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DEFENSE MINERALS ADMINISTRATION
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DMA Docket No. 3513

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CONTROLLED DOCUMENT

File Copy
Surname
J. W. Alt.
Gunnwald
Hedges
Kiilsgaard
Selfridge
Johnson

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

FEB 11 1955

The Dolly Varden Mining Company
10428 Penrose Street
Sun Valley, California

Re: Docket No. DMEA-3513 (Lead-Zinc)
The Dolly Varden Mining Company
Dolly Varden Claims (Death Valley Mine)
San Bernardino County, California

Gentlemen:

Your application for aid for an exploration project and other reports available to us in Washington concerning your application 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 our information, although noting a small amount of lead-zinc mineralization on your leases, 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,

C. O. Mittendorf

Administrator

WWAlt/er (2/9/55)
Copy to: Docket
Region II (2)
Admr. R. File
Op. Committee
Base Metals
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Chron.

R.C.S.

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

February 9, 1955

Memorandum

To: The Administrator

From: Chief, Base Metals Division

Subject: Denial of Application, Docket No. DMEA-3513, The Dolly Varden Mining Company, Dolly Varden Claims (Death Valley Mine), San Bernardino County, California, Lead-Zinc.

The cited application dated September 27, 1954, was submitted to this Division on October 4, 1954. On October 21, 1954, the application was referred to the Executive Officer, Region III, for an examination of the property.

The Applicant's proposed work consists of rehabilitating 350 feet of the Death Valley mine shaft; rehabilitation of the 200- and 400-foot levels, 238 feet; preparation of diamond drill stations on the 300- and 400-foot levels; drifting 250 feet on the 400-foot level; and diamond drilling on the 300- and 400-foot levels a total of 2,220 feet. The total estimated cost of the proposed work is $30,000.00.

The Field Team states: "The Death Valley mine is primarily a silver mine and has produced only a small amount of lead and zinc. The reopening of the old shaft and underground workings to permit sampling and diamond drilling would be both costly and unlikely to yield discovery of lead-zinc ore that would be of an economic grade or tonnage. It is recommended that Government assistance under the DMEA program be denied".

We concur with the Field Team and the Commodity member, E. L. Newcomb, USGS, that the application be denied.

W. R. Griswold

File Copy
Surname
J.W. Alt
Griswold

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

February 9, 1955

Memorandum

To: The Administrator

From: Chief, Base Metals Division

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We concur with the Field Team and the Commodity member, E. L. Newcomb, USGS, that the application be denied.

W. R. Griswold

JWAlt/er 2/9/55
Copy to: Docket
Base Metals
Chron.

IN REPLY REFER TO:

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 7 1955

February 4, 1955

Re: DMEA-3513
Dolly Varden Mining Co.
(Death Valley Mine)
San Bernardino Co.,
Calif.
$30,000 - Lead-Zinc

Memorandum

To: W. R. Griswold, Defense Minerals Exploration Administration

From: E. L. Newcomb, U. S. Geological Survey

Subject: Review of Field Team examination report

The Field Team has recommended that this application be denied.

The operator's proposal consists primarily of work which is development in preparation for mining. Inasmuch as past production has been largely gold-silver ore containing small amounts of lead and zinc, it is unlikely that the amount of lead-zinc will increase below the 200 level.

All of the old mine workings are inaccessible for sampling; however, grab samples from the Death Valley and Arcalvada shaft dumps averaged only 0.25 percent lead, 3.1 percent zinc, 0.035 oz./ton of gold and 7.1 oz./ton of silver.

The available data on this property, which is limited because of the inaccessibility of the old workings, does not indicate that a significant lead-zinc discovery can reasonably be expected in either the hanging or footwall veins in the ground proposed for exploration assistance.

I concur with the Field Team's conclusions and recommend this application be denied.

E. L. Newcomb
E. L. Newcomb

IN REPLY REFER TO:

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

February 4, 1955

Re: DMEA-3513
Dolly Varden Mining Co.
(Death Valley Mine)
San Bernardino Co.,
Calif.
$30,000 - Lead-Zinc

Memorandum

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All of the old mine workings are inaccessible for sampling; however, grab samples from the Death Valley and Arcalvada shaft dumps averaged only 0.85 percent lead, 3.1 percent zinc, 0.035 oz./ton of gold and 7.1 oz./ton of silver.

The available data on this property, which is limited because of the inaccessibility of the old workings, does not indicate that a significant lead-zinc discovery can reasonably be expected in either the hanging or footwall veins in the ground proposed for exploration assistance.

I concur with the Field Team's conclusions and recommend this application be denied.

ELNewcomb:hlm
G-2/4/55

E. L. Newcomb

Copy to: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
O. M. Bishop, 3617 Interior

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB - 2 1955

February 2, 1955

Memorandum

To: W. R. Griswold
Chief, Base Metals Division, DMEA

From: J. H. Hedges, Bureau of Mines

Subject: DMEA-3513, (Lead-Zinc) Dolly Varden Mining Company, Death Valley Mine, San Bernardino County, California

Comment

The field report recommending denial of this application is in error in one respect. On page 6 of the report it is stated "The Death Valley shaft was put down on the footwall vein (along the footwall side of the diorite body) but no ore was produced from this vein." Actually, according to all the data submitted, all stoping was done on the footwall vein above the 200 foot level. The only ore produced from the hanging wall vein was that taken from the drifts at the end of the crosscut on the 400 foot level. Hence the hanging wall vein is completely unexplored except for the 400 level drifts, and the footwall is unexplored below the 200 foot level where the shaft appears to have left the vein and continued in the diorite.

The denial is based on the fact that the mine is primarily a silver mine, and lead and zinc content of the ores has been low. This is correct. However, the high silver adds enough value to make possible the commercial production of low grade lead-zinc ore. If sufficient tonnage could be developed to justify a mill substantial production of lead and zinc would result. The ore appears to be readily amenable to concentration to yield a high grade concentrate.

The veins are reported to be strong and of good mining width. The ore body on the 200 level was 400 feet long. Although not stated the implication is that the 400 level drift on the hanging wall vein is in ore throughout its length of 250 feet.

The project as proposed is certainly unacceptable. However, before writing this off, I believe DMEA would be justified in authorizing the drilling of a few holes from surface as suggested by Mr. Newcomb. Relatively short holes (300 to 350 feet) would intersect both veins in unexplored areas at small cost. Two or three holes might be enough to indicate whether further work is warranted.

Recommendation

I recommend that further consideration be given to a modest program of diamond drilling from the surface. If acceptable to the applicant such a project would serve to explore both veins at moderate cost.

J. H. Hedges

J. H. Hedges

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 2 1955

February 2, 1955

Memorandum

To: [illegible]

From: [illegible]

Subject: [illegible] den [illegible]

[illegible]

[illegible] ping [illegible]

[illegible]

[illegible]

[illegible]

The problem as proposed is certainly manageable. However, [illegible] I believe [illegible] would be justified in [illegible] drilling [illegible] holes from surface as suggested by P. [illegible] relatively short holes (200 to 300 feet) would intersect [illegible] values in [illegible] zone of [illegible]. [illegible] enough to indicate whether further work is warranted.

Recommendation

[illegible] to explore [illegible] as [illegible] work.

J. H. Hedges

J. H. Hedges

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB - 2 1955

February 2, 1955

Memorandum

To: [illegible]
[illegible], [illegible] Mining Division, [illegible]

From: [illegible], Bureau of Mines

Subject: [illegible], Lead- and Zinc Deposit, [illegible]

Summary

[illegible] report concerning visits of [illegible] to the property in question. The gist of the report is as follows: [illegible] on the footwall vein (also [illegible] the footwall side of the Clorite Body) [illegible] from this vein." Usually, however, to see the vein [illegible], the drifting was [illegible] the footwall vein above the 330 foot level. The only one [illegible] the hanging wall vein was [illegible] from the crosscut on the 430 foot level. Since the hanging wall vein is completely unexplored except for the 430 level crosscut, and the footwall is unexplored below the 330 foot level, [illegible] appears to have left the vein and continued in the clorite.

The vein is based on the fact that the mine is primarily a silver mine, and that the content of the ores has been low. This is correct. However, the high silver with enough value to make possible the use of the processes of low grade lead-zinc ore. If sufficient tonnage could be found and be [illegible] the successful production of lead and zinc would result. This one appears to be [illegible] worthwhile to recommend to place a high grade exploration program.

The vein is reported to be [illegible] of [illegible] vein. [illegible] the 330 level and 430 foot level. Although not stated, the implication is that the 330 level drift on the hanging wall vein is in ore throughout the length of 330 feet.

The project as proposed is certainly unacceptable. However, before writing this off, I believe [illegible] would be justified in authorizing the drilling of a few holes from surface as suggested by Mr. Newcomb. Relatively short holes (300 to 350 feet) would intersect both veins in unexplored areas at small cost. Two or three holes might be enough to indicate whether further work is warranted.

Recommendation

I recommend that further consideration be given to a modest program of diamond drilling from the surface. If acceptable to the applicant such a project would serve to explore both veins at moderate cost.

J. H. Hedges

J. H. Hedges

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

420 Custom House
555 Battery Street
San Francisco 11, Calif.

January 19, 1955

Memorandum

To: George C. Selfridge, Chairman, Operating Committee, DMEA
Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-3513 (Lead-Zinc)
The Dolly Varden Mining Company
Dolly Varden Claims (Death Valley Mine)
San Bernardino County, California

Reference is made to your letter dated October 21, 1954, referring the subject application to us for a field examination and recommendations.

Attached are the original and three copies of a report entitled "DMEA-3513, Dolly Varden Claims (Death Valley Mine), San Bernardino County, California," by John D. Warne, Mining Engineer, U. S. Bureau of Mines, and Harold K. Stager, Geologist, U. S. Geological Survey, dated January 14, 1955.

The report recommends that the application for exploration aid be denied and Roscoe Smith and I concur with the recommendations.

The Death Valley mine is primarily a silver mine and lead and zinc content of the ores has been low. The cost of rehabilitating the old workings and of diamond drilling from the surface is not justified by available data or the past record of the property.

S. Ricker
Executive Officer
DMEA Field Team, Region II

Attachment

Copy to: Roscoe Smith, USGS

Reviewed by
DMEA OPERATING COMMITTEE
1-28-55
(date)

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 24 1955

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
REPORT OF EXAMINATION BY FIELD TEAM
REGION II

DMEA-3513, Dolly Varden Claims
(Death Valley Mine)
San Bernardino County, California

John D. Warne, Mining Engineer
U. S. Bureau of Mines

Harold K. Stager, Geologist
U. S. Geological Survey

January 14, 1955

Reviewed by
DMEA OPERATING COMMITTEE
1-28-55
(date)

EXAMINATION REPORT

Docket No.: DMEA-3513 (Lead, zinc)

Name and address of applicant: Mr. Irven B. Bates
c/o Dolly Varden Mining Co.
Cima, California

Name and location of property: Dolly Varden Claims (Death Valley Mine)
3 miles southeast of Cima, San Bernardino County, Calif.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Examination of the Dolly Varden group of claims was made on November 17, 1954 by an engineer of the Bureau of Mines, and on January 5, 1955 by a geologist of the Geological Survey. These examinations were conducted pursuant to an application for exploration for lead and zinc by Irven B. Bates of Cima, Calif.

The Dolly Varden claims are located in a fairly flat desert region northwest of the New York Mountains in San Bernardino County, California (fig. 1).

The Death Valley mine, where exploration work is proposed, is inaccessible, and sampling of the mineralized formations for lead and zinc content is now impossible. Crude ores previously mined contained only small amounts of lead and zinc; the principal values were in silver and gold. Dump samples taken during this examination contained only 0.3% Pb and 4.4% Zn. An average of random analysis of crude ore

shipments furnished by the applicant were as follows: 0.13 oz. Au, 17.0 oz. Ag per ton, 2.7% Pb and 6.0% Zn.

Proposed work consists of reopening 350 feet of the Death Valley mine shaft, rehabilitating 538 feet of drifts and crosscuts, preparation of two drill stations, and diamond drilling a total of 2,120 feet on the 300- and 400-foot levels. The total estimated cost of the proposed work is $30,000.00.

The Death Valley mine is primarily a silver mine and has produced only a small amount of lead and zinc. The reopening of the old shaft and underground workings to permit sampling and diamond drilling would be both costly and unlikely to yield discoveries of lead-zinc ore that would be of an economic grade or tonnage. It is recommended that Government assistance under the DMEA program be denied.

LOCATION AND PHYSICAL FEATURES

The Dolly Varden group of seven unpatented claims are situated in a flat desert region northwest of the New York Mountains at an elevation of about 4370 feet above sea level. They are located in T. 13 N., R. 14 E., 2.5 miles southeast of Cima, San Bernardino County, Calif. (Fig. 1). The Death Valley mine is located on the Dolly Varden No. 1 claim.

The immediate area is covered with Joshua trees and other desert growth. Water is available from The Troughs Spring, one mile south of

the property.

Mine supplies can be obtained in Las Vegas, Nev., about 104 miles distant. Cima is a station on the Union Pacific Railroad, only 3 miles by desert road northwest of the mine.

ACCESSIBILITY

Windmill Station, California, located on U.S. Highways Nos. 91 and 466, 84 miles southwest of Las Vegas, Nevada and 25 miles east of Baker, California, is the usual highway "turn-off" point to the Death Valley mine. From Windmill Station, an improved dirt and gravel road extends southward a distance of 17 miles to Cima, Calif., and a fair desert road leads 3 miles southeastward from Cima to the property. Access by automobile is possible throughout the year.

COMPETENCY OF APPLICANT

The applicant, Mr. Irven B. Bates, stated that he has operated several mining properties in Nevada; he is considered to be capable of supervising an exploration program. The application for the proposed exploration program was prepared by Mr. Bates. His financial responsibility is not known, but he stated that his share of the cost of the project would be supplied by Mrs. Marian Acret, 10428 Penrose Street, Sun Valley, Calif.

APPLICANT'S PROPERTY RIGHTS

The proposed exploration work is planned in the Death Valley mine located on the Dolly Varden No. 1 claim. The Dolly Varden un-

patented claims 1 to 7 inclusive are held by the applicant under lease from Mr. J. Lee Strawn of Cima, Calif.

Subsequent to the application for exploration assistance Mr. Strawn, the owner, died, and property ownership was transferred to his widow, Mrs. Nora Louise Strawn.

Five additional adjoining unpatented claims, Dolly Varden Nos. 8 to 12 inclusive, have recently been located by the applicant, Mr. Irven B. Bates.

All of the claims are recorded in the San Bernardino County, California courthouse according to the applicant.

DESCRIPTION OF PROPERTY

Surface facilities consist of a headframe over the Death Valley 47 degree inclined shaft and an old single drum gasoline hoist. A large wood constructed mill building exists near the shaft which is equipped with numerous hand tools and a gasoline driven timber framing saw. Remnants of an old mine office and assay shop are also on the property, but these buildings are not suitable for use. A well equipped three room cabin equipped with cooking facilities and several beds would be suitable for a small mine crew of about four men.

