DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMA Docket No. DMEA-3072

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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 USBM, USGS. One copy retained in Region II

Routing Slip

To:	Code 500, Rm. ~~5018~~ 4058	Date	6/10/53
To:	Open Com	Date	9-25-53
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CONTROLLED DOCUMENT

INT.-DUP. SEC., WASH., D.C. 98868

500 FILE COPY
SURNAME:

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

J. W. Alt.
Kinkel
Hedges
Selfridge

SEP 28 1953

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

Re: Docket No. DMEA 3072 (Lead-Zinc)
Anderson Prospect
Stevens County, Washington

Dear Mr. Jasper:

Your application for aid for an exploration project and other reports available to us in Washington referring to the above-named property have been reviewed.

Projects approved by the Defense Minerals Exploration Administration must, in its judgment, show definite promise of yielding materials of acceptable grade in quantities that will significantly improve the mineral supply position for the National Defense Program.

Careful study of all information, although noting a small amount of ore on your property, indicates to us that the probability of disclosing minable ore reserves by your proposed program is not sufficiently promising to justify Government participation. We regret to advise you, under these circumstances, that your application for exploration assistance is denied.

We wish to thank you for your interest in the Defense Minerals Program and for bringing your property to our attention.

Sincerely yours,

Frank E. Johnson
ACTING Administrator

JWAlt/hmj
(9/23/53)
CC to: Docket
Adm. R. File
Operating Committee
Base Metals Division
Region II
Mr. Kinkel
Mr. Bishop
Chron.

657

R.C.S.
9-23-53

FILE COPY 500
SURNAME:

J.W. Alt

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

September 23, 1953

Memorandum

To: The Administrator

From: Chief, Base Metals Division

Subject: Denial of application, Docket No. DMEA 3072 (Lead-Zinc)
Grandview Mines, Anderson Prospect
Stevens County, Washington

The Applicant requested exploration assistance to drill 10 diamond drill holes aggregating 3,500 feet in length. The total cost of the project is $24,500.00.

The Applicant had drilled three diamond drill holes which showed low grade mineralization, no continuous ore zone was indicated and little evidence was found to show promise that ore exists.

The Field Team states: "From presently known information, there is little justification for such an expanded program of drilling. Perhaps a few short holes closely spaced to those completed will more definitely determine if there is a continuation of ore indicated in holes No. 1 and 2. However, because of the presence of dikes and apparent major faulting in the area, it is extremely doubtful if a mineralized zone can be traced for any great distance. The indicated low grade of the indicated ore also compounds the discouraging aspects of attempting to explore the zone farther."

We concur with the recommendations of the Field Team and the commodity members of the USGS and the USBM that this application be denied.

JWAlt/hmj
(9/23/53)
CC to: Docket
Op. Committee
Base Metals Div.
Chron.

Attachment

W. R. Griswold

W. R. Griswold

R.C.G.
9-28-53

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

September 23, 1953

Memorandum

To: The Administrator

From: Chief, Base Metals Division

Subject: Denial of application, Docket No. DMEA 3072 (Lead-Zinc)
Grandview Mines, Anderson Prospect
Stevens County, Washington

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We concur with the recommendations of the Field Team and the commodity members of the USGS and the USBM that this application be denied.

W R Griswold

W. R. Griswold

Attachment

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

September 23, 1953

Memorandum

To: The Administrator

From: Chief, Base Metals Division

Subject: Denial of application, Docket No. DMEA 3072 (Lead-Zinc)
Grandview Mines, Anderson Prospect
Stevens County, Washington

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We concur with the recommendations of the Field Team and the commodity members of the USGS and the USBM that this application be denied.

W. R. Griswold

W. R. Griswold

Attachment

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

September 22, 1953

Memorandum

To: W. R. Griswold, DMEA

From: O. M. Bishop, Base Metals Branch, USBM

Subject: Concurrence in denial of application outlined in Docket 3072 (Grandview--Anderson Prospect, Stevens County, Washington).

I concur with the examining group and the Region II field team that the low-grade mineralization cut in the applicant's 3 diamond drill holes, combined with the geologic evidence and the limited extent (32 acres) of the property does not warrant the proposed exploration.

O. M. Bishop.

O. M. Bishop

C
O
P
Y

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
Washington 25, D. C.

September 22, 1953

Memorandum

To: W. R. Griswold, DMEA

From: O. M. Bishop, Base Metals Branch, USBM

Subject: Concurrence in denial of application outlined in Docket 3072 (Grandview -- Anderson Prospect, Stevens County, Washington).

I concur with the examining group and the Region II field team that the low-grade mineralization cut in the applicant's 3 diamond drill holes, combined with the geologic evidence and the limited extent (32 acres) of the property does not warrant the proposed exploration.

/s/ O. M. Bishop

O. M. Bishop

IN REPLY REFER TO:

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 9 1953

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

September 8, 1953

Memorandum

To: Mr. W. R. Griswold

From: A. R. Kinkel, Jr.

Subject: Concurrence with field team's denial

Re: DMEA-3072
Grandview Mines
Anderson prospect
Stevens County, Wash.
$24,500
Lead-zinc

I concur with the field team in denying the subject application for the reasons outlined in their report.

A R Kinkel Jr

A. R. Kinkel, Jr.

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

August 27, 1953

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

Re: Docket No. DMEA-3072 (lead-zinc)
Grandview Mines
Anderson prospect
Stevens County, Washington

Dear Mr. Selfridge:

Enclosed are four copies of a report by Willard P. Puffett, U. S. Geological Survey, concerning a field examination of the subject property.

Mr. Puffett recommends denial of the application because of the geologic unfeasibility of the proposed target. He notes that a modest diamond drilling program, near holes already drilled, might show extensions of the ore zone, but that the low lead-zinc content discourages a favorable recommendation for this work.

The Field Team concurs with Mr. Puffett and recommends denial of the application.

By DMEA Field Team, Region II

W. E. Volin, Acting Exec. Officer
(U. S. Bureau of Mines)

Thor H. Kiilsgaard, Acting Member
(U. S. Geological Survey)

Enclosure
cc: USBM (2)
Puffett

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

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

Memorandum: August 24, 1953

To: DMEA Field Team, Region II

From: Willard P. Puffett, Geologist, U. S. Geological Survey

Subject: Examination report, Docket No. DMEA 3072 (lead-zinc)
Grandview Mines Anderson Prospect, Stevens County, Washington

APPLICANT

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

RECOMMENDATIONS

It is recommended that the application be denied. Completed work at the property indicates some lead-zinc ore, but its apparent low grade and the presence of much faulting, complex stratigraphy, and transecting dikes, so break up the ore zone that it is doubtful if a program of diamond drilling, as contemplated by the applicant, will be successful in outlining a minable ore zone. A very modest program of diamond drilling near those holes already completed might show extensions of the known zone, but the low lead-zinc content discourages a favorable recommendation for such work.

FIELD EXAMINATION

The Anderson prospect was examined Tuesday, June 16, 1953. Harold Kirkemo and Willard Puffett, U. S. Geological Survey, and E. A. Magill, U. S. Bureau of Mines made the examination, accompanied by Mr. Eskil Anderson, geologist for the Grandview Mines. Approximately one hour was spent at the prospect, with two hours spent reaching and leaving the property.

