhat sheeted effect with thin layers of dolomite and layers of iron, lead and zinc oxidation products. A few of the primary minerals remain but it is likely that strong oxidation is present to over 100 feet below the uppermost Maki shafts. Two or more diamond drill holes should be driven to crosscut the Maki zones in depth.

The western cuts on the Dosser property expose a sheeted mineralized zone similar to Maki's and about 50 feet in thickness. Mineralization is less intense here than on the Maki property, and the primary sulfides are close to the surface. Dosser diamond drill holes #4, 5, and 6 did not intersect commercial ore but disclosed wide zones mineralized by pyrite and pyrrhotite replacement bands and with ZnS, and occasional PbS, shines sparsely disseminated throughout the zones.

The lead and zinc occurrences in the southwest cuts on the Dosser property are in a more massive dolomite in which the bedding is usually not distinct. In the cut above Dosser diamond drill hole #3 a few high grade ZnS shoots, with some PbS, up to 10 inches thick occur. The continuity of these shoots has not been proven.

The large gossan in the northeast corner of the Dosser Property appears to have been formed largely as a result of the oxidation of primary sulfides or iron, lead, and zinc. The gossan material consists of earthy, powdery, cellular, or solid limonite and other iron oxides, cerrussite, jarosite and traces of smithsonite. A few small islands of dolomite outcrop within the gossan area. Some of this dolomite is heavily iron-stained and some contains many completely oxidized minerals. No sulfides or pseudomorphs were recognized. Enough drilling should be carried out to intersect the projection of this zone at a depth of between 250 and 400 feet below the surface. Dosser diamond drill holes #1 and #2 encountered only highly oxidized material, some dolomite, and an occasional speck of pyrite in dolomite near a depth of about 200 feet. If primary mineralization of commercial grade, and of dimensions comparable to those of the gossan, is found below the zone of oxidation, ore bodies of large tonnage might be found to occur underlying the slate within about 200 feet of the base.

(d) The Dosser-Maki-Lotze properties are east of the south end of Deep Lake on a good graveled county road. The nearest railroad shipping point is Northport about 13 miles by road to the northwest. The Trail Smelter of the Consolidated Mining and Smelting Company of Canada is about 23 miles away by a good gravel road.

(e) If a mine were to be developed in this area local labor, labor from the Metaline mining district, and from Spokane could be expected to carry on an operation. Materials, supplies, and equipment would be obtained in Spokane, Washington about 115 miles to the south. An abundant supply of water is available in Current Creek which crosses the property. The closest Bonneville power lines are about three miles south.

5. (a) Lead and Zinc.

(b) Proposed drilling: (See map of Dosser-Maki-Lotze Properties with proposed diamond drill holes drawn in.)

Lotze.

Lotze D.D.#1 to #4. Four holes each about 500 feet long and spaced 150 feet apart, drilled south at about -65 from an east west line about 175 feet north of Dosser D.D.#1 (see map of proposed drilling). These holes would be intended to crosscut the gossan zone projected to an elevation of between 2200 and 2400 feet.
4000' After drilling of one hole the drilling plan could be changed to a more suitable pattern if results suggested a change.

If a mineralized zone of commercial grade is found by drilling in holes #1 to #4, a series of four vertical holes would be drilled from locations a short distance north of holes #1 to #4. The locations for these holes would be determined by the earlier drilling results and it is estimated that their total length would be 2000 feet.

The drilling program as a whole would be flexible and adaptable to change. If good primary mineralization is found on one property and none on another the bulk of the drilling would be shifted to the more favorable location.

Maki.

Maki D.D.#2. A 400 foot hole, or less if granite is reached earlier, to be drilled at -75° South from a point about 150' north of the upper Maki shafts. This hole would intersect the projected extension of the upper shafts at about 300 feet, about 200 feet vertically below the outcrops.

Maki D.D.#3. A 400 foot hole, or less if granite is reached earlier, to be
1200' drilled at -65° south 10° E from 200 feet east of Maki D.D.#2. This hole would intersect the projected extension of the lower shafts at about 350 feet, and about 200 feet below their outcrops.

These holes are not directed to crosscut the ore zones near the surface as it is supposed that any ore will be very highly oxidized to a depth of at least 100 feet. If no ore can be found below the zone of oxidation the deposits even if of commercial grade probably would not be minable in the near future.

Maki D.D.#4. If the drilling on the Lotze property indicates that an ore zone lies close beneath the Ledbetter slate, as in the case in the Metaline District, a -30° 400 foot hole drilled north from near Maki D.D.#2 would furnish valuable information on conditions near the contact which in this area covered by talus and other overburden.

(c) Work will start within 90 days and be completed within ~~X~~ 12 months from the date of an exploration contract.

5200' -Total proposed feet of diamond drilling.

(d) Grandview Mines has been engaged in the lead and zinc mining business in northeastern Washington since 1927. The project will be under the immediate supervision of Eskil Anderson, a 1941 graduate of the U. of Alaska with 4 and 5 year degrees in Geology and Mining. Mr. Anderson has been actively and continuously engaged in geological and mining work since 1941.

6. (a) The total cost of the project would be $36,400, for a maximum of 5200 feet of diamond drilling at $7.00 per foot.

Grandview Mines would agree to diamond drill a maximum of 5200 feet, obtaining AX core, at a total cost of $7.00 per foot. Grandview would subcontract the diamond drilling and pay all cost of necessary additional bulldozer stripping, assaying, supervision and any other costs included under (b) (c) (d) (e) (f) (g) and (h).

7. (a) Grandview Mines is prepared to furnish ½ the cost of the proposed project, or $18,200.

(b) Grandview would pay all costs and submit a bill to the government at the end of each month for ½ of the footage drilled times $7.00.

DIAMOND DRILL RECORD

Standpipe
Casing
Started 10/28/52 2/15/53
Finished
Hole Size AX
Depth 400
% Core Rec.

Mine ~~Current Cr. ½ mi. E. of Deep Lake,~~ Sapset
Location ~~Stevens Co., Wash.~~
Logged by E A Date 2/15/53
Drilled by Newman and Kellams(Boyles)

Hole No. 1
Level
Grid
Latitude
Departure 11. 2402.
Elevation
Bearing ~~Horizontal~~ N.4°W.
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data						
			No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-400		Course grained biotite granite. Drill stuck repeatedly from 180' on by caving and running sugary granite. Hole abandoned at 400'. Drillers could make no progress.							

27

Standpipe
Casing 83

DIAMOND DRILL RECORD

Hole No. 1
Level
Grid
Latitude
Departure
Elevation 2623'
Bearing S.
Inclination -29°

Started 10/6/52
Finished 10/14/52
Hole Size AX
Depth 214
% Core Rec. 30

Mine Dosser Prospect
Location Current Cr., East of Deep Lake, Stevens Co., Wash.
Logged by E A Date 10/24/52
Drilled by Olds-Kellams (Boyles)

Depth Feet	Feet Core	Lithologic Description	Sample No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-27	0	Overburden							
27-83	0	No core. Sludge mainly FeO_xs from 50' to 83'. First sludges, 50' to 83'. Driller recovered no sludge before 50' and as a result almost no information was obtained from first part of hole. Ac. to drillers from 27' to 50' drilling was in bedrock with oxides							
83-101	3	About 1' of 3' of core is somewhat porous, hard FeO_x.							
101-214	52	Gray, finely crystalline banded dolomite with red FeO_x scattered sparsely throughout and no fresh sulfides. Sludges contain slight to moderate quantities of FeO_x particles beyond 110. Bedding near right angles to hole. Note: Failure of driller to save much core, and incomplete sludge recovery, make results obtained from hole worth very little.							
		Sludges							
		Sullivan Mining Co. assays		60-65	0	5	0.1	0.6	0.1
				65-70	0	5	0.4	0.8	0.1
				75-80	0	5		0.1	0.0
				80-85	0	5	0.2	0.1	0.3
				85-90	0	5	0.4	0.8	0.4
				90-95	0	5	0.3	0.9	0.5

DIAMOND DRILL RECORD

Standpipe 12
Casing 21

Started 10/16/52
Finished 10/24/52
Hole Size AX
Depth 215
% Core Rec. 41

Mine Dosser Prospect
Location ~~Current Cr., just east of Deep Lake, Stevens Co. Wash.~~
Logged by EA Date ~~10/24/52~~
Drilled by ~~Olds-Kellams (Boyles)~~

Hole No. Dosser #2
Level
Grid
Latitude
Departure 2623'
Elevation S
Bearing -67°
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-12	0	Overbuden							
12-21	0	No core.							
21-215	88	Gray, light and dark banded dolomite with oxidation spots scattered sparsely throughout. Strongest oxidation in sludges at about 57' to 75' Banding not far from right angles to hole. N. B. Very little core and incomplete sludge recovery.							
		<u>Sludge</u> Sullivan Mining Co. assay		57-65	0	8	0.4	1.0	0.0

Form 108 2M 8-53 SHAW & BORDEN CO. 308150

DIAMOND DRILL RECORD

Standpipe
Casing 6

Started 10/25/52
Finished 11/17/52
Hole Size AX
Depth 605
% Core Rec. 73%

Mine Dosser Prospect
Location Currant Cr. just east of Deep Lake, Stevens Co., Wash.
Logged by EA Date 11/16/52
Drilled by Olds (Boyles)

Hole No.
Level
Grid
Latitude
Departure 2333'
Elevation
Bearing N
Inclination 0°

Depth Feet	Feet Core	Lithologic Description	Sample Data: No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-75	44	Course grained biotite granite							
75-188	98	Blue-white xline dolomite metamorphosed & knotty from proximity to granite Few thin bands of ZnS, and occasional ZnS shines and pyrite from 85' to 95' ZnS bands scarce, less than 1/8" thick. About ½" ZnS at 154'. Considerable pyrite and pyrrhotite from 164' to 170' in narrow bands. Oxidation at 182'							
188-193	3½	Thin banded ls, often wafer cored, iron stained.							
193-478	218.5	Blue-white xline ls, banded to knotty & contact metamorphosed. Many 1/16" to ½" pyrite and pyrrhotite bands from 198 to 252'. Ls darker, denser, somewhat silicified from 267' to 300'. Strong pyritization from 428' to 445.							
478-605	78	Ls becoming finer-grained darker, and sometimes slaty and impure with some narrow bands of black, siliceous slate; poor recovery.							

DIAMOND DRILL RECORD

Standpipe
Casing 80

Started 11-8-52
Finished 11-15-52
Hole Size AX
Depth 161
% Core Rec. 90

Mine Dosser
Location Currant Cr., just east of Deep Lake, Stevens Co., Wash.
Logged by EA Date 12/3/52
Drilled by Johnson (Boyles)

Hole No. 4
Level
Grid
Latitude
Departure
Elevation 2198
Bearing S25°W.
Inclination -45°

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-22	7	Gray banded dolomite with iron oxide in spots and along seams. BX chips more than core							
22-125	93.5	Wavy gray and dark gray banded dolomite-banding mostly at right angles to core axis. Very narrow seams, and spots, of ZnS beginning at 60' and sparsely distributed throughout rest of section. Occasional zones containing much pyrite with a little ZnS & PbS. Some pyrrhotite.	527	79-82	3.0	3.0	Tr	0.0	0.8
		(Piece of high (Zn split core removed from 92')	528	90.-94	4.0	4.0	Tr	0.0	1.0
125-161	35	Core 100% except in first few feet Dolomite becoming lighter gray and less distinctly banded, med. xline, with less pyrite, tremolite. No Zn and Pb shines observed.	529	105-108.5	3.5	3.5	Tr	0.0	0.5

DIAMOND DRILL RECORD

Standpipe
Casing 25

Started 11-17-52
Finished 11-25-52
Hole Size AX
Depth 175
% Core Rec. 97

Mine Dosser Prosp.
Location ~~Current Cr., just east of Deep Lake, Stevens Co., Wash.~~
Logged by SA Date 11-25-52
Drilled by G.R. Johnson (Boyles)

Hole No. 5
Level
Grid
Latitude
Departure 2198
Elevation Vertified
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-25	20	Chips of BX core. Gray to black dolomite with Fe stained spots. Pyrite, pyrrhotite, & tremolite between 8' & 10'							
25-77.5	51.5	Gray banded to knotty dolomite with occasional narrow calcite veinlets. Banding at 15° to 40° angle from plane across core. Few oxidized spots. Specks of pyrite from 55' (and tremolite)							
77.5-80.5	3.0	Gray to dark gray banded ls with tiny seams of dark brown ZnS and pyrite and PbS shines.	524	77.5 -80.5	3.0	3.0	Tr	0.0	0.5
80.5-97	16.5	Gray banded dolomite with occasional shines of Pb & ZnS. Less than 1/8" bands of dark brown ZnS							
97-147	50	Gray banded dolomite with occasional spots of Zn and Pbs, and pyrite bands totalling ab.18", between 97' and 112'. Pb and Zn sulfides sparsely and uniformally distributed throughout 50'.	525	97-102	5.0	5.0	Tr	Tr	[illegible].4 9.7F,
			526	139-144	5.0	5.0	Tr	0.0	0.[illegible] 93F,
		Pyrrhotite and pyrite between 139 & 144.							
147-175	28	Dolomite type remains same with less Zn & PbS, less pyrite, and tiny tremolite Xls common.							

DIAMOND DRILL RECORD

Standpipe
Casing 15

Started 11/25/52
Finished 12/6/52
Hole Size AX
Depth 174.5
% Core Rec. 92.5%

Mine Dosser
Location Current Cr., just east of Deep Lake
Stevens Co., Wash.
Logged by EA Date 12-15-52
Drilled by C R Johnson (Boyles)

Hole No. 6
Level
Grid
Latitude
Departure
Elevation 2148'
Bearing
Inclination Vertical

Depth Feet	Feet Core	Lithologic Description	Sample Data						
			No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-12		Overburden - shattered bedrock particles							
12-174.5	156	Gray and dark gray fine grained dolomite, with slate bands Pyrite at 46' Dolomite becoming more distinctly banded with spots of pyrite, calcite, and dark brown ZnS Shines from 80' on Banding at about 45° Dolomite becomes lighter gray from 155 on. No sections mineralized enough for assay.							

Form 108 2M 3-53 SHAW & BORDEN CO. 308150

LEASE OF MINERAL RIGHTS

THIS AGREEMENT made and entered into this 5th day of August, 1952, by and between GEORGE A. DOSSER and HELEN DOSSER, husband and wife, of Northport, Washington, parties of the first part, hereinafter referred to as Lessors, and GRANDVIEW MINES, a corporation of the State of Washington, party of the second part, hereinafter referred to as Lessee, WITNESSETH:

That the said Lessors, for and in consideration of the cash payments and royalties hereinafter reserved, and the covenants and agreements hereinafter expressed and by the said Lessee to be kept and performed, do by these presents lease unto the said Lessee all mines, minerals and mineral rights, lodes, veins and deposits found, or to be found, under or within the lines or areas of the following described land, situate in the County of Stevens, State of Washington, to-wit:

That part of Government Lot 5, Section 27, Township 39, North, Range 41, E.W.M., except the north 450 feet thereof, lying south and east of the County Road;

The South half of the Northeast quarter (S½NE¼); Government Lot 1; that part of the Southeast quarter of the Northwest quarter (SE¼NW¼) lying south and east of Deep Creek; that part of Government Lot 2 lying south and east of Deep Lake and Deep Creek; all in Section 34, Township 39, North, Range 41, E.W.M.,

Subject to:

1. Mortgages of record to EQUITABLE LIFE ASSURANCE SOCIETY AND R. C. CAFFAL and R. G. CAFFAL, of Portland, Oregon.

2. Rights of way, easements, reservations or roads, power lines and telephone lines.

3. Agreement entered into between the Lessors herein, as Sellers, and DEER PARK PINE INDUSTRIES, INC., a corporation as Purchaser, under date of February 27, 1951, relative to the sale of timber on said property, and the right to remove the same.

4. Lease agreement entered into by the Lessors herein, as Lessors, and HERSCHEL W. LOPP and ETHEL S. LOPP, husband and wife, as Lessees, under date of February 20, 1951, by terms of which a portion of the above described property has been leased for resort purposes.

TOGETHER with such reasonable use of the surface ground as may be necessary to win, work and carry away such minerals, including the right of ingress thereto and egress therefrom, over the present roads from the main highway or any road that may be constructed in the future over said lands.

TO HAVE AND TO HOLD unto the said Lessee for the term of fifty (50) years from and after the 15th day of August, 1952, unless sooner terminated or forfeited through the violation of any covenant hereinafter against said Lessee reserved.

And the parties hereto covenant and agree with each other as follows:

1. Commencing on the 5th day of August, 1952, Lessee shall have the right to prospect, explore, mine and develop said lands, to carry on, construct, and conduct

mining and ore milling operations thereon and therein, and to mine, extract, mill and ship any ores upon or in said lands with rights of ingress thereto and egress therefrom.

2. In the event second party enters upon the agricultural lands of Lessors to prospect, explore, mine or develop the same, and to conduct and carry on any mining and/or milling operations on the surface thereof, and in the event such mining or milling operations of Lessee damage or interfere with the use of such agricultural lands, then Lessee agrees to pay reasonable compensation to the Lessors for any damage they might sustain by reason thereof. Lessee agrees, however, not to unnecessarily interfere with the use of said lands for agricultural purposes.

3. So long as this lease remains in force and effect Lessee agrees to pay, before delinquincy, any and all taxes, fire protection and other assessments levied on the mineral rights to said property or any improvements placed thereon by Lessee, commencing with the year 1953.

4. Lessors agree to deliver to Lessee an abstract of title to said lands so demised, showing a merchantable title in Lessors, subject to the encumbrances heretofore set forth. Lessee shall, have 10 days within which to examine said abstract, at the expiration of which time the Lessee shall return said abstract or abstracts to the Lessors, together with written notice of any defects or objections thereto. The Lessors shall have a reasonable time within which to cure any defects or objections to the title if the same can be cured by quiet title action or otherwise. If title cannot be cured by quiet title action and Lessee shall be unwilling to waive the defect, then this agreement shall be at an end and of no further force or effect.

Upon perfecting title to said property as herein agreed, or if there be no objections or defects in the title to said property, then upon expiration of the time allowed for examination of the abstract Lessee agrees to pay unto Lessors the sum of $2500.00. Lessee further agrees to pay to Lessors 3% of the net smelter returns on all ores mined, extracted, milled and shipped from said lands while this lease is in force and effect, payment thereof to be made on the 15th day of each month on all smelter returns received during the preceding calendar month. In the event the net smelter returns paid to Lessors by Lessee for any year (the contract year hereunder being from August 1st to August 1st), the first contract year commencing on the date of execution of this agreement and ending August 1, 1953, and each contract year thereafter, do not amount to the sum of $2500.00, then Lessee agrees to pay to Lessors on or before August 25th following said yearly period the difference between the

said sum of $2500.00 and the total net smelter returns paid to Lessors, during the preceding yearly period. The payment of $2500.00 to be paid upon perfecting title to the property shall be applied as a minimum royalty payment for the first contract year ending August 1, 1953. "Net smelter returns" is hereby defined to mean value at the smelter of all concentrates and ores delivered to the smelter, less freight and all other smelter charges.

5. Lessee shall have the right to make such openings, cuts and trenches on the surface, with due regard to the agricultural operations of Lessors, as may be necessary in exploring, developing and mining the leased premises, and to construct roads and trails on said premises, and to construct power and telephone lines, water and air lines and flumes to facilitate said work and shall have rights of way for all other purposes in connection with its mining or milling operations, and the parties hereto shall have mutual rights in and to the use of said roads and trails on said property.

6. If and when Lessee commences mining operations for the development and production of ore, Lessee agrees to work and operate said property in its discretion and to such extent and in such manner as it may deem proper, all work carried on by Lessee to be done in a good and workmanlike manner and at its sole cost and expense. Lessee agrees that at any and all times when it is operating the property hereinbefore described, it will protect the Lessors against any claims resulting from its operation of said property.

7. Lessors and their duly authorized representatives shall have the right at all reasonable times to enter into and upon all parts of said property for purposes of inspection and to have access to and to permit the examination of production records, reports, maps, diamond drill logs, and all other records relating to exploratory or development work carried on by Lessee upon or within said property.

If this lease shall terminate, be cancelled, or forfeited, or if Lessee shall relinquish the demised premises or any part thereof, it shall within three months after the date of such termination, cancellation, forfeiture, or relinquishment, furnish the Lessors with copies of mine maps, factual geologic, geophysical and assay maps of the relinquished lands, as well as plans showing the location and attitude of all diamond drilled holes, within such relinquished lands, and the geologic maps and assays of such holes.

8. In the event of the termination of this lease by forfeiture or otherwise, Lessee shall have the right to remove any and all machinery, tools and other equipment placed upon said property during the life of this lease within a period of 90 days thereafter, but all buildings constructed on said property by Lessee shall remain on said

property and become the property of Lessors.

9. Upon the expiration of the term of this lease, or at any time previous upon demand for forfeiture, Lessee agrees to quit and surrender to said Lessors the said premises, with the appurtenances, without demand or further notice.

10. Finally, if the Lessee defaults in the performance of any of the covenants and agreements herein contained upon its part to be performed, and such default shall continue for a period of 30 days after written notice from Lessors to correct the same, stating specifically the nature or grounds of such default, given by registered mail at the address hereinafter stated, or served personally upon Lessee, the term of this lease shall, at, the option of Lessors, terminate, and this lease and the premises shall become forfeited to the Lessors, and said Lessors may thereupon, after demand for possession in writing, enter upon said premises and dispossess all persons occupying the same, lessee shall execute, acknowledge and deliver to Lessors a written release of this lease, in due form for public record if necessary. Likewise, if Lessee shall determine to voluntarily surrender and terminate this lease at any time before the expiration of the term it shall give 30 days written notice to Lessors by registered mail, at the address hereinafter stated, or served personally upon Lessors, of such intention, and upon the expiration of said notice, if Lessors do not within said time retake possession of said premises, the Lessee shall not be liable for damages occurring to said demised premises thereafter.

11. Any and all notices or communications required by the provisions of this lease to be given to Lessors shall be either personally served upon them or given by registered mail to Lessors GEORGE A. DOSSER and HELEN DOSSER, his wife, at Northport, Washington, and to Lessee shall be either personally served upon it or given by registered mail at its office at 310 Radio Central Building, Spokane, Washington. In the event either of the parties hereto shall change their or its address, notice of such change shall be given to the other party hereto.

12. In the event of strikes, floods, fires, failure of water or power, war, governmental restrictions, Act of God, or other unavoidable casualty beyond the control of Lessee, which prevents or substantially retards the Lessee from carrying out its obligations hereunder (and all such causes and each of them are expressly recognized as valid reasons for deferment by Lessee), then and in any of said events so preventing or substantially retarding Lessee from carrying out any of its obligations, the time for performing such obligations shall be extended for a time equivalent to the durations of such period or periods as conditions above mentioned exist, and provided the Lessee

shall resume operations with due diligence.

13. Lessee shall have the right to use for its mining or milling operations any water on said demised premises not required by Lessors in its farming operations.

14. Lessors further hereby lease to the Lessee the following described lands situated in Section 22, Township 39, North, Range 41, E.W.M., in the County of Stevens, State of Washington, to-wit:

From the vortex of Sections 21, 22, 27 and 28, Township 39 North, Range 41 East, Willamette Meridian; proceed east on a true line between Sections 22 and 27 for 4737.48 feet to a meander corner of fractional sections 22 and 27 on the west shore of Deep Lake, which is marked by an iron post in the ground and serves as the true point of beginning. From the point of beginning proceed west along the section line for 125 feet, thence north on a true line for 125 feet, thence east on a true line for 205 feet to the intersection of the west shore of Deep Lake, thence south 32°37'06" west along the shore line for 148.4 feet to the point of beginning;

with the right to use sufficient water from a spring, or springs, on or adjacent to said property for domestic use; together with the right of ingress and egress to the county road over existing or hereafter constructed roads located on lands owned by Lessors in Section 22 and Section 23.

Lessee hereby agrees to waive any claim against Lessors for damages by reason of cattle grazing on the property described in this paragraph, and Lessee further agrees that if and when it receives a deed to said property that it will construct a fence adequate to keep cattle out of said property.

Lessors further agree that if this lease is kept in force and effect for two years, then upon receipt of payment of the minimum royalty of $2500.00 for the second year that Lessors will convey to Lessee, by a good and sufficient deed, the foregoing described property. Upon execution of this agreement Lessors shall execute such a deed and deed and deposit the same with J. ORVILLE HUMPHRIES, 828 Old National Bank Building, Spokane, Washington, to be held in escrow by him for delivery to the Lessee upon proof of payment of the second year's minimum royalty.

15. It is agreed that Lessors shall have the exclusive use of the surface of that portion of Government Lot 5, Section 27, Township 39, North, Range 41, E.W.,., lying within 175 feet of the shore line of Deep Lake and without interference in any manner by the mining operations of Lessee.

16. It is further agreed that this lease shall not become effective until:

(a) Lessors secure and record a deed from NORTH COLUMBIA CO. of the minerals and mineral rights under that 60 foot wide strip of land described in conveyance recorded in Volume 144 of Deeds at page 179, records of Stevens County, Washington;

(b) Consent to the granting of this lease by EQUITABLE LIFE ASSURANCE SOCIETY Mortgagee;

(c) Consent to the granting of this lease by R. C. CAFFAL and R. G. CAFFAL of Portland, Oregon, Mortagees;

(d) Approval of title by Lessee's attorney.

17. Each of the foregoing covenants and provisions of this lease shall extend to, incure to the benefit of, and be binding upon the parties hereto, the heirs, personal representatives and assigns of Lessors, and the successors and assigns of Lessee.

IN WITNESS WHEREOF, the Lessors have hereunto set their hands, and the Lessee has hereunto caused these presents to be signed by its President, and its corporate seal to be hereunto affixed, attested by its Secretary, the day and year in this agreement first above written.

George A. Dosser

Helen Dosser

LESSORS.

GRANDVIEW MINES

By Karl W. Jasper
President

Attest: Mae Hamilton
Asst. Secretary
LESSEE.

CONSENT TO LEASE

THE UNDERSIGNED, THE EQUITABLE LIFE ASSURANCE SOCIETY OF THE UNITED STATES, A CORPORATION, hereby consents to that certain Lease Agreement entered into as of the 5th day of August, 1952, by and between GEORGE A. DOESER and HELEN DOESER, husband and wife, of Northport, Washington, as Lessors, and GRANDVIEW MINES, a corporation of the State of Washington, as Lessee, and hereby agrees that the mortgage held by the undersigned on the property covered by said Lease, which mortgage is dated August 6, 1947, filed for record October 11, 1947, and recorded in Book 72 of Mortgages at page 237 in the office of the County Auditor of Stevens County, State of Washington, together with any renewals, extensions or refinancing of said mortgage, including any increase thereof, executed by GEORGE A. DOESER and HELEN DOESER, his wife, shall be subject to the terms of said Lease.

This consent is being executed as an inducement for and in consideration of GRANDVIEW MINES entering into said lease.

EXECUTED this 19th day of August, 1952, at New York.

THE EQUITABLE LIFE ASSURANCE SOCIETY OF
THE UNITED STATES

By_____
R. I. Howell- Vice President

_____
R. L. Kaidra - Assistant Treasurer

Witness:

Betty Batson
Maria O Neill

CONSENT OF MORTGAGEES
R. G. CAFFALL AND R. C. CAFFALL

The undersigned R. G. Caffall and R. C. Caffall of Portland, Oregon, the mortgagees in that certain mortgage dated March 19, 1951, covering, among other property, the property of lessors described in the foregoing lease of the minerals and mineral rights in said property, which said mortgage is recorded in Book 76 of Mortgages, page 145, Official Records of the County Auditor of Stevens County, Washington, does hereby consent to the granting of the foregoing Lease of Mineral Rights, and to all the terms and covenants thereof.

Dated August 11, 1952.

R. G. Caffall

R. C. Caffall

State of Oregon)
County of Multnomah) ss

I, the undersigned, a Notary Public in and for the above named County and State, do hereby certify that on this 11th day of August, 1952, personally appeared R. G. Caffall and R. C. Caffall, known to me to be the individuals whose names are subscribed to the within instrument, and acknowledged that they signed and sealed the same as their free and voluntary act and deed for the uses and purposes therein mentioned.

Given under my hand and official seal the day and year last above written.

R. K. Kreighbaum
Notary Public in and for the
State of Oregon, residing at
Portland, Oregon

MINING LEASE

THIS AGREEMENT OF LEASE made and entered into this 29 day of August, 1952, between Katie Maki, widow and surviving spouse of Gus Maki, deceased, of Spokane, Washington, hereinafter called the Lessor, deceased, of Spokane, Washington, hereinafter called the Lessee, WITNESSETH:

That the said lessor, for and in consideration of the rents, royalties, expenditures, covenants and agreements hereinafter expressed, to be paid, incurred, kept and performed by said lessee, has leased and demised unto said lessee all mines, minerals and mineral rights, lodes, veins and deposits found, or to be found, under or within the lines or areas of the following described land, situate in Stevens County, Washington, to wit:

SW¼ NE¼, S½NW¼, and NW¼SW¼, all in Sec. 35, Twp. 39 N.R. 41 EWM.