The most important mine working consists of the Death Valley 47 degree inclined mine shaft, which is accessible to 65 feet below the surface. Some mine levels and stopes are reported by the applicant to

exist on the 100-, 150-, 200- and 400-foot levels (see fig. 2a). On the 400-foot level, a 138-foot crosscut was driven southward, and 125 feet of drift is reported to have been driven northward, and 125 feet of drifting southward along a hanging wall mineralized quartz-bearing dike (see fig. 2b). Other mine workings on the property are the 70 degree, 285-foot inclined Arcalvada Shaft which is about 1200 feet southeast of the Death Valley shaft, and a 90-foot shaft located about 200 feet southeast of the Arcalvada shaft to explore a mineralized foot-wall zone. The Arcalvada shafts are caved near the surface and are inaccessible. Numerous shallow test pits and other exploration holes exist on the property. No map of the mine workings based upon actual surveying is available.

GEOLOGY

The ore deposit at the Death Valley (Dolly Varden) mine is in a quartz vein between diorite and quartz monzonite. The geology and ore deposits of this district have been described in detail by Hewitt 1/.

The Death Valley shaft is caved to within 65 feet of the surface and none of the underground workings are accessible. The mine is situated in an alluvial flat with only sparse outcrops. The few outcrops in the vicinity of the mine were covered by snow at the time of the field examination, therefore, most of the following descriptions are based on work done by Hewitt.

1/ Hewitt, D. F., 1955, Geology and Ore Deposits of the Ivanpah Quadrangle, Calif. & Nev: Report in preparation, U.S. Geological Survey.

The principal rock in the area is a coarse-grained quartz monzonite that has been called the Cima Granite by Hewitt and others. It is post-Middle-Cretaceous in age. A roof pendant consisting of a pre-Cambrian gray mica-diorite forms the hanging wall of the Death Valley vein and the footwall of a second vein about 200 feet to the southeast. This diorite pendant is dike-like in appearance but can be correlated with other known pre-Cambrian crystalline rocks in the region.

Specimens of the vein material and the wall rock show considerable alteration of the monzonite to green sericite. The diorite contains sparse veinlets of epidote.

ORE DEPOSITS

There are two veins at the Death Valley mine that have been explored by underground workings. Both of these veins strike northeast and dip 45° SE. They are separated by about 200 feet of diorite. The Death Valley shaft was put down on the footwall vein (along the footwall side of the diorite body) but no ore was produced from this vein. Several cross-cuts connect the Death Valley shaft with the vein on the hanging wall side of the diorite and it was from this vein that all the ore was produced. The ore shoot that was stoped from the 200-foot level to the surface on the hanging wall vein was about 400 feet long and 4 feet wide. The ore minerals are argentite, argentiferous galena and sphalerite that occur with pyrite in a matrix of quartz and sericite.

Total recorded production from this property is about 4,500 tons of ore that averaged about 30 ounces of silver, 0.1 ounce of gold, 1.2 percent lead and less than 1 percent zinc per ton.

ORE RESERVES

At the time the mine closed down in 1927, the ore reserves were reported as follows:[2/] Five hundred tons of ore on dump, averaging 1.5 percent to 2 percent lead, 17 ounces of silver, and 0.10 ounce of gold per ton; 6,000 tons of broken ore in the stopes and 2 blocks of ore between the 150- and 200-foot levels containing 500 tons averaging 35 ounces of silver and 0.12 ounce of gold per ton. No mention was made of the lead or zinc content of the ore underground, but it is probably similar to the ore that was produced earlier, i.e. about 1 percent lead and a little less in zinc.

The workings are caved and inaccessible so that no attempt could be made to check the above estimates or to sample and recalculate the reserves.

As pointed out by Mr. E. L. Newcomb in his review of the application in Washington, D.C., the exploration to be accomplished by the program could be more easily and economically undertaken by drilling from the surface. However, it is unlikely that ore of higher grade than

2/ Report XXVI of the State Mineralogist, July 1930, Calif. Div. of Mines, Quarterly Report, pp. 275-277.

has already been produced (1 to 2 percent lead and about 1 percent zinc) would be found by either method of approach and the amounts of lead and zinc reserves developed would not warrant the expenditure required.

SAMPLING

Mineralized formations are not exposed on the Dolly Varden claims, however, two grab samples from mine dumps during this examination were taken. Descriptions of samples and analysis by the Bureau of Mines are as follows:

Sample No.	%, Pb	%, Zn	Oz. Au/T	Oz. Ag/T	Description
1	0.3	4.4	0.02	5.40	Grab sample of most mineralized type of material from Death Valley Shaft dump.
2	0.2	1.8	0.05	8.80	Grab sample of most mineralized type of material from Arcalvada shaft dump.

PAST OPERATION

The Dolly Varden claims were originally located about 1906 by a Mr. Knight of Kelso, California. During the period 1906-1917 about $98,000.00 worth of gold and silver ore is reported to have been produced. A random list of smelter shipments of the higher grades of crude ore from the Death Valley mine made during this period had the following average analysis: 0.13 oz. Au, 17.0 oz. Ag, 6.0% Zn and 2.7% Pb. In 1915 the property was acquired by Mr. J. Lee Strawn who mined and milled ores from the Death Valley mine until 1927 when

a fire destroyed the mine surface plant and rendered the shaft inaccessible. Mr. Strawn died on October 2, 1954 after leasing the Dolly Varden group of claims to Mr. Irven B. Bates, the applicant.

APPLICANTS PROPOSAL

The original exploration program proposed by the applicants was principally developmental in nature. A revised proposal was later submitted and provided for clearing out and rehabilitating 350 feet of shaft and 538 feet of drifts and crosscuts. This preliminary work would allow for sampling of the old workings and would be followed by about 1,570 feet of diamond drilling on the 300 and 400 foot levels. Total cost of the project is estimated at $30,000. Most of this work is still aimed primarily at developing ore above the 400 foot level in the two known veins.

The proposed work in the Death Valley mine and estimated costs included in the applicants amended application and illustrated in figs. 2a and 2b are summarized below:

1. Rehabilitation and other work:

Death Valley shaft - clean out and retimber -	
65 to 200 feet - 135 feet @ $60.00/ft.	$ 8,100.00
200 to 415 " - 215 " @ $20.00/ft.	4,300.00
200-level - clean out 100' west and 50' east - 150 feet @ $20.00/ft.	3,000.00
300-level - cut diamond drill station and erect a hinged platform at shaft	600.00

400-level - build bulkhead over sump and prepare diamond drill station at shaft	$ 740.00
400-level - clean out 138 feet southward crosscut and 250 feet of east-west drifts along the hanging wall dike - total 388 feet @ $10.00/ft.	3,880.00
Sub-total	$20,620.00

2. Diamond drilling work:

300-level - diamond drill two 235-foot holes and one 200-foot hole southward to explore the hanging wall dike - total 670 feet @ $4.00/ft.	$ 2,680.00
300-level - diamond drill two 50-foot holes northward to explore the discovery vein - 100 feet @ $4.00/ft.	400.00
400-level - diamond drill two 250-foot holes northward to explore for a possible parallel vein in footwall of discovery vein - 500 feet @ $4.00/ft.	2,000.00
Additional diamond drilling to supplement and further explore most favorable areas found by 7 holes listed above - 850 feet @ $4.00/ft.	3,400.00
Sub-total	$ 8,480.00

3. Assaying:

Analyze samples taken every 10 feet along 400 feet of mine workings re-opened - 40 samples @ $7.50 ea.	$ 300.00
Analyze diamond drill cores - 60 samples @ $7.50 ea.	450.00
Sub-total	$ 750.00

4. Contingencies 1/2 percent of $3,000.00	$ 150.00
Total estimated cost	$30,000.00

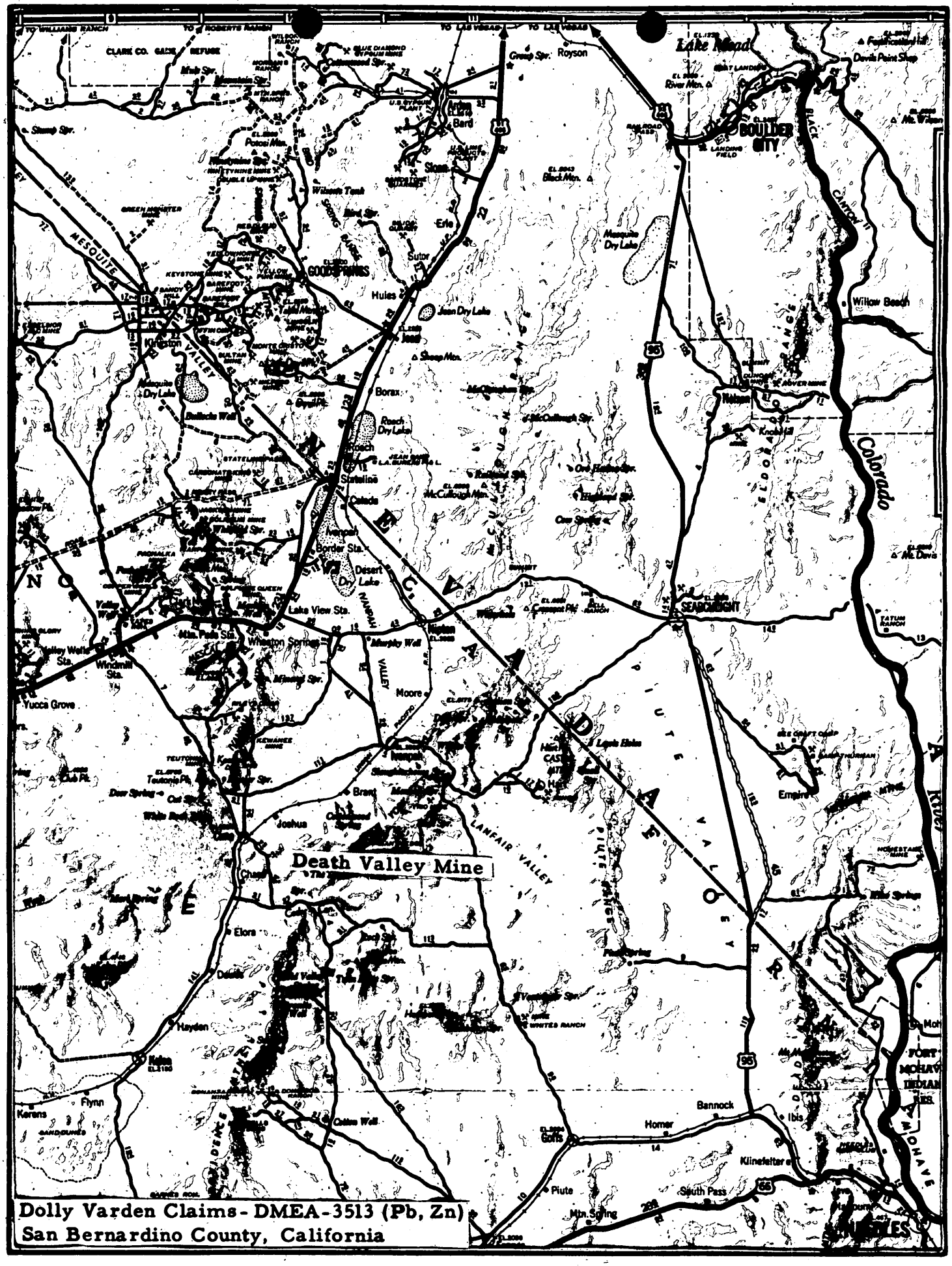
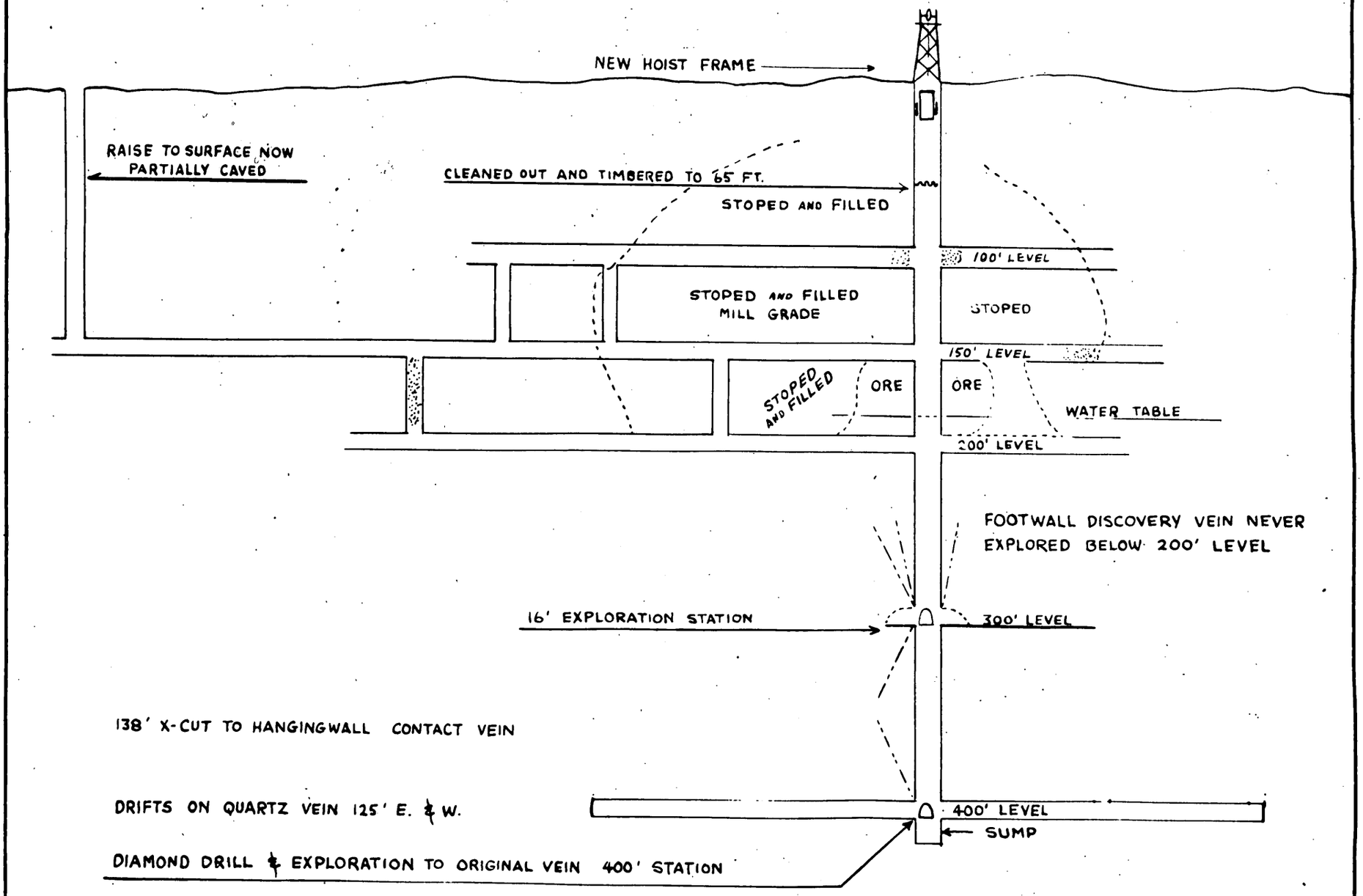


FIG. 1 LOCATION MAP

Lehigh Valley Co
AE
DEC 24 1955



LEGEND -

EXPLORATION WORK PLANNED - - - - - - - - -

DIAMOND DRILLED HOLES - - — - - — - - — - -

DOLLY VARDEN MINE

DEATH VALLEY SHAFT & WORKINGS

CIMA-SAN BERNARDINO CO. CAL.