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

LOCATION

The property is known as the A. Anderson Prospect. It is in Lot 2, Section 3, T. 39 N., R. 41 E., W. M., Stevens County, Washington, and contains 31.92 acres, (applicant's figures). This property is two miles by road from a good gravelled county road, 10 miles from the nearest shipping point at Boundary, Washington, and about 19 miles from the Consolidated Mining and Smelting Company smelter at Trail, British Columbia, Canada.

The prospect is reached by two miles of fair road but the road was blocked by a small landslide at the time of the examination. The property is easily accessible through the summer months and could probably be accessible during the winter with a modest amount of snow removal work.

APPLICANT

In Mr. Kirkemo's reports on the Grandview Hartbauer property (DMEA Docket 2929) and the Grandview Dosser-Maki-Lotze property (DMEA Docket 3073) considerable detail concerning the size and activities of the applicant may be found. In brief, Grandview Mines is a holding company with headquarters in Spokane, Washington. This company has temporary control of a great amount of property in northeast Washington, on which it is currently doing much exploration for minable lead-zinc ore bodies. The Grandview mine in Pend Oreille County, near Metaline Falls, is owned by the applicant, but is being operated by the American Zinc and Lead Smelting Company. Grandview Mines retains as a consultant a Mr. Eskil Anderson, a mining geologist with more than a decade of experience in his profession.

PROPERTY

The Anderson prospect is on the southeast slope of a range of hills to the west of Deep Creek, and is at an elevation of approximately 3500 feet. This hillslope is covered for the most part with much timber and brush. Very few outcrops of bedrock may be seen.

Development at the property consists of some bulldozer trenches plus three completed diamond drill holes. No buildings are on the property in the vicinity of the bulldozer trenches.

The applicant has contracted to purchase the Anderson prospect. The purchase agreement accompanies the application.

GEOLOGY

The Anderson prospect is in the vicinity of either a major thrust fault which has thrust Metaline Limestone of Middle Cambrian Age over younger Ledbetter Slates or in an area in which there has been complete overturning of the strata. Although there is little surface evidence of these geologic conditions, the results of the diamond drilling show slate at depth dipping beneath the limestone. At least two medium-grained, relatively leucocratic dikes containing greenhish hornblende have been intruded in the immediate area of the prospect. All formations, including the dikes, strike in a northeast direction and dip 40 to 60 degrees to the southeast. Little can be inferred from the surface exposures regarding the geology of the area.

Bulldozing has exposed a zone between slate and one of the main dikes in which there is disseminated pyrite, sphalerite, and galena. Three diamond drill holes were drilled to test this zone at depth. With the application are included geologic sections showing the results obtained from the drilling.

As shown on the sections, a thin veneer of limestone, not more than 200 to 300 feet thick, overlies the Ledbetter Slate. Intruded in this limestone are at least two thick dikes; there are also narrow bands of slate. The slate bands may represent evidence of faulting along the contact between the limestone and the major slate formation. Some disseminated sphalerite and galena was found in the limestone intersected by the drill holes. Assay values obtained by sampling sections of the core indicate that for the most part the encountered ore is of very low grade, averaging slightly less than 3 percent zinc with a much lower percentage of contained lead. It is of interest that in the slate band intersected by Diamond Drill Hole No. 1, some cobalt and nickel is indicated. The highest cobalt assay is 0.132 percent, whereas the highest nickel assay is 0.49 percent.

From the information obtained in the three completed diamond drill holes, no continuous ore zone was indicated and little evidence was found to show promise that one exists.

APPLICANT'S PROPOSAL

The applicant proposes to drill 10 diamond drill holes aggregating 3500 feet in length. These holes are to be located down dip and down slope from the completed holes. The holes are so planned so as to completely intersect the thin limestone overlying the Ledbetter Slate. As indicated on the applicant's map, the nearest hole to those already completed will be 150 feet.

From presently known information, there is little justification for such an expanded program of drilling. Perhaps a few short holes closely spaced to those completed will more definitely determine if there is a continuation of the ore indicated in holes No. 1 and 2. However, because of the presence of the dikes and apparent major faulting in the area, it is extremely doubtful if a mineralized zone can be traced for any great distance. The indicated low grade of the indicated ore also compounds the discouraging aspects of attempting to explore the zone farther.

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

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

No. 157 Howard Street
Spokane 4, Washington

August 27, 1953

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

Re: Docket No. DMEA-3072 (lead-zinc)
Grandview Mines
Anderson prospect
Stevens County, Washington

Dear Mr. Selfridge:

Enclosed are four copies of a report by Willard P. Puffett, U. S. Geological Survey, concerning a field examination of the subject property.

Mr. Puffett recommends denial of the application because of the geologic unfeasibility of the proposed target. He notes that a modest diamond drilling program, near holes already drilled, might show extensions of the ore zone, but that the low lead-zinc content discourages a favorable recommendation for this work.

The Field Team concurs with Mr. Puffett and recommends denial of the application.

By DMEA Field Team, Region II

M. L. Volin, Acting Exec. Officer
(U. S. Bureau of Mines)

Thor H. Kallsgaard, Acting Member
(U. S. Geological Survey)

Enclosure
cc: USBM (2)
Puffett

Reviewed by
DMEA OPERATING COMMITTEE

9-9-53
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
No. 157 Howard Street
Spokane 4, Washington

Memorandum: August 24, 1953

To: DMEA Field Team, Region II

From: Willard F. Puffett, Geologist, U. S. Geological Survey

Subject: Examination report, Docket No. DMEA 3072 (lead-zinc)
Grandview Mines Anderson Prospect, Stevens County, Washington

APPLICANT

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

RECOMMENDATIONS

It is recommended that the application be denied. Completed work at the property indicates some lead-zinc ore, but its apparent low grade and the presence of much faulting, complex stratigraphy, and transecting dikes, so break up the ore zone that it is doubtful if a program of diamond drilling, as contemplated by the applicant, will be successful in outlining a minable ore zone. A very modest program of diamond drilling near those holes already completed might show extensions of the known zone, but the low lead-zinc content discourages a favorable recommendation for such work.

FIELD EXAMINATION

The Anderson prospect was examined Tuesday, June 16, 1953. Harold Kirkham and Willard Puffett, U. S. Geological Survey, and E. A. Magill, U. S. Bureau of Mines made the examination, accompanied by Mr. Eskil Anderson, geologist for the Grandview Mines. Approximately one hour was spent at the prospect, with two hours spent reaching and leaving the property.

Reviewed by
DMEA OPERATING COMMITTEE

9-9-53
(date)

LOCATION

The property is known as the A. Anderson Prospect. It is in Lot 2, Section 3, T. 39 N., R. 41 E., W. M., Stevens County, Washington, and contains 31.92 acres, (applicant's figures). This property is two miles by road from a good gravelled county road, 10 miles from the nearest shipping point at Boundary, Washington, and about 19 miles from the Consolidated Mining and Smelting Company smelter at Trail, British Columbia, Canada.

The prospect is reached by two miles of fair road but the road was blocked by a small landslide at the time of the examination. The property is easily accessible through the summer months and could probably be accessible during the winter with a modest amount of snow removal work.

APPLICANT

In Mr. Kirkham's reports on the Grandview Marthauer property (DMEA Docket 2989) and the Grandview Denver-Maki-Lotus property (DMEA Docket 3073) considerable detail concerning the size and activities of the applicant may be found. In brief, Grandview Mines is a holding company with headquarters in Spokane, Washington. This company has temporary control of a great amount of property in northeast Washington, on which it is currently doing much exploration for minable lead-zinc ore bodies. The Grandview mine in Pend Oreille County, near Metaline Falls, is owned by the applicant, but is being operated by the American Zinc and Lead Smelting Company. Grandview Mines retains as a consultant a Mr. Eskil Anderson, a mining geologist with more than a decade of experience in his profession.