Together with such reasonable use of the surface ground as may be necessary to work and carry away such minerals, including the right of ingress thereto and egress therefrom over the present roads from the main highway, or any road that may be constructed in the future over said lands.

TO HAVE AND TO HOLD unto the said lessee for the term of thirty (30) years from and after the 15th day of September, 1952, unless sooner terminated or forfeited through the violation of any covenant hereinafter against said lessee reserved.

And the parties hereto covenant and agree with each other as follows:

1. Commencing on the 1st day of September, 1952, lessee shall have the right to prospect, explore, mine and develop said lands, to carry on and conduct mining and ore milling operations thereon and therein, and to mine, extract, mill and ship any ores upon or in said lands with rights of ingress thereto and egress therefrom.

2. In the event lessee enters upon the agricultural lands of lessor to prospect, explore, mine and develop the same, and to conduct and carry on any mining and/or milling operations on the surface thereof, and in the event such mining or milling operations of lessee damage or interfere with the use of such agricultural lands, then lessee agrees to pay reasonable compensation to the lessor for any damage she might sustain by reason thereof. Lessee agrees, however, not to unnecessarily interfere with the use of said lands for any agricultural purpose. Likewise lessee agrees not to interfere unnecessarily with any logging operations that may be carried on upon said lands while this lease is in force and effect, and lessor agrees that such logging operations shall not interfere unnecessarily with any prospecting or

mining operations that may be undertaken on the land by lessee.

3. It is understood that lessor has given to North Columbia Co. the right to log off the timber on said lands for a period of fifteen years from the 31 day of May, 1951, and that the lessee acquires no right to any timber upon said lands, except, however, as it may become necessary for lessee to clear land and remove timber in preparing places to carry on mining or milling operations, in which event lessee shall secure consent of North Columbia Co.

4. So long as this lease remains in force and effect, lessee agrees to pay before delinquency any and all taxes, fire protection, and other assessments levied on the mineral rights in and to said property, or any improvements placed thereon by lessee commencing with the year 1953.

5. Lessor agrees to deliver to lessee an abstract of title to said lands so demised, showing a merchantable title in lessor to the minerals in said lands. Lessee shall have 10 days within which to examine said abstract, at the expiration of which time lessee shall return said abstract to lessor, together with written notice of any defects or objections thereto. Lessor shall have a reasonable time within which to cure any defects or objections to the title if the same can be cured by quiet title action or otherwise. If title cannot be cured by quiet title action and lessee shall be unwilling to waive the defect, then this agreement shall be at an end and of no further force or effect.

6. Upon perfecting title to said property as herein agreed, or if there be no objections or defects in the title to said property, then upon expiration of the time allowed for examination of the abstract, and commencing with the 15th day of September, 1952, and during the first year that this lease is in force and effect, lessee agrees to do and perform a minimum of 1,000 feet of diamond drilling upon said leased lands. If upon the expiration of one year from the effective date of this lease, to wit, September 15th, 1952, lessee determines to proceed further with prospecting, exploring, mining and developing said leased lands, lessee shall have the right to mine, mill and ship any ores that may be extracted or removed from said leased premises during the life of this lease, and shall pay to lessor on all ores shipped and paid for by the smelter a royalty of 4% of the net smelter returns if the price of zinc on the New York market is 20¢ per lb., or less, and 5% of the net smelter returns if the price of zinc on the New York market exceeds said 20¢ per lb., and the same royalty payments shall apply to all lead concentrates and other valuable minerals and metals shipped and paid for by the smelter.

Commencing with the second year of this lease and at the beginning of each year thereafter so long as this lease is in force and effect, lessee shall pay to lessor as an advance royalty payment the sum of $2,500.00. If the royalty payments that may become due to lessor during the year in which such advance royalty payment has been made shall exceed the sum of $2,500.00 in any year, then such excess shall be paid by lessee to lessor, a statement thereof to be rendered to lessor by lessee on or before the 15th day of the following month. If production of ore be suspended or not entered into in any of the years in which such advance royalty payments are made, such payments are to be cumulative for a period not to exceed five years from date such payment is due and payable until production is again commenced or resumed.

7. Lessee shall have the right to make such openings, cuts and trenches on the surface, with due regard to the agricultural operations of lessor or any logging operations that may be carried on upon said premises, as may be necessary in exploring, developing and mining the leased premises, and to construct roads and trails on said premises and to construct power and telephone lines, water and air lines and flumes to facilitate said mining or milling operations of lessee, and shall have rights of way for all other purposes in connection with its mining or milling operations, and the parties hereto shall have mutual rights in and to the use of said roads and trails on said property.

8. If and when lessee commences mining operations for the development and production of ore, lessee agrees to work and operate said property in its discretion and to such extent and in such manner as it may deem proper, all work carried on by lessee to be done in a good and workmanlike manner and at its sole cost and expense. Lessee agrees that at any and all times when it is operating said property, it will protect lessor against any claims resulting from its operation of said property.

9. Lessee agrees to fully pay and discharge all obligations the lessee may incur for labor, materials, or otherwise in the prosecution of said work so carried on under this lease and to save and protect the lessor and her property free and harmless from any and all claims, demands and liens for labor and materials that may be furnished for or at the request of lessee during the life of this lease, or that may be used in the prosecution of the work so carried on hereunder.

10. Lessee agrees to post and keep posted in a conspicuous place or places on said premises a notice satisfactory to lessor to the effect that lessor and her

property will not be liable for any debts incurred or obligations created by the lessee in the prosecution of work under this lease.

11. Lessor and her duly authorized representative shall have the right at all reasonable times to enter into and upon all parts of said property for the purpose of inspection and to have access to and to permit the examination of production records, reports, maps, diamond drill logs, and all other records relating to exploratory and development work carried on by lessee upon or within said property.

If this lease shall terminate, be cancelled or forfited, or if lessee shall relinquish the demised premises, or any part thereof, it shall within three months after the date of such termination, cancellation, forfeiture or relinquishment furnish lessor with copies of mine maps, factual geologic, geophysical and assay maps of the relinquished lands, as well as plans showing the location and altitude of all diamond drill holes within such relinquished lands, and the geologic maps and assays of such holes.

12. In the event of the termination of this lease by forfeiture or otherwise, lessee shall have the right to remove any and all machinery, tools, and other equipment placed upon said property during the life of this lease within a period of ninety days thereafter, but all buildings constructed on said property by lessee shall remain on said property and become the property of lessor.

13. Upon the expiration of the term of this lease, or at any time previous upon demand for forfeiture, lessee agrees to quit and surrender to said lessor the said premises, with the appurtenances, without demand or further notice.

14. Finally, if the lessee defaults in the performance of any of the covenants and agreements herein contained upon its part to be performed, and such default shall continue for a period of thirty (30) days after written notice from lessor to correct the same, stating specifically the nature or grounds of such default, given by registered mail at the address hereinafter stated, or served personally upon lessee, the term of this lease shall, at the option of lessor, terminate, and this lease and the premises shall become forfeited to lessor, and said lessor may thereupon after demand for possession in writing enter upon said premises and dispossess all persons occupying the same, and lessee shall execute, acknowledge and deliver to lessor a written release of this lease, in due form for public record, if necessary. Likewise, if lessee shall determine to voluntarily surrender and terminate this lease at any time before the expiration of the term, it shall give thirty (30) days' written notice to lessor by registered mail, at the address hereinafter stated, or

served personally upon lessor, of such intention, and upon the expiration of said notice, if lessor does not within said time retake possession of said premises, lessee shall not be liable for damages occurring to said demised premises thereafter.

15. Any and all notices or communications required by the provisions of this lease to be given to lessor shall be either personally served upon lessor or given by registered mail to lessor at West 2728 Gordon, Spokane, Washington, and to lessee shall be either personally served upon it or given by registered mail at its office at 310 Radio Central Building, Spokane, Washington. In the event either of the parties hereto shall change her or its address, notice of such change shall be given to the other party hereto.

16. In the event of strikes, floods, fires, failure of water or power, war, governmental restrictions, Act of God, or other unavoidable casualty beyond the control of lessee, which prevents or substantially retards lessee from carrying out its obligations hereunder (and all such causes and each of them are expressly recognized as valid reasons for deferment by lessee), then and in any of said events so preventing or substantially retarding lessee from carrying out any of its obligations, the time for performing such obligations shall be extended for a time equivalent to the duration of such period or periods as conditions above mentioned exist, and provided lessee shall resume operations with due diligence.

17. Lessee shall have the right to use for its mining or milling operations any water on said demised premises not required by lessor in her farming operations.

18. The percentage of depletion of ore reserves in the leased premises shall be equitably proportioned between lessor and lessee as follows: Lessor shall be entitled to 15% of her gross income from net smelter returns, not, however, to exceed 50% of her net profit therefrom, and lessee shall be entitled to 15% of its gross income from net smelter returns received by it, less royalties paid to lessor, all as provided in the United States revenue laws.

19. Lessor agrees to secure from North Columbia Co. an agreement acknowledging lessor's right to the minerals under a 60 foot strip of land over the leased premises, which strip of land was heretofore granted said company by lessor for road purposes on May 31, 1951.

20. Each and every clause of this lease shall extend to and be binding upon the parties hereto, the heirs, personal representatives, and assigns of lessor, and the successors and assigns of lessee.

IN WITNESS WHEREOF lessor has hereunto set her hand and lessee has hereunto

caused these presents to be signed by the president and the corporate seal to be hereunto affixed, attested by the secretary, the day and year in this agreement first above written.

Katie Taki
Widow and Surviving Spouse of
Gus Taki, deceased.

LESSEE

GRANDVIEW MINES

By Karl W. Jasper
President

Attest: S. E. Barnes
Secretary

STATE OF WASHINGTON)
) ss.
County of Spokane)

I, the undersigned, a Notary Public in and for the above named County and State, do hereby certify that on this 29th day of August, 1952, personally appeared before me KATIE TAKI, to me known to be the individual described in and who executed the within instrument, and acknowledged that she signed and sealed the same as her free and voluntary act and deed, for the uses and purposes therein mentioned.

GIVEN under my hand and official seal the day and year last above written.

R. L. Hooper
Notary Public for the State of
Washington, residing at Spokane,
Washington.

OPTION TO PURCHASE

Albert G. LOTZE and EVA M. LOTZE, husband and wife, of Northport, Washington, parties of the first part, for and in consideration of one dollar and other good and valuable considerations, hereby grant unto GRANDVIEW MINES, a corporation of the State of Washington, the option to purchase, for the total sum of twenty thousand dollars ($20,000.00), the mineral rights to all minerals and mineral deposits, excepting only barite deposits, found or to be found, under or within the lines or areas of the following described land, situate in the County of Stevens, State of Washington, to-wit:

NE¼ NE¼ of Section 34;
N½ NW¼ of Section 35;
S½ SW¼ of Section 26;

excepting approximately two square acres in the extreme northwest corner, which area is enclosed by a line running 416 feet east from the northwest corner of S½ SW¼ of Section 26; thence 208 feet south; thence 416 feet west; and thence north 208 feet to the point of beginning; all in Township 39, North, Range 41E.W.M., subject to the following terms and conditions:

1. (a) Grandview Mines agrees to pay to parties of the first part:

$1,000.00 on or before October 1, 1952
2,500.00 on or before October 1, 1954
5,000.00 on or before October 1, 1955
5,000.00 on or before October 1, 1956
6,500.00 on or before October 1, 1957,

for a total purchase price of $20,000.00

(b) Grandview Mines agrees to pay all taxes on lands and minerals; excepting only the taxes levied on timber and on barite deposits, which are to be paid by parties of the first part if any such taxes are assessed.

(c) Grandview Mines agrees with parties of the first part that under this option to purchase, the mineral rights to all barite deposits is specifically excluded.

(d) Grandview Mines agrees to pay as soon as due the 1% state real estate tax on sale of property, amounting in this case to $200.00.

2. (a) Parties of the first part agree to deliver to Grandview Mines an abstract of title to all properties herein involved, showing a merchantable title in parties of the first part. Grandview Mines shall have at least 10 days within which to examine said abstract before October 1, 1952.

(b) Parties of the first part agree that Grandview Mines shall, if this option is exercised, have such reasonable use of the surface ground as may be necessary to win, work, and carry away such minerals, including the right of ingress thereto and egress therefrom, over the present roads from the main highway or any road that may be constructed in the future over said lands.

Dated August 30, 1952.

WITNESSED:

Eskil Anderson

SIGNED: Albert G. Lotze
Eva M. Lotze
Karl W. Jaspor, Pres.
GRANDVIEW MINES

MODIFICATION OF AGREEMENT

This agreement made this 9th day of September, 1952, between Albert G. Lotze and Eva M. Lotze, husband and wife, first parties, and Grandview Mines, a corporation, second party, witnesseth:

WHEREAS, first parties granted to second party an option to purchase the mineral rights to all minerals and mineral deposits, excepting only barite deposits, found or to be found under or within the lines or areas of the following described land situate in the County of Stevens, state of Washington, to wit:

NE¼ NE¼ of Section 34;
N½ NW¼ of Section 35;
S½ SW¼ of Section 26;

excepting approximately two square acres in the extreme northwest corner, which area is described in said option to purchase, all in Township 39 North, Range 41 E.W.M; which option to purchase is dated August 30, 1952, and is for a period of five years from October 1, 1952, at and for a total purchase price of $20,000.00, together with other stipulations therein contained, to which agreement reference is hereby made for a more particular statement of its terms and conditions, and which is hereinafter referred to as the original agreement; and

WHEREAS the parties thereto desire to modify said original agreement as herein set forth: —

NOW, THEREFORE, it is hereby agreed that said original agreement be and the same is hereby modified so as to provide that the first party shall forthwith make and execute a warranty deed conveying said property to second party, free and clear of all encumbrances, and shall deposit said deed, together with a copy of this and said original agreement, in escrow with _____ Seattle First National Bank at Colville, Washington, to whom all payments under this and said original agreement are to be made, and to be by said escrow holder applied to said purchase price of $20,000.00 and paid to first parties.

Time is of the essence of this and said original agreement, and in the event second party fails to make said payments at the time and in the manner in this and said original agreement provided, the said agreements shall be at an end and terminated, and any payments made herein shall be forfeited to first party as liquidated damages, and said escrow holder is hereby instructed to return to first party said deed and abstract of title; otherwise to deliver same to second party.

Albert G. Lotze

Eva M. Lotze
First Parties

GRANDVIEW MINES

By Karl W. Jasper
President

Attest: Mae C. Hamilton
Asst. Secretary
Second Parties

STATE OF WASHINGTON)
)
County of Stevens)

I, the undersigned, a Notary Public in and for the above named County and State, do hereby certify that on this 17th day of September, 1952, personally appeared before me ALBERT G. LOTZE, his wife, to me known to be the individuals described in and who executed the within instrument, and acknowledged that they signed and sealed the same as their free and voluntary act and deed, for the uses and purposes therein mentioned.

Given under my hand and official seal the day and year last above written.

John N. Raftus
Notary Public in and for the State
of Washington, residing at Colville.

STATE OF WASHINGTON)
) ss.
County of Spokane)

On this 9th day of September, 1952, before me personally appeared Karl W. Jasper, to me known to be the president of Grandview Mines, the corporation that executed the within and foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of said corporation for the uses and purposes therein mentioned, and on oath stated that he was authorized to execute said instrument, and that the seal affixed is the corporate seal of said corporation.

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

Joseph Nappi
Notary Public in and for the State
of Washington, residing at Spokane.

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

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-3073
Metal or Mineral
Date Received 6/8/53
Estimated Cost
Participation (Government %)

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: Grandview Mines
310-311 Radio Central Building
Spokane 4, Washington

(*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.

(*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

(*b*) State any mine name by which the property is known.

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise

(*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.

(*e*) If you own the land, describe any liens or encumbrances on it

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice.

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.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades.

(*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.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.

5. *The exploration proj*[redacted]—(*a*) State the mineral or minerals for whi[redacted]u wish to explore .....

(*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.

(*c*) The work will start within ..... days and be completed within ..... months from the date of an exploration project contract.

(*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.

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.).

(*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.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel.

(*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.

(*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.

(*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.

(*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.

(*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.

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)?

(*b*) How do you propose to furnish your share of the costs?

☐ 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 April 27, 1953

Grandview Mines
(Applicant)

By Karl W. Jasper
Pres.

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

APPLICATION FOR AID

1. (a) Grandview Mines
310-311 Radio Central Building
Spokane 4, Washington

(b) Corporation of State of Washington

(c) Officers:

Karl W. Jasper, 310-311 Radio Central Bldg., Spokane 4, Washington.
Paul T. Hoetzel, 416 W. 25th Ave., Spokane, Washington.
E. K. Barnes, Sec.-Treas., 1008 W. 19th Ave. Spokane, Washington.

2._____

3. (a) All in Township 39 North, Range 41 E.W.M., Stevens County, Washington.

NE¼ NE¼ of Section 34; N½ NW¼ of Section 35, S½ SW¼ of Section 26; excepting approximately two square acres in extreme northwest corner, which area is described in Grandview option to purchase.

That part of Government LOt 5, Section 27 except the north 450 feet thereof, lying south and east of the county road; S½ NE¼ of Section 34; Government Lot 1 of Section 34; that part of SE¼ NW¼ of Section 34 lying south and east of Deep Creek; that part of Government Lot 2 of Section 34 lying south and east of Deep Lake and Deep Creek.

SW¼ NE¼; S½ NW¼; and NW¼ SW¼, all in Section 35

(b) Dosser-Maki-Lotze properties.

(c) Grandview holds leases on the Dosser and Maki properties; an option to purchase the Lotze property.

(d) Copies of leases and option accompany application.

(e) See- Dosser-Grandview lease, and consents of mortgagees to Lease.

(f) _____

4. (a) Maki property.

Since about 1900 ten shafts, ranging from ten to about fifty feet in depth, and about a dozen pits and open cuts, have been sunk on zones of iron, zinc, or lead oxides or carbonates and sulfides, in dolomite (see "Maki Prospect" map). In 1952 Grandview Mines diamond drilled one four hundred foot horizontal hole attempting to intersect these mineralized bands below the zones of oxidation. The hole remained in granite for its entire distance and was abandoned because of bad caving before it was to have intersected the mineralized zone of the upper shafts at a vertical depth of about 250 feet below the surface outcrops.

Dosser Property.

Several small pits and open cuts had been dug on occurrences of zinc and lead sulfides in dolomite before 1952. During that year Grandview Mines did a considerable amount of stripping and diamond drilled six holes on the property (see "Plane Table Map of Dosser-Maki-Lotze properties", and diamond drill logs

and sections). Over a dozen occurrences of lead and zinc sulfides or oxidation products in dolomite were exposed on the surface. The best sulfide showing assayed 6% combined lead and zinc across 10 feet. Dosser D.D.#3 drilled below that outcrop did not intersect commercial ore.

In the northeast corner of the Dosser Property near the common corner of the Lotze-Maki-Dosser properties a large gossan zone was exposed by bulldozer stripping. Samples taken across 40 feet of the completely oxidized material assayed 3.4% Pb. Twenty feet of this width assayed 4.8% Pb. because of a high 10.2% Pb assay in one five foot section. The gossan, over half of which is exposed by stripping, averages more than 60 feet in width and is exposed for almost five hundred feet in length.

Lotze Property.

No work has been done on the Lotze Property. It is of importance because the dolomite beds in which the mineralized zones occur dip about 60° N. under the slate which forms the bedrock of most of the Lotze land. If the primary ores from which the Dosser gossan was formed occur in depth, most of the ore will be found on the Lotze property.

(b) There has been no recorded production from any of these properties and there are no blocked out ore reserves.

(c) The south edge of the Dosser-Maki properties is underlain by a part of the northern edge of the granite batholith around which the most productive mines of northeastern Stevens County are located. The contact of the intrusive and the limestone band to the north strikes east and west. Currant Creek flows from east to west paralleling the granite-limestone contact in the granite several hundred feet south of the contact.

North of the granite contact, the Upper Metaline limestone, striking roughly east and west to northwest and dipping about 60° to the north, forms the bedrock. The Upper Metaline limestone (Cambrian) beds here total from 500 feet to 1000 feet in thickness and are generally dolomitized. The important mineralization on the Dosser-Maki-Lotze properties is confined to the dolomites. They outcrop north of the granite and south of the Ordovician Ledbetter slate which forms a large part of the bedrock on the Lotze property. The Ledbetter slate strikes east-west to northwest and dips 60° to 25° to the north. It is underlain by the north dipping Metaline limestone.

On the Dosser and Maki properties there are about three dozen exposed outcrops containing iron, lead, and zinc sulfides or their oxidation products in dolomite. All are replacement deposits.

The mineralized zones exposed in the Maki shafts and pits are largely the result of selective replacement of 1" to 6" beds of banded dolomite giving a somewhat sheeted effect with thin layers of dolomite and layers of iron, lead and zinc oxidation products. A few of the primary minerals remain but it is likely that strong oxidation is present to over 100 feet below the uppermost Maki shafts. Two or more diamond drill holes should be driven to crosscut the Maki zones in depth.

The western cuts on the Dosser property expose a sheeted mineralized zone similar to Maki's and about 50 feet in thickness. Mineralization is less intense here than on the Maki property, and the primary sulfides are close to the surface. Dosser diamond drill holes #4, 5, and 6 did not intersect commercial ore but disclosed wide zones mineralized by pyrite and pyrrhotite replacement bands and with ZnS, and occasional PbS, shines sparsely disseminated throughout the zones.

The lead and zinc occurrences in the southwest cuts on the Dosser property are in a more massive dolomite in which the bedding is usually not distinct. In the cut above Dosser diamond drill hole #3 a few high grade ZnS shoots, with some PbS, up to 10 inches thick occur. The continuity of these shoots has not been proven.

The large gossan in the northeast corner of the Dosser Property appears to have been formed largely as a result of the oxidation of primary sulfides or iron, lead, and zinc. The gossan material consists of earthy, powdery, cellular, of solid limonite and other iron oxides, cerrussite, jarosite and traces of smithsonite. A few small islands of dolomite outcrop within the gossan area. Some of this dolomite is merely iron-stained and some contains many completely oxidized minerals. No sulfides or pseudomorphs were recognized. Enough drilling should be carried out to intersect the projection of this zone at a depth of between 250 and 400 feet below the surface. Dosser diamond drill holes #1 and #2 encountered only highly oxidized material, some dolomite, and an occasional speck of pyrite in dolomite near a depth of about 200 feet. If primary mineralization of commercial grade, and of dimensions comparable to those of the gossan, is found below the zone of oxidation, ore bodies of large tonnage might be found to occur underlying the slate within about 200 feet of its base.

(d) The Dosser-Maki-Lotze properties are east of the south end of Deep Lake on a good graveled county road. The nearest railroad shipping point is Northport about 13 miles by road to the northwest. The Trail Smelter of the Consolidated Mining and Smelting Company of Canada is about 23 miles away by a good gravel road.

(e) If a mine were to be developed in this area local labor, labor from the Metaline mining district, and from Spokane could be expected to carry on an operation. Materials, supplies, and equipment would be obtained in Spokane, Washington about 115 miles to the south. An abundant supply of water is available in Currant Creek which crosses the property. The closest Bonneville power lines are about three miles south.

5. (a) Lead and Zinc.

(b) Proposed drilling: (See map of Dosser-Maki-Lotze Properties with proposed diamond drill holes drawn in.)

Lotze.

Lotze D.D.#1 to #4. Four holes each about 500 feet long and spaced 150 feet apart, drilled south at about -65 from an east west line about 175 feet north of Dosser D.D.#1 (see map of proposed drilling). These holes would be intended to crosscut the gossan zone projected to an elevation of between 2200 and 2400 feet.
4000' After drilling of one hole the drilling plan could be changed to a more suitable pattern if results suggested a change.

If a mineralized zone of commercial grade is found by drilling in holes #1 to #4, a series of four vertical holes would be drilled from locations a short distance north of holes #1 to #4. The locations for these holes would be determined by the earlier drilling results and it is estimated that their total length would be 2000 feet.

The drilling program as a whole would be flexible and adaptable to change. If good primary mineralization is found on one property and none on another the bulk of the drilling would be shifted to the more favorable location.

Maki.

Maki D.D.#2. A 400 foot hole, or less if granite is reached earlier, to be drilled at -75° South from a point about 150' north of the upper Maki shafts. This hole would intersect the projected extension of the upper shafts at about 300 feet, about 200 feet vertically below the outcrops.

Maki D.D.#3. A 400 foot hole, or less if granite is reached earlier, to be
1200' drilled at -65° south 10° E from 200 feet east of Maki D.D.#2. This hole would intersect the projected extension of the lower shafts at about 350 feet, and about 200 feet below their outcrops.

These holes are not directed to crosscut the ore zones near the surface as it is supposed that any ore will be very highly oxidized to a depth of at least 100 feet. If no ore can be found below the zone of oxidation the deposits even if of commercial grade probably would not be minable in the near future.

Maki D.D.#4. If the drilling on the Lotze property indicates that an ore zone lies close beneath the Ledbetter slate, as in the case in the Metaline District, a -30° 400 foot hole drilled north from near Maki D.D.#2 would furnish valuable information on conditions near the contact which in this area covered by talus and other overburden.

(c) Work will start within 90 days and be completed within ~~X~~ 12 months from the date of an exploration contract.

5200' -Total proposed feet of diamond drilling.

(d) Grandview Mines has been engaged in the lead and zinc mining business in northeastern Washington since 1927. The project will be under the immediate supervision of Eskil Anderson, a 1941 graduate of the U. of Alaska with 4 and 5 year degrees in Geology and Mining. Mr. Anderson has been actively and continuously engaged in geological and mining work since 1941.

6. (a) The total cost of the project would be $36,400, for a maximum of 5200 feet of diamond drilling at $7.00 per foot.

Grandview Mines would agree to diamond drill a maximum of 5200 feet, obtaining AX core, at a total cost of $7.00 per foot. Grandview would subcontract the diamond drilling and pay all cost of necessary additional bulldozer stripping, assaying, supervision and any other costs included under (b) (c) (d) (e) (f) (g) and (h).

7. (a) Grandview Mines is prepared to furnish ½ the cost of the proposed project, or $18,200.

(b) Grandview would pay all costs and submit a bill to the government at the end of each month for ½ of the footage drilled times $7.00.

DIAMOND DRILL RECORD

Standpipe
Casing

Started 10/28/52
Finished 2/15/53
Hole Size AX
Depth 400
% Core Rec.

Mine Maki Prospect
Location Current Cr. ½ mi. E. of Deep Lake, Stevens Co., Wash.
Logged by E A Date 2/15/53
Drilled by Newman and Kellams(Boyles)

Hole No. 1
Level
Grid
Latitude
Departure
Elevation El. 2402.
Bearing N.4°W.
Inclination Horizontal

Depth Feet	Feet Core	Lithologic Description	Sample Data						
			No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-400		Coarse grained biotite granite. Drill stuck repeatedly from 180' on by caving and running sugary granite. Hole abandoned at 400'. Drillers could make no progress.							

27

Standpipe
Casing 83

DIAMOND DRILL RECORD

Hole No. 1
Level
Grid
Latitude
Departure 2623'
Elevation
Bearing S.
Inclination -29°

Started 10/6/52
Finished 10/14/52
Hole Size AX
Depth 214
% Core Rec. 30

Mine Doesser Prospect
Location Current Cr., East of Deep Lake, Stevens Co., Wash.
Logged by E A Date 10/24/52
Drilled by Olds-Kellams (Boyles)

Depth Feet	Feet Core	Lithologic Description	Sample No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-27	0	Overburden							
27-83	0	No core. Sludge mainly FeOxs from 50' to 83'. First sludges, 50' to 83'. Driller recovered no sludge before 50' and as a result almost no information was obtained from first part of hole. As to drillers from 27' to 50' drilling was in bedrock with oxides							
83-101	3	About 1' of 3' of core is somewhat porous, hard FeO_x.							
101-214	52	Gray, finely crystalline banded dolomite with red FeO_x scattered sparsely throughout and no fresh sulfides. Sludges contain slight to moderate quantities of FeO_x particles beyond 110. Bedding near right angles to hole. Note: Failure of driller to save much core, and incomplete sludge recovery, make results obtained from hole worth very little.							
		Sludges Sullivan Mining Co. assays		60-65	0	5	0.1	0.6	0.1
				65-70	0	5	0.4	0.8	0.1
				75-80	0	5		0.1	0.0
				80-85	0	5	0.2	0.1	0.3
				85-90	0	5	0.4	0.8	0.4
				90-95	0	5	0.3	0.9	0.5

DIAMOND DRILL RECORD

Standpipe 12
Casing 21

Started 10/16/52
Finished 10/24/52
Hole Size AX
Depth 215
% Core Rec. 41

Mine Dosser Prospect
Location Current Cr., just east of Deep Lake, Stevens Co. Wash.
Logged by EA Date 10/24/52
Drilled by Olds-Kellams (Boyles)

Hole No. Dosser #2
Level
Grid
Latitude
Departure 2623'
Elevation
Bearing S
Inclination -67°

Depth Feet	Feet Core	Lithologic Description	Sample No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-12	0	Overbuden							
12-21	0	No core.							
21-215	88	Gray, light and dark banded dolomite with oxidation spots scattered sparsely throughout. Strongest oxidation in sludges at about 57' to 75' Banding not far from right angles to hole. N. B. Very little core and incomplete sludge recovery.							
		Sludge Sullivan Mining Co. assay		57-65	0	8	0.4	1.0	0.0

DIAMOND DRILL RECORD

Standpipe
Casing 6

Started 10/25/52
Finished 11/17/52
Hole Size AX
Depth 605
% Core Rec. 73%

Mine Dosser Prospect
Location Currant Cr. just east of Deep Lake, Stevens Co., Wash.
Logged by EA Date 11/16/52
Drilled by Olds (Boyles)

Hole No. 3
Level
Grid
Latitude
Departure
Elevation 2333'
Bearing N.
Inclination 0°

Depth Feet	Feet Core	Lithologic Description	Sample Data: No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-75	44	Coarse grained biotite granite							
75-188	98	Blue-white xline dolomite metamorphosed & knotty from proximity to granite Few thin bands of ZnS, and occasional ZnS shines and pyrite from 85' to 95' ZnS bands scarce, less than 1/8" thick. About ½" ZnS at 154'. Considerable pyrite and pyrrhotite from 164' to 170' in narrow bands. Oxidation at 182'							
188-193	3½	Thin banded ls, often wafer cored, iron stained.							
193-478	218.5	Blue-white xline ls, banded to knotty & contact metamorphosed. Many 1/16" to ½" pyrite and pyrrhotite bands from 198 to 252'. Ls darker, denser, somewhat silicified from 267' to 300'. Strong pyritization from 420' to 445.							
478-605	78	Ls becoming finer-grained darker, and sometimes slaty and impure with some narrow bands of black, siliceous slate; poor recovery.							