LONGITUDINAL SECTION

SCALE 1 IN. = 50 FT.

Fig. 2a

DEPARTMENT OF THE INTERIOR
Library Branch Administration
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OCT 24 1955

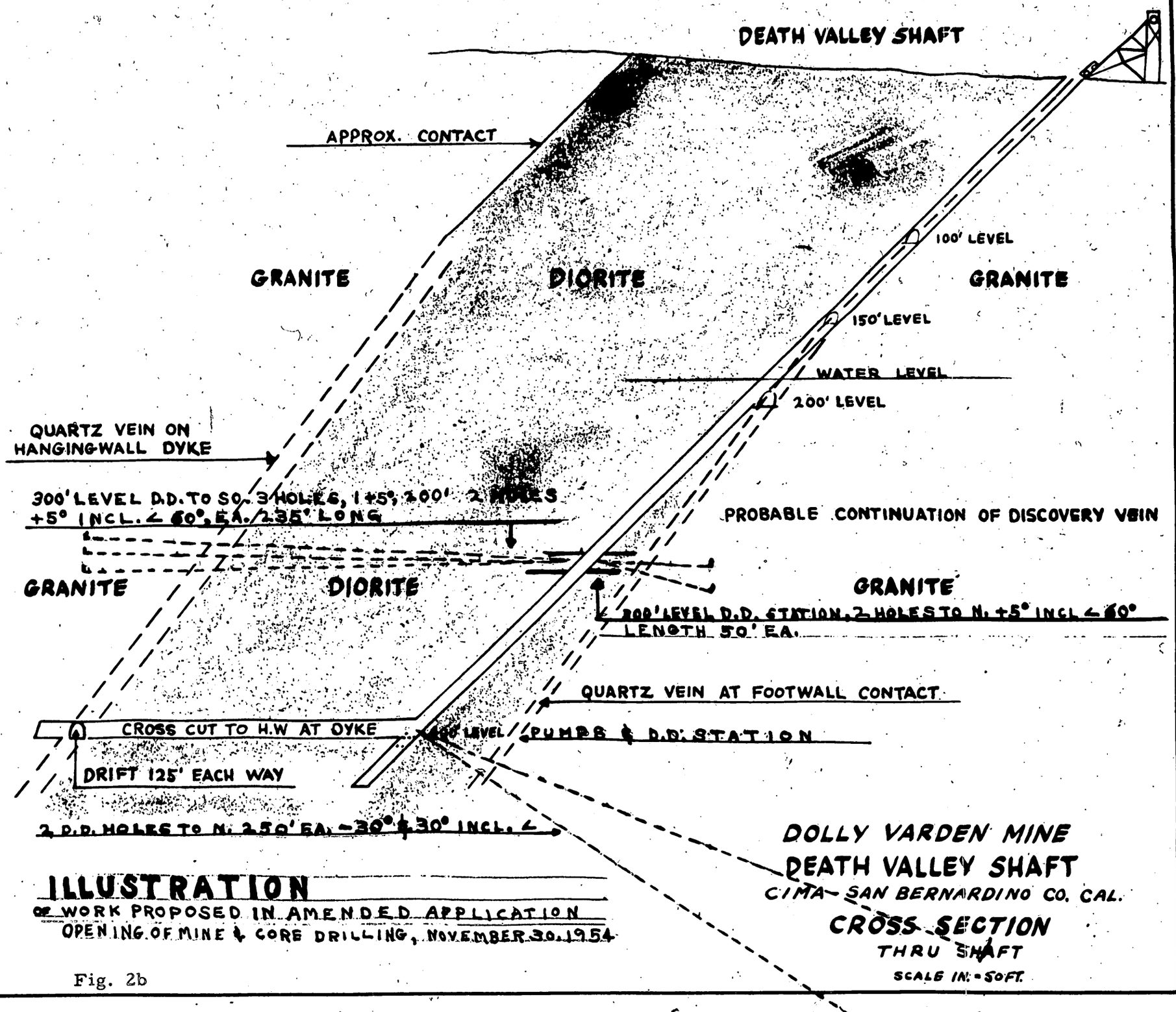
DEATH VALLEY SHAFT
APPROX. CONTACT
100' LEVEL
GRANITE
DIORITE
GRANITE
150' LEVEL
WATER LEVEL
200' LEVEL
QUARTZ VEIN ON HANGINGWALL DYKE
300' LEVEL D.D. TO SO. 3 HOLES, 1 +5°, 200' 2 HOLES +5° INCL. ∠ 60°, EA. 235' LONG
PROBABLE CONTINUATION OF DISCOVERY VEIN
GRANITE
DIORITE
GRANITE
300' LEVEL D.D. STATION, 2 HOLES TO N. +5° INCL ∠ 60° LENGTH 50' EA.
QUARTZ VEIN AT FOOTWALL CONTACT
CROSS CUT TO H.W AT DYKE
400' LEVEL
PUMPS & D.D. STATION
DRIFT 125' EACH WAY
2 D.D. HOLES TO N. 250' EA. -30° & 30° INCL. ∠
DOLLY VARDEN MINE
DEATH VALLEY SHAFT
CIMA - SAN BERNARDINO CO. CAL.
CROSS SECTION
THRU SHAFT
SCALE IN. = 50 FT.
ILLUSTRATION
OF WORK PROPOSED IN AMENDED APPLICATION
OPENING OF MINE & CORE DRILLING, NOVEMBER 30, 1954

Fig. 2b

[illegible] OF THE [illegible]
Lewis Research Administration
[illegible]
[illegible] 4 1955

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

420 Custom House
555 Battery Street
San Francisco 11, Calif.

January 19, 1955

Alb
Betty

Memorandum

To: George C. Selfridge, Chairman, Operating Committee, DMEA
Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-3513 (Lead-Zinc)
The Dolly Varden Mining Company
Dolly Varden Claims (Death Valley Mine)
San Bernardino County, California

Reference is made to your letter dated October 21, 1954, referring the subject application to us for a field examination and recommendations.

Attached are the original and three copies of a report entitled "DMEA-3513, Dolly Varden Claims (Death Valley Mine), San Bernardino County, California," by John D. Warne, Mining Engineer, U. S. Bureau of Mines, and Harold K. Stager, Geologist, U. S. Geological Survey, dated January 14, 1955.

The report recommends that the application for exploration aid be denied and Roscoe Smith and I concur with the recommendations.

The Death Valley mine is primarily a silver mine and lead and zinc content of the ores has been low. The cost of rehabilitating the old workings and of diamond drilling from the surface is not justified by available data or the past record of the property.

S. RICKER

S. Ricker
Executive Officer
DMEA Field Team, Region II

Attachment

Copy to: Roscoe Smith, USGS

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
REPORT OF EXAMINATION BY FIELD TEAM
REGION II

DMEA-3513, Dolly Varden Claims
(Death Valley Mine)
San Bernardino County, California

John D. Warne, Mining Engineer
U. S. Bureau of Mines

Harold K. Stager, Geologist
U. S. Geological Survey

January 14, 1955

EXAMINATION REPORT

Docket No.: DMEA-3513 (Lead, zinc)

Name and address of applicant: Mr. Irven B. Bates
c/o Dolly Varden Mining Co.
Cima, California

Name and location of property: Dolly Varden Claims (Death Valley Mine)
3 miles southeast of Cima, San Bernardino County, Calif.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Examination of the Dolly Varden group of claims was made on November 17, 1954 by an engineer of the Bureau of Mines, and on January 5, 1955 by a geologist of the Geological Survey. These examinations were conducted pursuant to an application for exploration for lead and zinc by Irven B. Bates of Cima, Calif.

The Dolly Varden claims are located in a fairly flat desert region northwest of the New York Mountains in San Bernardino County, California (fig. 1).

The Death Valley mine, where exploration work is proposed, is inaccessible, and sampling of the mineralized formations for lead and zinc content is now impossible. Crude ores previously mined contained only small amounts of lead and zinc; the principal values were in silver and gold. Dump samples taken during this examination contained only 0.3% Pb and 4.4% Zn. An average of random analysis of crude ore

shipments furnished by the applicant were as follows: 0.13 oz. Au, 17.0 oz. Ag per ton, 2.7% Pb and 6.0% Zn.

Proposed work consists of reopening 350 feet of the Death Valley mine shaft, rehabilitating 538 feet of drifts and crosscuts, preparation of two drill stations, and diamond drilling a total of 2,120 feet on the 300- and 400-foot levels. The total estimated cost of the proposed work is $30,000.00.

The Death Valley mine is primarily a silver mine and has produced only a small amount of lead and zinc. The reopening of the old shaft and underground workings to permit sampling and diamond drilling would be both costly and unlikely to yield discoveries of lead-zinc ore that would be of an economic grade or tonnage. It is recommended that Government assistance under the DMEA program be denied.

LOCATION AND PHYSICAL FEATURES

The Dolly Varden group of seven unpatented claims are situated in a flat desert region northwest of the New York Mountains at an elevation of about 4370 feet above sea level. They are located in T. 13 N., R. 14 E., 2.5 miles southeast of Cima, San Bernardino County, Calif. (Fig. 1). The Death Valley mine is located on the Dolly Varden No. 1 claim.

The immediate area is covered with Joshua trees and other desert growth. Water is available from The Troughs Spring, one mile south of

the property.

Mine supplies can be obtained in Las Vegas, Nev., about 104 miles distant. Cima is a station on the Union Pacific Railroad, only 3 miles by desert road northwest of the mine.

ACCESSIBILITY

Windmill Station, California, located on U.S. Highways Nos. 91 and 466, 84 miles southwest of Las Vegas, Nevada and 25 miles east of Baker, California, is the usual highway "turn-off" point to the Death Valley mine. From Windmill Station, an improved dirt and gravel road extends southward a distance of 17 miles to Cima, Calif., and a fair desert road leads 3 miles southeastward from Cima to the property. Access by automobile is possible throughout the year.

COMPETENCY OF APPLICANT

The applicant, Mr. Irven B. Bates, stated that he has operated several mining properties in Nevada; he is considered to be capable of supervising an exploration program. The application for the proposed exploration program was prepared by Mr. Bates. His financial responsibility is not known, but he stated that his share of the cost of the project would be supplied by Mrs. Marian Acret, 10428 Penrose Street, Sun Valley, Calif.

APPLICANT'S PROPERTY RIGHTS

The proposed exploration work is planned in the Death Valley mine located on the Dolly Varden No. 1 claim. The Dolly Varden un-

patented claims 1 to 7 inclusive are held by the applicant under lease from Mr. J. Lee Strawn of Cima, Calif.

Subsequent to the application for exploration assistance Mr. Strawn, the owner, died, and property ownership was transferred to his widow, Mrs. Nora Louise Strawn.

Five additional adjoining unpatented claims, Dolly Varden Nos. 8 to 12 inclusive, have recently been located by the applicant, Mr. Irven B. Bates.

All of the claims are recorded in the San Bernardino County, California courthouse according to the applicant.

DESCRIPTION OF PROPERTY

Surface facilities consist of a headframe over the Death Valley 47 degree inclined shaft and an old single drum gasoline hoist. A large wood constructed mill building exists near the shaft which is equipped with numerous hand tools and a gasoline driven timber framing saw. Remnants of an old mine office and assay shop are also on the property, but these buildings are not suitable for use. A well equipped three room cabin equipped with cooking facilities and several beds would be suitable for a small mine crew of about four men.

The most important mine working consists of the Death Valley 47 degree inclined mine shaft, which is accessible to 65 feet below the surface. Some mine levels and stopes are reported by the applicant to

exist on the 100-, 150-, 200- and 400-foot levels (see fig. 2a). On the 400-foot level, a 138-foot crosscut was driven southward, and 125 feet of drift is reported to have been driven northward, and 125 feet of drifting southward along a hanging wall mineralized quartz-bearing dike (see fig. 2b). Other mine workings on the property are the 70 degree, 285-foot inclined Arcalvada Shaft which is about 1200 feet southeast of the Death Valley shaft, and a 90-foot shaft located about 200 feet southeast of the Arcalvada shaft to explore a mineralized foot-wall zone. The Arcalvada shafts are caved near the surface and are inaccessible. Numerous shallow test pits and other exploration holes exist on the property. No map of the mine workings based upon actual surveying is available.

GEOLOGY

The ore deposit at the Death Valley (Dolly Varden) mine is in a quartz vein between diorite and quartz monzonite. The geology and ore deposits of this district have been described in detail by Hewitt [1/].

The Death Valley shaft is caved to within 65 feet of the surface and none of the underground workings are accessible. The mine is situated in an alluvial flat with only sparse outcrops. The few outcrops in the vicinity of the mine were covered by snow at the time of the field examination, therefore, most of the following descriptions are based on work done by Hewitt.

1/ Hewitt, D. F., 1955, Geology and Ore Deposits of the Ivanpah Quadrangle, Calif. & Nev: Report in preparation, U.S. Geological Survey.

The principal rock in the area is a coarse-grained quartz monzonite that has been called the Cima Granite by Hewitt and others. It is post-Middle-Cretaceous in age. A roof pendant consisting of a pre-Cambrian gray mica-diorite forms the hanging wall of the Death Valley vein and the footwall of a second vein about 200 feet to the southeast. This diorite pendant is dike-like in appearance but can be correlated with other known pre-Cambrian crystalline rocks in the region.

Specimens of the vein material and the wall rock show considerable alteration of the monzonite to green sericite. The diorite contains sparse veinlets of epidote.

ORE DEPOSITS

There are two veins at the Death Valley mine that have been explored by underground workings. Both of these veins strike northeast and dip 45° SE. They are separated by about 200 feet of diorite. The Death Valley shaft was put down on the footwall vein (along the footwall side of the diorite body) but no ore was produced from this vein. Several cross-cuts connect the Death Valley shaft with the vein on the hanging wall side of the diorite and it was from this vein that all the ore was produced. The ore shoot that was stoped from the 200-foot level to the surface on the hanging wall vein was about 400 feet long and 4 feet wide. The ore minerals are argentite, argentiferous galena and sphalerite that occur with pyrite in a matrix of quartz and sericite.

Total recorded production from this property is about 4,500 tons of ore that averaged about 30 ounces of silver, 0.1 ounce of gold, 1.2 percent lead and less than 1 percent zinc per ton.

ORE RESERVES

At the time the mine closed down in 1927, the ore reserves were reported as follows:[2/] Five hundred tons of ore on dump, averaging 1.5 percent to 2 percent lead, 17 ounces of silver, and 0.10 ounce of gold per ton; 6,000 tons of broken ore in the stopes and 2 blocks of ore between the 150- and 200-foot levels containing 500 tons averaging 35 ounces of silver and 0.12 ounce of gold per ton. No mention was made of the lead or zinc content of the ore underground, but it is probably similar to the ore that was produced earlier, i.e. about 1 percent lead and a little less in zinc.