PROPERTY

The Anderson prospect is on the southeast slope of a range of hills to the west of Deep Creek, and is at an elevation of approximately 3500 feet. This hillslope is covered for the most part with much timber and brush. Very few outcrops of bedrock may be seen.

Development at the property consists of some bulldozer trenches plus three completed diamond drill holes. No buildings are on the property in the vicinity of the bulldozer trenches.

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From presently known information, there is little justification for such an expanded program of drilling. Perhaps a few short holes closely spaced to those completed will more definitely determine if there is a continuation of the ore indicated in holes No. 1 and 2. However, because of the presence of the dikes and apparent major faulting in the area, it is extremely doubtful if a mineralized zone can be traced for any great distance. The indicated low grade of the indicated ore also compounds the discouraging aspects of attempting to explore the zone farther.

Distribution:
DMEA (Orig. & 3)
USBM (2)
USGS (SRO)
Beckat
Puffett

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

June 10, 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 - 3072 Grandview Mines, Inc. - A.Anderson Prospect.

ROBERT E. ADAMS

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

38226

June 10, 1953

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

Subject: DMEA-3072
Re: Exploration Assistance
A. Anderson Prospect

My dear Mr. Jasper:

The receipt of your application dated April 23, 1953, for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-3072 and referred to the Base Metals Division.

Kindly refer to DMEA-3072 in any future correspondence relating to your application.

Sincerely yours,

ROBERT E. ADAMS

Robert E. Adams
Chief, Operation Control
and Statistics Division

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~XXXXXXXXXXXXXXXXXXXXXXXXXXXX~~
So. 157 Howard Street
Spokane 4, Washington

June 4, 1953

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

Re: Grandview Mines, Inc.
Zinc-Lead Applications
A. Anderson Prospect and 3072
3073 Dosser-Maki-Lotze Properties
Stevens County, Washington

Dear Mr. Selfridge:

Three copies of the two subject applications are enclosed. The two applications were submitted to this office late in April (A. Anderson - April 22, Dosser-Maki-Lotze - April 24), and have been retained here until receipt of the telegram notifying us that applications for exploration on zinc and lead prospects would be processed if received in this office prior to May 16, 1953.

The Grandview Mines, Inc. has submitted three DMEA applications this spring; the first (Hartbauer prospect - Docket No. DMEA-2929) was received in this office March 6, 1953 and was forwarded to the Operating Committee March 10, 1953, and the last applications are the two enclosed with this letter.

The Grandview Company owns the Grandview mine, the second largest zinc-lead mine in the Metaline district, Washington. The American Zinc, Lead, and Smelting Company has been operating the Grandview Mine on a leasing arrangement for the past fifteen years. The Grandview Company is not a large one, but it has been very aggressive in its search for new mines in northeastern Washington in the past several years and has optioned several thousand acres of ground for prospective testing in the area. Last year the company spent about $75,000 in trenching, stripping, and diamond drilling a number of zinc-lead prospects.

The major deposits of zinc and lead ore in the Metaline district are in the Cambrian Metaline limestone formation immediately underlying the Ordovician Ledbetter slate. Much of the search for

other ore bodies in the Metaline formation has been outside of the Metaline district and has been focused on the numerous mineralized outcrops in northern Stevens County. The Grandview Company has selected three prospects it considers warrant further testing and proposes DMEA participation in the exploration programs. These prospects are in the Deep Creek area of the Northport district in Stevens County about fifteen miles west of the Metaline district.

Preliminary diamond drilling to test downward extensions of mineralized outcrops at the A. Anderson and Dosser-Maki-Lotze prospects disclosed some mineralization at depth. Complicated geologic relations between the ore-bearing limestone formation and the normally overlying (here overturned) Ledbetter slate and intrusive igneous dikes were revealed at the A. Anderson property. At the Dosser-Maki-Lotze prospect, the mineralized zone in the limestone expected beneath the Ledbetter slate may have been replaced, in part, by granite. Core recovery from the preliminary drill holes was exceedingly poor. Whether this was due to careless drilling practices or to the physical difficulty in obtaining core from the vuggy, broken, altered, or decomposed limestone and dolomite cannot be ascertained from the information in the application.

The Grandview Company is competent to accomplish the proposed drilling program, but in view of the complicated geology and the poor recovery of core from preliminary drilling, a field examination of each prospect is planned to study the drilling problem. The area is covered with glacial drift so outcrops are uncommon, but a field examination may reveal that some changes in the Operator's plan for drilling could be suggested.

The three prospects submitted for consideration by the Grandview Company can be examined in one field trip and plans are to conduct the examinations in the near future.

Yours very truly

Harold Kirkemo

Harold Kirkemo
for: A. E. Weissenborn

Enclosures 2 (in trip.)

cc: USBM (2)
Kirkemo

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

JUN 8 1953

Not to be filled in by applicant

Docket No. 3072
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 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 23, 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 Bldg.
Spokane 4, Washington

(b) Corporation of State of Washington.

(c) Officers:
Karl W. Jasper, 310-311 Radio Central Bldg., Spokane, Wash.
Paul T. Hoetzel, 416 W 25th Ave., Spokane 4, Wash.
E. K. Barnes, Sec.-Treas., 1008 W. 19th Ave., Spokane, Wash.

(d) _____

2. _____

3. (a) Lot 2, Section 3, Township 39 N., Range 41 E. W. M., containing 31.92 acres, situate in Stevens County, State of Washington.

(b) A. Anderson Prospect.

(c) Purchaser under contract.

(d) Copy of Option Agreement and Subordination Agreement accompanies application.

(e) None.

(f) _____

4. (a) In 1951 there was known only one small outcrop area containing sparsely disseminated Pb and Zn sulfides and oxidation products in limestone (see "Geologic Map of Red Top Area"). During 1952 Grandview Mines built a road into the area, did some bulldozer stripping and 811.5 feet of diamond drilling in three holes.

An area containing thinly scattered mineralization of Zn and Pb sulfides and nickel carbonate and silicate oxidation products was exposed by the stripping. The mineralization is sparsely disseminated across a maximum width of about forty feet and length of about 80 feet (see "A. Anderson Prospect" map).

Diamond drill hole #1 intersected mineralized zones with the following results: 7.7 feet of 5.5% Zn, 1.8% Pb and 0.2 oz. Ag; 2.5 feet of pyrite in slate assaying 0.24 oz. Ag. 0.43% nickel, and 0.123% cobalt; 3.0 feet of 2.0% Zn; 6.0 feet of 1.2% Zn; 6.1 feet of 1.6% Zn; 2.0 feet of 0.4% Zn; 1.8 feet of 2.4% Zn; and 8.0 feet of 1.8% Zn. (see Diamond drill logs and sections).

In D.D.#2 mineralization was crosscut as follows: 2.7' of 2.2% Pb, 4.5% Zn, 0.6 oz Ag; 5.3' of 1.5% Zn, 0.2 oz Ag; 3.0' of 0.7% Pb, 1.7% Zn, 0.6 oz Ag; 5' of 0.2% Zn; 5' of 0.3% Zn; and 5' of 1.2% Pb, 1.2% Zn.