DIAMOND DRILL RECORD

Standpipe 80
Casing
Started 11-8-52
Finished 11-15-52
Hole Size AX
Depth 161
% Core Rec. 90

Mine Dosser
Location Current Cr., just east of Deep Lake, Stevens Co., Wash.
Logged by Johnson (Boyles) Date 12/3/52
Drilled by

Hole No. 4
Level
Grid
Latitude
Departure 2198
Elevation 825'N.
Bearing -45°
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-22	7	Gray banded dolomite with iron oxide in spots and along seams. BX chips more than core							
22-125	93.5	Wavy gray and dark gray banded dolomite-banding mostly at right angles to core axis. Very narrow seams, and spots, of ZnS beginning at 60' and sparsely distributed throughout rest of section. Occasional zones containing much pyrite with a little ZnS & PbS. Some pyrrhotite.	527	79-82	3.0	3.0	Tr	0.0	0.8
		(Piece of high (Zn split core removed from 92')	528	90.-94	4.0	4.0	Tr	0.0	1.0
		Core 100% except in first few feet							
125-161	35	Dolomite becoming lighter gray and less distinctly banded, med. xline, with less pyrite, tremolite. No Zn and Pb shines observed.	529	105-108.5	3.5	3.5	Tr	0.0	0.5

DIAMOND DRILL RECORD

Standpipe 25
Casing
Started 11-17-52
Finished 11-25-52
Hole Size AX
Depth 175
% Core Rec. 97

Mine Deeser Prosp.
Location Current Cr., just east of Deep Lake, Stevens Co., Wash.
Logged by EA Date 11-25-52
Drilled by C.R.Johnson (Boyles)

Hole No. 5
Level
Grid
Latitude
Departure
Elevation 2198
Bearing Vertified
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-25	20	Chips of BX core. Gray to black dolomite with Fe stained spots. Pyrite, pyrrhotite, & tremolite between 8' & 10'							
25-77.5	51.5	Gray banded to knotty dolomite with occasional narrow galeite veinlets. Banding at 15° to 40° angle from plane across core. Few oxidised spots. Specks of pyrite from 55' (and tremolite)							
77.5-80.5	3.0	Gray to dark gray banded ls with tiny seams of dark brown ZnS and pyrite and PbS shines.	524	77.5 -80.5	3.0	3.0	Tr	0.0	0.5
80.5-97	16.5	Gray banded dolomite with occasional shines of Pb & ZnS. Less than 1/8" bands of dark brown ZnS							
97-147	50	Gray banded dolomite with occasional spots of Zn and Pbs, and pyrite bands totalling ab.18", between 97' and 112'. Pb and Zn sulfides sparsely and uniformally distributed throughout 50'.	525	97-102	5.0	5.0	Tr	Tr	0.4 9.7Fe
			526	139-144	5.0	5.0	Tr	0.0	0.0 93Fe
		Pyrrhotite and pyrite between 139 & 144.							
147-175	28	Dolomite type remains same with less Zn & PbS, less pyrite, and tiny tremolite Xls common.							

DIAMOND DRILL RECORD

Standpipe
Casing 15

Started 11/25/52
Finished 12/6/52
Hole Size AX
Depth 174.5
% Core Rec. 92.5%

Mine Dosser
Location Current Cr., just east of Deep Lake
Stevens Co., Wash.
Logged by EA Date 12-15-52
Drilled by C R Johnson (Boyle)

Hole No. 6
Level
Grid
Latitude
Departure
Elevation 2143'
Bearing
Inclination Vertical

Depth Feet	Feet Core	Lithologic Description	Sample Data						
			No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-12		Overburden - shattered bed-rock particles							
12-174.5	156	Gray and dark gray fine grained dolomite, with slate bands Pyrite at 46' Dolomite becoming more distinctly banded with spots of pyrite, calcite, and dark brown ZnS Shines from 80' on Banding at about 45° Dolomite becomes lighter gray from 155 on. No sections mineralized enough for assay.							

Form 108 2M 3-53 SHAW & BORDEN CO. 308150

LEASE OF MINERAL RIGHTS

THIS AGREEMENT made and entered into this 5th day of August, 1952, by and between GEORGE A. DOSSER and HELEN DOSSER, husband and wife, of Northport, Washington, parties of the first part, hereinafter referred to as Lessors, and GRANDVIEW MINES, a corporation of the State of Washington, party of the second part, hereinafter referred to as Lessee, WITNESSETH:

That the said Lessors, for and in consideration of the cash payments and royalties hereinafter reserved, and the covenants and agreements hereinafter expressed and by the said Lessee to be kept and performed, do by these presents lease unto the said Lessee all mines, minerals and mineral rights, lodes, veins and deposits found, or to be found, under or within the lines or areas of the following described land, situate in the County of Stevens, State of Washington, to-wit:

That part of Government Lot 5, Section 27, Township 39, North, Range 41, E.W.M., except the north 450 feet thereof, lying south and east of the County Road;

The South half of the Northeast quarter (S½NE¼); Government Lot 1; that part of the Southeast quarter of the Northwest quarter (SE¼NW¼) lying south and east of Deep Creek; that part of Government Lot 2 lying south and east of Deep Lake and Deep Creek; all in Section 34, Township 39, North, Range 41, E.W.M.,

Subject to:

1. Mortgages of record to EQUITABLE LIFE ASSURANCE SOCIETY AND R. C. CAFFAL and R. G. CAFFAL, of Portland, Oregon.

2. Rights of way, easements, reservations or roads, power lines and telephone lines.

3. Agreement entered into between the Lessors herein, as Sellers, and DEER PARK PINE INDUSTRIES, INC., a corporation as Purchaser, under date of February 27, 1951, relative to the sale of timber on said property, and the right to remove the same.

4. Lease agreement entered into by the Lessors herein, as Lessors, and HERSCHEL W. LOPP and ETHEL S. LOPP, husband and wife, as Lessees, under date of February 20, 1951, by terms of which a portion of the above described property has been leased for resort purposes.

TOGETHER with such reasonable use of the surface ground as may be necessary to win, work and carry away such minerals, including the right of ingress thereto and egress therefrom, over the present roads from the main highway or any road that may be constructed in the future over said lands.

TO HAVE AND TO HOLD unto the said Lessee for the term of fifty (50) years from and after the 15th day of August, 1952, unless sooner terminated or forfeited through the violation of any covenant hereinafter against said Lessee reserved.

And the parties hereto covenant and agree with each other as follows:

1. Commencing on the 5th day of August, 1952, Lessee shall have the right to prospect, explore, mine and develop said lands, to carry on, construct, and conduct

mining and ore milling operations thereon and therein, and to mine, extract, mill and ship any ores upon or in said lands with rights of ingress thereto and egress therefrom.

2. In the event second party enters upon the agricultural lands of Lessors to prospect, explore, mine or develop the same, and to conduct and carry on any mining and/or milling operations on the surface thereof, and in the event such mining or milling operations of Lessee damage or interfere with the use of such agricultural lands, then Lessee agrees to pay reasonable compensation to the Lessors for any damage they might sustain by reason thereof. Lessee agrees, however, not to unnecessarily interfere with the use of said lands for agricultural purposes.

3. So long as this lease remains in force and effect Lessee agrees to pay, before delinquincy, any and all taxes, fire protection and other assessments levied on the mineral rights to said property or any improvements placed thereon by Lessee, commencing with the year 1953.

4. Lessors agree to deliver to Lessee an abstract of title to said lands so demised, showing a merchantable title in Lessors, subject to the encumbrances heretofore set forth. Lessee shall, have 10 days within which to examine said abstract, at the expiration of which time the Lessee shall return said abstract or abstracts to the Lessors, together with written notice of any defects or objections thereto. The Lessors shall have a reasonable time within which to cure any defects or objections to the title if the same can be cured by quiet title action or otherwise. If title cannot be cured by quiet title action and Lessee shall be unwilling to waive the defect, then this agreement shall be at an end and of no further force or effect.

Upon perfecting title to said property as herein agreed, or if there be no objections or defects in the title to said property, then upon expiration of the time allowed for examination of the abstract Lessee agrees to pay unto Lessors the sum of $2500.00. Lessee further agrees to pay to Lessors 3% of the net smelter returns on all ores mined, extracted, milled and shipped from said lands while this lease is in force and effect, payment thereof to be made on the 15th day of each month on all smelter returns received during the preceding calendar month. In the event the net smelter returns paid to Lessors by Lessee for any year (the contract year hereunder being from August 1st to August 1st), the first contract year commencing on the date of execution of this agreement and ending August 1, 1953, and each contract year thereafter, do not amount to the sum of $2500.00, then Lessee agrees to pay to Lessors on or before August 25th following said yearly period the difference between the

said sum of $2500.00 and the total net smelter returns paid to Lessors, during the preceding yearly period. The payment of $2500.00 to be paid upon perfecting title to the property shall be applied as a minimum royalty payment for the first contract year ending August 1, 1953. "Net smelter returns" is hereby defined to mean value at the smelter of all concentrates and ores delivered to the smelter, less freight and all other smelter charges.

5. Lessee shall have the right to make such openings, cuts and trenches on the surface, with due regard to the agricultural operations of Lessors, as may be necessary in exploring, developing and mining the leased premises, and to construct roads and trails on said premises, and to construct power and telephone lines, water and air lines and flumes to facilitate said work and shall have rights of way for all other purposes in connection with its mining or milling operations, and the parties hereto shall have mutual rights in and to the use of said roads and trails on said property.

6. If and when Lessee commences mining operations for the development and production of ore, Lessee agrees to work and operate said property in its discretion and to such extent and in such manner as it may deem proper, all work carried on by Lessee to be done in a good and workmanlike manner and at its sole cost and expense. Lessee agrees that at any and all times when it is operating the property hereinbefore described, it will protect the Lessors against any claims resulting from its operation of said property.

7. Lessors and their duly authorized representatives shall have the right at all reasonable times to enter into and upon all parts of said property for purposes of inspection and to have access to and to permit the examination of production records, reports, maps, diamond drill logs, and all other records relating to exploratory or development work carried on by Lessee upon or within said property.

If this lease shall terminate, be cancelled, or forfeited, or if Lessee shall relinquish the demised premises or any part thereof, it shall within three months after the date of such termination, cancellation, forfeiture, or relinquishment, furnish the Lessors with copies of mine maps, factual geologic, geophysical and assay maps of the relinquished lands, as well as plans showing the location and attitude of all diamond drilled holes, within such relinquished lands, and the geologic maps and assays of such holes.

8. In the event of the termination of this lease by forfeiture or otherwise, Lessee shall have the right to remove any and all machinery, tools and other equipment placed upon said property during the life of this lease within a period of 90 days thereafter, but all buildings constructed on said property by Lessee shall remain on said

property and become the property of Lessors.

9. Upon the expiration of the term of this lease, or at any time previous upon demand for forfeiture, Lessee agrees to quit and surrender to said Lessors the said premises, with the appurtenances, without demand or further notice.

10. Finally, if the Lessee defaults in the performance of any of the covenants and agreements herein contained upon its part to be performed, and such default shall continue for a period of 30 days after written notice from Lessors to correct the same, stating specifically the nature or grounds of such default, given by registered mail at the address hereinafter stated, or served personally upon Lessee, the term of this lease shall, at, the option of Lessors, terminate, and this lease and the premises shall become forfeited to the Lessors, and said Lessors may thereupon, after demand for possession in writing, enter upon said premises and dispossess all persons occupying the same, lessee shall execute, acknowledge and deliver to Lessors a written release of this lease, in due form for public record if necessary. Likewise, if Lessee shall determine to voluntarily surrender and terminate this lease at any time before the expiration of the term it shall give 30 days written notice to Lessors by registered mail, at the address hereinafter stated, or served personally upon Lessors, of such intention, and upon the expiration of said notice, if Lessors do not within said time retake possession of said premises, the Lessee shall not be liable for damages occurring to said demised premises thereafter.

11. Any and all notices or communications required by the provisions of this lease to be given to Lessors shall be either personally served upon them or given by registered mail to Lessors GEORGE A. DOSSER and HELEN DOSSER, his wife, at Northport, Washington, and to Lessee shall be either personally served upon it or given by registered mail at its office at 310 Radio Central Building, Spokane, Washington. In the event either of the parties hereto shall change their or its address, notice of such change shall be given to the other party hereto.

12. In the event of strikes, floods, fires, failure of water or power, war, governmental restrictions, Act of God, or other unavoidable casualty beyond the control of Lessee, which prevents or substantially retards the Lessee from carrying out its obligations hereunder (and all such causes and each of them are expressly recognized as valid reasons for deferment by Lessee), then and in any of said events so preventing or substantially retarding Lessee from carrying out any of its obligations, the time for performing such obligations shall be extended for a time equivalent to the durations of such period or periods as conditions above mentioned exist, and provided the Lessee

shall resume operations with due diligence.

13. Lessee shall have the right to use for its mining or milling operations any water on said demised premises not required by Lessors in its farming operations.

14. Lessors further hereby lease to the Lessee the following described lands situated in Section 22, Township 39, North, Range 41, E.W.M., in the County of Stevens, State of Washington, to-wit:

From the vortex of Sections 21, 22, 27 and 28, Township 39 North, Range 41 East, Willamette Meridian; proceed east on a true line between Sections 22 and 27 for 4737.48 feet to a meander corner of fractional sections 22 and 27 on the west shore of Deep Lake, which is marked by an iron post in the ground and serves as the true point of beginning. From the point of beginning proceed west along the section line for 125 feet, thence north on a true line for 125 feet, thence east on a true line for 205 feet to the intersection of the west shore of Deep Lake, thence south 32°37'06" west along the shore line for 148.4 feet to the point of beginning;

with the right to use sufficient water from a spring, or springs, on or adjacent to said property for domestic use; together with the right of ingress and egress to the county road over existing or hereafter constructed roads located on lands owned by Lessors in Section 22 and Section 23.

Lessee hereby agrees to waive any claim against Lessors for damages by reason of cattle grazing on the property described in this paragraph, and Lessee further agrees that if and when it receives a deed to said property that it will construct a fence adequate to keep cattle out of said property.

Lessors further agree that if this lease is kept in force and effect for two years, then upon receipt of payment of the minimum royalty of $2500.00 for the second year that Lessors will convey to Lessee, by a good and sufficient deed, the foregoing described property. Upon execution of this agreement Lessors shall execute such a deed and deed and deposit the same with J. ORVILLE HUMPHRIES, 828 Old National Bank Building, S pokane, Washington, to be held in escrow by him for delivery to the Lessee upon proof of payment of the second year's minimum royalty.

15. It is agreed that Lessors shall have the exclusive use of the surface of that portion of Government Lot 5, Section 27, Township 39, North, Range 41, E.W.,., lying within 175 feet of the shore line of Deep Lake and without interference in any manner by the mining operations of Lessee.

16. It is further agreed that this lease shall not become effective until:

(a) Lessors secure and record a deed from NORTH COLUMBIA CO. of the minerals and mineral rights under that 60 foot wide strip of land described in conveyance recorded in Volume 144 of Deeds at page 179, records of Stevens County, Washington;

(b) Consent to the granting of this lease by EQUITABLE LIFE ASSURANCE SOCIETY Mortgagee;

(c) Consent to the granting of this lease by R. C. CAFFAL and R. G. CAFFAL of Portland, Oregon, Mortagees;

(d) Approval of title by Lessee's attorney.

17. Each of the foregoing covenants and provisions of this lease shall extend to, incure to the benefit of, and be binding upon the parties hereto, the heirs, personal representatives and assigns of Lessors, and the successors and assigns of Lessee.

IN WITNESS WHEREOF, the Lessors have hereunto set their hands, and the Lessee has hereunto caused these presents to be signed by its President, and its corporate seal to be hereunto affixed, attested by its Secretary, the day and year in this agreement first above written.

George A. Dosser

Helen Dosser

LESSORS.

GRANDVIEW MINES

By Karl W. Jasper
President

Attest: Mae Hamilton
Asst. Secretary
LESSEE.

CONSENT TO LEASE

THE UNDERSIGNED, THE EQUITABLE LIFE ASSURANCE SOCIETY OF THE UNITED STATES, A CORPORATION, hereby consents to that certain Lease Agreement entered into as of the 5th day of August, 1952, by and between GEORGE A. DOSSER and HELEN DOSSER, husband and wife, of Northport, Washington, as Lessors, and GRANDVIEW MINES, a corporation of the State of Washington, as Lessee, and hereby agrees that the mortgage held by the undersigned on the property covered by said Lease, which mortgage is dated August 6, 1947, filed for record October 11, 1947, and recorded in Book 72 of Mortgages at page 237 in the office of the County Auditor of Stevens County, State of Washington, together with any renewals, extensions or refinancing of said mortgage, including any increase thereof, executed by GEORGE A.DOSSER and HELEN DOSSER, his wife, shall be subject to the terms of said Lease.

This consent is being executed as an inducement for and in consideration of GRANDVIEW MINES entering into said lease.

EXECUTED this 19th day of August, 1952, at New York.

THE EQUITABLE LIFE ASSURANCE SOCIETY OF THE UNITED STATES

By_____
R. L. Howell- Vice President

_____
R. L. Kaidra - Assistant Treasurer

Witness:

Dotty Betson
Maria O Neill

CONSENT OF MORTGAGEES
R. G. CAFFALL AND R. C. CAFFALL

The undersigned R. G. Caffall and R. C. Caffall of Portland, Oregon, the mortgagees in that certain mortgage dated March 19, 1951, covering, among other property, the property of lessors described in the foregoing lease of the minerals and mineral rights in said property, which said mortgage is recorded in Book 76 of Mortgages, page 145, Official Records of the County Auditor of Stevens County, Washington, does hereby consent to the granting of the foregoing Lease of Mineral Rights, and to all the terms and covenants thereof.

Dated August 11, 1952.

R. G. Caffall

R. C. Caffall

State of Oregon }
County of Multnomah } ss

I, the undersigned, a Notary Public in and for the above named County and State, do hereby certify that on this 11th day of August, 1952, personally appeared R. G. Caffall and R. C. Caffall, known to me to be the individuals whose names are subscribed to the within instrument, and acknowledged that they signed and sealed the same as their free and voluntary act and deed for the uses and purposes therein mentioned.

Given under my hand and official seal the day and year last above written.

R. K. Kreighbaum
Notary Public in and for the
State of Oregon, residing at
Portland, Oregon

MINING LEASE

THIS AGREEMENT OF LEASE made and entered into this 29 day of August, 1952, between Katie Maki, widow and surviving spouse of Gus Maki, deceased, of Spokane, Washington, hereinafter called the Lessor, deceased, of Spokane, Washington, hereinafter called the Lessee, WITNESSETH:

That the said lessor, for and in consideration of the rents, royalties, expenditures, covenants and agreements hereinafter expressed, to be paid, incurred, kept and performed by said lessee, has leased and demised unto said lessee all mines, minerals and mineral rights, lodes, veins and deposits found, or to be found, under or within the lines or areas of the following described land, situate in Stevens County, Washington, to wit:

SW¼ NE¼, S½NW¼, and NW¼SW¼, all in Sec. 35, Twp. 39 N.R. 41 EWM.

Together with such reasonable use of the surface ground as may be necessary to work and carry away such minerals, including the right of ingress thereto and egress therefrom over the present roads from the main highway, or any road that may be constructed in the future over said lands.

TO HAVE AND TO HOLD unto the said lessee for the term of thirty (30) years from and after the 15th day of September, 1952, unless sooner terminated or forfeited through the violation of any covenant hereinafter against said lessee reserved.

And the parties hereto covenant and agree with each other as follows:

1. Commencing on the 1st day of September, 1952, lessee shall have the right to prospect, explore, mine and develop said lands, to carry on and conduct mining and ore milling operations thereon and therein, and to mine, extract, mill and ship any ores upon or in said lands with rights of ingress thereto and egress therefrom.

2. In the event lessee enters upon the agricultural lands of lessor to prospect, explore, mine and develop the same, and to conduct and carry on any mining and/or milling operations on the surface thereof, and in the event such mining or milling operations of lessee damage or interfere with the use of such agricultural lands, then lessee agrees to pay reasonable compensation to the lessor for any damage she might sustain by reason thereof. Lessee agrees, however, not to unnecessarily interfere with the use of said lands for any agricultural purpose. Likewise lessee agrees not to interfere unnecessarily with any logging operations that may be carried on upon said lands while this lease is in force and effect, and lessor agrees that such logging operations shall not interfere unnecessarily with any prospecting or

mining operations that may be undertaken on the land by lessee.

3. It is understood that lessor has given to North Columbia Co. the right to log off the timber on said lands for a period of fifteen years from the 31 day of May, 1951, and that the lessee acquires no right to any timber upon said lands, except, however, as it may become necessary for lessee to clear land and remove timber in preparing places to carry on mining or milling operations, in which event lessee shall secure consent of North Columbia Co.

4. So long as this lease remains in force and effect, lessee agrees to pay before delinquency any and all taxes, fire protection, and other assessments levied on the minerals rights in and to said property, or any improvements placed thereon by lessee commencing with the year 1953.

5. Lessor agrees to deliver to lessee an abstract of title to said lands so demised, showing a merchantable title in lessor to the minerals in said lands. Lessee shall have 10 days within which to examine said abstract, at the expiration of which time lessee shall return said abstract to lessor, together with written notice of any defects or objections thereto. Lessor shall have a reasonable time within which to cure any defects or objections to the title if the same can be cured by quiet title action or otherwise. If title cannot be cured by quiet title action and lessee shall be unwilling to waive the defect, then this agreement shall be at an end and of no further force or effect.

6. Upon perfecting title to said property as herein agreed, or if there be no objections or defects in the title to said property, then upon expiration of the time allowed for examination of the abstract, and commencing with the 15th day of September, 1952, and during the first year that this lease is in force and effect, lessee agrees to do and perform a minimum of 1,000 feet of diamond drilling upon said leased lands. If upon the expiration of one year from the effective date of this lease, to wit, September 15th, 1952, lessee determines to proceed further with prospecting, exploring, mining and developing said leased lands, lessee shall have the right to mine, mill and ship any ores that may be extracted or removed from said leased premises during the life of this lease, and shall pay to lessor on all ores shipped and paid for by the smelter a royalty of 4% of the net smelter returns if the price of zinc on the New York market is 20¢ per lb., or less, and 5% of the net smelter returns if the price of zinc on the New York market exceeds said 20¢ per lb., and the same royalty payments shall apply to all lead concentrates and other valuable minerals and metals shipped and paid for by the smelter.

Commencing with the second year of this lease and at the beginning of each year thereafter so long as this lease is in force and effect, lessee shall pay to lessor as an advance royalty payment the sum of $2,500.00. If the royalty payments that may become due to lessor during the year in which such advance royalty payment has been made shall exceed the sum of $2,500.00 in any year, then such excess shall be paid by lessee to lessor, a statement thereof to be rendered to lessor by lessee on or before the 15th day of the following month. If production of ore be suspended or not entered into in any of the years in which such advance royalty payments are made, such payments are to be cumulative for a period not to exceed five years from date such payment is due and payable until production is again commenced or resumed.

7. Lessee shall have the right to make such openings, cuts and trenches on the surface, with due regard to the agricultural operations of lessor or any logging operations that may be carried on upon said premises, as may be necessary in exploring, developing and mining the leased premises, and to construct roads and trails on said premises and to construct power and telephone lines, water and air lines and flumes to facilitate said mining or milling operations of lessee, and shall have rights of way for all other purposes in connection with its mining or milling operations, and the parties hereto shall have mutual rights in and to the use of said roads and trails on said property.

8. If and when lessee commences mining operations for the development and production of ore, lessee agrees to work and operate said property in its discretion and to such extent and in such manner as it may deem proper, all work carried on by lessee to be done in a good and workmanlike manner and at its sole cost and expense. Lessee agrees that at any and all times when it is operating said property, it will protect lessor against any claims resulting from its operation of said property.

9. Lessee agrees to fully pay and discharge all obligations the lessee may incur for labor, materials, or otherwise in the prosecution of said work so carried on under this lease and to save and protect the lessor and her property free and harmless from any and all claims, demands and liens for labor and materials that may be furnished for or at the request of lessee during the life of this lease, or that may be used in the prosecution of the work so carried on hereunder.

10. Lessee agrees to post and keep posted in a conspicuous place or places on said premises a notice satisfactory to lessor to the effect that lessor and her

property will not be liable for any debts incurred or obligations created by the lessee in the prosecution of work under this lease.

11. Lessor and her duly authorized representative shall have the right at all reasonable times to enter into and upon all parts of said property for the purpose of inspection and to have access to and to permit the examination of production records, reports, maps, diamond drill logs, and all other records relating to exploratory and development work carried on by lessee upon or within said property.

If this lease shall terminate, be cancelled or forfeited, or if lessee shall relinquish the demised premises, or any part thereof, it shall within three months after the date of such termination, cancellation, forfeiture or relinquishment furnish lessor with copies of mine maps, factual geologic, geophysical and assay maps of the relinquished lands, as well as plans showing the location and altitude of all diamond drill holes within such relinquished lands, and the geologic maps and assays of such holes.

12. In the event of the termination of this lease by forfeiture or otherwise, lessee shall have the right to remove any and all machinery, tools, and other equipment placed upon said property during the life of this lease within a period of ninety days thereafter, but all buildings constructed on said property by lessee shall remain on said property and become the property of lessor.

13. Upon the expiration of the term of this lease, or at any time previous upon demand for forfeiture, lessee agrees to quit and surrender to said lessor the said premises, with the appurtenances, without demand or further notice.

14. Finally, if the lessee defaults in the performance of any of the covenants and agreements herein contained upon its part to be performed, and such default shall continue for a period of thirty (30) days after written notice from lessor to correct the same, stating specifically the nature or grounds of such default, given by registered mail at the address hereinafter stated, or served personally upon lessee, the term of this lease shall, at the option of lessor, terminate, and this lease and the premises shall become forfeited to lessor, and said lessor may thereupon after demand for possession in writing enter upon said premises and dispossess all persons occupying the same, and lessee shall execute, acknowledge and deliver to lessor a written release of this lease, in due form for public record, if necessary. Likewise, if lessee shall determine to voluntarily surrender and terminate this lease at any time before the expiration of the term, it shall give thirty (30) days' written notice to lessor by registered mail, at the address hereinafter stated, or

served personally upon lessor, of such intention, and upon the expiration of said notice, if lessor does not within said time retake possession of said premises, lessee shall not be liable for damages occurring to said demised premises thereafter.

15. Any and all notices or communications required by the provisions of this lease to be given to lessor shall be either personally served upon lessor or given by registered mail to lessor at West 2728 Gordon, Spokane, Washington, and to lessee shall be either personally served upon it or given by registered mail at its office at 310 Radio Central Building, Spokane, Washington. In the event either of the parties hereto shall change her or its address, notice of such change shall be given to the other party hereto.

16. In the event of strikes, floods, fires, failure of water or power, war, governmental restrictions, Act of God, or other unavoidable casualty beyond the control of lessee, which prevents or substantially retards lessee from carrying out its obligations hereunder (and all such causes and each of them are expressly recognized as valid reasons for deferment by lessee), then and in any of said events so preventing or substantially retarding lessee from carrying out any of its obligations, the time for performing such obligations shall be extended for a time equivalent to the duration of such period or periods as conditions above mentioned exist, and provided lessee shall resume operations with due diligence.

17. Lessee shall have the right to use for its mining or milling operations any water on said demised premises not required by lessor in her farming operations.

18. The percentage of depletion of ore reserves in the leased premises shall be equitably proportioned between lessor and lessee as follows: Lessor shall be entitled to 15% of her gross income from net smelter returns, not, however, to exceed 50% of her net profit therefrom, and lessee shall be entitled to 15% of its gross income from net smelter returns received by it, less royalties paid to lessor, all as provided in the United States revenue laws.