The workings are caved and inaccessible so that no attempt could be made to check the above estimates or to sample and recalculate the reserves.

As pointed out by Mr. E. L. Newcomb in his review of the application in Washington, D.C., the exploration to be accomplished by the program could be more easily and economically undertaken by drilling from the surface. However, it is unlikely that ore of higher grade than

2/ Report XXVI of the State Mineralogist, July 1930, Calif. Div. of Mines, Quarterly Report, pp. 275-277.

has already been produced (1 to 2 percent lead and about 1 percent zinc) would be found by either method of approach and the amounts of lead and zinc reserves developed would not warrant the expenditure required.

SAMPLING

Mineralized formations are not exposed on the Dolly Varden claims, however, two grab samples from mine dumps during this examination were taken. Descriptions of samples and analysis by the Bureau of Mines are as follows:

Sample No.	%, Pb	%, Zn	Oz. Au/T	Oz. Ag/T	Description
1	0.3	4.4	0.02	5.40	Grab sample of most mineralized type of material from Death Valley Shaft dump.
2	0.2	1.8	0.05	8.80	Grab sample of most mineralized type of material from Arcalvada shaft dump.

PAST OPERATION

The Dolly Varden claims were originally located about 1906 by a Mr. Knight of Kelso, California. During the period 1906-1927 about $98,000.00 worth of gold and silver ore is reported to have been produced. A random list of smelter shipments of the higher grades of crude ore from the Death Valley mine made during this period had the following average analysis: 0.13 oz. Au, 17.0 oz. Ag, 6.0% Zn and 2.7% Pb. In 1915 the property was acquired by Mr. J. Lee Strawn who mined and milled ores from the Death Valley mine until 1927 when

a fire destroyed the mine surface plant and rendered the shaft inaccessible. Mr. Strawn died on October 2, 1954 after leasing the Dolly Varden group of claims to Mr. Irven B. Bates, the applicant.

APPLICANTS PROPOSAL

The original exploration program proposed by the applicants was principally developmental in nature. A revised proposal was later submitted and provided for clearing out and rehabilitating 350 feet of shaft and 538 feet of drifts and crosscuts. This preliminary work would allow for sampling of the old workings and would be followed by about 1,570 feet of diamond drilling on the 300 and 400 foot levels. Total cost of the project is estimated at $30,000. Most of this work is still aimed primarily at developing ore above the 400 foot level in the two known veins.

The proposed work in the Death Valley mine and estimated costs included in the applicants amended application and illustrated in figs. 2a and 2b are summarized below:

1. Rehabilitation and other work:

Death Valley shaft - clean out and retimber -	
65 to 200 feet - 135 feet @ $60.00/ft.	$ 8,100.00
200 to 415 " - 215 " @ $20.00/ft.	4,300.00
200-level - clean out 100' west and 50' east - 150 feet @ $20.00/ft.	3,000.00
300-level - cut diamond drill station and erect a hinged platform at shaft	600.00

400-level - build bulkhead over sump and prepare diamond drill station at shaft	$ 740.00
400-level - clean out 138 feet southward crosscut and 250 feet of east-west drifts along the hanging wall dike - total 388 feet @ $10.00/ft.	3,880.00
Sub-total	$20,620.00

2. Diamond drilling work:

300-level - diamond drill two 235-foot holes and one 200-foot hole southward to explore the hanging wall dike - total 670 feet @ $4.00/ft.	$ 2,680.00
300-level - diamond drill two 50-feet holes northward to explore the discovery vein - 100 feet @ $4.00/ft.	400.00
400-level - diamond drill two 250-foot holes northward to explore for a possible parallel vein in footwall of discovery vein - 500 feet @ $4.00/ft.	2,000.00
Additional diamond drilling to supplement and further explore most favorable areas found by 7 holes listed above - 850 feet @ $4.00/ft.	3,400.00
Sub-total	$ 8,480.00

3. Assaying:

Analyze samples taken every 10 feet along 400 feet of mine workings re-opened - 40 samples @ $7.50 ea.	$ 300.00
Analyze diamond drill cores - 60 samples @ $7.50 ea.	450.00
Sub-total	$ 750.00

4. Contingencies 1/2 percent of $3,000.00	$ 150.00
Total estimated cost	$30,000.00

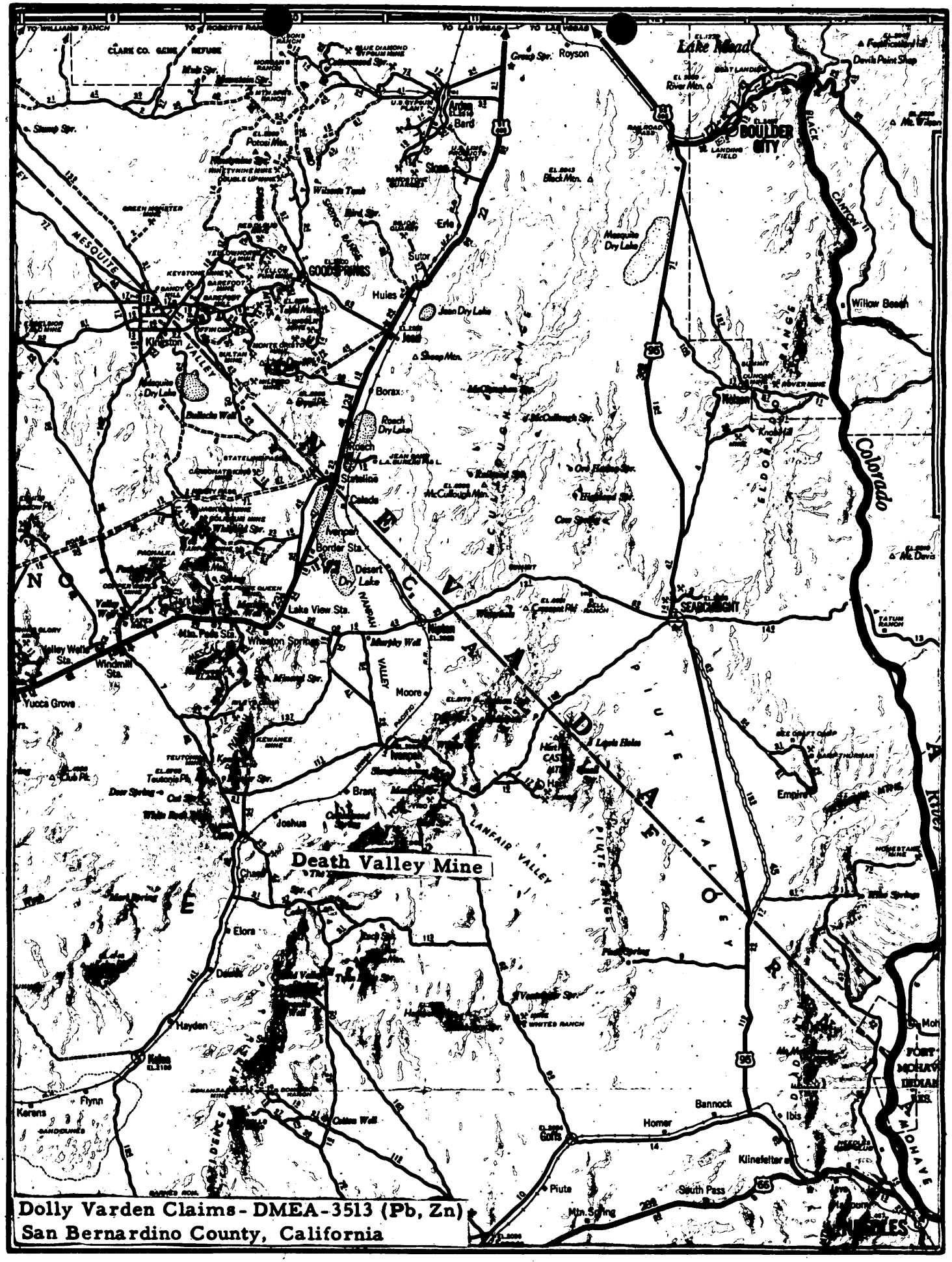

FIG. 1 LOCATION MAP

DEPARTMENT OF THE INTERIOR
Geological Survey Library
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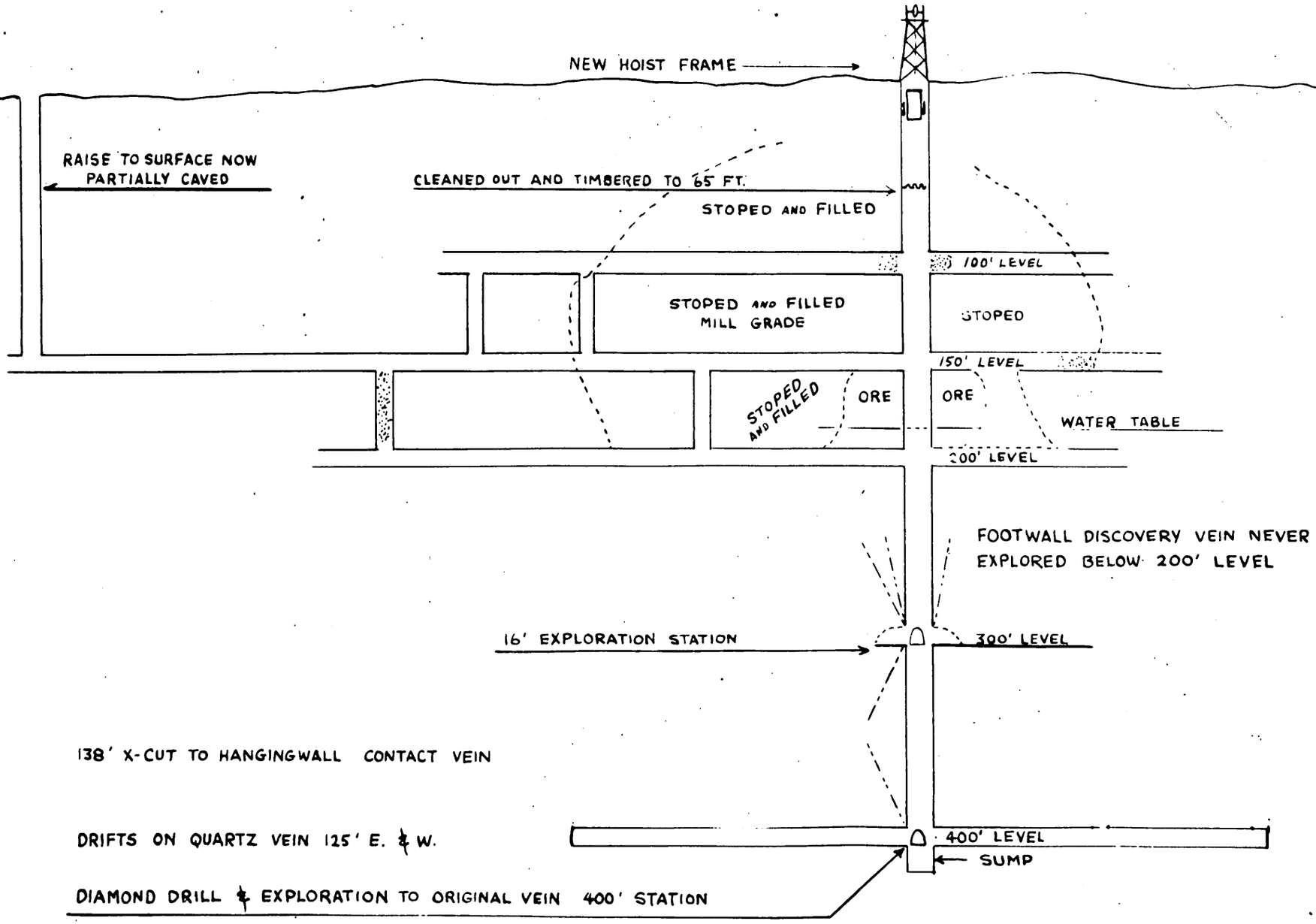

LEGEND -

EXPLORATION WORK PLANNED - - - - - - - - -

DIAMOND DRILLED HOLES - - — - - — - - — - -

DOLLY VARDEN MINE

DEATH VALLEY SHAFT & WORKINGS

CIMA-SAN BERNARDINO CO. CAL.

LONGITUDINAL SECTION

SCALE 1 IN. = 50 FT.

Fig. 2a

DEPARTMENT OF THE INTERIOR
Bureau of Mines Administration
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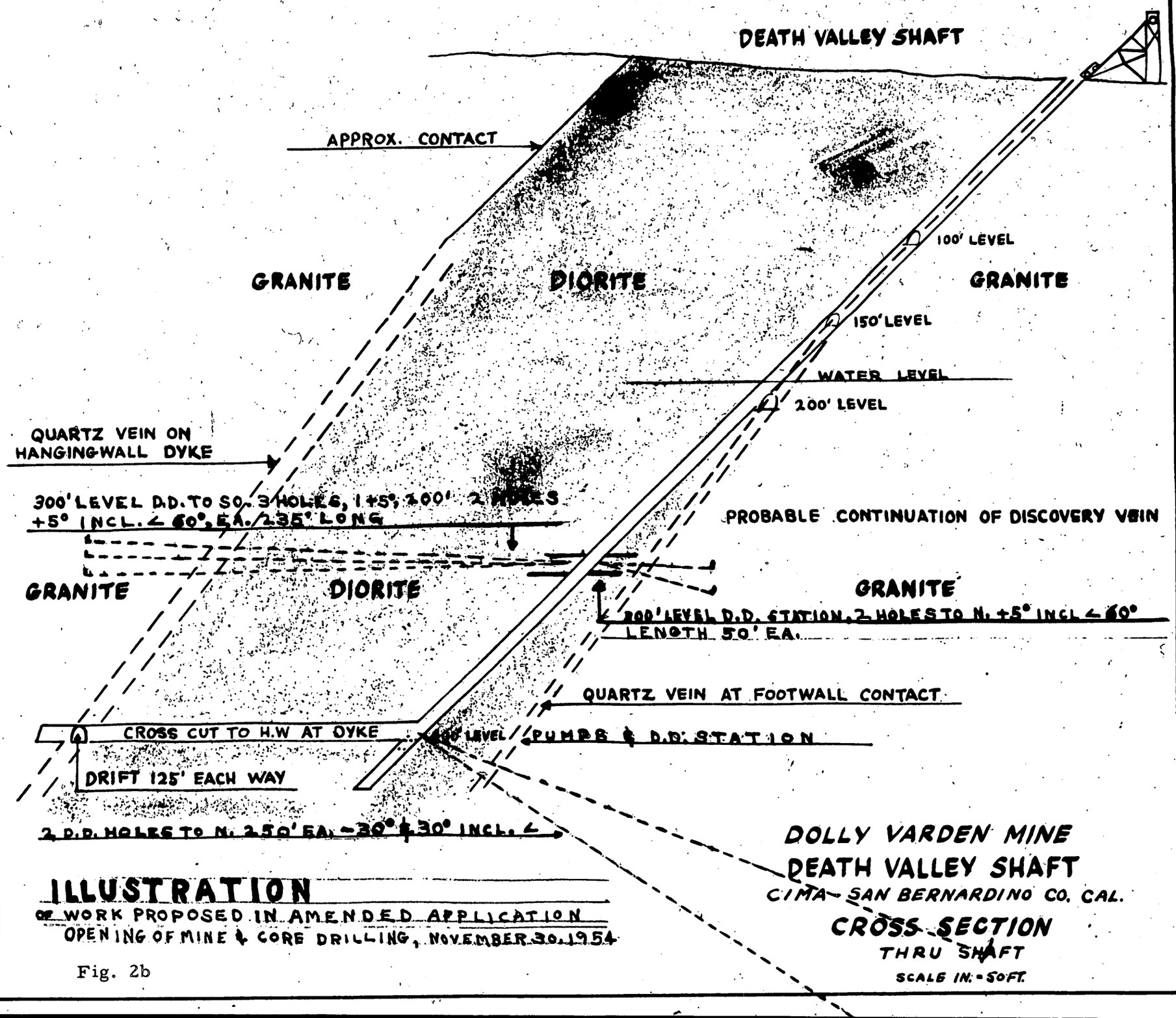
JAN 24 1955