D.D.#3 was in limestone for only a short distance before it encountered slate. This area east of D.D.#1 and #2 may have been faulted upward or to the southeast. Zn S shines were observed in the limestone and small stringers of calcite with Zn S in the slate.

Slate with pyrite was also encountered. Assays for nickel and cobalt have not yet been made on these sections.

All of the core of D.D.#3 has been retained. The core from D.D.#1 and #2 was split and half retained for further examination.

(b) There has been no production and there are no blocked out ore reserves.

(c) The A. Anderson Prospect is a lead and zinc replacement deposit containing also some nickel and cobalt bearing pyrite minerals. The deposit occurs in Upper Metaline limestone at and near its contact with Ledbetter slate. The nickel and cobalt bearing pyrite minerals probably occur more abundantly in the slate than

in the limestone. Lead and zinc occur in the sulfides, galena and sphalerite, although some of their oxidation products are present at and near the surface.

The Cambrian Upper Metaline limestone and the younger Ordovician Ledbetter slate at the Anderson Prospect are part of the bands of these rocks which strike in a northeasterly direction for at least 8 miles from the vicinity of the Black Rock, Scandia, and Advance prospects through the Anderson property and on northeastward for an undertermined distance. The general strike of the limestone and the slate is about N. 50° E. and their average dips are southeastward at about 50° or 55°. The limestone and the slate are believed to have been overturned. The younger slates underlie the limestones for at least a few miles southwest and northeast of the Anderson property.

At the A. Anderson prospect these rocks have been intruded by monzonite dikes which strike north and northeastward and dip to the southeast. Considerable faulting has also occurred. Although these faults have not been clearly observed it appears that going northward the rocks to the north of the faults have been moved upwards or easterly.

The mineralization at the Anderson Prospect is similar to that found in the Josephine horizon of the Metaline Mining District. If found to occur extensively substantial ore bodies might be blocked out by diamond drilling in this area.

(d) The Anderson property is 2 miles by road from a good graveled county road, 10 miles from the nearest shipping point at Boundary, Washington, and about 19 miles from the Consolidated Mining and Smelting Co. smelter at Trail, B. C.

(e) Manpower, materials, and supplies are available partly locally and at Colville, Washington and at S pokane, Washington, 120 miles to the south. The closest Bonneville power line is about 8 miles to the south. A small stream flows across the Anderson Property but is almost dry for some periods in the late summer.

5. (a) Pb and Zn. Nickel and cobalt might also be economically recoverable as a by-product of lead and zinc mining operations.

(b) Proposed diamond drilling (see "A. Anderson Prospect" map).

The drilling of 10 diamond drill holes totalling about 3500' in length is proposed. Each hole would be expected to penetrate through the limestone into the main body of the Ledbetter slate and to crosscut the mineralized zones found in D.D.#1, 2, and 3. The drilling pattern would be subject to complete revision if results indicated the need for a change.

The proposed diamond drill holes are listed below:

Hole #	Bearing	Inclination	Length
D.D.#4	N. 35° W.	-45°	400'
#5	------	-90°	500'
#6	N. 35°W	-45°	250'
#7	"	-45°	300'
#8	"	-45°	300'
#9	"	-45°	500'
#10	"	-45°	200'
#11	"	-45°	350'
#12	"	-45°	350'
#13	"	-45°	350'
		Total	3500'

(c) The work will start within 30 days and be completed within 7 months from the date of an exploration project contract.

(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 University 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 $24,500.00 for a maximum of 3500' of diamond drilling at $7.00 per foot.

Grandview Mines would agree to diamond drill a maximum of 3500', obtaining AX core, at a total cost of $7.00 per foot. Grandview would subcontract the diamond drilling and pay all costs of bulldozer stripping, roadways, diamond drill setups, assaying, supervision, engineering, mapping 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 $12,250.00.

(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.

MF-203

OWNER'S CONSENT TO LIEN

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

Lot 2, Section 3, Township 39 North, Range 41 E.W.M., containing 31.92 acres

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, Wash.

hereinafter called the "Operator"; and

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

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

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

2. To secure the payment to the Government of the percentage royalty on production3/ provided for under the terms of said exploration project contract, or any amendment thereof which does not increase the maximum amount of the Government's claim here stated or alter the provisions for repayment, there is hereby granted to the Government a lien upon the land herein described and upon any production of minerals therefrom, until the royalty claim is fully paid in the amount of the Government's contribution, not in excess of 4/$ 14,000., or ten years have elapsed from the date of the contract.

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

Dated this _____ day of _____, 195 ___.

Andrew Anderson [Seal]

_____ [Seal]

_____ [Seal]

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

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

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

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

RELEVANT CONTRACT PROVISIONS

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

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

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

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

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

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

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

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

MF-203

OWNER'S CONSENT TO LIEN

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

Lot 2, Section 3, Township 39 North, Range 41 E.W.M., containing 31.92 acres

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2/ Grandview Mines. 310 Radio Central Bldg., Spokane 4, Wash.

hereinafter called the "Operator"; and

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

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

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

2. To secure the payment to the Government of the percentage royalty on production3/ provided for under the terms of said exploration project contract, or any amendment thereof which does not increase the maximum amount of the Government's claim here stated or alter the provisions for repayment, there is hereby granted to the Government a lien upon the land herein described and upon any production of minerals therefrom, until the royalty claim is fully paid in the amount of the Government's contribution, not in excess of 4/$ 14,000., or ten years have elapsed from the date of the contract.

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

Dated this _____ day of _____, 195 ___.

Andrew Anderson [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.

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

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

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

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

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

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MF-203

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Dated this _____ day of _____, 195 ___.

Andrew Anderson [Seal]

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OPTION AGREEMENT.

AGREEMENT made this 14th day of September, 1951, between Andrew Anderson, an unmarried man, of Leadpoint, Washington, party of the first part, and Grandview Mines, a corporation, party of the second part, WITNESSETH:

That the parties hereto, in consideration of the covenants and promises hereinafter set forth to be performed by them, do hereby agree as follows:

1. First party does hereby grant unto second party the exclusive right, privilege and option to purchase the following described real estate, situate in Stevens County, State of Washington, to wit:

Lot 2, Section 3, Township 39 North, Range 41 E.W.M., containing 31.92 acres; at and for the total purchase price of $25,000, to be paid to the first party as follows:

$250 upon the execution of this agreement, the receipt whereof is hereby acknowledged by first party; thereafter a minimum payment of $100 per month commencing with the 20th day of September, 1952, or a royalty of 5% of the net smelter returns on all ores extracted, milled, and shipped from said property, whichever is larger, all payments hereunder, including all sums paid to first party as royalties, are to be made to National Bank of Commerce of Seattle, Colville Branch, at Colville, Washington, and are to be by it applied to the total purchase price of $25,000 and are to be by said bank placed to the credit of first party.

2. First party upon the execution of this agreement agrees to forthwith execute a warranty deed conveying said property to second party, free and clear of all encumbrances, and to deposit said deed, together with a copy of this agreement, in said bank, with instructions to deliver said deed to second party upon payment of total sum of $25,000 to first party at said bank, at the time and in the manner herein provided, and in the event of the forfeiture of this option, or other termination thereof, the said bank shall return said deed to first party upon satisfactory proof of such forfeiture or termination.