19. Lessor agrees to secure from North Columbia Co. an agreement acknowledging lessor's right to the minerals under a 60 foot strip of land over the leased premises, which strip of land was heretofore granted said company by lessor for road purposes on May 31, 1951.

20. Each and every clause of this lease shall extend to and be binding upon the parties hereto, the heirs, personal representatives, and assigns of lessor, and the successors and assigns of lessee.

IN WITNESS WHEREOF lessor has hereunto set her hand and lessee has hereunto

caused these presents to be signed by the president and the corporate seal to be hereunto affixed, attested by the secretary, the day and year in this agreement first above written.

Katie Maki
Widow and Surviving Spouse of
Gus Maki, deceased.

LESSOR

GRANBY ISM MINES

By Karl H. Jasper
President

Attest: E. K. Barnes
Secretary

STATE OF WASHINGTON)
) ss.
County of Spokane)

I, the undersigned, a Notary Public in and for the above named County and State, do hereby certify that on this 29th day of August, 1952, personally appeared before me KATIE MAKI, to me known to be the individual described in and who executed the within instrument, and acknowledged that she signed and sealed the same as her free and voluntary act and deed, for the uses and purposes therein mentioned.

GIVEN under my hand and official seal the day and year last above written.

R. H. Hooper
Notary Public for the State of
Washington, residing at Spokane,
Washington.

OPTION TO PURCHASE

Albert G. LOTZE and EVA M. LOTZE, husband and wife, of Northport, Washington, parties of the first part, for and in consideration of one dollar and other good and valuable considerations, hereby grant unto GRANDVIEW MINES, a corporation of the State of Washington, the option to purchase, for the total sum of twenty thousand dollars ($20,000.00), the mineral rights to all minerals and mineral deposits, excepting only barite deposits, found or to be found, under or within the lines or areas of the following described land, situate in the County of Stevens, State of Washington, to-wit:

NE¼ NE¼ of Section 34:
N½ NW¼ of Section 35;
S½ SW¼ of Section 26;

excepting approximately two square acres in the extreme northwest corner, which area is enclosed by a line running 416 feet east from the northwest corner of S½ SW¼ of Section 26; thence 208 feet south; thence 416 feet west; and thence north 208 feet to the point of beginning; all in Township 39, North, Range 41E.W.M., subject to the following terms and conditions:

1. (a) Grandview Mines agrees to pay to parties of the first part:

$1,000.00 on or before October 1, 1952
2,500.00 on or before October 1, 1954
5,000.00 on or before October 1, 1955
5,000.00 on or before October 1, 1956
6,500.00 on or before October 1, 1957,

for a total purchase price of $20,000.00

(b) Grandview Mines agrees to pay all taxes on lands and minerals; excepting only the taxes levied on timber and on barite deposits, which are to be paid by parties of the first part if any such taxes are assessed.

(c) Grandview Mines agrees with parties of the first part that under this option to purchase, the mineral rights to all barite deposits is specifiically excluded.

(d) Grandview Mines agrees to pay as soon as due the 1% state real estate tax on sale of property, amounting in this case to $200.00.

2. (a) Parties of the first part agree to deliver to Grandview Mines an abstract of title to all properties herein involved, showing a merchantable title in parties of the first part. Grandview Mines shall have at least 10 days within which to examine said abstract before October 1, 1952.

(b) Parties of the first part agree that Grandview Mines shall, if this option is exercised, have such reasonable use of the surface ground as may be necessary to win, work, and carry away such minerals, including the right of ingress thereto and egress therefrom, over the present roads from the main highway or any road that may be constructed in the future over said lands.

Dated August 30, 1952.

WITNESSED:

Eskil Anderson

SIGNED: Albert G. Lotze
Eva M. Lotze
Karl W. Jasper, Pres.
GRANDVIEW MINES

MODIFICATION OF AGREEMENT

This agreement made this 9th day of September, 1952, between Albert G. Lotze and Eva M. Lotze, husband and wife, first parties, and Grandview Mines, a corporation, second party, witnesseth:

WHEREAS, first parties granted to second party an option to purchase the mineral rights to all minerals and mineral deposits, excepting only barite deposits, found or to be found under or within the lines or areas of the following described land situate in the County of Stevens, state of Washington, to wit:

NE¼ NE¼ of Section 34;
N½ NW¼ of Section 35;
S½ SW¼ of Section 26;

excepting approximately two square acres in the extreme northwest corner, which area is described in said option to purchase, all in Township 39 North, Range 41 E.W.M; which option to purchase is dated August 30, 1952, and is for a period of five years from October 1, 1952, at and for a total purchase price of $20,000.00, together with other stipulations therein contained, to which agreement reference is hereby made for a more particular statement of its terms and conditions, and which is hereinafter referred to as the original agreement; and

WHEREAS the parties thereto desire to modify said original agreement as herein set forth: --

NOW, THEREFORE, it is hereby agreed that said original agreement be and the same is hereby modified so as to provide that the first party shall forthwith make and execute a warranty deed conveying said property to second party, free and clear of all encumbrances, and shall deposit said deed, together with a copy of this and said original agreement, in escrow with _____ Seattle First National Bank at Colville, Washington, to whom all payments under this and said original agreement are to be made, and to be by said escrow holder applied to said purchase price of $20,000.00 and paid to first parties.

Time is of the essence of this and said original agreement, and in the event second party fails to make said payments at the time and in the manner in this and said original agreement provided, the said agreements shall be at an end and terminated, and any payments made herein shall be forfeited to first party as liquidated damages, and said escrow holder is hereby instructed to return to first party said deed and abstract of title; otherwise to deliver same to second party.

Albert G. Lotze

Eva H. Lotze
First Parties

GRANDVIEW MINES

By Earl W. Jasper
President

Attest: Ina C. Hamilton
Asst. Secretary
Second Parties

STATE OF WASHINGTON)
)
County of Stevens)

I, the undersigned, a Notary Public in and for the above named County and State, do hereby certify that on this 17th day of September, 1952, personally appeared before me ALBERT G. LOTZE, his wife, to me known to be the individuals described in and who executed the within instrument, and acknowledged that they signed and sealed the same as their free and voluntary act and deed, for the uses and purposes therein mentioned.

Given under my hand and official seal the day and year last above written.

John H. Hafke
Notary Public in and for the State
of Washington, residing at Colville.

STATE OF WASHINGTON)
) ss.
County of Spokane)

On this 9th day of September, 1952, before me personally appeared Earl W. Jasper, to me known to be the president of Grandview Mines, the corporation that executed the within and foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of said corporation for the uses and purposes therein mentioned, and on oath stated that he was authorized to execute said instrument, and that the seal affixed is the corporate seal of said corporation.

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

Joseph Hanni
Notary Public in and for the State
of Washington, residing at Spokane.

FIGURE 1

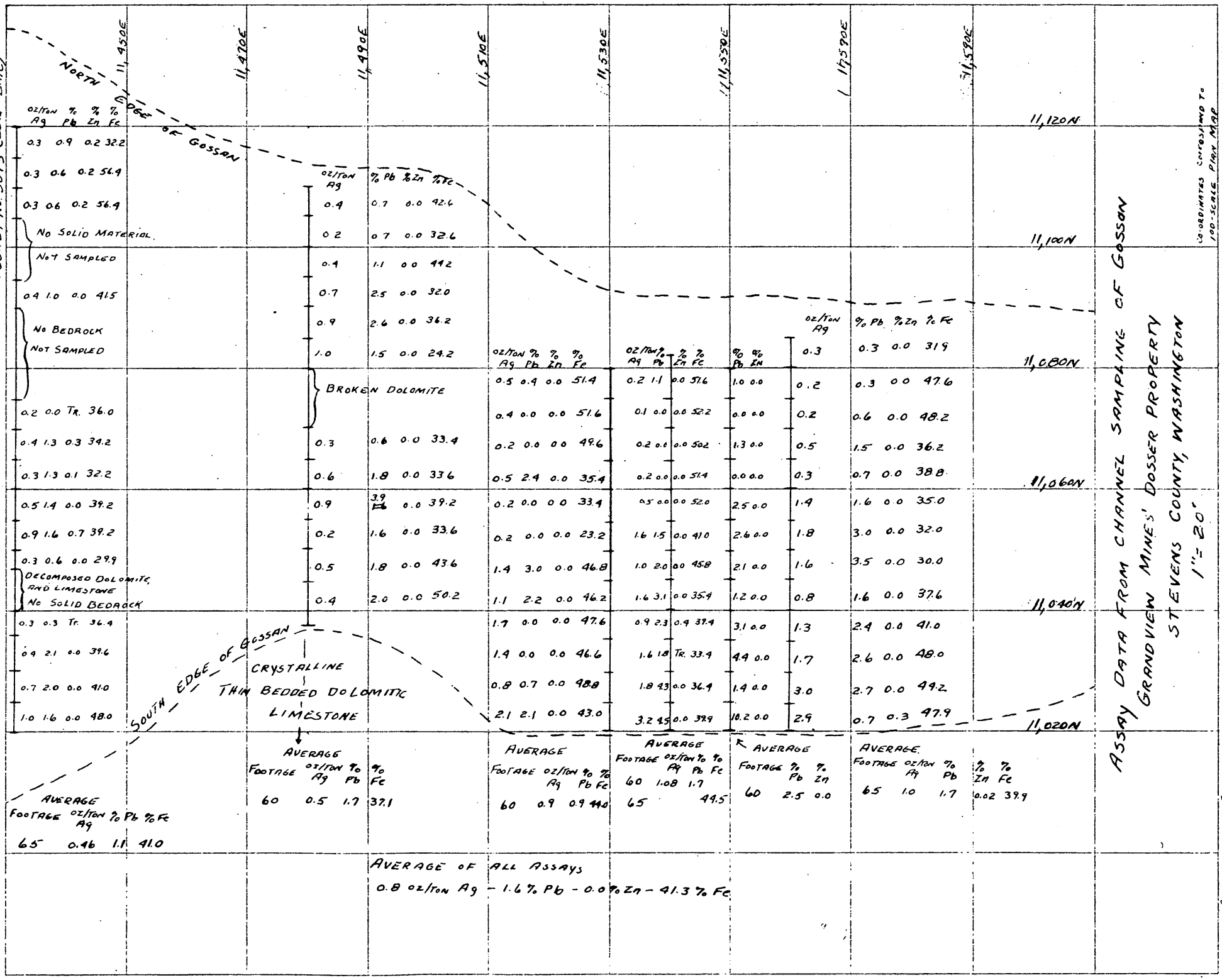
DOCKET No. 3073 (Lead-Zinc)

ASSAY DATA FROM CHANNEL SAMPLING OF GOSSAN

GRANDVIEW MINES' DOSSER PROPERTY

STEVENS COUNTY, WASHINGTON

1" = 20'



COPIED FROM COMPANY MAP.

COORDINATES CORRESPOND TO 100-SCALE PLAN MAP

"ALBANENE" NO. 195M K&E CO., N.Y. REG. U.S. PAT. OFF.

DIAMOND DRILL RECORD

Standpipe
Casing 17' NX. 2'BX. 352' EX
Started 10/6/53
Finished 11/3/53
Hole Size EX
Depth 466
% Core Rec. 88

Mine Lotz
Location Carbonate Cr., Stevens Co., Wash.
Logged by Ewell Anderson Date 10/24/53
Drilled by Forquir & Johnson (Moylan)

Hole No. 1
Level
Grid
Latitude
Departure
Elevation 2630
Bearing S.
Inclination -65

Depth Feet	Feet Core	Lithologic Description	Sample No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-19	0	Overburden & shattered slate	709	179.5-185	5.5	5.50	37.5) 1(Fe	0.4	0.2
19-109	85	Black slate with bands of pyrite up to 1" thick, and white calcite stringers. Slate gradually becomes limy.	710	185-195	8.6	10.0	0.1 (Fe-34.6)	0.4	0.2
109-179.5	68.3	Dark gray fine-grained dolomite with few slate bands. Gouge and crushed material from 143 to 150							
179.5-195	15.5	Yellow pyrite with a few spots and veins of PbS & ZnS.							
195-317	101.1	Light and dark gray banded dolomite with some pyrite disseminated and on seams.							
317-332.5	12.0	Much broken material, talcose, slatey & calcareous with some black gouge							
332.5-344.2	12.0	Gray dolomite with pyrite as in 195-317							
342-466	72.0	BX core to end of hole. Drillers unable to go further without reaming hole to EX from beginning. Gray dolomite with scattered pyrite & pyrrhotite & few ZnS & PbS shines. Slatey dolomite with white calcite veinlets between 390 & 420. Broken black talcose & graphitic gouge material from 442 to 447. Some white tremolite also present.							

Bureau of the Interior
Bureau of Mines Administration
RECEIVED
APR 15 1955

DIAMOND DRILL RECORD

Standpipe
Casing
Started 10/1/53
Finished 11/7/53
Hole Size NX
Depth 498'
% Core Rec. 65

Mine Lotse
Location Current Cr., Stevens Co., Wash.
Logged by Eskil Anderson Date 10/23/53
Drilled by Purcell & Lind (Moyles)

Hole No. 2
Level
Grid
Latitude
Departure
Elevation 2582
Bearing S
Inclination -55°

Depth Feet	Feet Core	Lithologic Description	Sample No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-49	0	Drilled in shattered black slate which did not core	668	192.5-209	7.0	16.5	Tr(4.3)	0.0	0.0
49-143	76.2	Black slate, thin-bedded with calcite & pyrite spots and seams Slate gradually becomes more calcareous. Black gouge from 143 to 143	669	254-261	6.0	7.0	Tr(3.1)	0.0	0.0
143-346	176.3	Gray dolomite with spots and seams of calcite, serpentine & pyrite and talcose material. Gouge from 168 to 170. Moderately strong pyritized zone, few ZnS & PbS shines, from 192-209; 250-261; 263-280. Core badly crushed and broken. Dark gray slaty dolomite with crushed zones, white calcite, and fibrous talc, few pyrite specks, from 298 to 346.							
346-498	132.5	Finely sline dark blue gray dolomite with pyrrhotite & pyrite seams; white calcite seams; & some graphitic or black & white talcy partings. Few light brown mica flakes at 362'. Some fibrous talcose bands present. Few dark brown ZnS shines and PbS spots from 420 to 430.							
		Sludges	1034(4')	411-4191	4.0	8.0		0.0	0.5

DIAMOND DRILL RECORD

Standpipe
Casing 24'BX 68' AX

Started 11/9/53
Finished 11/21/53
Hole Size AX
Depth 295
% Core Rec. 88

Mine Lotze
Location Current Cr., Deep Lake, Wash.

Logged by Eskil Anderson Date 12/1/53
Drilled by Link & Purcell(Boyles)

Hole No. 3
Level
Grid
Latitude
Departure
Elevation 2546.1
Bearing S
Inclination -55

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-24	0	Overburden & shattered slate							
24-71	40.5	Black slate with pyrite & calcite spots & seams. Bedding at right angles to axis of core.							
71-274.5	183.5	Gray thin banded dolomite with occasional slaty sections, calcite & serpentine seams & few specks of pyrrhotite. Banding generally within 10° of right angles to core axis. Few flakes of bronze colored talcy micaeous material. Strong pyritization from 259.2 to 261.5							
274.5 284.5	8.5	Basic dike.							
284.5-295	8.0	Dark gray dolomite, as above with badly broken black, slaty & calcareous material on both sides of the dike.							
	88	No Pb or Zn mineralization observed.							

DIAMOND DRILL RECORD

Standpipe
Casing NX-7. BX-5
23' AX
Started 11/5/53
Finished 11/21/53
Hole Size AX
Depth 310
% Core Rec. 81

Mine Lotz
Location Currant Creek, Deepl Lake, Stevens Co., Washington
Logged by Eskil Anderson Date 12/1/53
Drilled by C. R. Johnson (Boyles)

Hole No. 4
Level
Grid
Latitude
Departure
Elevation 2680.6
Bearing South
Inclination -73°

Depth Feet	Feet Core	Lithologic Description	Sample No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-12		Overburden & crushed slate.	694	263-283	14.2	20.0	Tr(Fe-33.6)	0.3	0.0
12-152	126	Black slate with pyrite, pyrrhotite & calcite seams, gradually becoming more & more calcareous	695	283-293	8.9	10.0	Tr(Fe-30.2%)	0.4	0.0
152-236	62.0	Gray thin banded dolomite with calcite seams & pyrite & pyrrhotite spots, occasional slaty bands. Banding at about 15° to plane across core.							
236-263	22.4	Gray dolomite with small spots, spots & seams of calcite, serpentine, & pyrite. Dolomite almost without banding. Pyritization gradually increasing from 258.							
263-293	23.6	Pyrite with a little residual dolomite & specks & seams of PbS Blue mineral on seams at 2678 about ½" glob of PbS. More PbS from 283-288, & blue oxidation products on seams.	Sludge 795	283-290(4.3#)	5.5	7.0	(Fe-29.4) 0.2	0.3(Au	
			796	290-298(4.7#)	7.5	8.0	0.1(Fe-18.0)	-Tr) Tr Tr	0.0
293-310	9.5	Gray dolomite with some pyrite.	Sludges 784	263-265.5(2#	1.7	2.5	Tr(Fe-6.7)	0.0	0.0
			798	265.5 269(3.7#)	2.5	4.5	0.2(Fe 35.2)	0.5(Au-Tr)	0.2
			797	269-271 (3.2#)	1.0	2.0	0.2 (Fe-30.6)	0.3 (Au-Tr)	0.2
			780	271-276(6.4#)	3.0	5.0	0.2(Fe-19.0)	Tr(Au-Tr)	0.0
			779	276-282(8.1#)	4.3	6.0	0.2(Fe 31.8%	0.2(Au-Tr)	0.0

Division of the Interior Bureau of Mines Minerals Administration RECEIVED APR 15 1955

DIAMOND DRILL RECORD

Standpipe
Casing BX drive -12'
AX-40'
Started 4/28/54
Finished 5/29/54
Hole Size Ax. Bx to 298'
Depth 546'
% Core Rec. 99% in 1s

Mine Lotze
Location Current Cr., Stevens Co., Wash.
Logged by E A Date 5/15/54
Drilled by Forcier (Boyles)

Hole No. 5
Level
Grid
Latitude
Departure
Elevation 2690'
Bearing S
Inclination -90°

Depth Feet	Feet Core	Lithologic Description	Sample No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-12 12-310	0	Overburden & shattered slate (Hole drilled BX to 298' when A X coring began. (BX core saved on dump but not in boxes.) Black thin banded hard slate with some gray calcareous bands, calcite seams, and irregular bands and blobs of pyrite & pyrrhotite. Very distinct bedding planes formed by black slate interlayered with knife edge & thick seams of white calcareous material. Slate dips average between 35°-40°. Slate probably dipping ab. 38°N	900	398-404.2	6.2	6.2			
310-336	21	Fine grained gray dolomite predominate, with minor slate bands to 336, & thin calcite & talc seams. Crushed zones at 310 to 317 and gauge at 333'. Banding at 15° to 40° to plane across core.							
336-398	58.5	Med. to coarse grained dark gray dolomite with some calcite & some vertical seams with mountain leather Dark brown zinc, and pyrite, thinly scattered from 373' on in purer, gray & light gray coarsely xline dolomite.							
398-404.2	6.2	Almost pure pyrite, few inches of gray dolomite, with few specks of lead in pyrite.							
404.2-530	125.8	Blue-gray dolomite with some banding at ab. 25° to plane across core. Occasional seams & blobs of pyrrhotite Some short sections of ab. ½ pyrite & pyrrhotite in dolomite. More talc seams & serpentine, more metamorphosis, as 530 is approached, also some black dolomitic slate							
534.4									
530-534.4	4.0	Basic dike							
534.4-546	10.8	Dark blue gray dolomite with serpentine & talc, metamorphosed							

Form 108 2M 3-58 SHAW & BORDEN CO. 308150

N. B. Hole caved between 320 and 340.

DIAMOND DRILL RECORD

Standpipe
Casing BX drive -8'
BX-218'
Started 5/23/54
Finished 6/1/54
Hole Size BX
Depth 360'
% Core Rec. 83%

Mine Lotus
Location Current Cr., Stevens Co., Wash.
Logged by Emil Anderson Date 6/2/54
Drilled by Forsolr & Johnson (Joylan)

Hole No. 6
Level
Grid
Latitude
Departure
Elevation 2550
Bearing
Inclination -90°

Depth Feet	Feet Core	Lithologic Description	Sample Data: No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-215	83	Black slate with some pyrite, pyrrhotite, and calcite seams Bedding ab. 45° to plane across core							
215-288	69	Fine grained blue gray dolomite interlayered with black slate, white calcite seams and few spots of pyrite and pyrrhotite in slate. Proportion of dolomite gradually increasing bedding flattening somewhat. From 268-275, crushed and altered slaty dolomite, gouge, and talcose material probably mark fault							
288-318.5	24	More pure, coarser-grained blue gray dolomite with less distinct banding and disseminated pyrite near 318. Probably considerable pyrite lost near 318.							
318.5-332.5	10.5	Pyrite with ab. 1' of dolomite 3.5' of core lost presumably pyrite. Banding generally at less than 45° across core							
332.5-365	23.5	Same as 288-318.5 except containing 2-3 feet of solid pyrite in scattered bands. Considerable core lost, presumably largely pyrite, as recovery elsewhere is good							
365-360	14.7	Impure slaty dolomite, metamorphosed with highly irregular and distorted banding of slate & dolomite N. B. Hole caved and filled with black mud between 260' and 264'.							

DEPARTMENT OF THE INTERIOR Bureau of Mines Chemistry RECEIVED APR 15 1955

Standpipe BX drive-8'
Casing 222' AX

DIAMOND DRILL RECORD

Hole No. 7
Level
Grid
Latitude
Departure 2578
Elevation
Bearing
Inclination -90°

Started 6/14/54
Finished 6/15/54
Hole Size AX
Depth 405.
% Core Rec. 98%

Mine Lotze Prospect
Location Current Cr, Stevens Co. Wash.

Logged by Eskil Anderson Date 6/16/54
Drilled by Howard & Link (Boyles)

Depth Feet	Feet Core	Lithologic Description	Sample Data						
			No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-190		BX plug and core. Black slate, siliceous near bottom with seams of whire calcite and occasional pyrite seams and spots. Banding at about 45o							
190. 405	210	Impure fine grained gray slaty dolomite with minor bands of black slate, banding at 20° to 40°. White calcite seams, abundant but very thin. Also white talcose material and a pinkish bronze talcose mica. Some very thin pyrite bands between 210 and 220. About 1" of pyrite between 245' and 255'. Mineralized dolomite band of previous drill holes not present. 3" black dike at 400' and 3' at 402.0'. N.B. Very good core recovery in soft talcose zones as well as in more solid dolomite							

DIAMOND DRILL RECORD

Standpipe 11' BX drive
Casing 392' AX

Started 6/18/54
Finished 7/3/54
Hole Size 500'
Depth 83%
% Core Rec.

Mine Lotze Prospect
Location Current Cr., Stevens Co. Wash.
Logged by Eskil Anderson Date 7/6/54
Drilled by Howard & Link (Boyles)

Hole No. 8
Level
Grid
Latitude
Departure
Elevation 2731
Bearing S.
Inclination -70°

Depth Feet	Feet Core	Lithologic Description	Sample Data						
			No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-211	Bx	Black thin bedded slate with white calcite seams parallel to bedding less than 1/8" thick usually. Occasionally pyrite and pyrrhotite blobs and thin bands. Bedding at about 5° to 20° from plane across core.	825	407-411	3.5	4.0			
211-343	BX & Ax	Dolomite & slate, dolomite becoming predominate towards end of run. Colorless, white, and soapy talc abundant.							
343-398.5	54	Mainly fine grained dolomite with much talcose material, little slate remaining and few spots of pyrite. Much broken soapy material and gouge from 356 to 392 with bad caving. Bedding at almost rt angles to core.							
398.5 500'	85	Gray med. coarsely xline dolomite with slate absent. Dolomite band same as heavy pyrite bearing dolomite of other holes. Occasional spots and seams of yellow pyrite from 405' on. From 406' to 411' small spots of pyrite (est. less than ½" Zn). 11" of solid pyrite between 467.5 and 469.2 in 5" and 6' band. Banding at about 15° to plane across core. Few spots of pyrite continuing to 500' where hole was stopped. N.B. No commercial mineralization							

DIAMOND DRILL RECORD

Standpipe
Casing 7' BX drive

Started 7/7/54
Finished 7/29/54
Hole Size AX
Depth 483
% Core Rec. 96

Mine Lotze
Location Currant Cr. Stevens Co., Wash.

Logged by Eskil Anderson Date 7/29/54
Drilled by Akers & Link (Boyles)

Hole No. 9
Level
Grid
Latitude
Departure
Elevation 2642
Bearing
Inclination -90°

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-7	0	Overburden							
7-147	BX	BX core set aside for observation but not in boxes. Black slate as below.							
147-379	232	Black slate with some find white calcite bands parallel to bedding, some pyrite and pyrrhotite. Bedding at about 20° to plane across core. Slate siliceous and very hard to drill, gradually becomes more calcareous with some white calcite and dolomite bands up to 6" thick after 225'.							
379-411	30	Impure slaty gray dolomite with minor bands of slate. At 383-385 crossed black gouge representing crushed zone overlying dolomite in all holes							
411-476	65	Medium to coarsely xline dolomite in which strong pyrite zones were encountered in other holes. Yellow pyrite on seams and in spots increasing in abundance but not exceeding few percent towards 476							
476-477	1	1' pyrite and pyrrhotite with some red primary hematite & minute specks of PbS. Pyrite grades into black dike.							
477-477.5	0.5	Black coarse xline dike with little pyrite							
477.5-480	2.5	Altered vuggy dolomite with qtz ~~Also coarse xline dike with a little pyrite.~~ xls in vugs.							
480-483	3.0	Basic dike with white and green talc							

DIAMOND DRILL RECORD

Standpipe
Casing

Started 10/28/52
Finished 2/15/53
Hole Size AX
Depth 400
% Core Rec.

Mine Maki Prospect
Location Current Cr. ½ mi. E. of Deep Lake, Stevens Co., Wash.
Logged by E A Date 2/15/53
Drilled by Newmen and Kellams (Boyles)

Hole No. 1
Level
Grid
Latitude
Departure El. 2402.
Elevation N.&W.
Bearing Horizontal
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data						
			No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-400		Coarse grained biotite granite. Drill stuck repeatedly from 180' on by caving and running sugary granite. Hole abandoned at 400'. Drillers could make no progress.							

Form 108 2M 3-53 SHAW & BORDEN CO. 306150

27

Standpipe
Casing 83

Started 10/6/52
Finished 10/14/52
Hole Size AX
Depth 214
% Core Rec. 30

DIAMOND DRILL RECORD

Mine Dosser Prospect
Location Current Cr., East of Deep Lake, Stevens Co., Wash.
Logged by E A Date 10/24/52
Drilled by Olds-Kellams (Boyles)

Hole No. 1
Level
Grid
Latitude
Departure
Elevation 2623'
Bearing S.
Inclination ~ 29°

Depth Feet	Feet Core	Lithologic Description	Sample No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-27	0	Overburden							
27-83	0	No core. Sludge mainly FeOxs from 50' to 83'. First sludges, 50' to 83'. Driller recovered no sludge before 50' and as a result almost no information was obtained from first part of hole. Ac. to drillers from 27' to 50' drilling was in bedrock with oxides							
83-101	3	About 1' of 3' of core is somewhat porous, hard FeO_x.							
101-214	52	Gray, finely crystalline banded dolomite with red FeO_x scattered sparsely throughout and no fresh sulfides. Sludges contain slight to moderate quantities of FeO_x particles beyond 110. Bedding near right angles to hole. Note: Failure of driller to save much core, and incomplete sludge recovery, make results obtained from hole worth very little.							
		Sludges		60-65	0	5	0.1	0.6	0.1
		Sullivan Mining Co. assays		65-70	0	5	0.4	0.8	0.1
				75-80	0	5		0.1	0.0
				80-85	0	5	0.2	0.1	0.3
				85-90	0	5	0.4	0.8	0.4
				90-95	0	5	0.3	0.9	0.5

DIAMOND DRILL RECORD

Standpipe 12
Casing 21

Started 10/16/52
Finished 10/24/52
Hole Size AX
Depth 215
% Core Rec. 41

Mine Dosser Prospect
Location Current Cr., just east of Deep Lake, Stevens Co. Wash.
Logged by EA Date 10/24/52
Drilled by Olds-Kellams (Boyles)

Hole No. Dosser #2
Level
Grid
Latitude
Departure
Elevation 2623'
Bearing S
Inclination -67°

Depth Feet	Feet Core	Lithologic Description	Sample Data						
			No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-12	0	Overbuden							
12-21	0	No core.							
21-215	88	Gray, light and dark banded dolomite with oxidation spots scattered sparsely throughout. Strongest oxidation in sludges at about 57' to 75' Banding not far from right angles to hole. N. B. Very little core and incomplete sludge recovery.							
		<u>Sludge</u> Sullivan Mining Co. assay		57-65	0	8	0.4	1.0	0.[illegible]

Form 108 2M 3-53 SHAW & BORDEN CO. 308150

DIAMOND DRILL RECORD

Standpipe
Casing 6

Started 10/25/52
Finished 11/17/52
Hole Size AX
Depth 605
% Core Rec. 73%

Mine Dosser Prospect
Location Currant Cr. just east of Deep Lake, Stevens Co., Wash.
Logged by EA Date 11/16/52
Drilled by Olds (Boyles)

Hole No. 3
Level
Grid
Latitude
Departure
Elevation 2333'
Bearing N
Inclination 0°

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-75	44	Coarse grained biotite granite							
75-188	98	Blue-white xline dolomite metamorphosed & knotty from proximity to granite Few thin bands of ZnS, and occasional ZnS shines and pyrite from 85' to 95' ZnS bands scarce, less than 1/8" thick. About ½" ZnS at 154'. Considerable pyrite and pyrrhotite from 164' to 170' in narrow bands. Oxidation at 182'							
188-193	3½	Thin banded ls, often wafer cored, iron stained.							
193-478	218.5	Blue-white xline ls, banded to Knotty & contact metamorphosed. Many 1/16" to ½" pyrite and pyrrhotite bands from 198 to 252'. Ls darker, denser, somewhat silicified from 267' to 300'. Strong pyritization from 428' to 445.							
478-605	78	Ls becoming finer-grained darker, and sometimes slaty and impure with some narrow bands of black, siliceous slate; poor recovery.							