DEATH VALLEY SHAFT
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CROSS CUT TO H.W AT DYKE
400' LEVEL
PUMPS & D.D. STATION
DRIFT 125' EACH WAY
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DOLLY VARDEN MINE
DEATH VALLEY SHAFT
CIMA - SAN BERNARDINO CO. CAL.
CROSS SECTION
THRU SHAFT
SCALE IN. = 50 FT.
ILLUSTRATION
OF WORK PROPOSED IN AMENDED APPLICATION
OPENING OF MINE & CORE DRILLING, NOVEMBER 30, 1954

Fig. 2b

DEPARTMENT OF THE INTERIOR
Bureau of Land Management
RECEIVED
JAN 24 1955

File Copy
Surname

J. W. Selfridge
Kilsgaard
Mathews

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

JAN 19 1955

Mr. Spangler Ricker
Executive Officer
DMEA Field Team, Region II
420 Custom House
555 Battery Street
San Francisco 11, California

Re: Docket No. DMEA-3513 (Lead-Zinc)
The Dolly Varden Mining Company
Dolly Varden Claims (Death Valley Mine)
San Bernardino County, California

Dear Mr. Ricker:

With reference to your memorandum of January 12, 1955, regarding the cited application, we do not think that it is necessary for us to replace your docket that was lost during the course of the examination of this property.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (2/13)

APPROVED:

J. H. Hedges (2/13)
Member, Bureau of Mines

E. L. Newcomb (2/13)
Member, Geological Survey

JWAlt/bjl (1/18/55)

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

R.C.S.

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

Defense Minerals Administration
RECEIVED
JAN 17 1955

420 Custom House
555 Battery Street
San Francisco 11, Calif.

January 12, 1955

Docket

Memorandum

To: Operating Committee, DMEA, Interior Building
Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-3513 (Lead-Zinc)
The Dolly Varden Mining Company
Dolly Varden Claims (Death Valley Mine)
San Bernardino County, California

Reference is made to the above-subject docket.

The property has been examined and the report, not yet completed, will recommend denial of application for exploration aid.

In the meantime, however, I wanted to advise you that the docket was lost during the course of the examination. We will not require a copy of the docket unless you believe it necessary that we have one in our files.

S. Ricker
Executive Officer
DMEA Field Team, Region II

Copy to: Roscoe Smith, USGS
A. C. Johnson, Reno

1/17/55 - Spoke to R. Adams - Operations Control & Statistics Div. - he said it was not necessary to supply a copy of this application and it is not necessary to answer this letter.

File Copy
Surname

J. W. Alt.
Griswold
F. E. Johnson

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

OCT 21 1954

Mr. H. C. Miller, Executive Officer
DMEA Field Team, Region III
420 Custom House
555 Battery Street
San Francisco 11, California

Re: Docket No. DMEA-3513 (Lead-Zinc)
The Dolly Varden Mining Company
Dolly Varden Claims (Death Valley Mine)
San Bernardino County, California

Dear Mr. Miller:

A review of the cited application of which you have a copy, indicates that an examination of the property is necessary. Will you please have such an examination made and submit your report and recommendations to us.

Enclosed are copies of memorandums from the Commodity members, O. M. Bishop, USBM, dated October 8, 1954 and E. L. Newcomb, USGS, dated October 14, 1954, giving their recommendations and comments.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee

Enclosures 2

JWAlt/er 10/19/54
Copy to: Docket
Admr R File
Operating Committee
Base Metals
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Chron.

APPROVED:

J. H. Hedges
Member, Bureau of Mines

Thor H. Kiilsgaard
Member, Geological Survey

R.C.S.

File Copy
Surname
J.W. Alt
Kiilsgaard
Hedges
Selfridge
H.E. Johnson

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

OCT 21 1954

The Dolly Varden Mining Company
10428 Pearoce Street
Sun Valley, California

Re: Docket No. DMEA-3513 (Lead-Zinc)
The Dolly Varden Mining Company
Dolly Varden Claims (Death Valley Mine)
San Bernardino County, California

Gentlemen:

Your application for Government assistance to explore your property has been reviewed by the Base Metals Division of the Defense Minerals Exploration Administration, and has been referred for a field examination to:

Mr. H. C. Miller, Executive Officer
DMEA Field Team, Region III
420 Custom House Building
555 Battery Street
San Francisco 11, California

The Regional Office will contact you at an early date as to when an examination is to be made. Any assistance that you may give the members of the Field Team during the examination will be appreciated.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

JWAlt/er 10/19/54

Copy to: Docket
Admr R. File
Op. Committee
Base Metals
Region III (2)
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Chron.

R.C.H.

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

October 8, 1954

Memorandum

To: W. R. Griswold, DMEA

From: O. M. Bishop, USBM

Subject: Docket No. DMEA-3513 - Application for $30,000 lead-zinc exploration project, Dolly Varden Mine (Death Valley mine), San Bernardino County, California

I have reviewed the application with considerable care and believe it offers elements of a worthwhile exploration program, but would note that the value of past shipments and of the known reserves, as quoted by the California State Mineralogist, indicate that gold and silver account for about 70 percent of the market value.

The same report and the applicant's longitudinal and cross sections through the mine indicate that no exploration has been done on the footwall vein below the 200 level and that none has been done on the hanging wall vein above the 400-foot level. The report also notes that the Arcalvada shaft some 1,500 feet southwest and apparently on the same structure, yielded $30,000 worth of ore presumably from shaft sinking and driving the 135-foot heading on the 125-foot level. It appears that an area about 1,000 feet long, midway between the Death Valley and Arcalvada shafts, is totally unexplored and may also warrant work.

Item 1, page 4 of the applicant's program would appear to be allowable as exploration, but item 2 providing 4 closely spaced raises would normally be considered development, and not allowable.

Item 3 which appears actually to be a diamond drill station on the 300 level of the footwall vein for the purpose of permitting drilling seems allright although the shape could be modified advantageously.

Item 4 - diamond drilling of the hanging wall vein might well be increased to provide 4 to 6 holes which would cut the vein along some 250 feet of strike length between the 150-foot and 250-foot levels. I would also suggest a diamond drill station at either end of the 400-foot level so that drill holes could be directed to explore the footwall vein. If the drilling program proves ore there would be no reason to carry out the crosscutting and drifting of item 5 except for exploitation.

I recommend the docket be referred to the field team for field appraisal, also so they might check, if feasible, with American Smelting and Refining Company for corroboration in the form of maps, assays, etc.

O. M. Bishop

O. M. Bishop

Copy to: Minerals Division
Mr. Kiilsgaard, Room 5227
O. M. Bishop
Files

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

October 8, 1954

Memorandum

To: W. R. Griswold, DMEA

From: O. M. Bishop, USBM

Subject: Docket No. DMEA-3513 - Application for $30,000 lead-zinc exploration project, Dolly Varden Mine (Death Valley mine), San Bernardino County, California

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O. M.

O. M. Bishop

Copy to: Minerals Division
Mr. Kiilsgaard, Room 5227
O. M. Bishop
Files

IN REPLY REFER TO:

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

October 14, 1954

Re: DMEA-3513
Dolly Varden Mining Co.
(Death Valley Mine)
San Bernardino Co., Calif.
$30,000 - Lead-Zinc

Memorandum

To: W. R. Griswold, Defense Minerals Exploration Administration

From: E. L. Newcomb, U. S. Geological Survey

Subject: Review of application

The applicant proposes a program involving 5 items of work on the Death Valley property.

1) Open up and rehabilitate 400 feet of shaft, and 600 feet of drifts and 130 feet of crosscuts on the 200 and 400 levels.

2) If sampling on the 400 level hanging wall vein indicates minable ore, four 50 foot raises will be driven in the vein from the 400 level.

3) If sampling in the raises shows commercial ore, two stub drifts will be driven on the 300 level and two drill holes will be drilled southward.

4) From the 300 level, 400 feet of drilling will be done northward to test for continuation of mineralization.

5) If favorable results are obtained from Item No. 4, then crosscut will be driven to area of best indicated mineralization and followed by 200 feet of drifting.

The Report of the State Mineralogist, Vol. 27, (1931), pp. 348-349, states that ore shipped from above 200 level averaged 0.18 oz./ton gold, 75 oz./ton silver, and 2.5 percent lead. Its total value was about $131,000.

The proposed rehabilitation, raising on the 400 level, and the project on the 300 level is too much like development for mining than straight exploration work. Further exploration of the hanging wall vein and the discovery vein below the 200 level merits DMEA assistance. However, it would seem more prudent at the present time to diamond drill from the surface to test the hanging and footwall veins below the 200 level before the mine is opened all the way to the 400 level. Drilling 6 holes totalling about 2,000 feet should determine whether development between the 400 and 200 levels is warranted.

I recommend this application be referred to the Field Team for an examination and report. If possible, the American Smelting and Refining Company should be contacted concerning maps and other pertinent data.

E. L. Newcomb

E. L. Newcomb

IN REPLY REFER TO:

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

October 14, 1954

Re: DMEA-3513
Dolly Varden Mining Co.
(Death Valley Mine)
San Bernardino Co., Calif.
$30,000 - Lead-Zinc

Memorandum

To: W. R. Griswold, Defense Minerals Exploration Administration

From: E. L. Newcomb, U. S. Geological Survey

Subject: Review of application

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1) Open up and rehabilitate 400 feet of shaft, and 600 feet of drifts and 130 feet of crosscuts on the 200 and 400 levels.

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E. L. Newcomb

ELNewcomb:hlm
G-10/14/54

Copy to: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
O. M. Bishop, 3617

October 4, 1954

The Dolly Varden Mining Co.
10428 Penrose Street
Sun Valley, California

Subject: DMEA-3513
Re: Exploration Assistance
Dolly Varden Mine

Gentlemen:

The receipt of your application dated September 27, 1954 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-3513 and referred to the Base Metals Division.

Kindly refer to in any future correspondence relating to your application.

Sincerely yours,

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 4 1954

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. 3513
Metal or Mineral Lead-Zinc
Date Received
Estimated Cost $30,000
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: The Dolly Varden Mining Company
10428 Penrose Street, Sun Valley, California. Sole ownership, Irven B. Bates, dba Dolly Varden Mining Company, at Cima, California.
PLEASE ADDRESS ALL CORRESPONDENCE TO 10428 Penrose St., Sun Valley, Calif.

(*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 Copy of bond and lease attached; Seven (7) mining claims; and thirteen (13) completely surrounding those in bond and lease are owned by Irven B. Bates, applicant. Namely, D.V. Extention, # 1, 1-A, 2, 2-A, 3, 3-A, 4, 5, 6, 7, 8, 9, 10. (~~Has been known, Death Valley Mine,~~

(*b*) State any mine name by which the property is known. (D.V. Mines, Dolly Varden Mine.

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Seven (7) claims bond and lease; thirteen (13) claims owned by applicant.

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property. Copy of lease attached.

(*e*) If you own the land, describe any liens or encumbrances on it None

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. Recorded 29 consecutive years at County Courthouse, San Bernardino County, Calif.

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. See Section 4, attached hereto.

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

(*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. See State Report and Maps attached.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points. See Section 4, Subsection D, and State Report, both attached hereto.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.
See Section 4, also Section 5, Subsection (d), attached hereto.

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore Lead, Zinc, Silver and Gold.

(*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. See Section 5, Subsection (b) and Maps attached hereto.

(*c*) The work will start within 10 days and be completed within six months from the date of an exploration project contract, and the money available, ours is ready.

(*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. See Sec. 5, Subsection (d)

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: Attached.

(*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.). NONE

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fe for necessary labor, supervision and engineering and geological consultants. See Section 6, Sub. (b)

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel. Attached Sec. 6, Subsec. (c).

(*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. Attached Section 6, Subsection (d).

(*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. That which was needed, has been taken care of.

(*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. Hoisthouse.

(*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. See Sec. 6, Subsec. (b).

(*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. See Sec. 6, Subsection (h).

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)? YES.

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

[X] Money [X] Use of equipment owned by you [X] Other

Explain in detail on acompanying paper. See Section 7, Subsection (b).

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 September 27, 1954.

DOLLY VARDEN MINING CO.

By [signature]

IRVEN B. BATES (Applicant) SOLE OWNER

By 10428 Penrose St., Sun Valley, Cal.

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.