3. Second party shall have the right to enter into possession of said property on and after September 20, 1951, and to make such openings, cuts and trenches on the surface as may be necessary in exploring, developing and mining said property, with due regard to the agricultural operations of first party. Second party agrees to commence the performance of bulldozer work upon said property within two months from

September 20, 1951, and to commence diamond drill operations within one year from said September 20, 1951.

4. Second party shall have the right to use any roads now on said property and to construct roads and trails thereon, and to construct power and telephone lines, water and air lines and flumes to facilitate its mining operations, and it shall have rights of way for all purposes in connection therewith and the parties hereto shall have mutual rights in the use of such roads and trails now on said property while this option is in force and effect.

5. If and when second party commences mining operations for the development and production of ore, second party 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 second party to be done in a good and workmanlike manner and at its sole cost and expense. Second party agrees that at any and all times when it is operating said property, it will protect first party against any claims resulting from its operation of said property.

6. Second party shall have the right to mine, mill and ship any ores that may be extracted or removed from said property during the life of this option agreement, and agrees to pay to first party as a royalty, as hereinbefore stated, 5% of the net smelter returns on all ores extracted, milled and shipped from said property until the total sum of $25,000 has been paid to first party by second party on the purchase price of said property. The smelter to which said ores or concentrates therefrom are shipped is to transmit the first party's share of 5% of the net amount disclosed by said smelter returns or settlement sheets, with triplicate copies thereof, direct to said bank and to be by said bank placed to the credit of first party and applied as credit upon the purchase price. Remittances for the balance of said smelter returns are to be sent by the smelter to second party at its office at 310 Radio-Central Building, Spokane, Washington, with duplicate copies of settlement sheets, all ores or concentrates to be shipped in name of second party. The parties hereto agree to deposit a true copy of this agreement with the smelter or other purchaser to which said ores or concentrates are shipped so that it may be governed accordingly. The term "Net Smelter Returns" is hereby defined to mean the value at the smelter of all concentrates and ores delivered to the smelter, less freight and all other smelter charges.

7. First party, or his 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 and maps, diamond drill logs, and all other records relating to exploratory or development work carried on by second party upon or within said property.

8. The Real Estate Sales Tax of the State of Washington shall be paid "under protest" by first party from the first payment made hereunder and may be deducted by said bank therefrom. The cost of United States and States revenue stamps required upon said escrowed deed shall be paid by first party and may be deducted by said bank from payments hereinafter made under this option to purchase. All escrow fees of said bank shall be equally divided between first party and second party.

9. Second party agrees to pay all real property and forest protection taxes that may be levied and assessed against said property, commencing with the year 1952 and for each year thereafter so long as this contract remains in force and effect.

10. In the event of the termination of this option by forfeiture or otherwise, second party shall have the right to remove any and all machinery, tools and other equipment placed upon said property by it during the life of this agreement within a period of ninety (90) days thereafter, but all buildings constructed on said property by second party shall remain on said property and become the property of first party.

11. If second party 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 first party to correct the same, stating specifically the natre or grounds of such default, given by registered mail at the address hereinafter stated or served.personally upon second party, then this option agreement shall, at the election of first party, terminate and said property shall become forfeited to first party, and said first party may thereupon after demand for possession in writing, enter upon said property and dispossess all persons occupying the same, and second party shall execute, acknowledge and deliver to first party a written release of this agreement in due form for public record, if necessary. Likewise, if second party shall determine to voluntarily surrender and terminate this agreement at any time before the expiration hereof, it shall give thirty (30) days written notice to first party by registered mail at the address hereinafter stated, or served personally upon first party of such intention, and, upon the expiration of said notice, if first party does not within

said time re-take possession of said property, the second party shall not be liable for damages occurring to said property thereafter.

12. Time is expressly made the essence of this option, and if the second party shall fail to pay said purchase price promptly when due, or shall fail to perform any of the other covenants of this option, and such default shall continue for a period of thirty (30) days after written notice from first party to correct the same, stating specifically the nature or ground of such default, then the first party may at his election terminate this option and declare the same forfeited, and in the event of such forfeiture, all sums theretofore paid by second party as cash or royalties shall be forfeited to first party as liquidated damages and as rental for the use and occupation of said property.

13. Any and all notices or communications required by the provisions of this option to purchase to be given to first party shall be either personally served upon him or given by registered mail to Andrew Anderson at Leadpoint, Washington, and to second party shall be either personally served upon it orgiven by registered mail at its office at 310 Radio Central Building, Spokane, Washington. In the event either of the parties hereto shall change his or its address, notice of such change shall be given to the other party hereto.

14. In the event of strikes, floods, fires, failure of water or power, war, shortage of labor, governmental restrictions, Act of God, or other unavoidable casualty beyond the control of second party, which prevents or substantially retards the second party from carrying out its obligations hereunder (and all such causes and each of them are expressly recognized as valid reasons for deferment by second party), then and in any of said events so preventing or substantially retarding second party 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 the second party shall resume operations with due diligence.

15. Second party shall have the right at any time during the life of this agreement to anticipate any and all payments on the purchase price and upon full payment thereof, to thereupon receive said deed and other papers in escrow.

16. Each of the foregoing covenants and provisions of the foregoing option to purchase shall extend to, inure to the benefit of, and be binding upon the parties hereto, the heirs, personal representatives, and assigns of first party, and the successors and assigns of second party.

IN WITNESS WHEREOF the first party has hereunto set his hand and the second party 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.

Andrew Anderson
FIRST PARTY

GRANDVIEW MINES

By Karl W. Jasper
President

Attest: E. K. Barnes
Secretary

SECOND PARTY

STATE OF WASHINGTON)
) ss.
)
County of Stevens)

On this day personally appeared before me Andrew Anderson, to me known to be the individual described in and who executed the within and foregoing instrument, and acknowledged that he signed the same as his free and voluntary act and deed for the uses and purposes therein mentioned.

Given under my hand and official seal this 17th day of September, 1951.

Notary Public in and for the State of
Washington, residing at Northport, Wash.

STATE OF WASHINGTON)
) ss.
)
COUNTY OF SPOKANE)

On this 19 day of September, 1951, 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.

Notary Public in and for the State
of Washington, residing at Spokane.

DIAMOND DRILL RECORD

Casing	10	Mine	Hole No. 1
Started	9/22/52	Location Sec. 3. T. 39N. R. 41E. NW¼ NE¼	Bearing N.33°W.
Finished	10/9/52	Logged by E. A. 10/15/52	Inclination-29°
Hole Size	AX	Drilled by Bates (Boyles)	Elev. 3507.5
Depth	280		
% Core Rec.	80		

Depth Feet	Core Feet	Lithologic Description
0-26	26	Soft, finely xline white, gray, and black thin banded limestone. Speck or two of pyrite.
26- 55	29	Medium basic, medium xline dike. Mainly altered. A 52-45E for thin sx.
55- 73.3	12.3	Light and dark gray, thin banded, finely xline ls. with a few blobs of calcite.
73.3-81	5.5	Light gray to dark gray thin banded ls. with light brown Zns disseminated throughout and lesser amounts of galena. Est. 5-6% Zn & Pb.
81-99	13	Soft black slate with some narrow calcite bands and calcareous slate. Pyrite, perhaps Ni bearing, between 97 and 99.
99-111	7.5	Light and dark gray thin banded ls, finely xline.
111-114	2.5	Gray thin banded ls with disseminated Zns. Est. 3.5% Zn.
114-150	20	Gray banded ls. Few pyrite and ZnS shines.
150-150.5	0.5	Dike
150.5-155	4.5	Gray to black ls. and chert with some pyrite, perhaps Ni bearer. 1/8" seam of ZnS at 154'.
155-211	55	Med. basic dike. Black chert and calcite from 202-204.
211-220	7	Gray banded ls with some large blobs of calcite and disseminated Zns.
220-252	23	Gray banded ls with some large blobs of calcite. Zns disseminated throughout in zones of varying intensity.
252-280	13	Black slate with calcite bands. Bedding generally not far from right angles to core axis throughout.