DIAMOND DRILL RECORD

Standpipe
Casing 80

Started 11-8-52
Finished 11-15-52
Hole Size AX
Depth 161
% Core Rec. 90

Mine Dosser
Location Currant Cr., just east of Deep Lake, Stevens Co., Wash.
Logged by EA Date 12/3/52
Drilled by Johnson (Boyles)

Hole No. 4
Level
Grid
Latitude
Departure
Elevation 2198
Bearing S25°W.
Inclination -45°

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-22	7	Gray banded dolomite with iron oxide in spots and along seams. BX chips more than core							
22-125	93.5	Wavy gray and dark gray banded dolomite-banding mostly at right angles to core axis. Very narrow seams, and spots, of ZnS beginning at 60' and sparsely distributed throughout rest of section. Occasional zones containing much pyrite with a little ZnS & PbS. Some pyrrhotite. (Piece of high (Zn split core removed from 92')	527	79-82	3.0	3.0	Tr	0.0	0.8
			528	90.-94	4.0	4.0	Tr	0.0	1.0
125-161	35	Core 100% except in first few feet Dolomite becoming lighter gray and less distinctly banded, med. xline, with less pyrite, tremolite. No Zn and Pb shines observed.	529	105-108.5	3.5	3.5	Tr	0.0	0.5

DIAMOND DRILL RECORD

Standpipe
Casing 25

Started 11-17-52
Finished 11-25-52
Hole Size AX
Depth 175
% Core Rec. 97

Mine Dosser Prosp.
Location Current Cr., just east of Deep Lake, Stevens Co., Wash.
Logged by EA Date 11-25-52
Drilled by C.R.Johnson (Boyles)

Hole No. 5
Level
Grid
Latitude
Departure
Elevation 2198
Bearing Vertified
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-25	20	Chips of BX core. Gray to black dolomite with Fe stained spots. Pyrite, pyrrhotite, & tremolite between 8' & 10'							
25-77.5	51.5	Gray banded to knotty dolomite with occasional narrow galcite veinlets. Banding at 15° to 40° angle from plane across core. Few oxidized spots. Specks of pyrite from 55' (and tremolite)							
77.5-80.5	3.0	Gray to dark gray banded ls with tiny seams of dark brown ZnS and pyrite and PbS shines.	524	77.5 -80.5	3.0	3.0	Tr	0.0	0.5
80.5-97	16.5	Gray banded dolomite with occasional shines of Pb & ZnS. Less than 1/8" bands of dark brown ZnS							
97-147	50	Gray banded dolomite with occasional spots of Zn and Pbs, and pyrite bands totalling ab.18", between 97' and 112'. Pb and Zn sulfides sparsely and uniformally distributed throughout 50'.	525	97-102	5.0	5.0	Tr	Tr	0.4 9.7Fe
			526	139-144	5.0	5.0	Tr	0.0	0.0 93Fe
		Pyrrhotite and pyrite between 139 & 144.							
147-175	28	Dolomite type remains same with less Zn & PbS, less pyrite, and tiny tremolite Xls common.							

DIAMOND DRILL RECORD

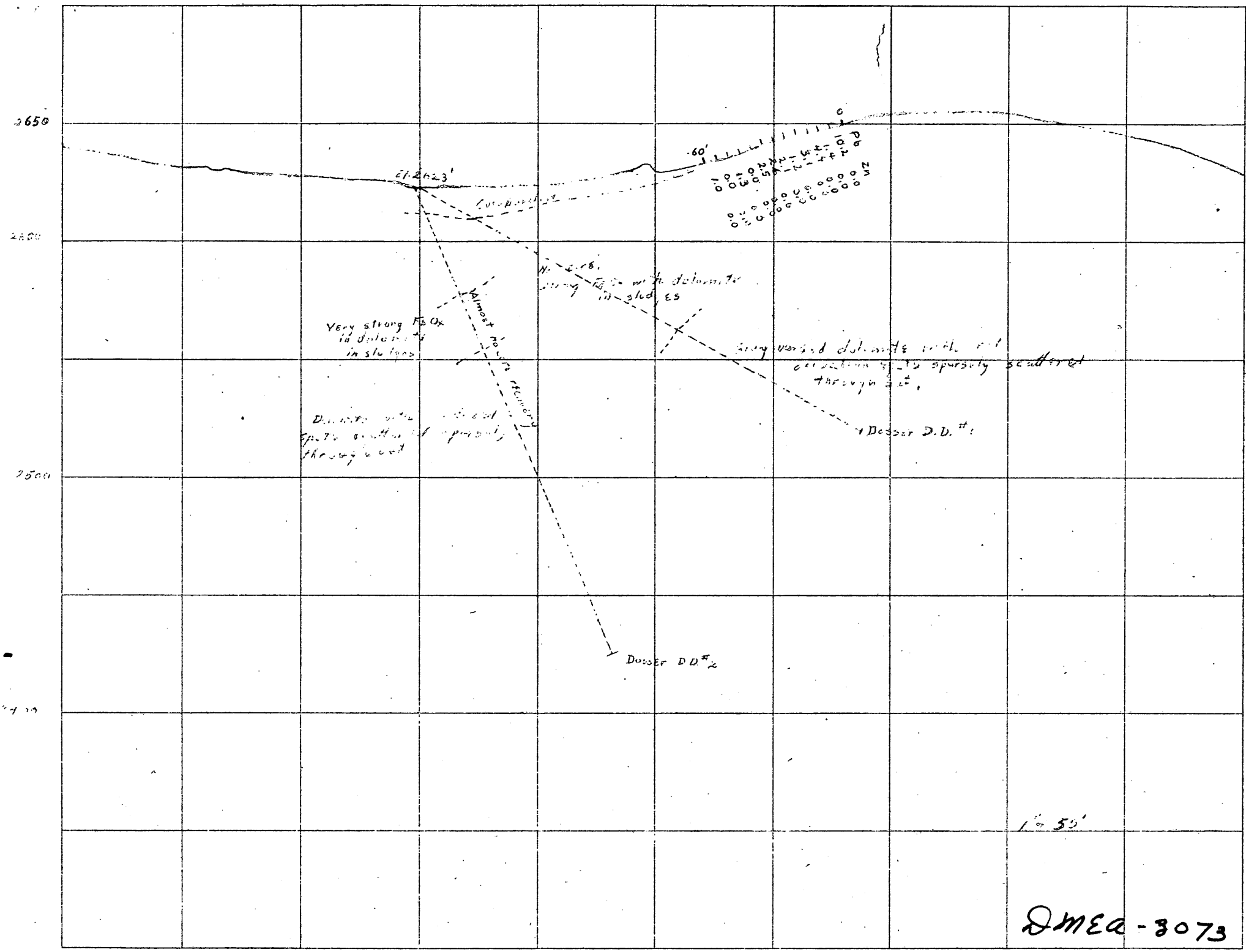
Standpipe
Casing 15

Started 11/25/52
Finished 12/6/52
Hole Size AX
Depth 174.5
% Core Rec. 92.5%

Mine Dosser
Location Current Cr., just east of Deep Lake
Stevens Co., Wash.
Logged by EA Date 12-15-52
Drilled by C R Johnson (Boyles)

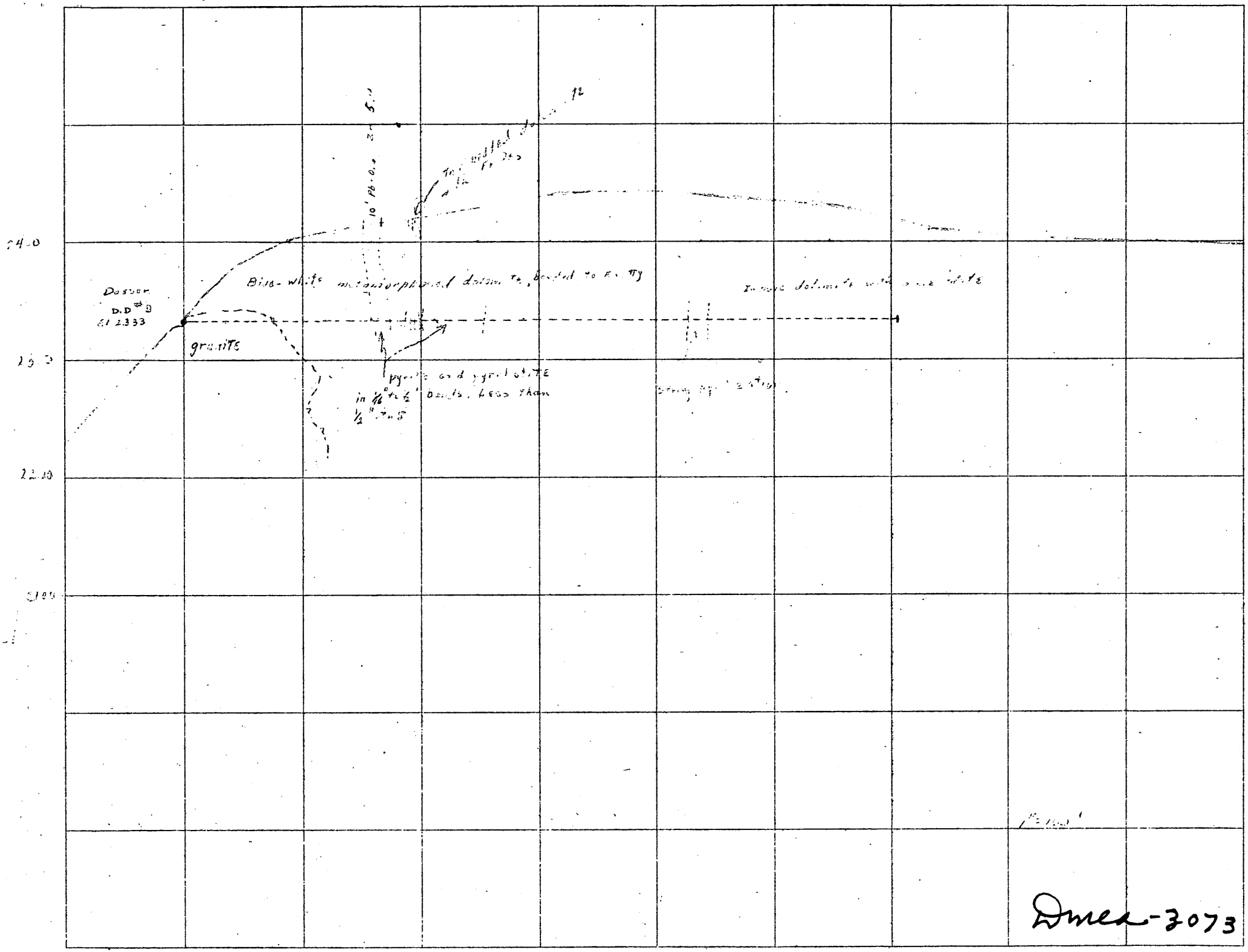
Hole No. 6
Level
Grid
Latitude
Departure
Elevation 2148'
Bearing
Inclination Vertical

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-12		Overburden - shattered bedrock particles							
12-174.5	156	Gray and dark gray fine grained dolomite, with slate bands. Pyrite at 46' Dolomite becoming more distinctly banded with spots of pyrite, calcite, and dark brown ZnS Shines from 80' on Banding at about 45° Dolomite becomes lighter gray from 155 on. No sections mineralized enough for assay.							

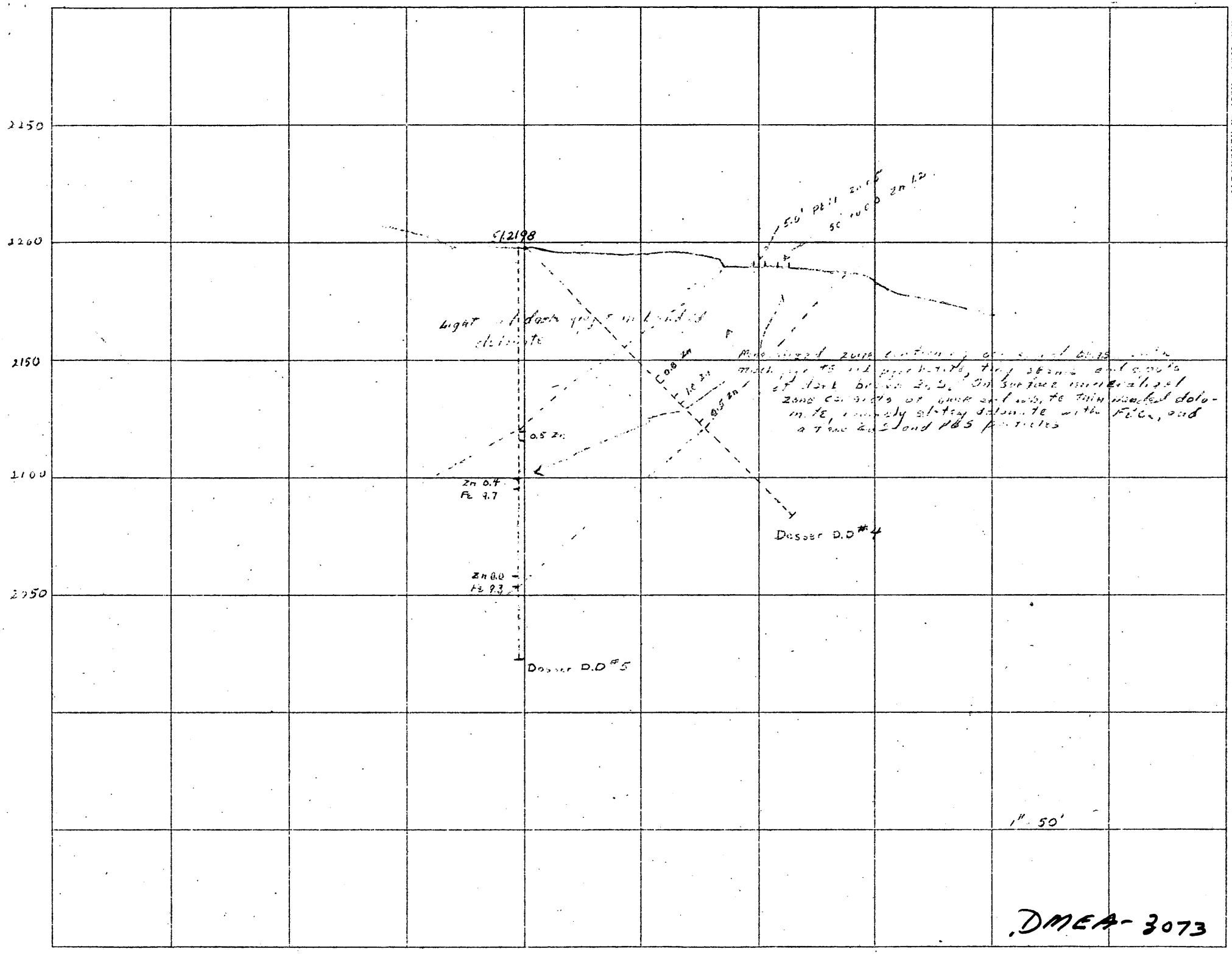


DMEa-3073

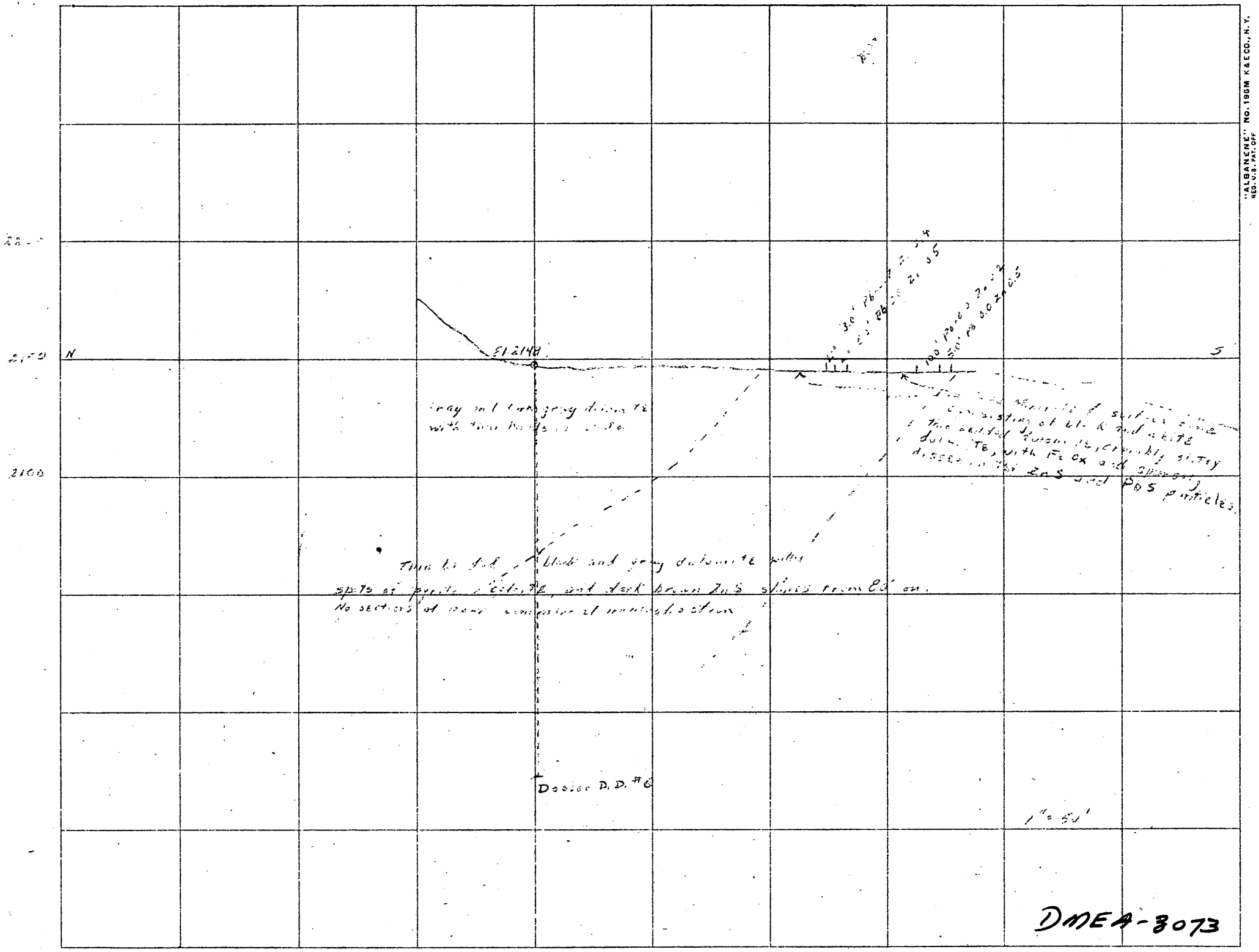
"ALBANENE" No. 195M K&E CO., N.Y.
REG. U.S. PAT. OFF.



"ALBANENE" NO. 195M K&E CO., N.Y.
REG. U.S. PAT. OFF.

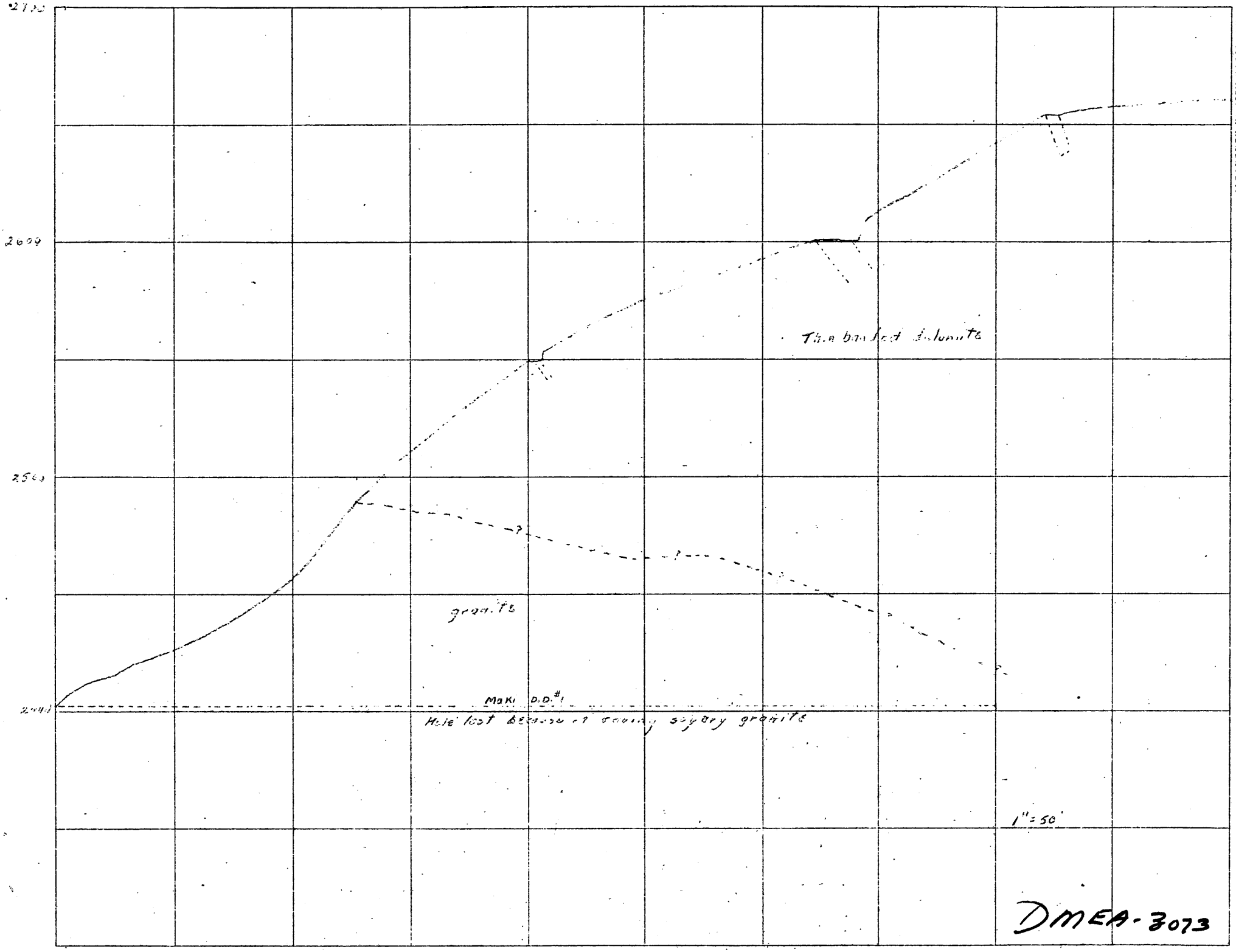


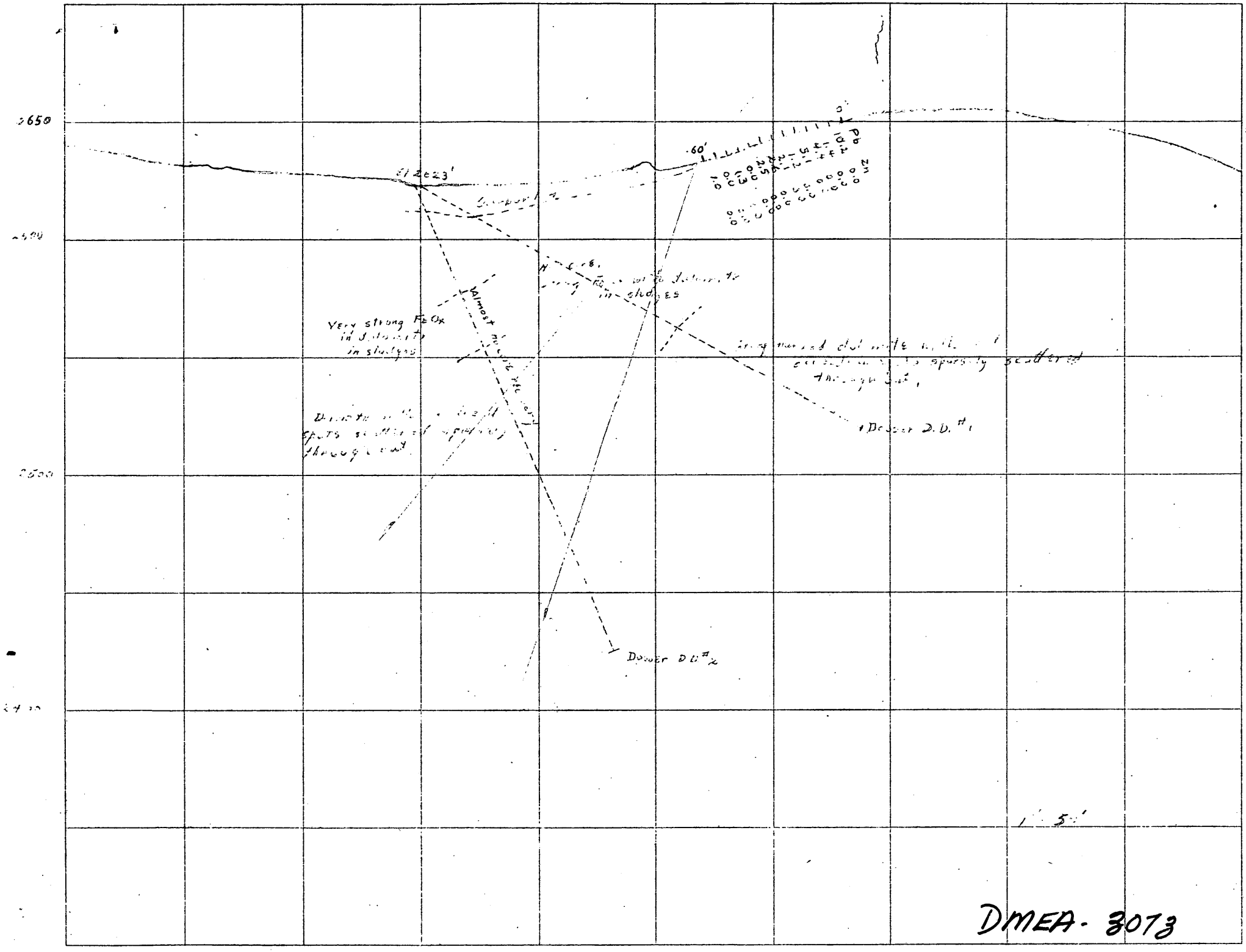
"ALBANENE" NO. 195M K&E CO., N.Y.
REG. U.S. PAT. OFF.