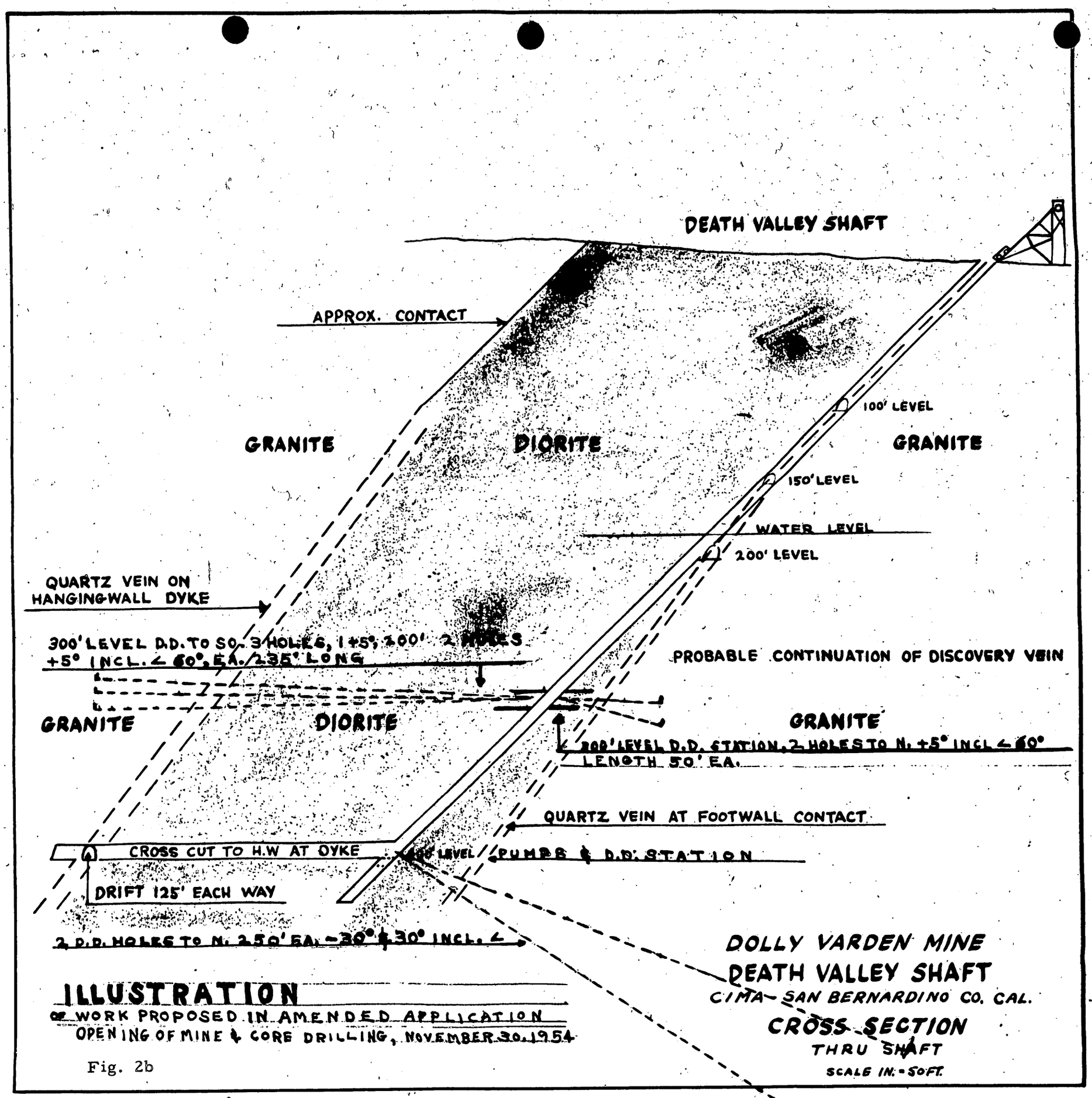
DEATH VALLEY SHAFT
APPROX. CONTACT
GRANITE
DIORITE
GRANITE
100' LEVEL
150' LEVEL
WATER LEVEL
200' LEVEL
QUARTZ VEIN ON HANGINGWALL DYKE
300' LEVEL D.D. TO SO. 3 HOLES, 1 +5°, 200' 2 HOLES +5° INCL. ∠ 60°, EA. 235' LONG
PROBABLE CONTINUATION OF DISCOVERY VEIN
GRANITE
DIORITE
GRANITE
300' LEVEL D.D. STATION, 2 HOLES TO N. +5° INCL ∠ 60° LENGTH 50' EA.
QUARTZ VEIN AT FOOTWALL CONTACT
CROSS CUT TO H.W AT DYKE
400' LEVEL
PUMPS & D.D. STATION
DRIFT 125' EACH WAY
2 D.D. HOLES TO N. 250' EA. -30° & 30° INCL. ∠
DOLLY VARDEN MINE
DEATH VALLEY SHAFT
CIMA - SAN BERNARDINO CO. CAL.
CROSS SECTION
THRU SHAFT
SCALE IN. = 50 FT.
ILLUSTRATION
OF WORK PROPOSED IN AMENDED APPLICATION
OPENING OF MINE & CORE DRILLING, NOVEMBER 30, 1954

Fig. 2b

DEPARTMENT OF THE INTERIOR
Bureau of Land Management
RECEIVED
JAN 24 1955

SECTION 4- PHYSICAL DESCRIPTION

Department of the Interior
Defense Minerals Administration
RECEIVED
OCT - 4 1954

Subsections (a),(b),(c).

The photostat attached hereto was furnished by the Los Angeles City Library to the applicant from pages 348 and 349 of Volume 27 for the year of 1931 of the Report of State Mineralogist, Los Angeles Field Division. In addition to this report, the American Smelting and Refining Company, Western Region, Salt Lake City office, has furnished us with several maps of which we have made tracings and have added some notes. Prints of these tracings are attached. It is our considered opinion that should any cognisant authority of your agency care to examine the originals and the supporting report, that the courtesy will be granted in applicant's behalf by the American Smelting and Refining Company. The ASR report generally substantiates and augments the California State Mineralogist Report, and the expressed opinions of the writer.

A previous underfinanced and poorly managed lessor operator constructed a new hoist frame and cleaned out and timbered the Death Valley shaft down 65' and stopped the work and lost their lease about 15 months ago. A complete search of the record at San Bernardino County Courthouse shows the title to the property to be free and clear without any blemishes or encumbrances of record of any kind whatsoever. There were several complaints from the State Mine Inspectors' office registered against this past operation, which the applicant has corrected and the project is now cleared to proceed.

The equipment at the shaft being purchased by the applicant consists of a 20 K.W. Palmer generator, powered by an International diesel engine, a 220 volt- 10 horsepower electrict controller type electric hoist, a 5 h.p. Fairbanks-Morse 5 h.p. reciproacting high pressure water pump, two usable jackhammers (lightweight), about five thousand board feet of new and used good mine timber, and practically all the necessary mechanical maintenance and mining tools needed to continue the work.

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ATTORNEY AT LAW
LOS ANGELES

Subsection (d). At the present time, the three-mile road to the mine, and the housing facilities, is in good condition-- a high gear road, which will accommodate the largest of trucks, fully loaded.

There is a nice, 4 room residence on the property now occupied by the applicant and adequate for the crew-- Bates and four men-- contemplated for the initial work. In the not too distant future, it is planned to move from nearby, at least one building already owned by applicant, to house additional help, and to build a small Hoist House.

At the present time, the water facility, consisting of a pump taking water from a spring and sump on the 200 foot level of the mine, is in operating condition. The 500 gallon water storage tank, however, will require replacement very soon. Running water is piped into the house, and water lines are in good condition.

At Cima, there are two ore loading facilities and railroad sidings. It would be necessary to spend up to $500 to put the most desirable one in good shape. There is also a good freight building, where supplies can be stored under lock and key, with permission granted for its use by the Union Pacific Railroad Company. They have also extended us the courtesy of the use of their telephone for business purposes, to Las Vegas and/or Los Angeles, which is the equivalent of making a local call in either city.

Subsection (e) Availability of Manpower. Irven B. Bates has been working or operating in the mining and contracting business for 30 years; and of necessity has a wide acquaintance in the industry, and at this time, has by correspondence already arranged for a full crew of completely qualified men to work with him on this project. The climate and living conditions at the Mine are ideal, and it is our considered opinion that men once there will remain there.

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SECTION 5. THE EXPLORATION PROJECT.

Subsection (b). The proposed work shall consist of the completion of the already started cleaning out, timbering and unwatering of the Death Valley shaft, 335 ' to the bottom of the shaft from the point to which the work has now been completed. Since the shaft from the 200' level to the bottom was sunk in solid diorite, we anticipate little trouble with the mucking and timbering below this depth. The water level in the mine is somewhat above the two hundred foot level and the water,although having an irony taste, it was submitted for testing, and officially approved for human consumption, and pronounced non-corrosive. Therefore, we believe, that outside of the replacement here and there of an occasional length of rail or pipe, and/or a timber set, that the clean-out expense will be moderate below the water table.

We are planning on handling approximately Fifteen Hundred Tons of waste, and a complete timbering and lagging job for the 135' to and including the 200' level and station. Cleaning up and repairing the workings 200' eastward and 200' westward of the 200' station, will probably represent mucking and timbering of about 35% of the footage opened. However, this is a guess by Mr. Strawn, the owner of the leased portion of the claims, who was last to enter this area through an escape and ventilation raise, now partially caved, in the year of 1926, and he tells us that at that time he found everything there in good condition. We have allowed for a 35% deterioration.

Mr. Strawn still lives on the property (see lease) , and he tells us that nothing was ever done to develop the higher grade ore shoot in any area below the 200' level, and that there are no faults or other geological indications which might cause doubt as to the continuation of this vein. This the vein from which all of the Death Valley shaft shipping record of $138,000.00 was produced.

The "Arcalvada" shaft was driven in ore on a pitch of approximately 70 ° : And this ore was sorted and shipped to the

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A.S.R. at Murray, Utah, in the name of New Harmony Mines Co., in the amount of approximately $30,000.00. We do not intend to do anything in the "Arcalvada" shaft or workings at this time, however, the writer is of the opinion that the "Arcalvada" shaft is on the same vein as the discovery vein in the Death Valley shaft surface to 200' level. In the future, this and the intervening 1500' between the two shafts should certainly be prospected with size XA core drill holes.

In the Death Valley workings we propose chronologically to do the following items of exploration work:

1. Clean out, retimber and open up for sampling the full length of the 400' incline shaft, 335' to go. Four Hundred Feet drifts on the 200' level and the 138' crosscut and 250' of drifts on the vein discovered on the 400' level. When everything is accessible, and as it is made so, thoroughly sampling all indicated ore, keeping up to date progress sampling maps on a weekly basis. Total footage,1123'.

2. If sampling on the 400' level hanging wall contact vein proves the mineralization to be of commercial value, we propose to run four 50' open raises 4x7' . Total mining, - - - - - - 200'.

3. Sampling of the raise project showing that we are still in commercial ore, we propose to drive two 5' x 7' x 8' drifts at the 300' level to provide a working station and punch out two Diamond Drill holes southward to the hanging wall vein explored by the raises, to further explore the extent of a potential ore shoot.

4. At the completion of the south vein exploratory project we plan to drill northward to the discovery vein area looking for a continuation of this mineralization, with one core drill hole of 200' and two of 100' each, but in any event, a total of 400' .

5. Should more than 50% favorable results be indicated by the core drilling in item 4 above, we then propose to follow the core drill hole providing the best indication with a crosscut of

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approximately 100' to the enriched indication, and drift along this mineralized area 100' each way eastward and westward, total mining, 300'.

We have already made a flotation test on some of the dumps and have found the recovery to be high and very cheap as over 90% recovery was indicated in two tests with the simplest and most inexpensive reagents at plus 70% -100 mesh grind.

The completion of this exploration project should practically prove the availability of 35,000 tons of $25.00 ore at present market. Although this is not bonanza rock and would not interest a major company, we have the committment for the capital required to put the property in operation.

SECTION 5, THE EXPLORATION PROJECT

Subsection (d). The applicant operator, Irven B. Bates, was born in Globe, Arizona, and his early schooling was at New Bloomfield Military Academy, New Bloomfield, Pennsylvania, followed by four years and graduation from Globe High School; two years at Southwestern University, Los Angeles, California, in the business school, and a short prospector's course at Mackey Institute University of Nevada, Reno. Dolph Bates, father of the applicant, was engaged from 1906 until his retirement in 1934 in the mining business along with other successful enterprises, and through his father's reputation and contacts, applicant enjoyed a most unusual opportunity to learn a great deal about the mining business from many of the greats of that time. The applicant in addition to having an inquiring mind, spent a great part of his early youth observing the pioneering, development and ultimate production work at such well known mines as the Gibson Copper Co., Miami Copper Co., Inspiration, The Gray Mine and the Iron Cap. When he was seventeen, he did his first actual work underground for pay as a mucker for the two contract miners on the 2300' level, west, of the Old Dominion Mine. The summer vacation of his 18th year with a partner named Charlie Watkins and financed by his father, the partnership very profitably took the pillars out

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of the Morman Asbestos mine at Horseshoe Bend on the upper Salt River, Gila County, Arizona. In this 19th and 20th year, he was foreman in charge for Mr. Thomas Cox of Morinci, Arizona, of the construction of 2½ miles of road built for Bulldog Mack dump trucks and the running of an eleven hundred foot drift and auxilliary workings to tap copper ore from the original Dr. Dodge Discovery mine West of Morenci. The following years were occupied with school and the contracting business until 1938 at which time he reppened the Reveille Antimony Mine near Warm Springs, Nevada- 80 miles easterly of Tonopah, Nevada. This property was in continuous operation from the summer of 1938 to the spring of 1943 at which time costs caught up with the OPA fixed price of antimony and the operation ceased to be profitable. It was therefore shut down. In 1944 and 1945, the applicant Bates reopened the old La Perla, lead silver mine at Topia, Durango, Mexico. This property had been blasted in during the Diaz-Madero revolution in 1916 by the owners, the Mac Donald Brothers of Pasadena, California. This enterprise represented a comparatively small investment and resulted in a very quick and substantial profit through the sale of the property. His consulting enginineer on this project and many others was Mr. J. A. Joslin, now deceased. Since 1950, the applicant has been continuously engaged in mining, either for his own account or as an employee with the U.S. Vanadium, Pine Creek Mine, Bishop, California, and at the Petoski Copper Mine, of which he is a third owner, at Jacob Lake, Arizona.

It is contemplated that applicant Bates shall continue to live on the property, be in charge of and actually participate in the work himself.

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SECTION 6- ESTIMATE OF COSTS

Subsection (a). None Contemplated.

Subsection (b). The applicant intends to maintain suitable assay and geological maps satisfactory to the cognisant government authority, assigned to the project. He will be assisted without payment of fees by Mr. Harold Bailey, general manager of the Molybdenum Corporation of America, Mountain Pass Mine, by Mr. Jim Marsh of the Union Pacific Railroad, and by anyone of several engineers from the American Smelting and Refining Company, who are anxious to buy the ores or concentrates from this property.

Estimated cost of outside assays by any mutually agreeable firm,	$ 750.00
Supervision six months at $500 per month, and found,	3,000.00

The going rate for first class miners in isolated areas such as the location of the Dolly Varden Mine is $16.00 per 8-hour day, working 11 consecutive days without overtime, with 3 days off; then 12 consecutive days with 4 days off.

Laborers, $1.75 per hour under the same time and conditions as above.

Board and room will be furnished to the men, and charged for at the rate of $2.50 per day. The cook, and applicant, who will be the job superintendent, will be furnished room and board without charge.

In the following wage costs, 20% of the gross pay has been added in the case of direct labor to cover the cost of accounting, compensation insurance premiums, payroll taxes, federal and state, etc.

Three miners for 3 months @ $450.00 per month each	4,050.00
One laborer for 3 months at $370.00 per month,	1,080.00
Three miners for 3 months @ $450.00 per month each	4,050.00
One of these miners will be rated as a Diamond driller for 8 weeks, add	300.00

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Two laborers for 3 months @ $370.00 per month each	$ 2,160.00
One cook for 6 months @ $175 per month,including board and room, total cost $225 per month,	1,350.00
Subtotal	$ 16,740.00

Subsection (c). Operating Materials and Supplies. Although Form MF-103 instructs the inclusion of items costing less than $50.00 each, applicant has followed this instruction technically, but included the totals of such multiples of said items that could not logically be included elsewhere.