DIAMOND DRILL RECORD

A. Anderson Prospect, Page #2, D. D. #1

Sullivan Mining Co. Assays

Sampled	Feet	Pb	Zn	Ni	Co	Ag
73.3- 81	7.7	1.8	5.5			0.2
96.5- 97.5	1.0		Union Assay Office Salt Lake	0.333	0.132	0.3
97.5- 99	1.5			0.490	0.117	0.2
111 - 114	3.0	0.0	2.0			
220 - 226	6.0	0.0	1.2			
227.5 -233.6	6.1	0.0	1.6			
236 -238	2.0	0.0	0.4			
240.2- 242	1.8	0.0	2.4			
244- 252	8.0	0.0	1.8			

DIAMOND DRILL RECORD

Casing	10'	Mine	A. Anderson Prosp.	Hole No.	2
Started	10/15/52	Location	Sec. 3, T. 39 N.R. 41E.,	Bearing	N. 33°W.
Finished	10/20/52	NW¼ NE¼		Inclination	-60°
Hole ize	AX	Logged by	E. A. 10/21/52	Elev.	3507.5
Depth	236.5	Drilled by	Bates-Holman (Boyles)		
% Core Rec.	80.6				

Depth Feet	Feet Core	Lithologic Description
.5 0-12.5		No core. Broken rock.
12-28	13.5	Light and dark gray thin banded ls. Fine grained.
28- 61	28.5	Med. grained, med. basic dike with narrow ls. band at 59'.
61-81.3	16	Light and dark gray, banded, fine grained ls. Zns shines between 78 and 81.
81.3-95	13.7	Gray ls. with several zones of good Zns. Ni stain at 91 and 92.5
95-132.5	36	Gray and gray-black fine grained ls with considerable yellow pyrite at 126'. ZnS shines throughout section.
132.5-173	40.5	Black slate with calcite stringers and pyrite blobs.
173-181	7.5	Med. grained, med. basic dike.
181-185	3.5	Black slate with calcite stringers. and few specks of pyrite.
185-227.5	38	Med. grained, med. basic dike with 2½' slate from 202 to 204½'.
227.5-236.5	8	Black slate with calcite stringers. Bedding generally at high angles to core axis

Sullivan Mining Co. Assay Office - assays

Depth	Pb	Zn	Ag
81.3-81.9	2.2	4.5	0.6
86.7-92.0	0.0	1.5	0.2
92.0-95.0	0.7	1.7	0.6
100 -105	0.0	0.2	
105- 110	0.0	0.3	
110- 115	1.2	1.2	

DIAMOND DRILL RECORD

Hole No. 3
Elev. 3506

Casing 37
Started 10/21/52
Finished 11/5/52
Hole Size AX
Depth 295
% Core Rec. 93%

Mine A. Anderson Prosp.
Location T. 39N. R. 41E. Sec. 3, NW¼ NE¼ Bearing N.35°W.
Inclination 45°

Logged by EA Date 11/3/52
Drilled by Tom Howard (Boyles)

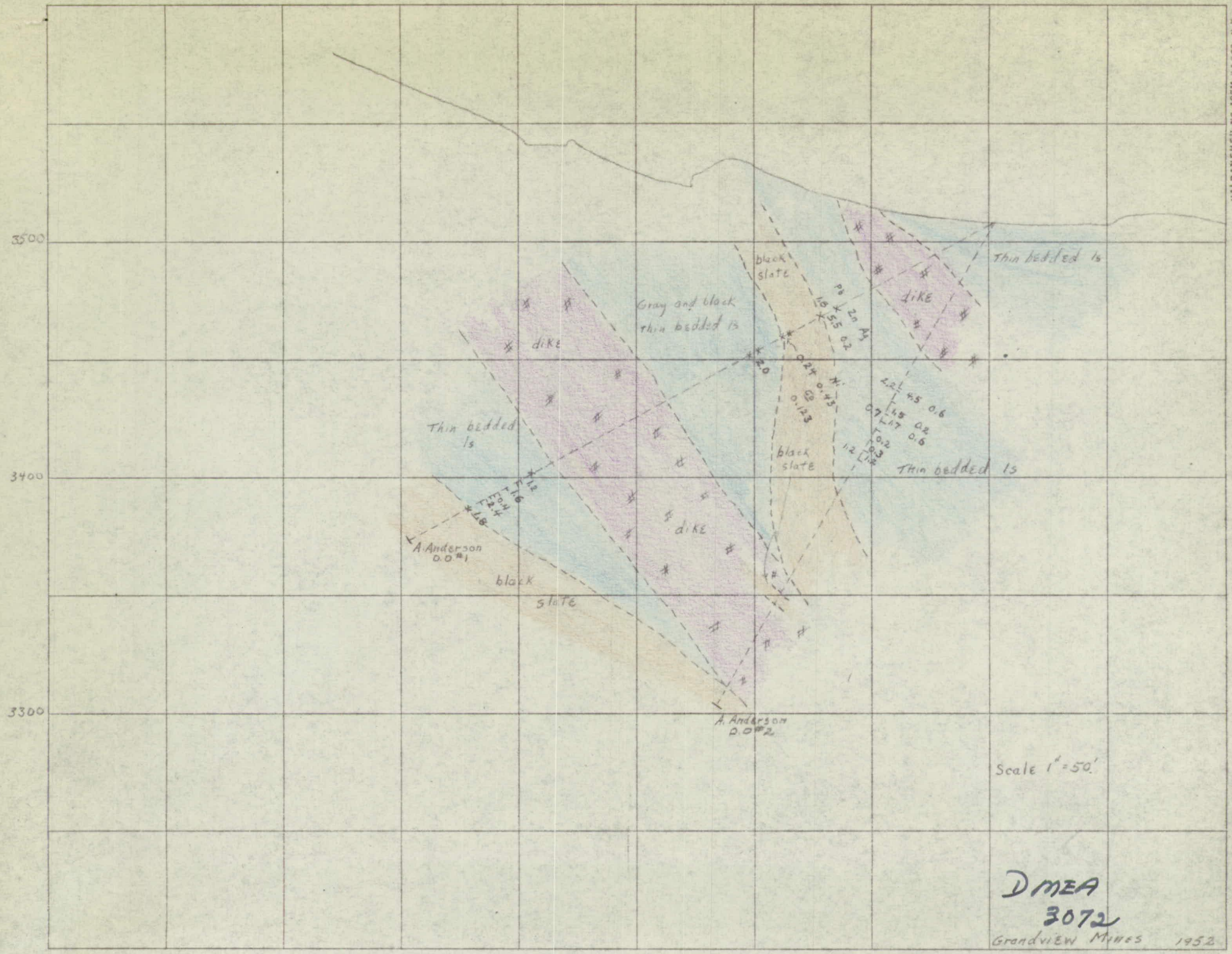
Depth Feet	Feet Core	Lithologic Description
0-3		Overburden
3-10	7	Gray, light & dark, banded fine grained ls
10-10.5	0.5	Dike - med. grained, med. basic
10.5-16	3.0	Gray, light & dark, banded fine grained ls
16-19	3.0	Dike- medium grained, med. basic
19-35	16	Med. gray, light & dark, thin banded ls. Fine grained
35-65	29	Med. grained, med. basic dike
65-86	21	Fine grained, gray ls grading into slate. At 82' few shines ZnS, and pyrite. At 86' coarsely xline pyrite (A ssay N;) (85-86)
86-222	134	Black slate with occasional blobs of pyrite and thin calcite stringers. At 183-184 slate contains fine calcite stringers with ZnS and pyrite (spec.) Bedding between 75° and 90° from core axis.
222-283.5	52	Med. grained, med. basic dike with 4' included slate between 247' and 260'.
283.5-295	12	Black slate with thin calcite & pyrite bands.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
224 NEW CUSTOMHOUSE
DENVER 2, COLORADO