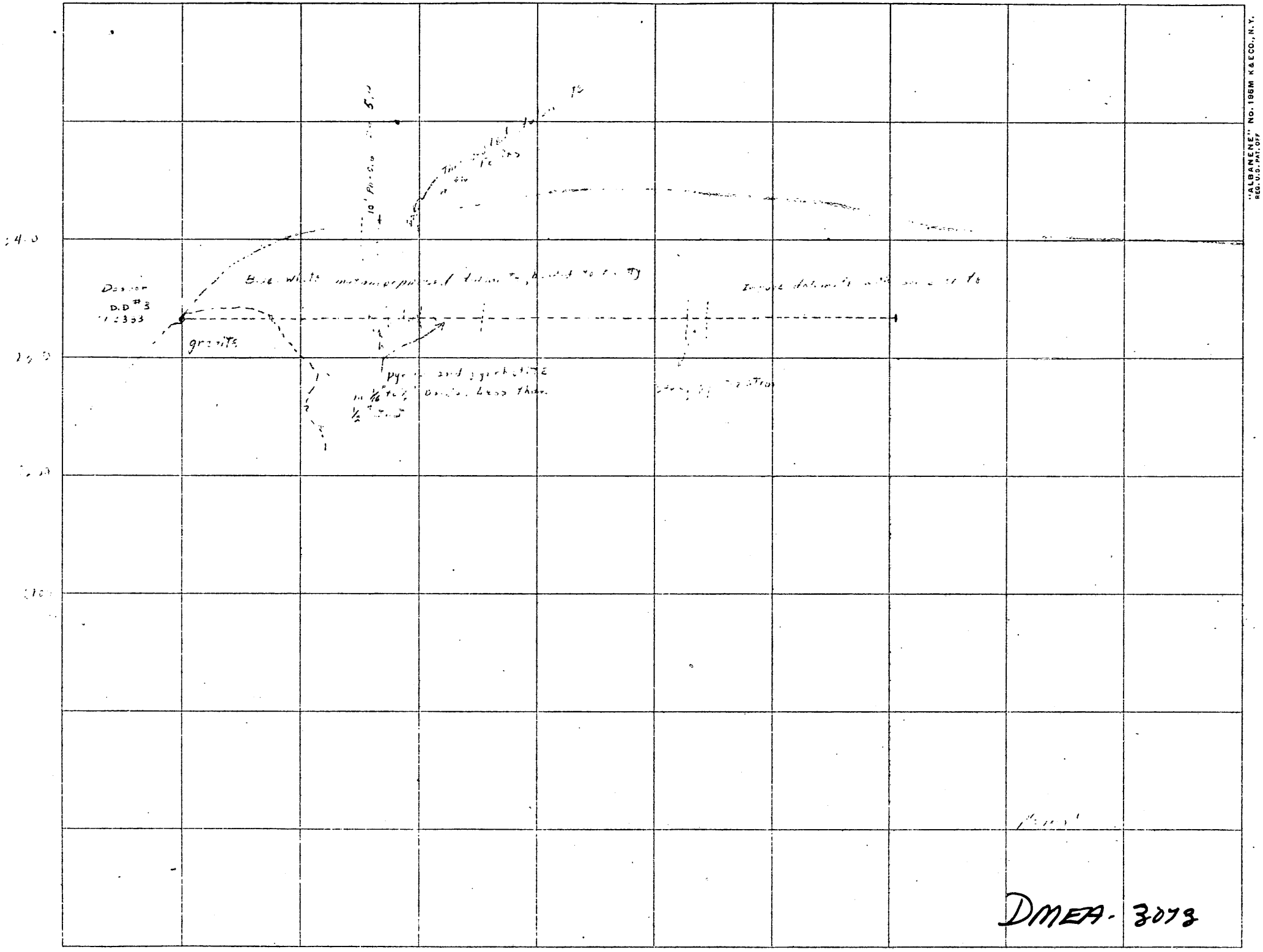
DME4-3073

"ALBANENE" NO. 195M K&E CO., N.Y.
REG. U.S. PAT. OFF.


2700
2600
2500
2400
Thin banded dolomite
granite
Maki D.D. #1
Hole lost because of caving sugary granite
1" = 50'
DMEA-3073
"ALBANENE" No. 195M K&E CO., N.Y.
REG. U.S. PAT. OFF.

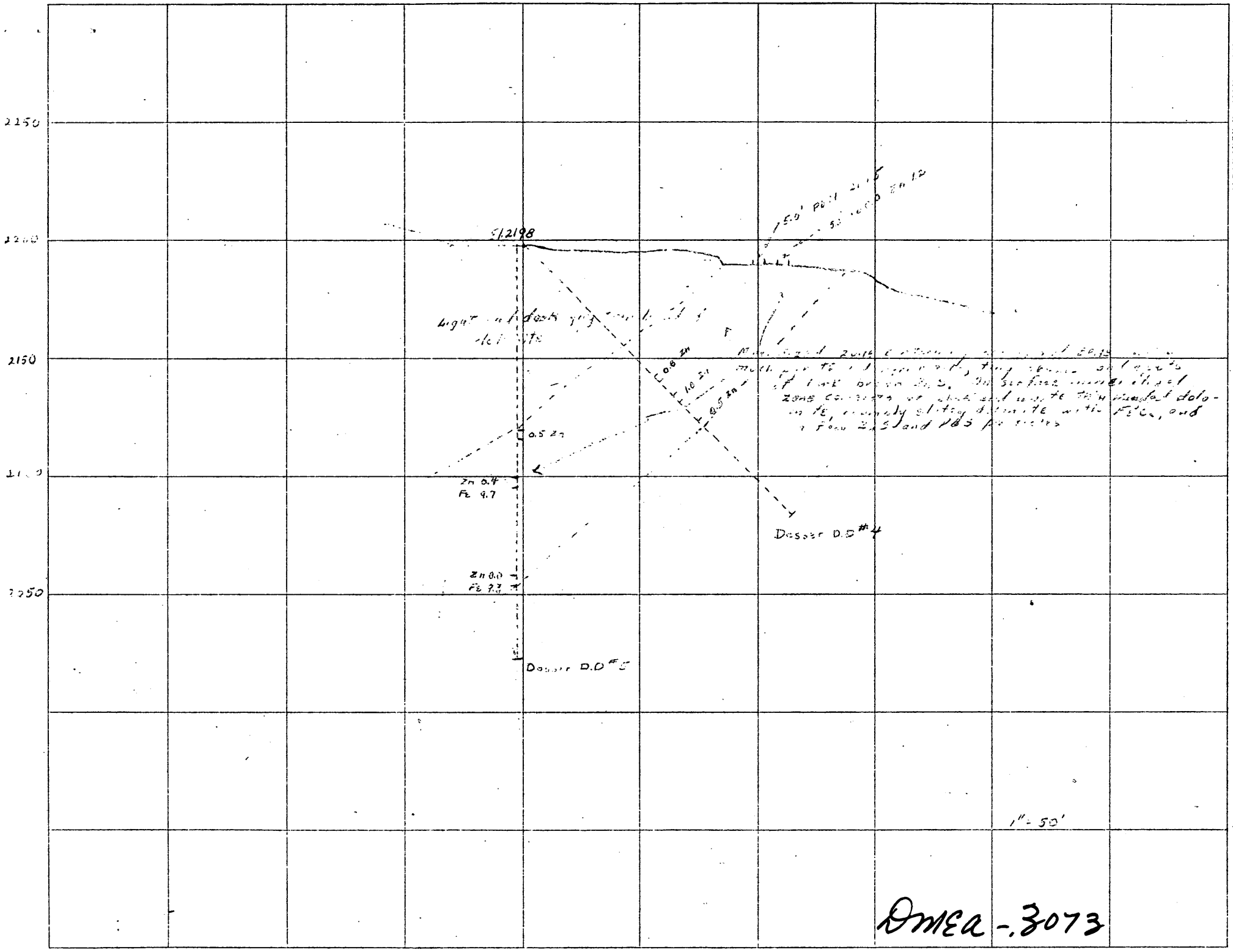


"ALBANENE" NO. 185M K&E CO., N.Y.
REG. U.S. PAT. OFF.

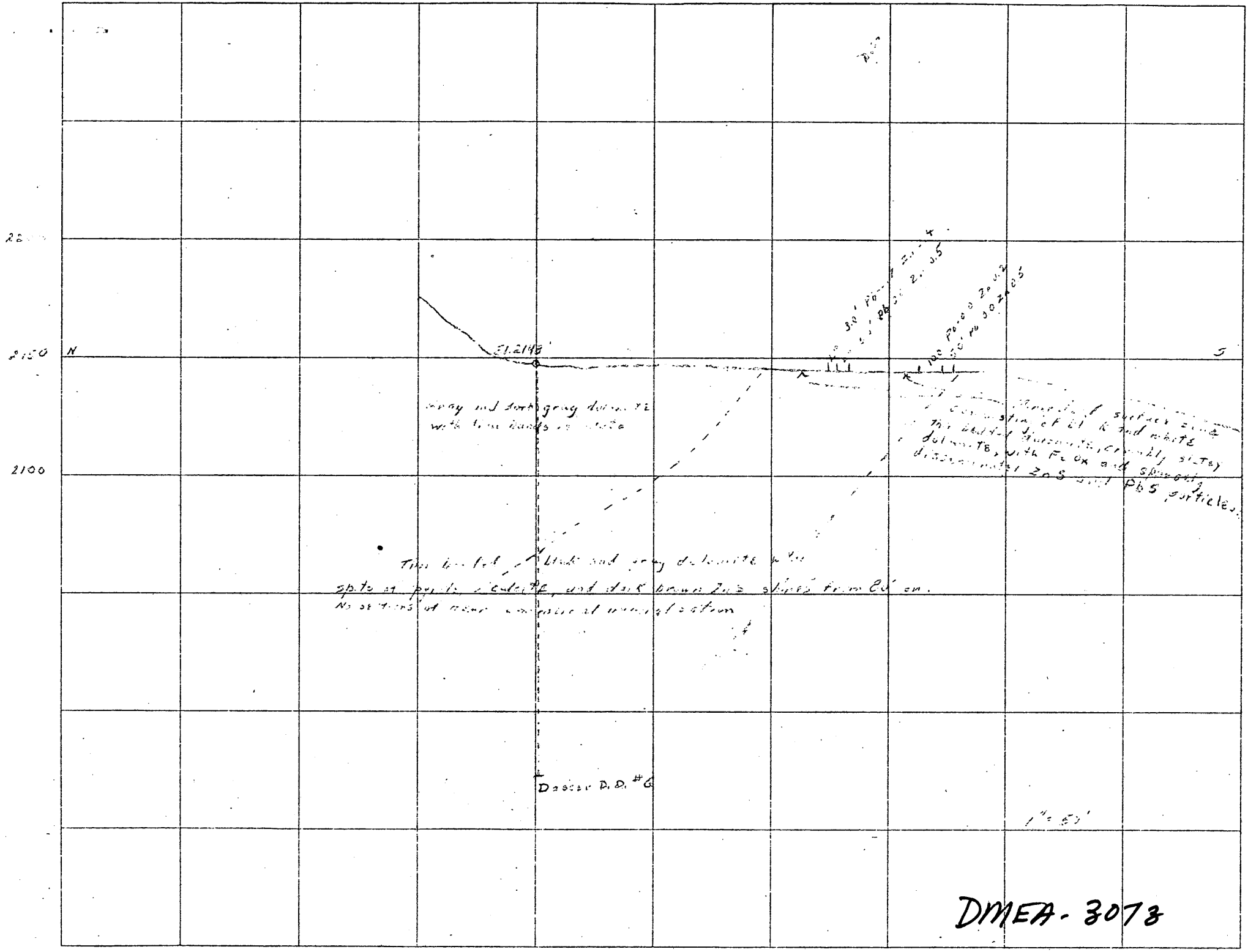


DMEA-3073

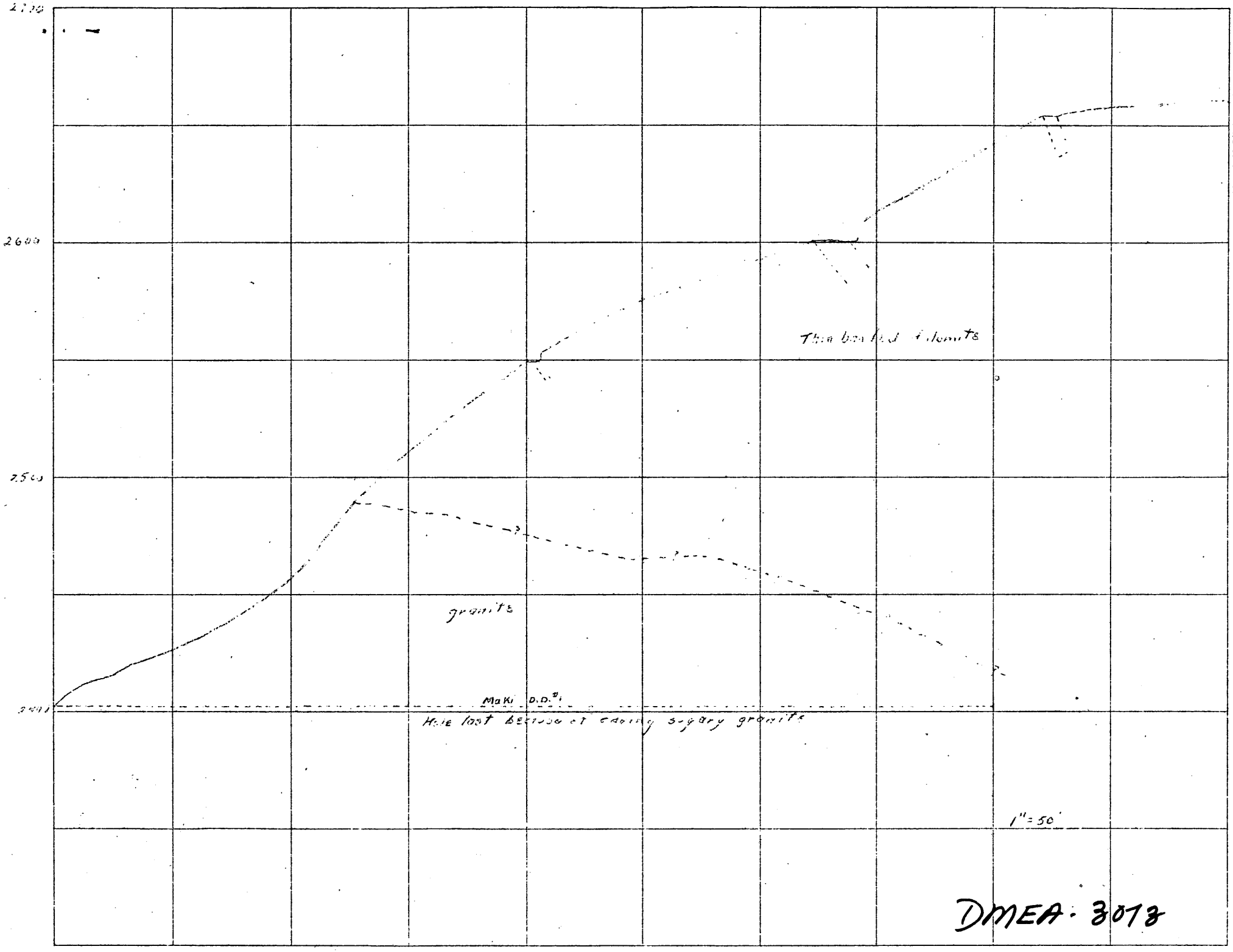
"ALBANENE" No. 195M K&E CO., N.Y.
REG. U.S. PAT. OFF.



"ALBANENE" NO. 196M K&E CO., N.Y.
REG. U.S. PAT. OFF.

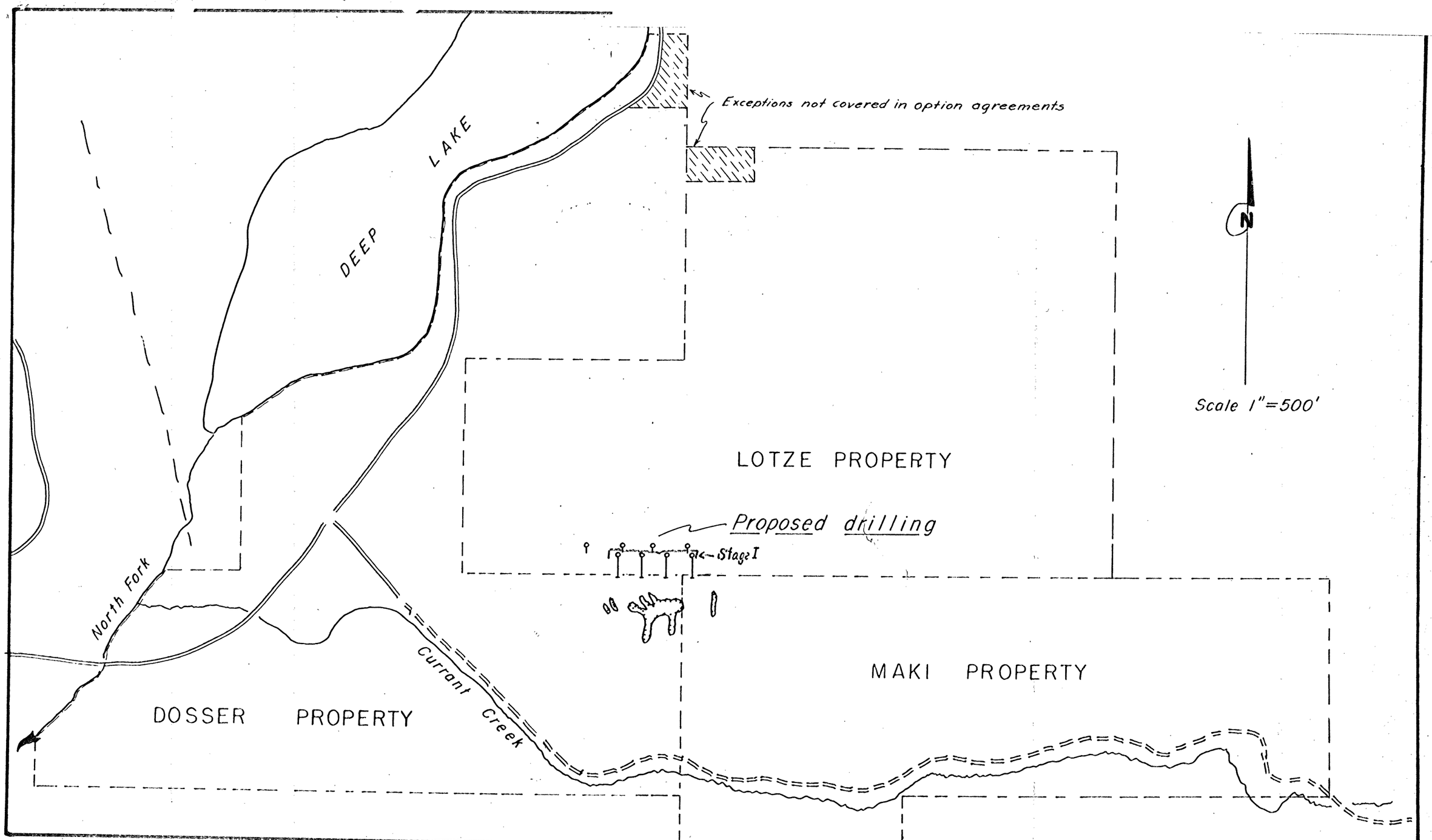


"ALBANENE" No. 196M K&E CO., N.Y.
REG. U.S. PAT. OFF.

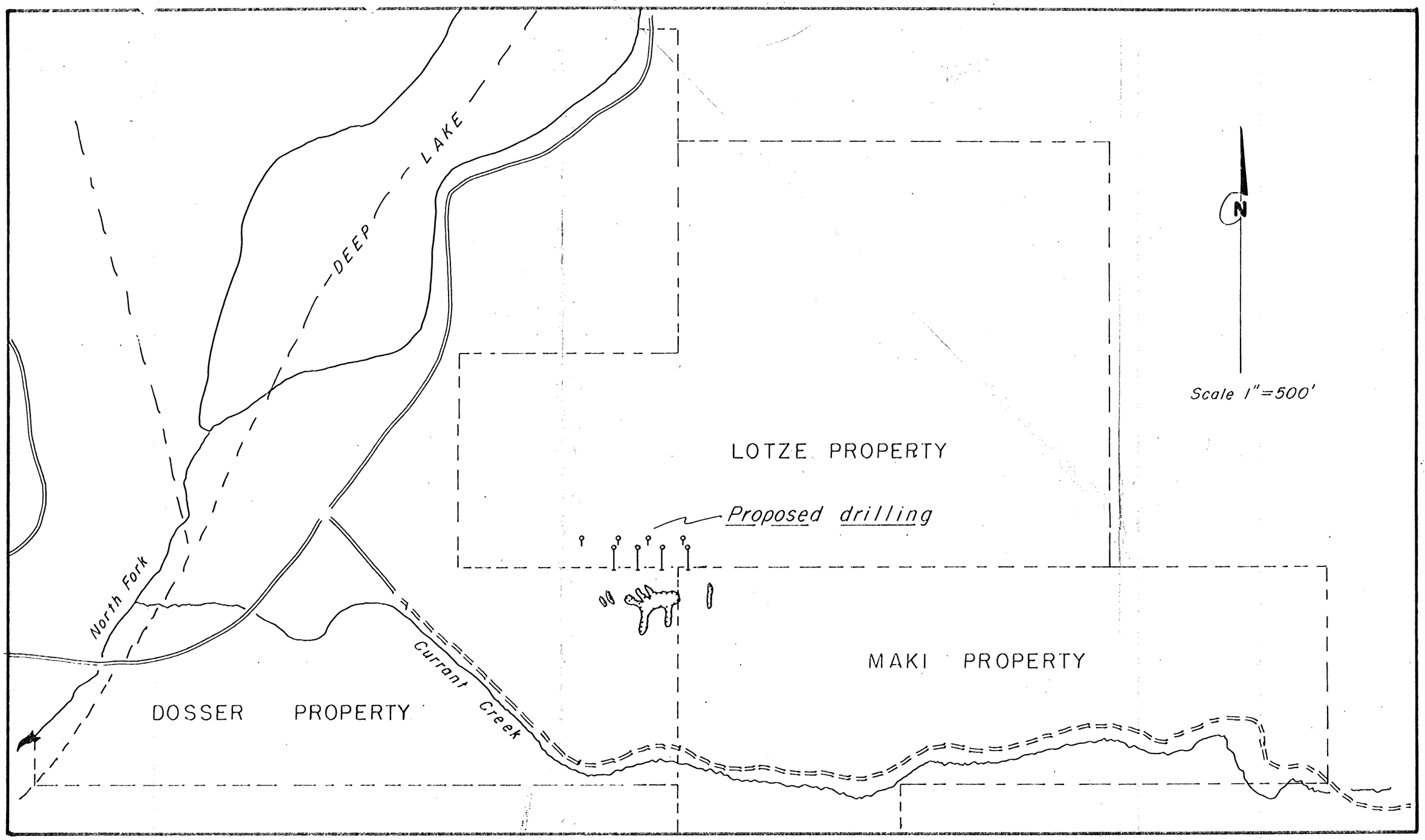


"ALBANENE" NO. 195M K&E CO., N.Y.
REG. U.S. PAT. OFF.

U. S. Department of the Interior.

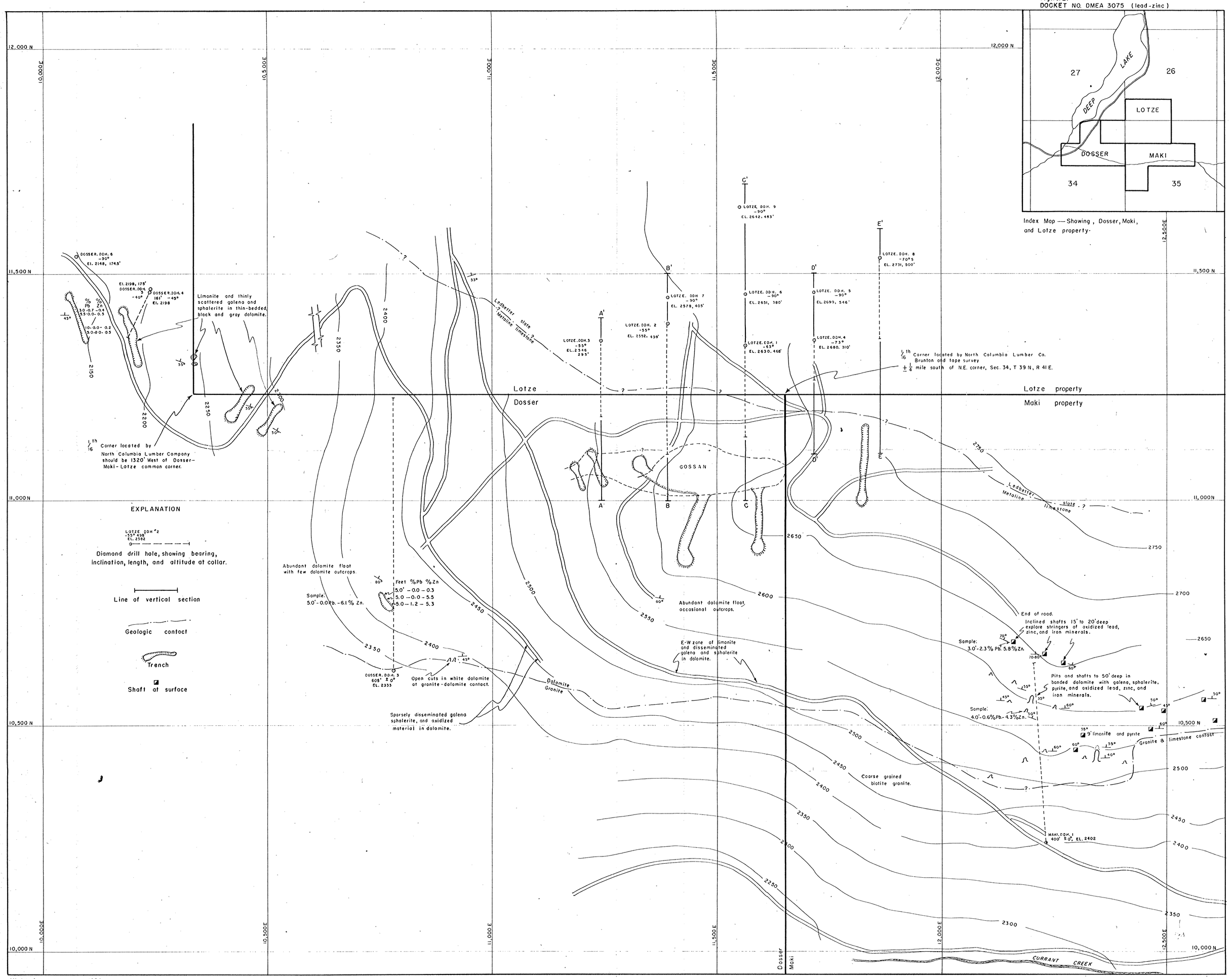


Proposed diamond drilling at Grandview Mines, Stevens County, Washington. (Property East of Deep Lake) — Docket No. 3073 - Pb, Zn.—



Proposed diamond drilling at Grandview Mines, Stevens County, Washington. (Property East of Deep Lake) — Docket No. 3073 - Pb, Zn. —

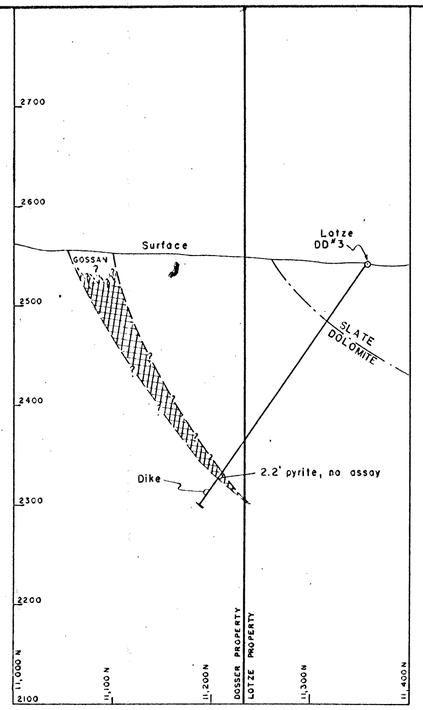
Figure. 2.
DOCKET NO. DMEA 3075 (lead-zinc)



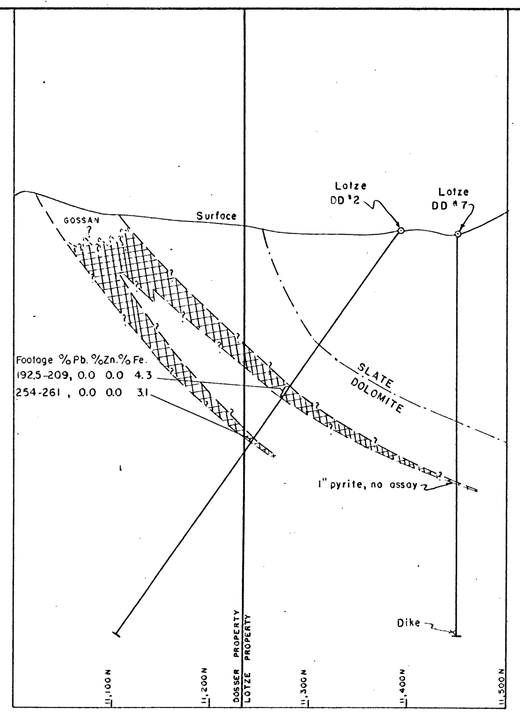
All data from company maps, 1954

PLAN MAP SHOWING DIAMOND DRILLING AT GRANDVIEW MINES, DOSSER-MAKI-LOTZE PROPERTY
T.39 N. R.41 E. W.M., STEVENS COUNTY, WASHINGTON

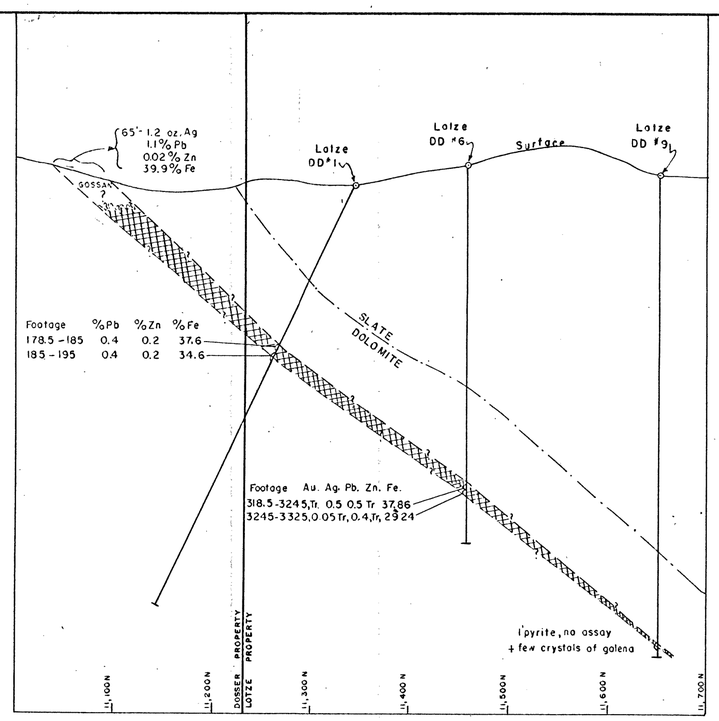
Figure 3
DOCKET No. DMEA 3073 (lead–zinc)