500 gal. water tank (used),	$ 75.00
Water for six months,	125.00
Gasoline, lubricants and diesel fuel for diesel electric generating plant and compressor,	600.00
Household fuel,- cooking and heating,	175.00
Explosives,	600.00
Caps,	55.00
Fuse,	75.00
Diamond drill core, bits, reamers,	1,100.00
Swede carbide insert percussion drill steel,	250.00
16# mine rail (some new, some used, including fish plates, bolts, spikes, switches,etc.,),	325.00
Mine timbers and track ties,	2,300.00
Loss on food for 6 men for first 3 months,	700.00
Loss on food for 7 men for second 3 months,	850.00
600 feet of hoist cable (5/8"),	175.00
150 feet 3/4" air hose, new,	75.00
2 inch pipe, used	200.00
150 feet 1/2" water hose, new, coupled,	40.00
1" pipe, used,	100.00
Valves and fittings (pipe), (plenty on hand),	100.00
Underground air receivers, 2½' x 6' ,	50.00

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3 one-ton roller bearing mine cars @ $60 each,	$ 180.00
1 mine dolly,	35.00
Powder magazine door,	25.00
Misc. mining machine and equipment, repair parts and supplies,	210.00
Subtotal	$ 8,420.00

Subsection (d) Operating Equipment, to be rented,purchased, or which is owned and will be furnished by the operator on a use-allowance basis.

Buy- Good make Jack-leg drill and steel grinder,	$ 750.00
Rent- Equipment on job 6 mos. @ $165.00 per mo.,	990.00
Rent- Compressor- 5 months @ $300 per mo.,	1,500.00
Rent- Complete diamond drill outfit, 300 ft.drill; pipe 5' sections size XA; 200 ft. casing, and auxilliary tools, size 500 C.P. 2 months @ $250.00 per month, have quotation from reputable company,	500.00
Furnish one 1954-V8 1/2 ton pickup @ $100 per month for 6 months,	600.00
	$ 4,340.00

Subsection (e).Rehabilitation and Repairs.-That which was needed has been taken care of.

Subsection (f). New Buildings, Improvements, Installations.- Provided for in labor and materials computation; Hoist house and moving of building to property from eleven miles away, if necessary on this project.

Subsection (g). Miscellaneous.- Provided for in supply and man hour cost computations.

Subsection (h). Contingencies.- Reserve,1 2/3%,	$ 500.00
Section 6,Subsection (b), Subtotal	$ 16, 740.00
Section 6, Subsection (c) Subtotal	8, 420.00
Section 6,Subsection (d) Subtotal	4,340. 00
Section 6,Subsection (h) Subtotal	500.00
Total	$ 30, 000.00

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SECTION 7 - MONEY DISTRIBUTION

Subsection (b). Applicant will furnish $11,910 in cash and $3,090.00 as follows:

Equipment on job, $165.00 per month rental value	$ 990.00
V-8 Truck rental	600.00
Fifty per cent of supervisory service allowance	1,500.00
	$ 3,090.00
Applicant's Cash Contribution	11,910.00
Total	$ 15,000.00
Government Loan DMEA	$ 15,000.00
Total	$ 30,000.00

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A G R E E M E N T

THIS AGREEMENT made and entered into as of the 10th day of June, 1954, by and between Mr. J. Lee Strawn and Mrs. J. Lee Strawn, hereinafter called Lessors, and Irven B. Bates, hereinafter called Lessee:

W I T N E S S E T H

WHEREAS, lessors are sole owners of certain mining claims situate in Cima Mining District, County of San Bernardino, State of California, and more particularly described as follows:

The Dolly Varden No. 1	The Dolly Varden No. 5
The Dolly Varden No. 2	The Dolly Varden No. 6
The Dolly Varden No. 3	The Dolly Varden No. 7
The Dolly Varden No. 4	

Also formerly known as the Death Valley Mine; also known as the D. V. Mine.

WHEREAS, the said mining claims and property had previously been leased to the Rose Marie Mining Co., a corporation, by lease, said lease having been terminated by the default of said prior lessee; and

WHEREAS, the parties to this agreement believe it is to their mutual advanta e to enter into a lease agreement covering the afore-described mining claims and property and to provide the lessees with an option to purchase same on the terms and conditions hereinafter set forth.

NOW, THEREFORE, for and in consideration of the covenants, agreements, payments, rents and royalties hereinafter reserved and by said lessee to be performed, kept and paid, said lessors by these presents do hereby grant, demise and let unto lessee all of the aforesaid mining claims and property together with all improvements and appurtenances thereunto belonging, to have and to hold unto the said lessee so long as the terms and conditions hereinafter required to be performed by lessee are performed, and unless this agreement is forfeited or determined through violation of any of the covenants and agreements hereinafter set forth.

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In consideration of this lease and option of purchase leasee does hereby covenant and agree with lessors as follows:

1. Lessee shall have the right to the posession of all of said aforesaid described mining claims and property, including all surface buildings, and shall have the right to explore, develop, mine and work the same, and to extract, ship, smelt, mill, sell and otherwise dispose of the ores, minerals, and metals taken therefrom and to construct, make and use therein and thereon such jumps, excavations, shafts, stopes, drifts, tunnels, drill holes, and other workings as may be useful to and convenient for the working and development of said mining claims and property or any part thereof. In this connection, however, it is specifically understood that the lessors, Mr. and Mrs. Strawn, shall have the right of full posession and occupancy of their home and all buildings contained in the fence around their home during the rest of their each and several lives. Should the lessee or his assigns have paid the full posession price for the property according to the terms of this lease, this above described home and out-buildings shall then become the property along with all the rest of the property, of the lessee. The lease being in full force and effect and all of its terms fully complied with by the lessee, this separate home shall then become a part and parcel of this lease barring only the rights of the lessors to dispose of the personal property in said buildings as they choose.

2. Lessee agrees to take posession of said mining claims and property and to carry on mining operations thereon under the terms of this lease not later than One Hundred and Eighty Days (180) from the date hereof, and agrees to have performed thereon not less than fifty (50) manshifts of labor during each month thereafter of the existence of this lease. It is agreed, however, that the lessee shall have the option, in lieu of performance under the above clause requiring fifty (50) manshifts of labor during each month of the existence of this lease, to make a cash payment to the lessors in the amount of $100.00 per month for each month in which less than fifty (50) manshifts of labor are performed.

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Any such payments shall apply on the option prices of purchase set forth in parahraph 8 hereafter, and shall be allowed as deductions in determining the balances due on this option payment dates therein outlined.

The intervention of snow, fire, the elements, strikes, interruption of transportation facilities, or embargoes by federal or state authorities, or conditions referred to as Acts of God, shall act to proproportionately reduce the fifty (50) manshift provision of this numbered paragraph while each cause or causes making operations impossible exist and when such cause or causes are beyond the control of lessee.

3. Lessee agrees to pay all taxes and assessments, levied on and assessed to said mining claims and property and any improvements placed thereon by lessee before the same become delinquent, and agree to transmit receipts of payment thereof to lessors for their inspedtion.

4. Lessee agrees to pay to lessors or to their order, all during the term of this lease, a royalty or rental of Seven and One-Half percent ($7\frac{1}{2}$) of net smelter or net mill returns on all ores, minerals and metals mined from said mining claims when shipped and sold by lessee above the amount of Seventeen Dollars and fifty cents ($17.50) expenses. Net smelter or net mill returns shall mean the amount of payment received from sale of said ores, minerals, or metals from smelter or mill less only the allowance of the $17.50 maximum expenses for smelter or mill, mining costs, and all transportation charges before computation of said royalty or rental.

5. Lessee shall cause to be sent directly to the payee of royalty or rental provided for in this lease, the royalty or rental from smelter or other purchasing agent, when said ores, minerals or metals are sold; and lessee shall afford to said payee all necessary facilities for checking tonnage, shifts worked, values, and recovery at all proper times.

6. It is agreed and understood that upon the termination of this lease, whether by the acts of the parties or either of them or by limitation, the lessee shall have ninety (90) days in which to remove all engines, tools, machinery, railroad tracks, and structures erected or placed by the lessee

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upon the said land, either on the surface or underground, but shall not remove or impair any supports placed in the mines, nor any timbers, frameworks, or ladders necessary to the use and maintenance of the shafts or any mine workings. It is also understood that lessee may cancel this lease at any time provided he has fulfilled all of his obligations hereunder to the date of such cancellation.

7. Lessee agrees to conspicuously post siutable notices of non-responsibility for the benefit of the lessors.

8. In consideration of the foregoing lease, the expenditures to be made thereunder, and the faithful performance of the covenants and agreements thereof, lessors hereby grant to lessee the exclusive right to purchase the hereinbefore described mining property, together with all improvements and appurtenances thereunto belonging, for the sum of $25,000.00 payable as follows:
$12,500.00 or one-half thereof on or before the 10th day of June 1956, being two years from the date hereof, and the balance of the 12,500.00 on or before the 10th day of June, 1958, being four years from the date hereof; after payment of the said last mentioned sum lessor shall execute and deliver to the lessee a good and sufficient deed to the said mining claims and property; in the event said option price of $25,000.00 is not paid as specified then the price for said mining claims and properties shall be $50,000.00 payable out of royalty or rental provided for in the foregoing lease. Any payments of royalty or rentals made under said lease shall apply on said option prices of purchase set forth hereinbefore, and shall be allowed as deductions in determining the balances due on said specified dates, and the term of this lease shall be for Ten years.

9. Failure on the part of lessee to comply with the terms and conditions of this lease shall at the option of lessors operate as a forfeiture of this agreement, but no such forfeiture shall be declared unless lessors first give actual notice in writing by registered mail to lessee of their intention to declare a forfeiture if the default complained of be not rectified within thirty (30) days after receipt of said notice of intention by lessor. For purposes of communication, the legal address of the lessee is Tonopah, Nevada.

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10. Lessee shall have the right to assign this agreement of lease and option of purchase and shall be permitted to sublease said mining claims in whole or in part. However, and such assignment must fully obligate any purchaser or sublessee to all of the terms of this agreement of bond and lease.

11. This agreement of lease and option of purchase shall inure to the benefit of and be binding upon the heirs, executors, administrators, and assigns of the parties hereto.

IN WITNESS WHEREOF, the respective parties hereto have hereunto set their hands and seals as of the day and year first hereinbefore written.

Cima, Calif. Signed: Mr. J. Lee Strawn, Lessor

Cima, Calif. " Mrs. J. Lee Strawn, Lessor

Tonopah, Nevada " Irven B. Bates, Lessee

STATE OF CALIFORNIA)
)
County of San Bernardinn)

On This 10th day of June, A.D., 1954, before me, Irvin D. Lane, a Notary Public in and for said County and State, personally appeared J. LEE STRAWN, NORA LOUISE STRAWN, and IRVEN B. BATES, known to me, to be the persons whose names are subscribed to the within Instrument, and acknowledged to me that they executed the same.

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

SIGNED: Irvin D Lane
Notary Public in and for said County and State.

My comission expires July 26, 1956.

(Notorial Seal Attached)

Death Valley Mine, comprising a group of 7 unpatented claims, is 3 miles east of Cima, a station on the Union Pacific Railroad. Elevation 4400 feet. Owner, J. Lee Strawn, Cima, California.

This property was discovered in 1906 by J. L. Bright of Kelso. In July of the same year, the Death Valley Mines Company, a Colorado corporation, took over and operated the mine until the close of 1907, when it became involved in litigation which was not cleared up until 1915. The present owner came into possession of the property at this time. His operations were conducted from 1917 to 1921, when it was shut down, except that the pumps were kept in operation until June 11, 1927. On this date the plant was destroyed by fire and the property has not again been active.

The mine is on a flat at the foot of the northeast slope of the New York Mountains and is easily accessible over a good road.

Two parallel veins have been found on this property. They are approximately 215 feet apart; strike NE.-SW., dip 45° SE. The hanging wall is diorite and the footwall is granite. The vein, as stoped, averages 4 feet in width. The ore below 60-foot level is argentite (silver sulphide) with small amount of galena. From surface to 60-foot level, the ore consisted of chloro-bromides of silver.

The property was developed by 2 shafts. The principal one, known as the Death Valley shaft, was sunk on an inclination of 45° to a depth of 400 feet. In the bottom it is wholly in diorite. Levels were driven at 100, 150, 200 and 400 feet. On the 150-foot level there is a drift 400 feet west and 200 feet east; on the 200-foot level there is a drift 300 feet west and one 230 feet east. The ore shoot which was stoped from the 200-foot level to the surface, was 400 feet long and had an average width of 4 feet. On the 400-foot level a crosscut was driven south a distance of 138 feet. A parallel vein 7 feet wide was encountered in this crosscut. Drifts were driven on this vein, east 125 feet and west for the same distance. Average value of this ore was as follows: Gold, 0.16 ounces, silver 17 ounces, lead 2.5%, zinc 1.5%, this being the average of 500 tons which was put through the mill. A 10-inch streak on the footwall carried higher values. This ore, sorted out and shipped, averaged gold 1.87 ounces, silver 67 ounces per ton.

Southwest of the Death Valley shaft, a distance of 1500 feet, is the Arcalvada shaft. This shaft was sunk on a 70° incline to a depth of 285 feet. At the 125-foot level there is a drift east 135 feet.

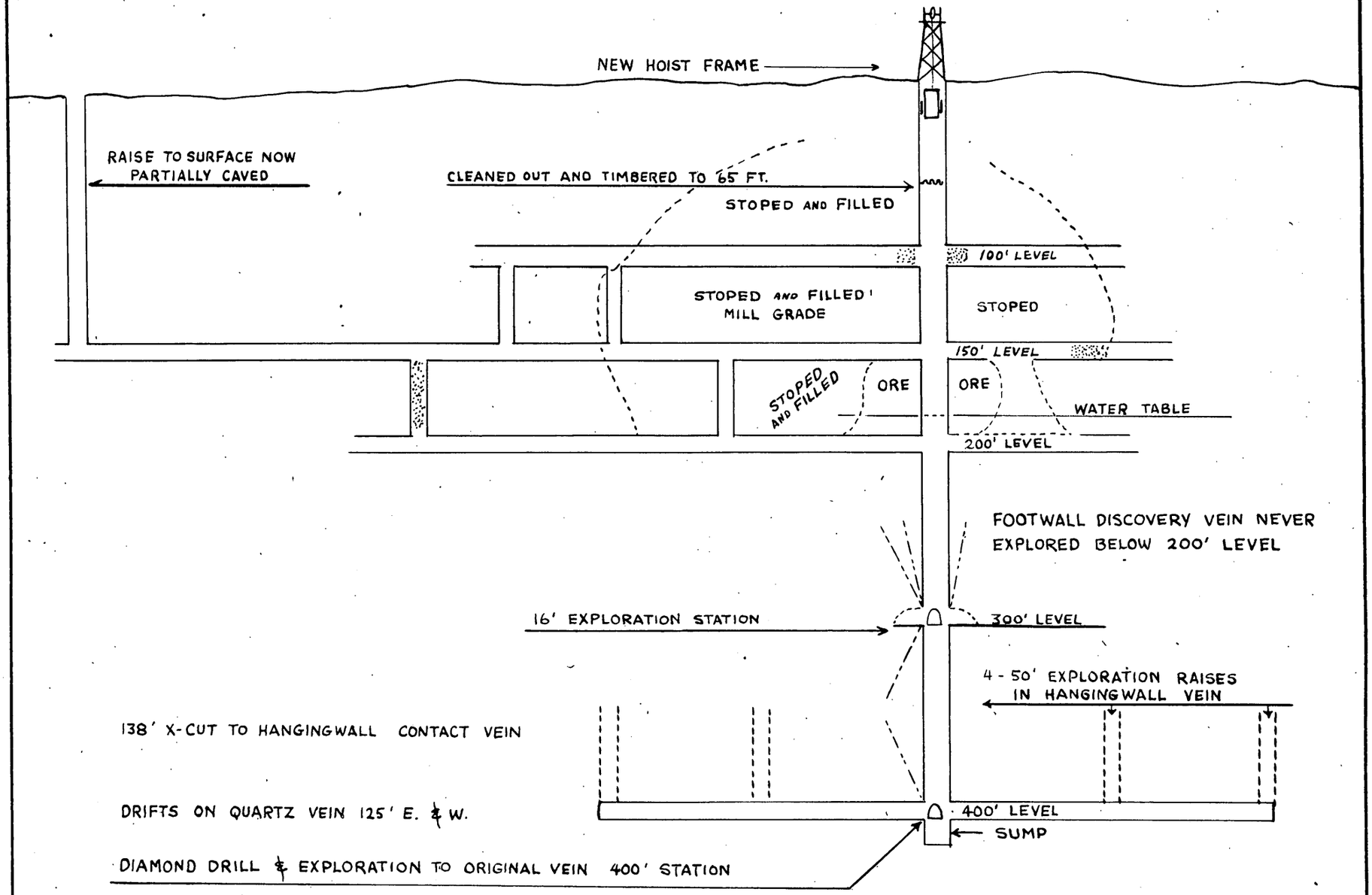
The average grade of the ore shipped from between the 200-foot level and the surface was: Gold 0.18 ounces, silver 75 ounces, lead 2.5%. Average of second grade ore, which was milled: Gold 0.09 ounces, silver 12 ounces. Average grade of the concentrates shipped: Gold 0.23 ounces, silver 110 ounces, 18 to 23% lead and 15% zinc.