OFFICIAL BUSINESS

Mr. Jay L. Chambers, Chief
Contract Administration and Audit Div.
Defense Minerals Exploration Administration
Interior Building
Washington 25, D. C.

PENALTY FOR PRIVATE USE TO AVOID
PAYMENT OF POSTAGE $300
(PMGC)



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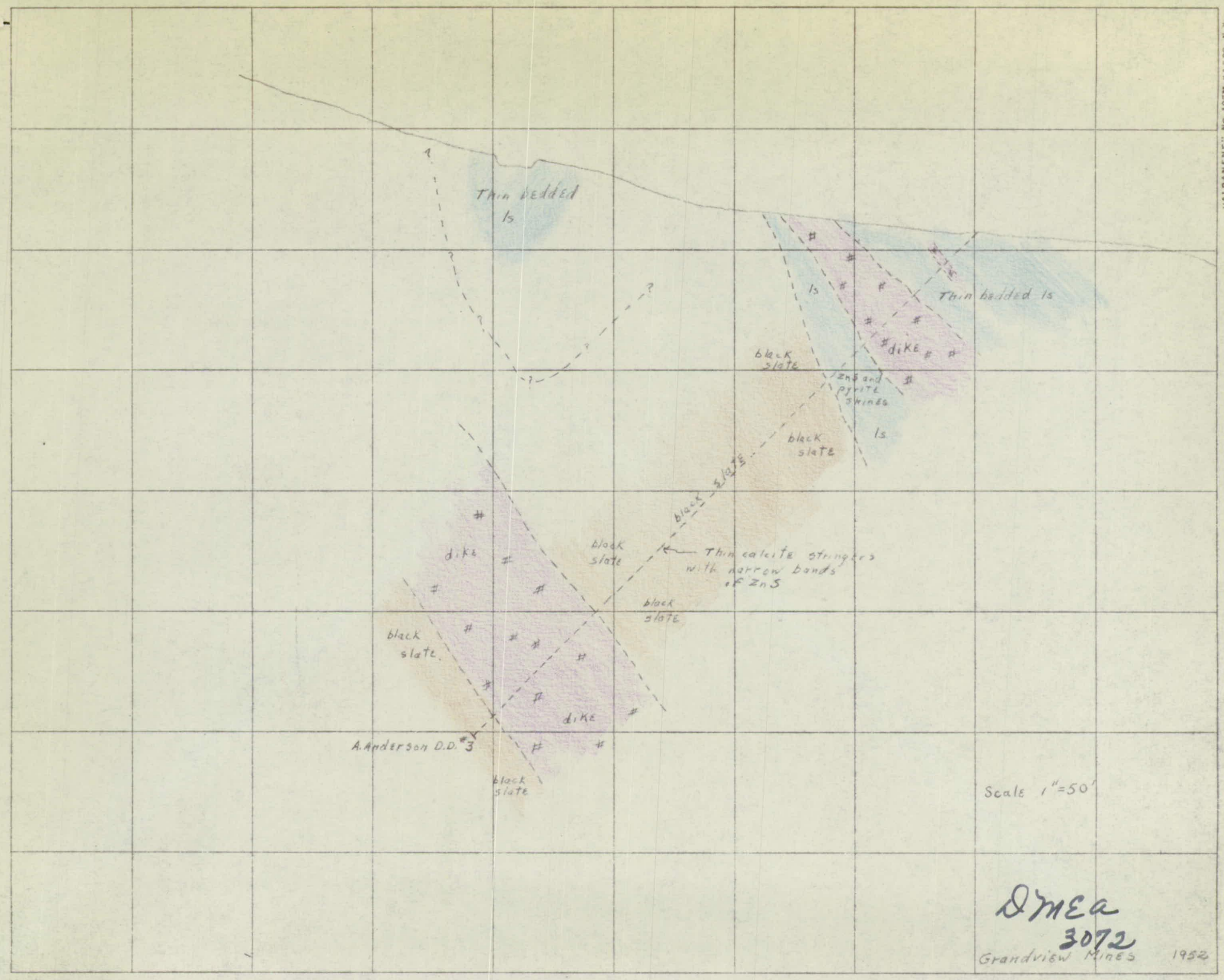

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Grandview Mines 1952

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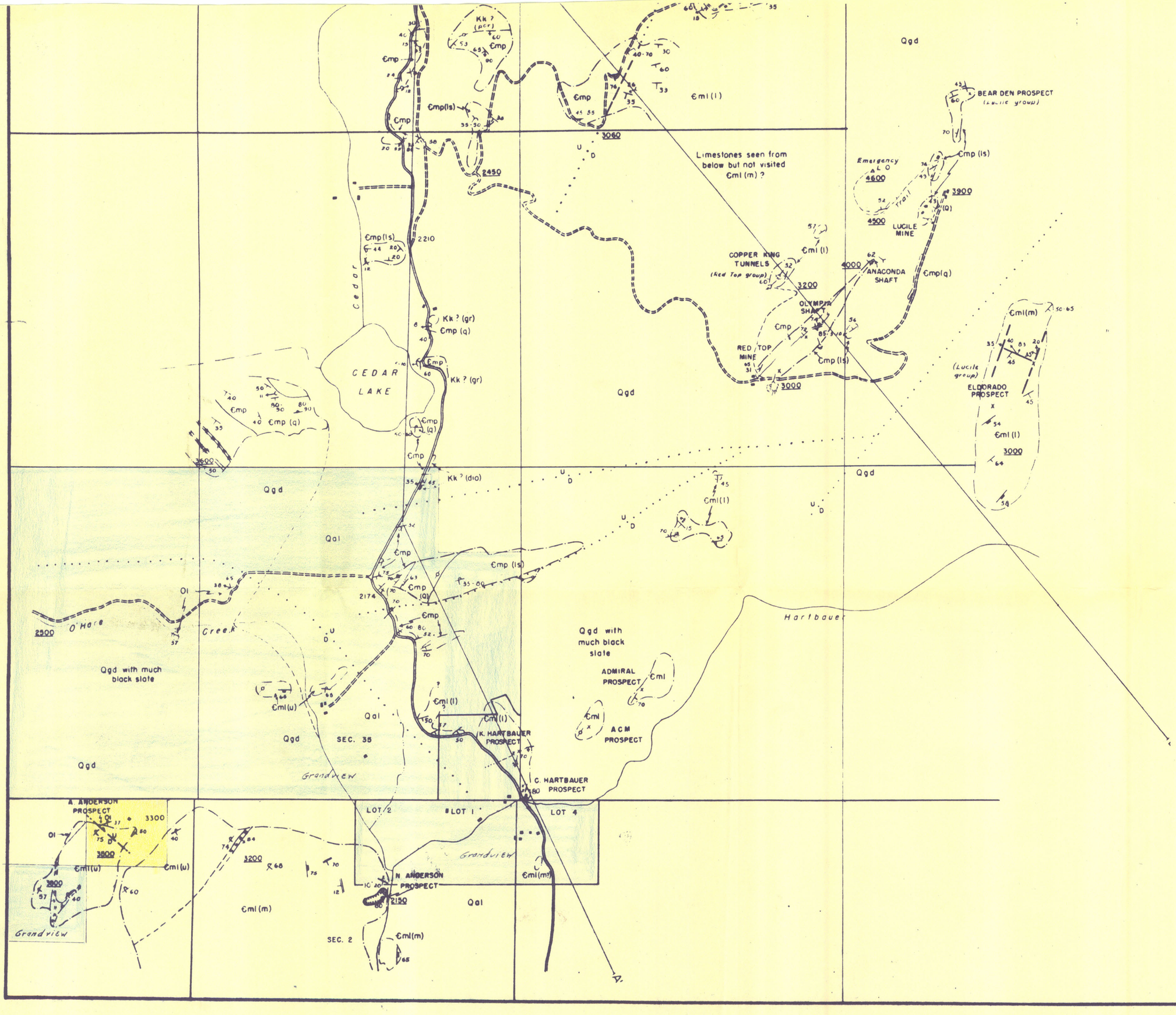