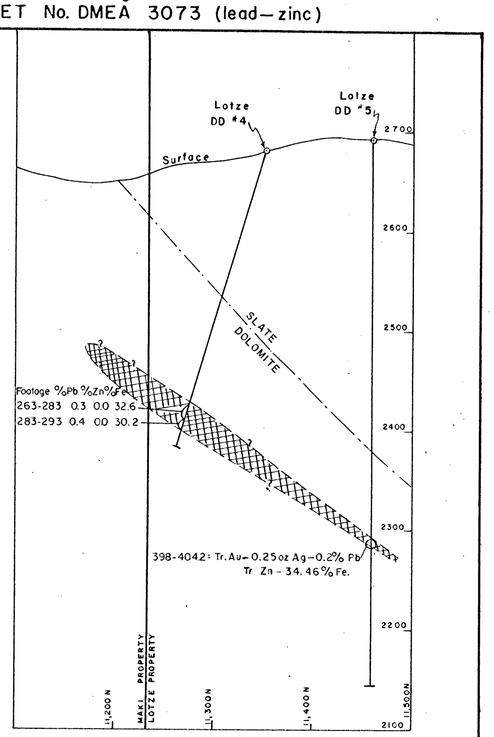
VERTICAL SECTION A-A' (11,240 E)



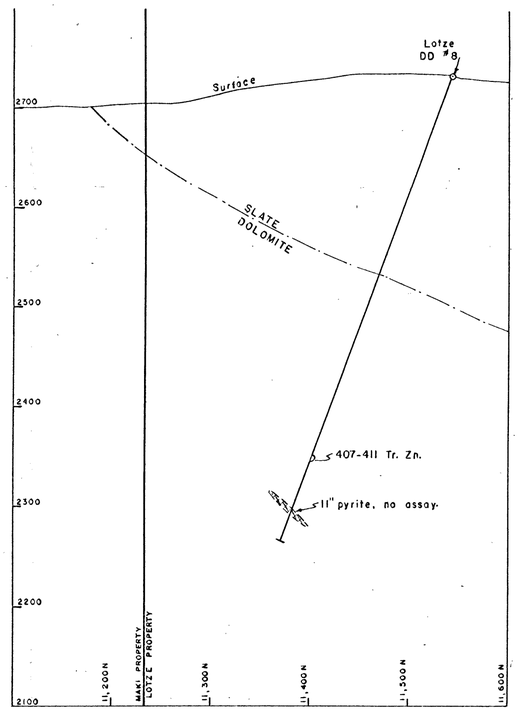
VERTICAL SECTION B-B' (11,390 E)



VERTICAL SECTION C-C' (11,560 E)



VERTICAL SECTION D-D' (11,710 E)



VERTICAL SECTION E-E' (11,860 E)

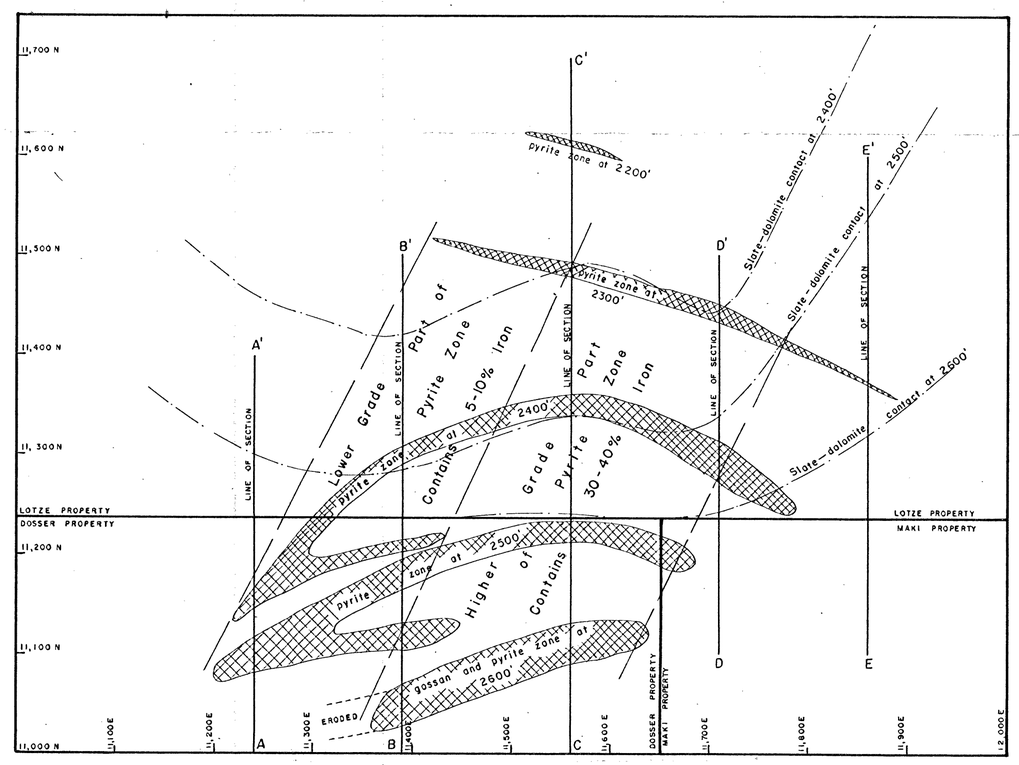
EXPLANATION

Indicated pyrite zone

Contact between slate and dolomite

Lotze DD #2

Diamond drill hole



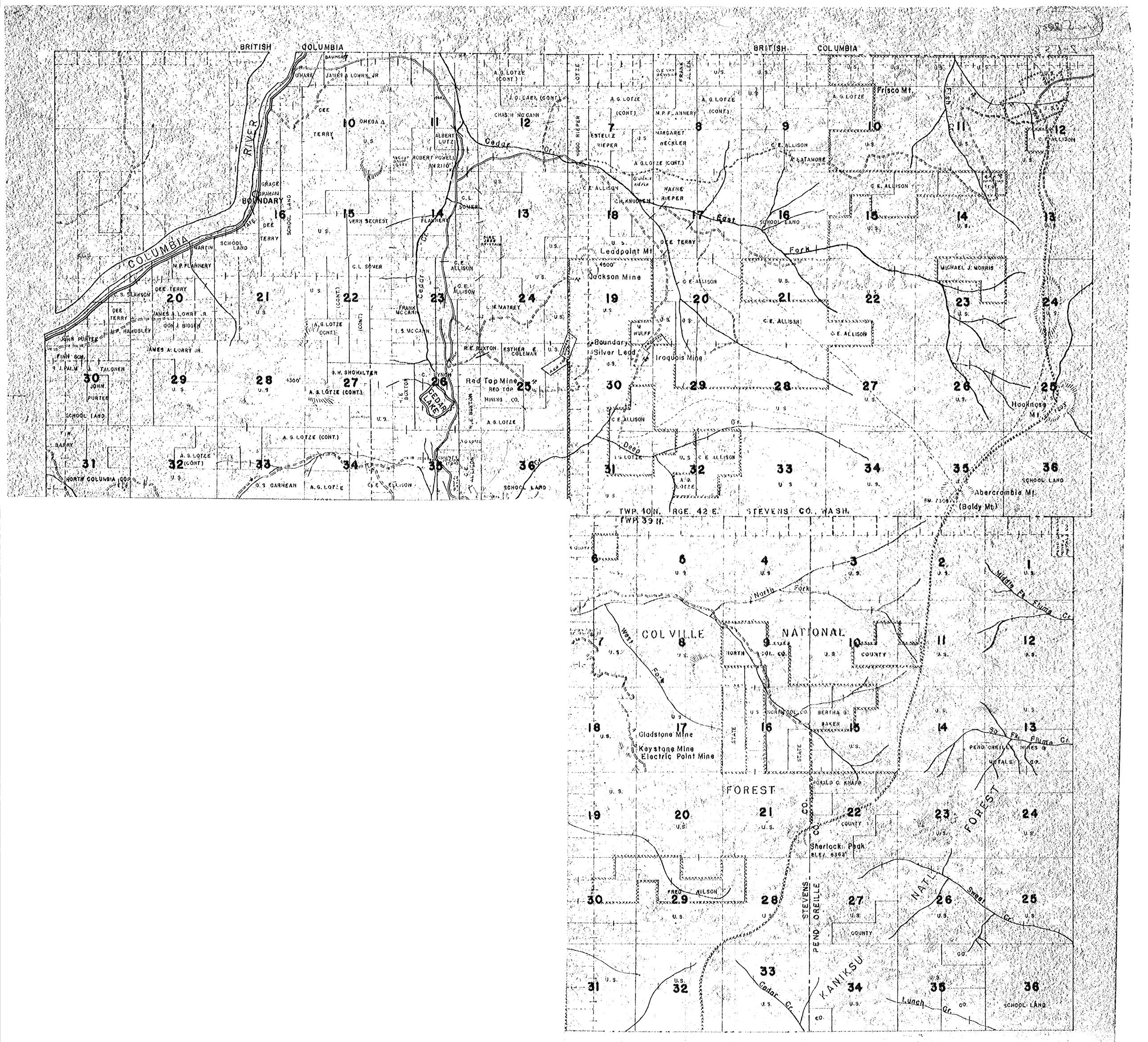
COMPOSITE PLAN SHOWING OUTLINE OF INDICATED PYRITE ZONE AT 5 ALTITUDES

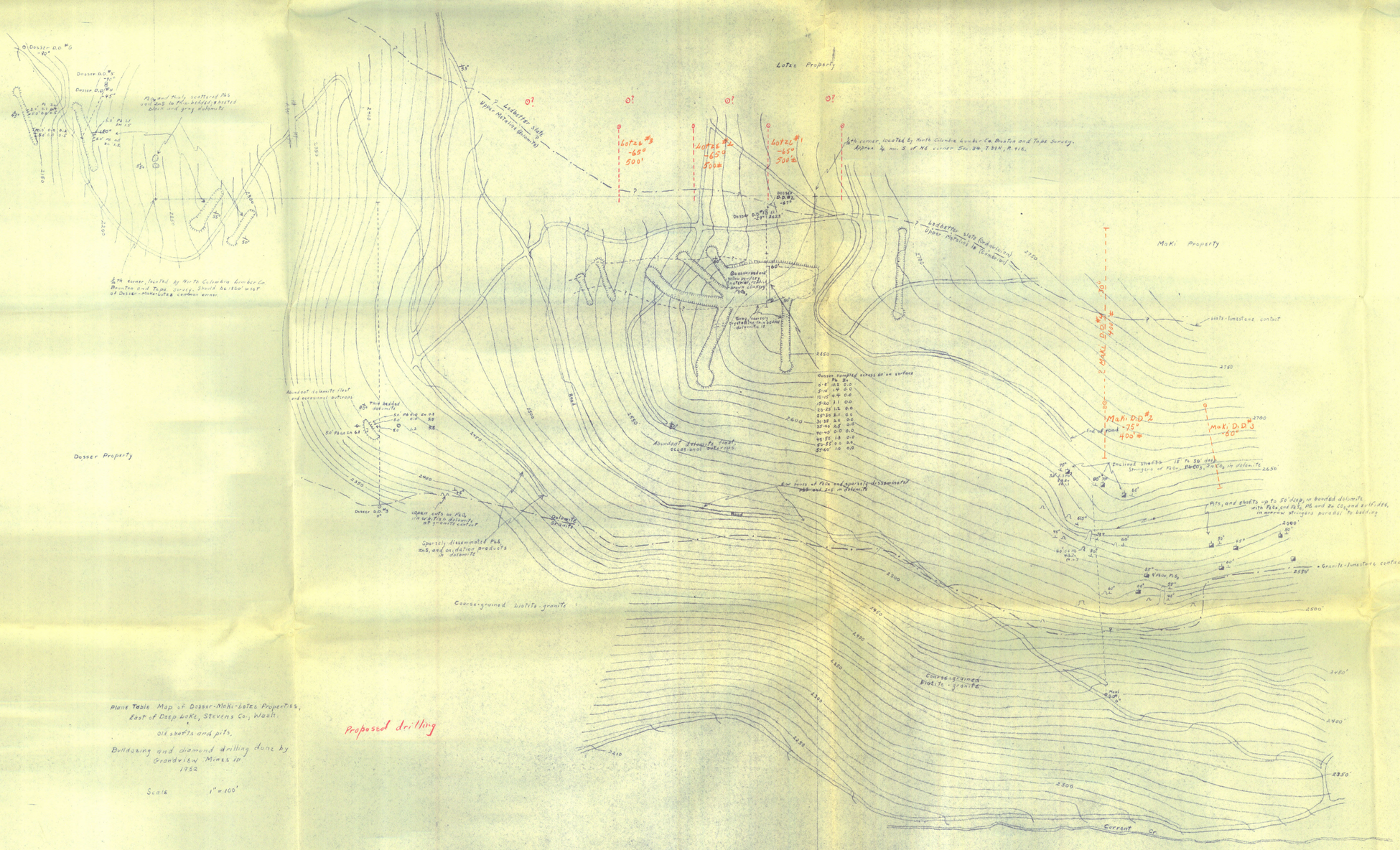
PLAN AND SECTIONS SHOWING PYRITE ZONE INDICATED BY DIAMOND DRILLING AT GRANDVIEW MINES

DOSSER–MAKI–LOTZE PROPERTY

Stevens County, Washington

Sections and plan compiled from company records 1954, W.P. PUFFETT, USGS


BRITISH COLUMBIA
COLUMBIA RIVER
BOUNDARY
Cedar Cr.
Cedar Lake
Red Top Mine
Leadpoint Mt.
Jackson Mine
Boundary Silver Lead
Iroquois Mine
East Fork
Deep Cr.
Frisco Mt.
Hooknose Mt.
Abercrombie Mt.
(Baldy Mt.)
TWP. 40 N. RGE. 42 E. STEVENS CO., WASH.
TWP. 39 N.
North Fork
West Fork
Middle Fk. Flume Cr.
So. Fk. Flume Cr.
Sweat Cr.
Lunch Cr.
Cedar Cr.
COLVILLE NATIONAL FOREST
Gladstone Mine
Keystone Mine
Electric Point Mine
Sherlock Peak
ELEV. 6362'
STEVENS CO.
PEND OREILLE CO.
KANIKSU NATL. FOREST



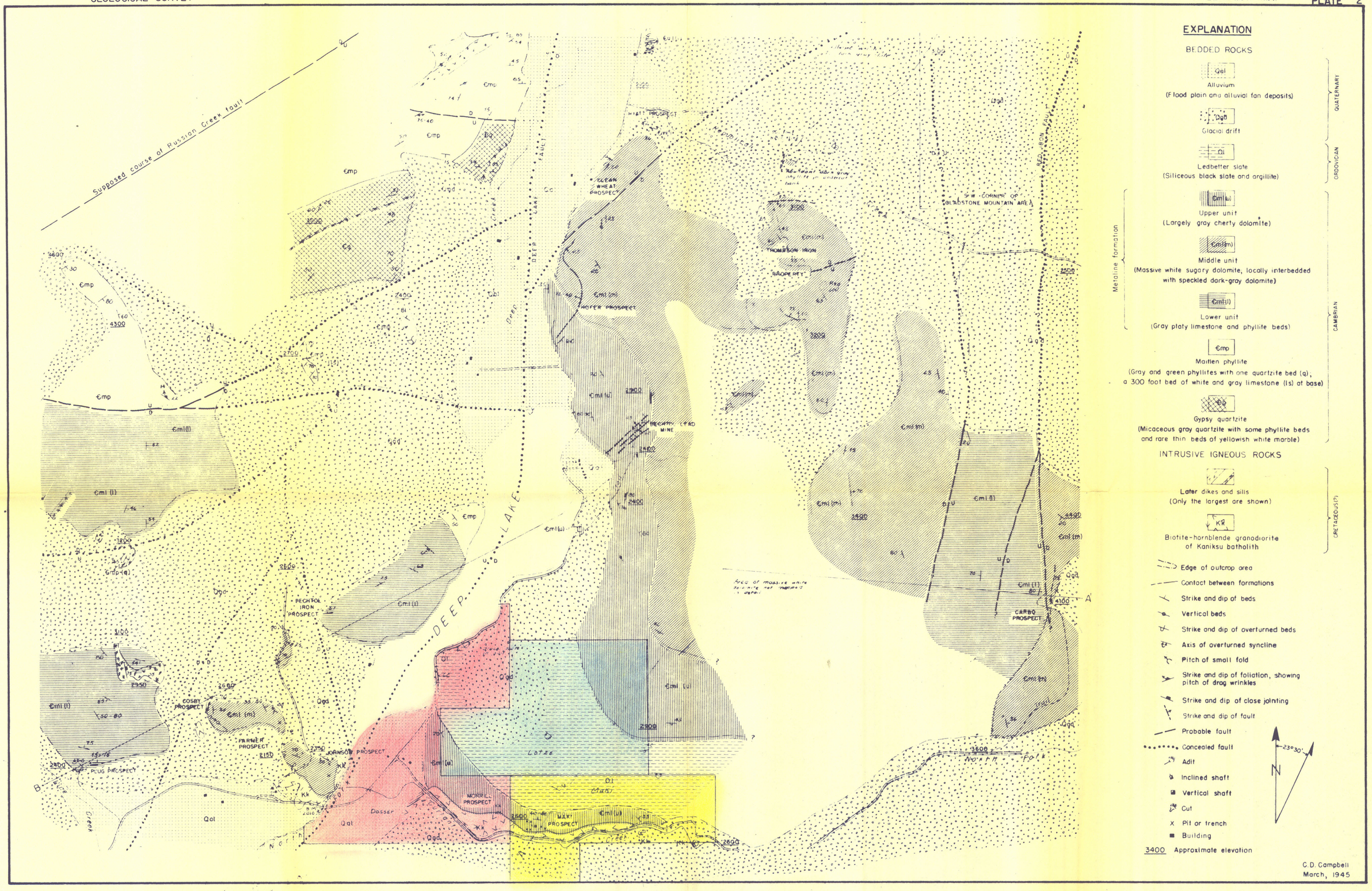
Plane Table Map of Dosser-Muki-Lotze Properties, East of Deep Lake, Stevens Co., Wash.

Old shafts and pits.

Bulldozing and diamond drilling done by Grandview Mines Inc. 1952

Scale 1" = 100'

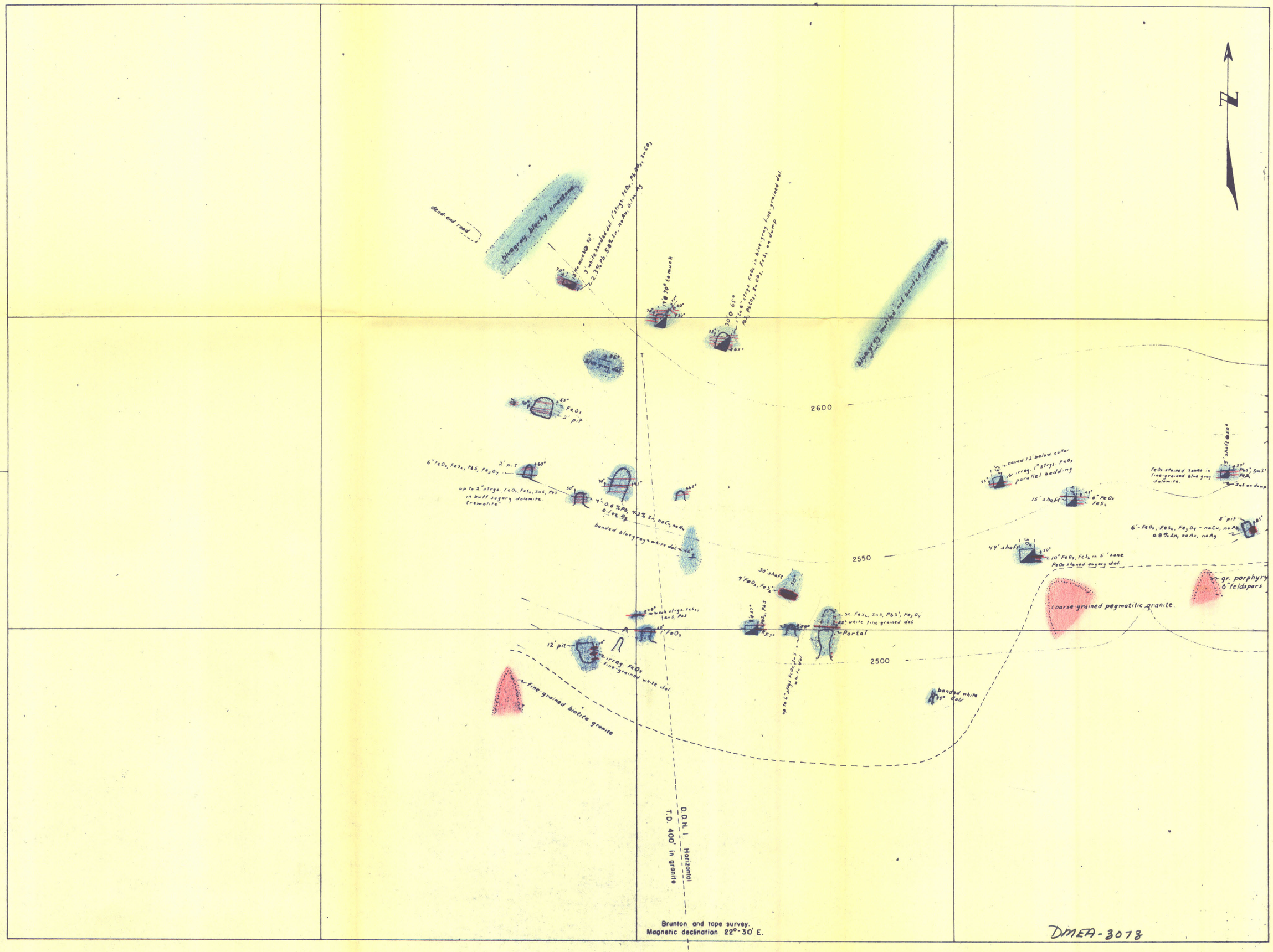
DMEA-3073



DMEA-3073

GEOLOGIC MAP OF DEEP LAKE AREA, NORTHPORT DISTRICT, STEVENS COUNTY, WASHINGTON

SCALE 0 1000 2000 3000 4000 FEET

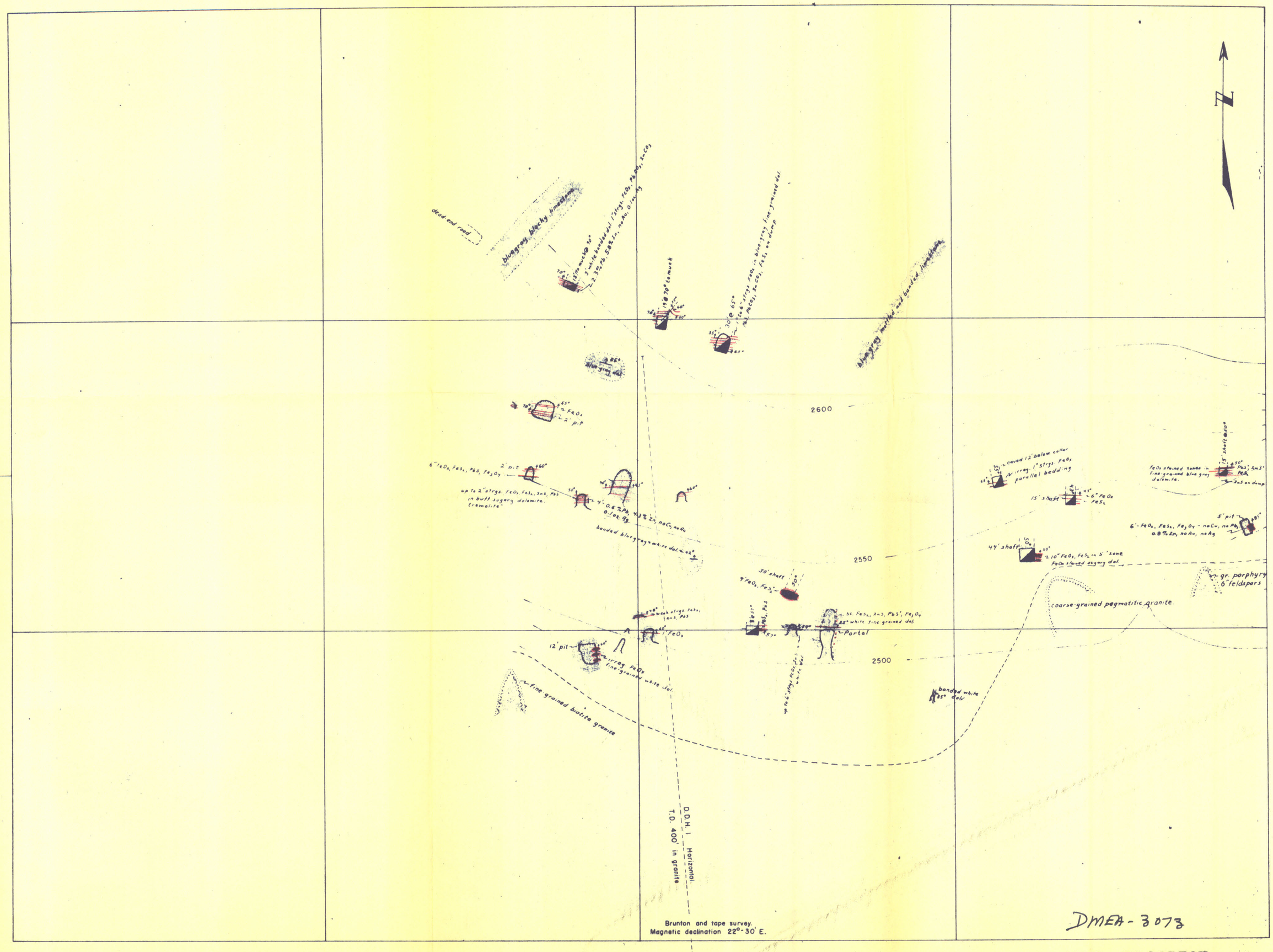


MAKI PROSPECT

near Deep Lake, Stevens County, Washington

July 1952 Scale : 1" = 40'