Ore reserves now reported as follows: 500 tons on dump, averaging gold 0.10 ounces, silver 17 ounces, lead 1.5% to 2%; 6000 tons of second grade ore broken in the stopes; 2 blocks of ore between the 150- and 200-foot levels, 500 tons, average value, silver 35 ounces, gold 0.12 ounces. Total production to date $131,000, of which the original company produced $93,000 and the present owner $38,000.

The Death Valley shaft makes 45,000 gallons and the Arcalvada 30,000 gallons of water daily.

A concentration plant now on the property consists of the following: A 14-inch by 21-inch Blake-type crusher, elevator to Marathon rod mill; elevated to screens, 10-mesh; oversize returned to mill; screenings to cone classifier; coarse to Isbell concentrator; fines to double deck Deister table. Plant driven by electric motor. Capacity 30 tons per day of 24 hours.

There is a 6-room residence and a well-built camp which will accommodate more than 100 men. Idle.



LEGEND ~ ~

EXPLORATION WORK PLANNED - - - - - - - - -

DIAMOND DRILLED HOLES - - — - - — - - — - -

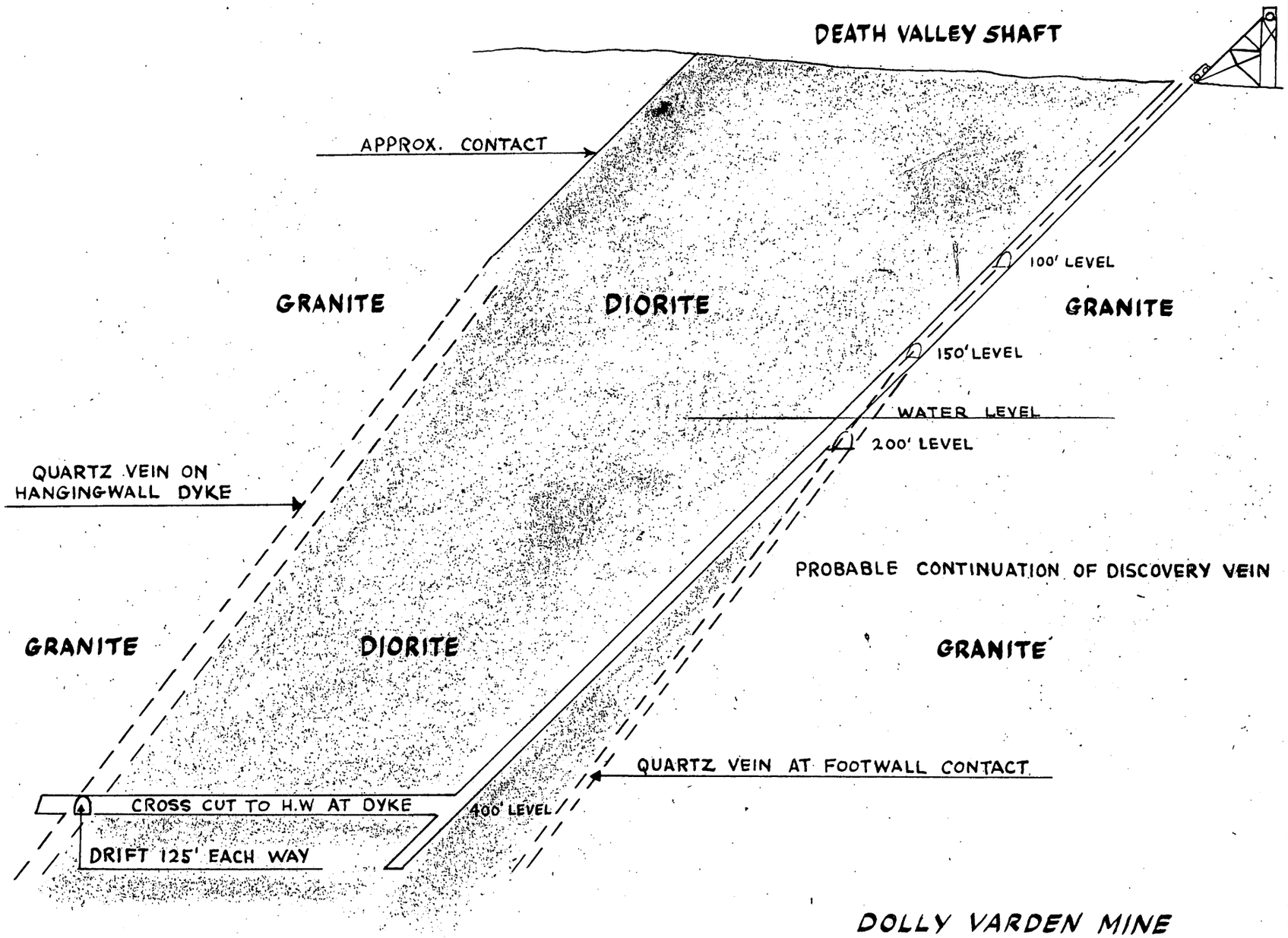
DOLLY VARDEN MINE

DEATH VALLEY SHAFT & WORKINGS

CIMA ~ SAN BERNARDINO CO. CAL.

LONGITUDINAL SECTION

SCALE 1 IN. = 50 FT.

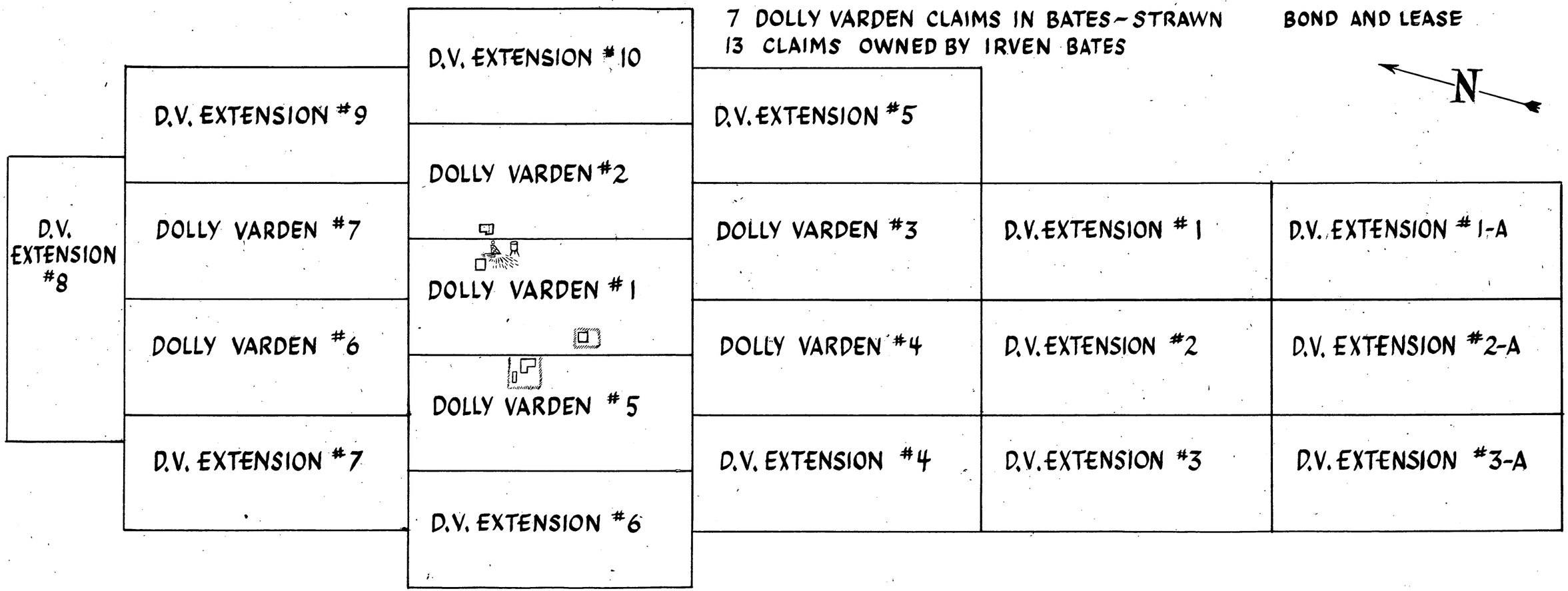


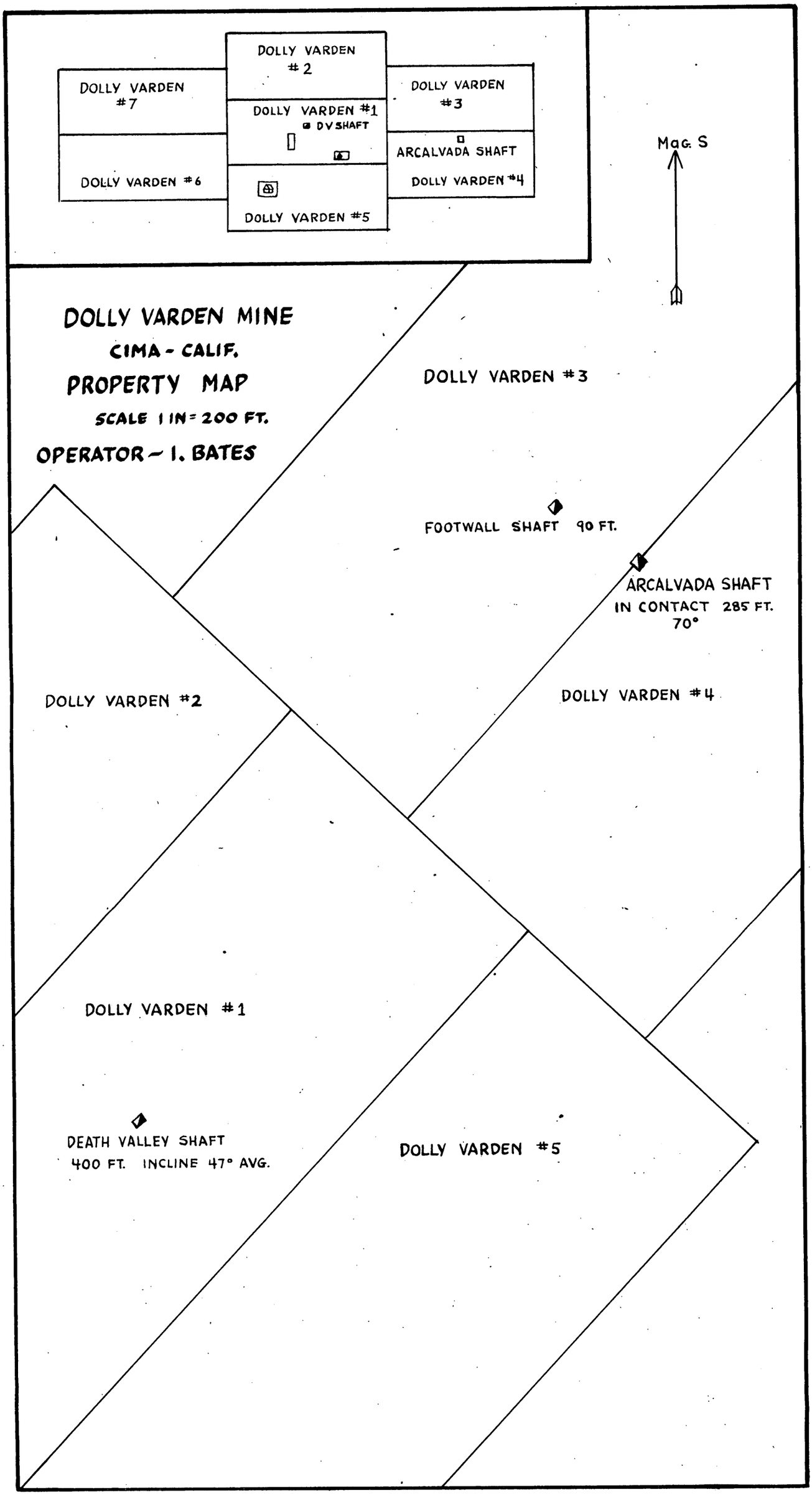
DOLLY VARDEN MINE
DEATH VALLEY SHAFT
CIMA - SAN BERNARDINO CO. CAL.
CROSS SECTION
THRU SHAFT
SCALE IN. = 50 FT.

CLAIM MAP~DOLLY VARDEN MINE~CIMA, CALIFORNIA

7 DOLLY VARDEN CLAIMS IN BATES~STRAWN
13 CLAIMS OWNED BY IRVEN BATES

BOND AND LEASE




DOLLY VARDEN #2
DOLLY VARDEN #7
DOLLY VARDEN #1
DV SHAFT
DOLLY VARDEN #3
ARCALVADA SHAFT
DOLLY VARDEN #6
DOLLY VARDEN #4
DOLLY VARDEN #5
Mag. S
DOLLY VARDEN MINE
CIMA - CALIF.
PROPERTY MAP
SCALE 1 IN = 200 FT.
OPERATOR ~ I. BATES
DOLLY VARDEN #3
FOOTWALL SHAFT 90 FT.
ARCALVADA SHAFT
IN CONTACT 285 FT.
70°
DOLLY VARDEN #2
DOLLY VARDEN #4
DOLLY VARDEN #1
DEATH VALLEY SHAFT
400 FT. INCLINE 47° AVG.
DOLLY VARDEN #5

420 CUSTOM HOUSE
555 BATTERY STREET
SAN FRANCISCO 11, CALIF.
OFFICIAL BUSINESS

SAN FRANCISCO CALIF. OCT 1 1951

AIR MAIL

Defense Minerals Exploration Administration
Interior Building
Washington 25, D. C.

AIR MAIL

FIRST CLASS