EXPLANATION

BEDDED ROCKS

QUATERNARY

Qal — Alluvium (Flood plain and alluvial fan deposits)

Qgd — Glacial drift

ORDOVICIAN

Ol — Ledbetter slate (Black slate)

CAMBRIAN

Ꞓml (m) — Metaline limestone (middle) (Dark-gray speckled dolomites, locally as slabs in breccia, massive light-gray dolomites)

Ꞓml (l) — Metaline limestone (lower) (Gray limestone and dolomite; black phyllite near base)

Ꞓmp — Maitlen phyllite (Black, gray and green phyllites and biotite schist; brown calcareous quartzite (q); light-gray limestone (ls) above and below the quartzite)

IGNEOUS INTRUSIVE ROCKS

CRETACEOUS (?)

Lower dikes and sills (Only the largest are shown)

Kk — Kaniksu (?) batholith (May be Tertiary; granite (gr) diorite (dio), granodiorite porphyry (por)

Silicified zone

Edge of outcrop area

Contact between chief lithologic units

Dip and strike of bedding, showing bearing and pitch of lineation

Strike and dip of overturned beds

Strike of vertical beds showing pitch of lineation

Strike and dip of slaty cleavage

Strike and dip of prominent joint set

Strike and dip of shear zone

Strike and dip of foliation

Bearing and pitch of small folds

Strike and dip of fault, showing bearing and pitch of slickensides

Concealed fault

Adit

Inclined shaft

Vertical shaft

Open cut

Pit

4600 Approximate elevation

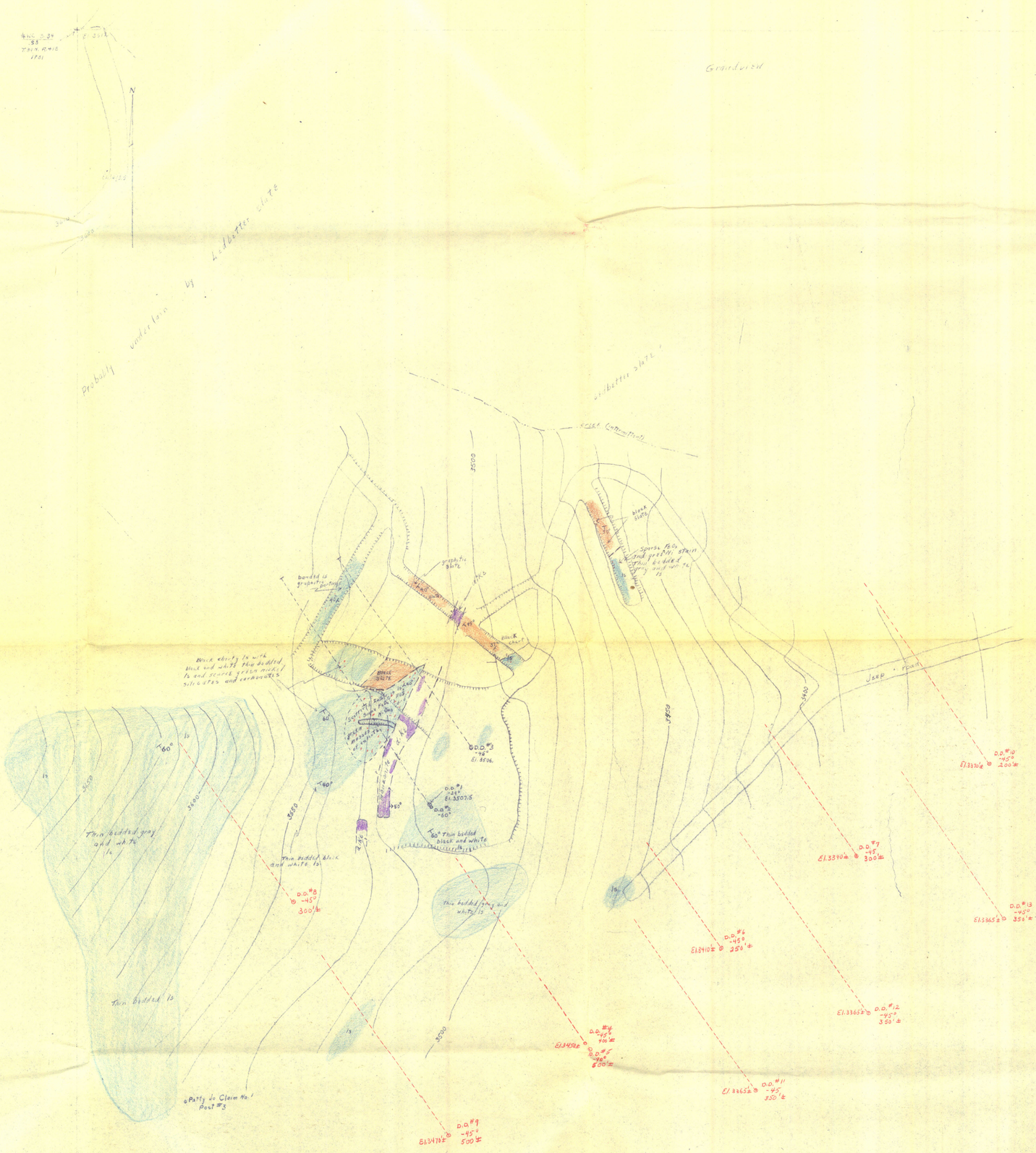
N 23°30'

GEOLOGIC MAP OF RED TOP AREA, NORTHPORT DISTRICT, STEVENS COUNTY, WASHINGTON

SCALE 0 1000 2000 3000 4000 FEET

DMEA-3072

A. G. Lotze

Grandview

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