Map 2

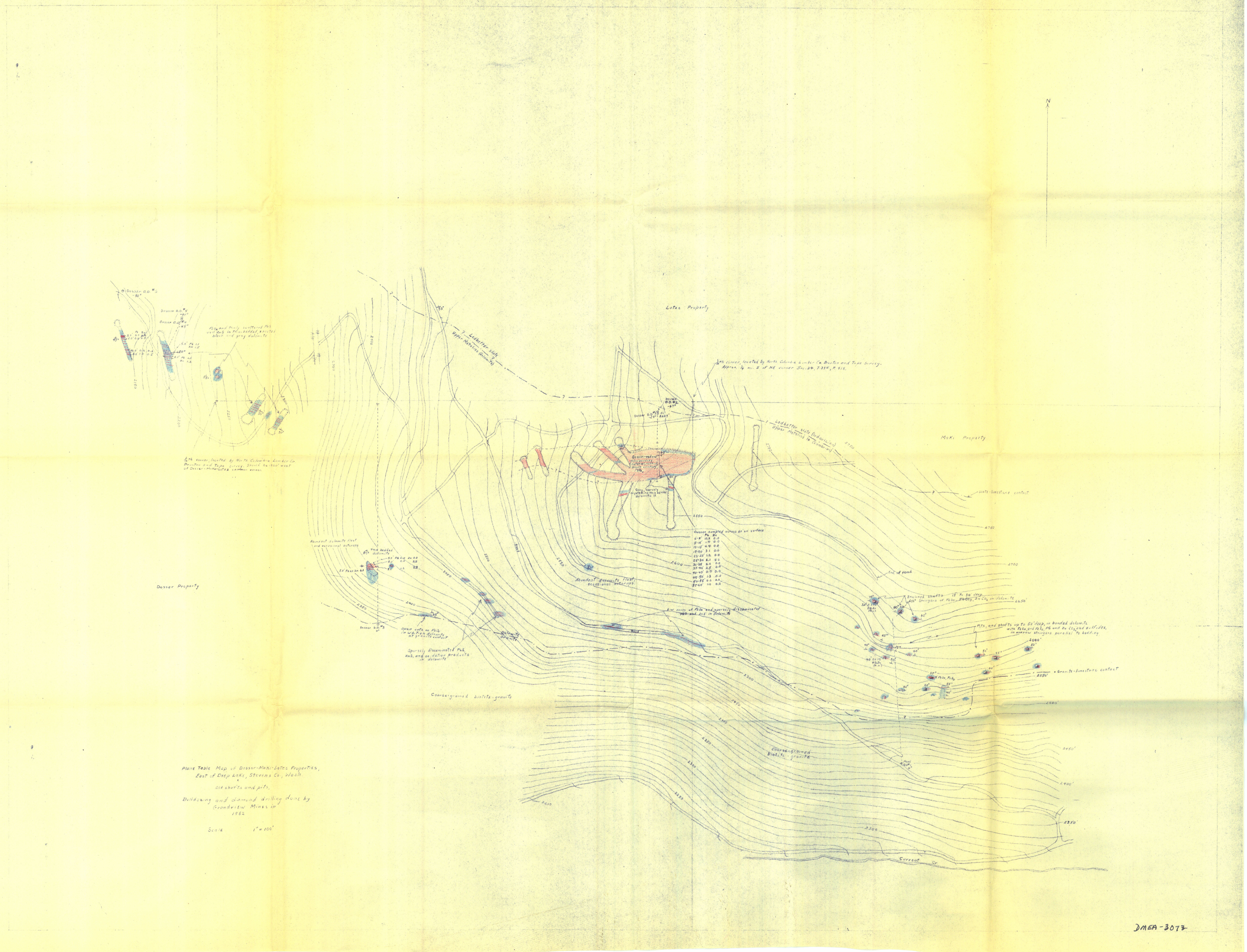


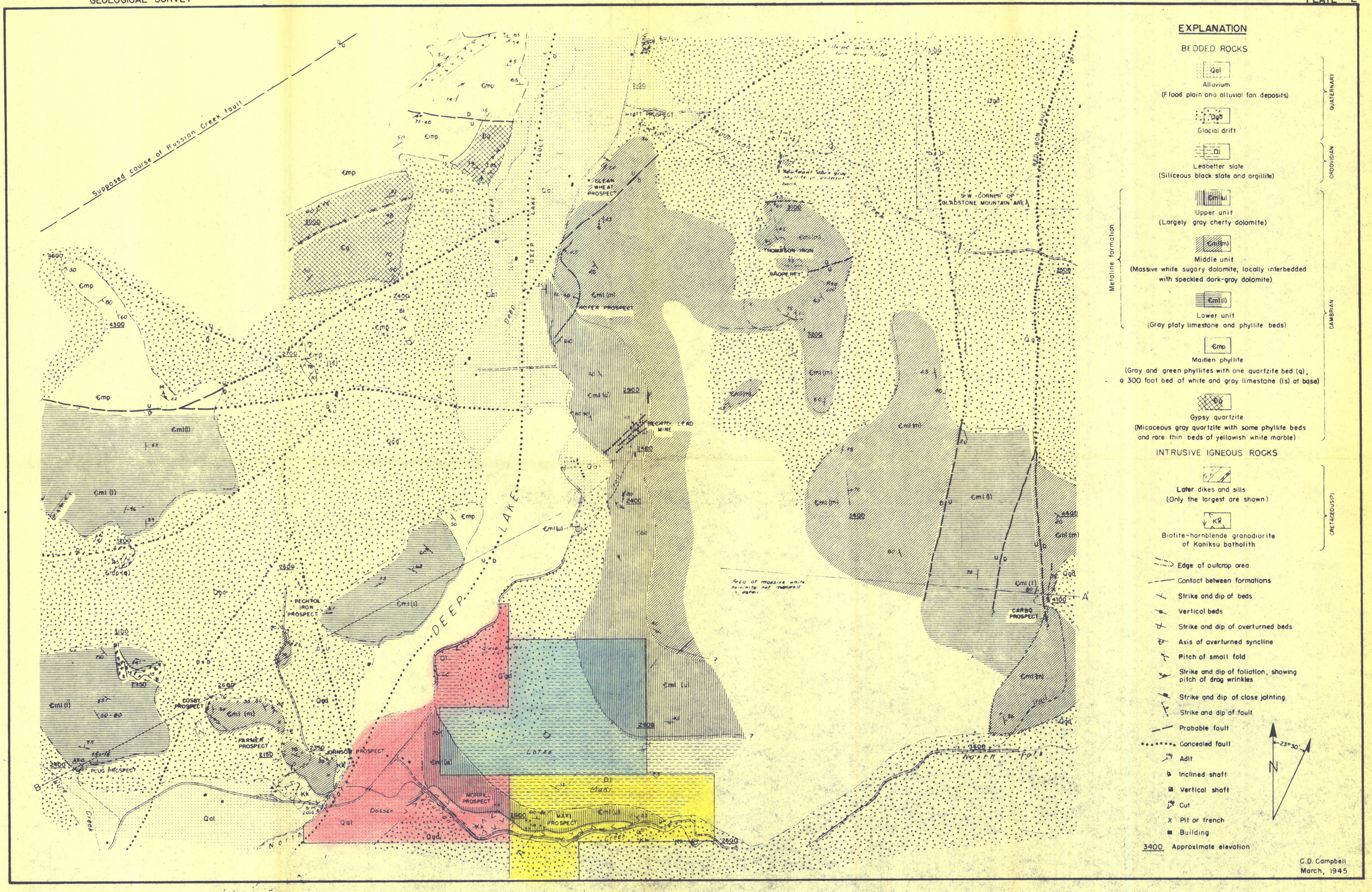
MAKI PROSPECT

near Deep Lake, Stevens County, Washington

July 1952 Scale : 1" = 40'

Map 2

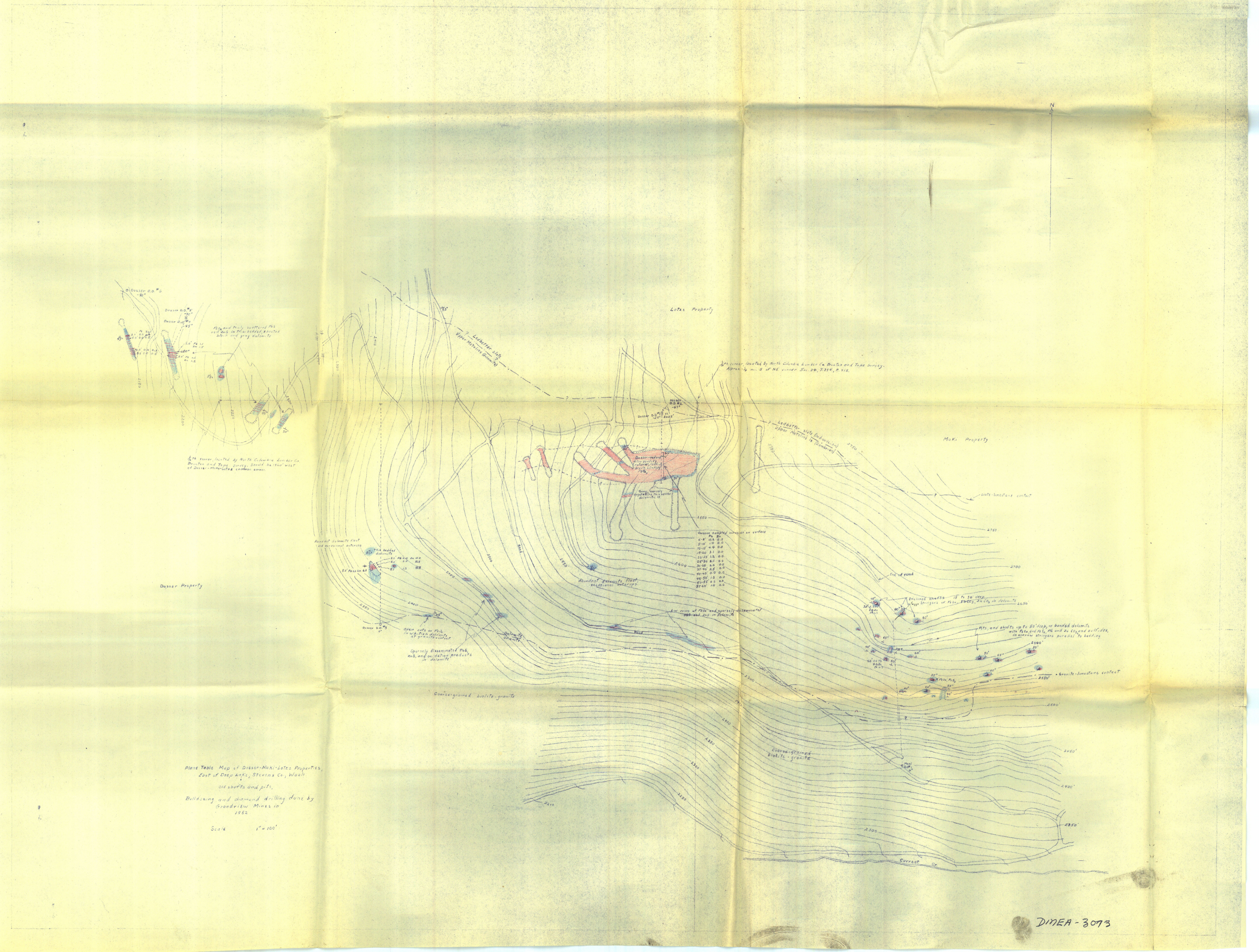

Plane Table Map of Dosser-Maki-Lotze Properties, East of Deep Lake, Stevens Co., Wash.
Old shafts and pits.
Bulldozing and diamond drilling done by Grandview Mines in 1952
Scale 1" = 100'
N
Lotze Property
Maki Property
Dosser Property
Dosser D.D. #5 -90°
Dosser D.D. #4 -45°
FeOx and fairly scattered PbS and ZnS in thin-bedded, shaley black and gray dolomite
1/16th corner, located by North Columbia Lumber Co. Brunton and Tape survey. Should be 1320' west of Dosser-Maki-Lotze common corner.
? Ledbetter slate ? Upper Metaline (dolomite)
1/16th corner, located by North Columbia Lumber Co. Brunton and Tape Survey. Approx. 1/4 mi. S of NE corner Sec. 34, T. 39N, R. 41E.
Dosser D.D. #2 -67°
Dosser D.D. #1 -29° EL 2625'
? Ledbetter slate (Ordovician) Upper Metaline ls (Cambrian)
Gossan-red and yellow powdery material, reddish brown clinkery FeOx
Gray coarsely crystalline thin bedded dolomitic ls.
slate-limestone contact
Gossan sampled across 60' on surface
Pb Zn
0-5' 10.2 0.0
5-10' 1.4 0.0
10-15' 4.4 0.0
15-20' 3.1 0.0
20-25' 1.2 0.0
25-30' 2.1 0.0
30-35' 2.6 0.0
35-40' 2.5 0.0
40-45' 0.0 0.0
45-50' 1.3 0.0
50-55' 0.0 0.0
55-60' 1.0 0.0
Abundant dolomite float and occasional outcrops
Thin bedded dolomite
Dosser D.D. #3 0°
Open cuts on FeOx in whitish dolomite at granite contact
Sparsely disseminated PbS, ZnS, and oxidation products in dolomite
Abundant dolomite float, occasional outcrops.
E-W zones of FeOx and sparsely disseminated PbS and ZnS in dolomite
Road
Dolomite
Granite
End of road
Inclined shafts 15' to 30' deep. Stringers of FeOx, PbCO3, ZnCO3 in dolomite
Pits, and shafts up to 50' deep, in banded dolomite with FeOx, and FeS2, Pb and Zn CO3 and sulfides, in narrow stringers parallel to bedding
Granite-limestone contact
Coarse-grained biotite-granite
Coarse-grained Biotite-granite
Maki D.D. #1 0°
Current Cr.
DMEA-3073



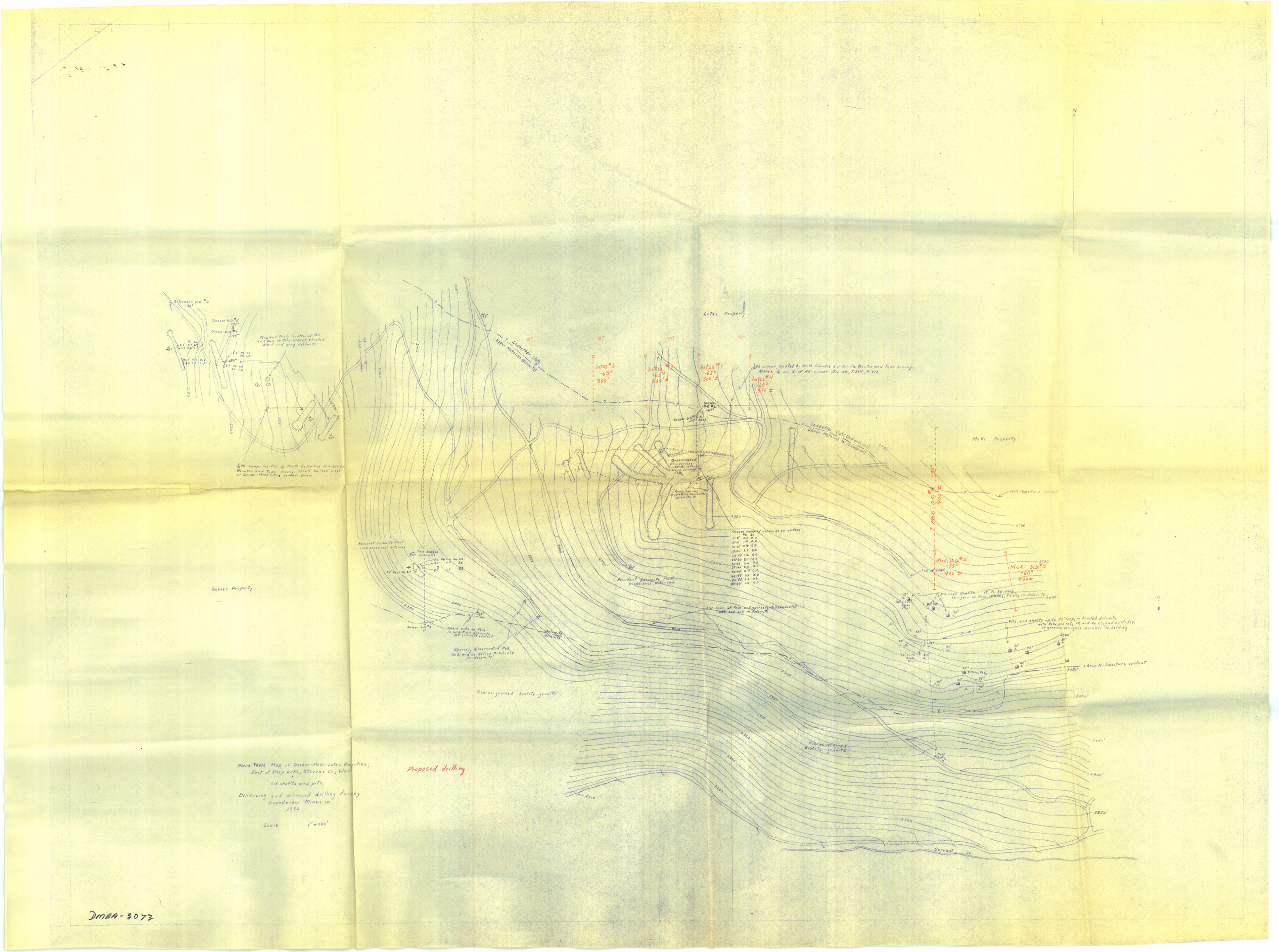
GEOLOGIC MAP OF DEEP LAKE AREA, NORTHPORT DISTRICT, STEVENS COUNTY, WASHINGTON

SCALE 0 1000 2000 3000 4000 FEET

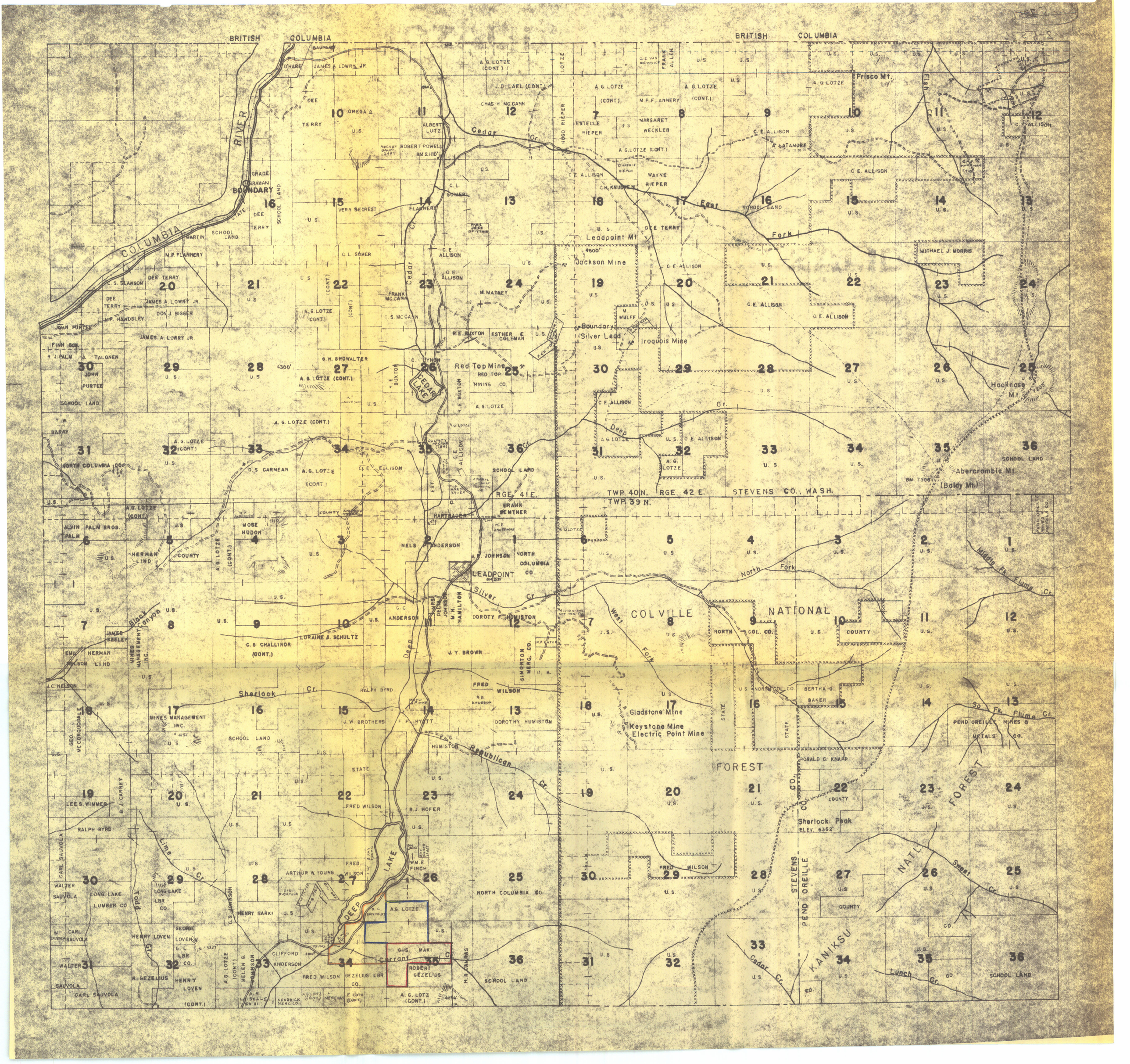
DMEA-8073

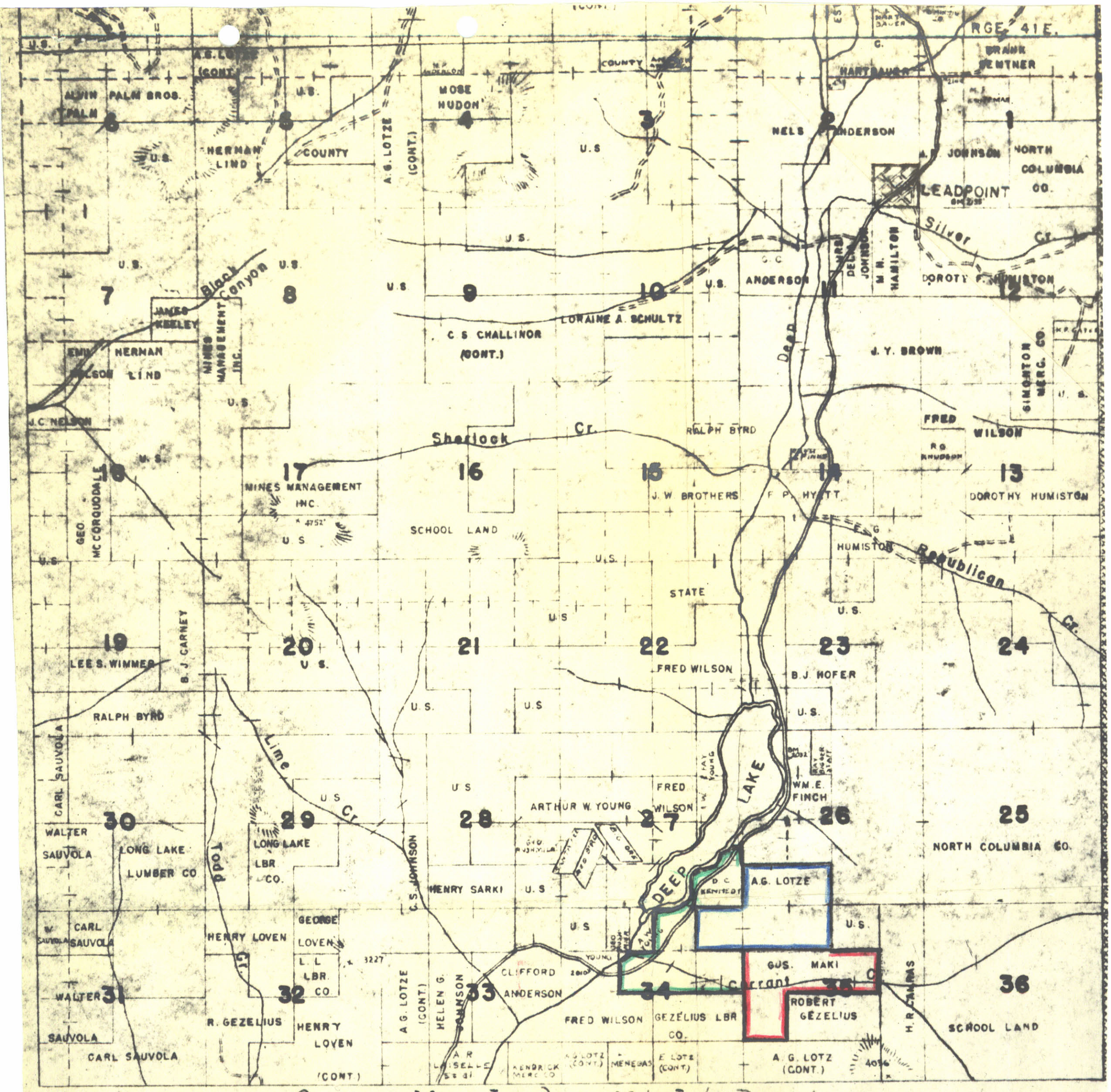


Plane Table Map of Dosser-Maki-Lotze Properties, East of Deep Lake, Stevens Co., Wash.
Old shafts and pits.
Bulldozing and diamond drilling done by Grandview Mines in 1952
Scale 1" = 100'
N
Dosser Property
Lotze Property
Maki Property
Dosser D.D. #6 -90°
Dosser D.D. #5 -90°
Dosser D.D. #4 -45°
FeOx and thinly scattered PbS and ZnS in thin-bedded, sheeted black and gray dolomite
1/16th corner, located by North Columbia Lumber Co. Brunton and Tape survey. Should be 1320' west of Dosser-Maki-Lotze common corner.
? Ledbetter slate ? Upper Metaline (dolomite)
1/16th corner, located by North Columbia Lumber Co. Brunton and Tape survey. Approx. 1/4 mi. S of NE corner Sec. 34, T.39N, R.41E.
Dosser D.D. #2 -67°
Dosser D.D. #1 -29° El. 2625'
Ledbetter slate (Ordovician) Upper Metaline ls (Cambrian)
Gossan-red and yellow powdery material, reddish brown clinkery FeOx
Gray coarsely crystalline, thin bedded dolomitic ls
slate-limestone contact
Gossan sampled across 60' on surface
Pb Zn
0-5' 10.2 0.0
5-10' 1.4 0.0
10-15' 4.4 0.0
15-20' 3.1 0.0
20-25' 1.2 0.0
25-30' 2.1 0.0
30-35' 2.8 0.0
35-40' 2.5 0.0
40-45' 0.0 0.0
45-50' 1.3 0.0
50-55' 0.0 0.0
55-60' 1.0 0.0
Abundant dolomite float and occasional outcrops
Thin bedded dolomite
5.0' Pb 0.0 Zn 6.1
Dosser D.D. #3 0°
Abundant dolomite float, occasional outcrops
Road
Open cuts on FeOx in whitish dolomite at granite contact
Sparsely disseminated PbS, ZnS, and oxidation products in dolomite
Dolomite
Granite
E-W zones of FeOx and sparsely disseminated PbS and ZnS in dolomite
End of road
Inclined shafts 15 to 30' deep
Stringers of FeOx, PbCO3, ZnCO3 in dolomite
Pits, and shafts up to 50' deep, in banded dolomite with FeOx and FeS2, Pb and Zn CO3 and sulfides, in narrow stringers parallel to bedding
Granite-limestone contact
Coarse-grained biotite-granite
Maki D.D. #1 0°
Current Cr.
DMEA-3073


N
Lotze Property
Maki Property
Dosser Property
Dosser D.D. #5
Dosser D.D. #6
Dosser D.D. #7
Flow and thick scattered PbS and ZnS in thin-bedded quartzites and gray dolomite
¼th corner, located by North Columbia Lumber Co. Brunton and Tape survey. Should be 1500' west of Dosser-Maki-Lotze common corner.
Ledbetter slate
Upper Metaline (Ordovician)
Lotze #3
-65°
500'
Lotze #2
-65°
500' ±
Lotze #1
-65°
500' ±
Lotze #4
-60°
500' ±
¼th corner, located by North Columbia Lumber Co. Brunton and Tape survey. Approx. ¼ mi. S. of NE corner Sec. 34, T.38N, R.41E.
Dosser D.D. #2
-67°
Dosser D.D. #1
Ledbetter slate (Ordovician)
Upper Metaline (Cambrian)
Gossan exposed in trench, sampled as shown in table
Gray quartzite interbedded thin bedded dolomite
Maki D.D. #1
-60°
Maki D.D. #2
-75°
400' ±
Maki D.D. #3
-60°
400' ±
Slate-limestone contact
Abundant dolomite float and occasional outcrops
Thin bedded dolomite
Dosser D.D. #5
Abundant dolomite float occasional outcrops
Gossan samples across 60' on surface
Pb Zn
0-6" 0.8 2.0
6-10" 1.4 0.0
10-15" 4.4 0.0
15-20 3.1 0.0
20-25 1.2 0.0
25-30 2.1 0.5
30-35 2.4 0.0
35-40 2.5 0.0
40-45 0.0 0.0
45-50 1.3 0.0
50-55 0.5 0.0
55-60 1.0 0.0
Low tenors of Pb Zn and sparsely disseminated PbS and ZnS in dolomite
Road
Dosser D.D. #5
Quartz cuts on Pb Zn in white dolomite at granite contact
Dolomite
Granite
Sparsely disseminated PbS, ZnS, and oxidation products in dolomite
Coarse-grained biotite granite
Inclined shafts 15 to 30' with stringers of Pb, Pb CO_3, Zn CO_3 in dolomite
Pits and shafts up to 50' deep in banded dolomite with PbS and PbS, PbCO and Zn CO_3 and sulfides in narrow stringers pursuit to bedding
Granite-limestone contact
Current Cr.
Proposed drilling
Plane Table Map of Dosser-Maki-Lotze Properties, East of Deep Lake, Stevens Co., Wash.
Old shafts and pits.
Bulldozing and diamond drilling done by Grandview Mines in 1952
Scale 1" = 100'

DMEA-8073


BRITISH COLUMBIA
BRITISH COLUMBIA
COLUMBIA RIVER
BOUNDARY
Cedar Cr.
Cedar Cr.
East Fork
Deep Cr.
Deep Cr.
Frisco Mt.
Leadpoint Mt.
Jackson Mine
Boundary Silver Lead
Iroquois Mine
Red Top Mine
RED TOP MINING CO.
CEDAR LAKE
Hooknose Mt.
Abercrombie Mt.
(Baldy Mt.)
TWP. 40 N. RGE. 42 E. STEVENS CO., WASH.
TWP. 39 N.
RGE. 41 E.
LEADPOINT
Silver Cr.
North Fork
West Fork
Middle Fk. Flume Cr.
So. Fk. Flume Cr.
Sherlock Cr.
Republican Cr.
Black Canyon
Lime Cr.
Todd Cr.
Deep Lake
Currant Cr.
Cedar Cr.
Sweat Cr.
Lunch Cr.
COLVILLE NATIONAL FOREST
Gladstone Mine
Keystone Mine
Electric Point Mine
Sherlock Peak
ELEV. 6362'
STEVENS CO.
PEND OREILLE CO.
KANIKSU NATL FOREST
NORTH COLUMBIA CO.



Grandview Mines, Inc., Dosser-Maki-Lotze Prospect
Docket No. DMEA-3073.