DMEA Form 9
Rev. 6/57

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE — Idm-E NO. 475 — DMEA NO. 2637

Application
- [ ] Denied
- [ ] Withdrawn

Contract
- [ ] Terminated - Not Certified
- [ ] Terminated - Certified
- [ ] Cancelled
- [ ] Royalty Agreement

The records contained in this file are marked (x) and arranged in this order:

Folder No. 1:

Left Side

- [x] Royalty Audits
- [x] Certification of Discovery
- [ ] Closing Letter
- [x] Cost Audits
- [x] Termination Notice or Agreement
- [ ] Recision Notice
- [ ] Assignment of Contract
- [x] Contract Amendments
- [x] Contract with all exhibits and annexes
- [ ] Owner's Consent to Lien and Subordination Agreement
- [x] Application and attachments

Right Side

- [x] Project summary (final)
- [x] Work Completed analysis (final)
- All other material filed in chronological order including the following reports if checked:
- [ ] Field Team Semi-Annual Report for Certified Project
- [x] Final Field Team Report (Tab) - Maps in separate folder
- [x] Operator's Final Report (Tab)
- [ ] Interim Field Team Reports
- [ ] Operator's monthly reports and all attachments
- [x] On-site Exam Report (Tab)
- [ ] Settlement Sheets
- [ ] Drill Logs

Additional Folders:

Left Side

Folders No. 2 : Reports
- [x] Analysis of Semi-Annual Inspection Reports
- [ ] Project Summary (Interim) by DMEA Engineers

Right Side

- [x] Field Team Semi-Annual Report for Certified Project
- [x] Field Team Interim Reports
- [x] Operator's Monthly Reports with transmittal, narrative and maps.

Folders No. 4 : Maps (Use pocket folder or envelope)

Folders No. 3 : Settlement Sheets

Folders No. _____ : Drill Logs

Folders No. _____ : Royalty material

Reported Inactive 12/28/59

17963

STATUS OF PROJECT, SCOPE OF REVIEW
AND REASONS THEREFOR

This contract provides that the Operator, or its successor in interest, shall pay to the Government a percentage royalty on all minerals produced from the land thereunder. The land consists of six patented claims in sec. 30, T. 38 N., R. 5 E., B.M., Lelande and Hunter Mining Districts, exclusive of dumps and tailing ponds existing prior to the date of the contract and certain developed ore reserves known as Blocks Nos. 1 and 2 and described in Amendment No. 3. At the time the contract was executed the Operator was the owner of five of the claims and possessor of one claim by virtue of an operating agreement with an associated company, The Square Deal Mining & Milling Co., Ltd. In consideration of the contract, Square Deal executed on October 22, 1952, an Owner's Consent to Lien covering the one claim (Manhattan Extension).

Exploration work under the contract was discontinued on August 31, 1954, and formally terminated by agreement on February 7, 1955. All mining operations were discontinued effective June 1, 1957. From the date of contract until discontinuance of operations an aggregate of 145.5895 SDT of lead concentrates were shipped to the Bunker Hill Company and 434.7945 SDT of zinc concentrates were shipped to the Washoe Sampler of The Anaconda Company. The $51,426.01 total proceeds on these shipments are covered by a prior Report of Royalty Review.

Inspections of the property and inquiries by DMEA and OME regional representatives disclosed no activity on the property from June 1, 1957, through July 14, 1959. In an August 28, 1962, reply to a MMH Form 63 inquiry, Mr. Wray Featherstone, the Operator's president and manager, advised that neither production nor change in property status had occurred since July 14, 1959.

This review was made in lieu of an on-site audit of the Operator's accounts and records for the following reasons:

(1) The files contain no evidence of any unreported production; and

(2) The administrative cost to the Government of an on-site royalty audit at this time would be excessive in relation to the amount of possible additional royalty which might be disclosed.

DESCRIPTION OF THE REVIEW AND STATEMENT OF JUSTIFICATION

Contract I4m-8875, Docket No. DMEA-2637

My review included a verification and tabulation of copies of settlement sheets covering sales of lead concentrates to The Bunker Hill Company and zinc concentrates to The Anaconda Company, Washoe Sampler, furnished by the Operator in support of remittances of royalty payments. There have been no mining operations at the property since June 1957. Reported production, sales and royalty payments are summarized as follows:

Concentrates	SDT	Net Proceeds	Royalty @ 5%
Lead	145.5895	$ 26,750.76	$ 1,337.55
Zinc	434.7545	24,675.25	1,233.75
Totals	580.3440	$ 51,426.01	$ 2,571.30

The review was made in lieu of an on-site audit of the Operator's accounts and records for the following reasons:

(a) Periodic inspections by representatives of the Field Team, Region I, have indicated that all sales subject to Government royalty have been reported, and

(b) The administrative cost to the Government of an on-site royalty audit at this time would be excessive in relation to the amount of possible additional royalty which might be disclosed.

File Copy
Surname

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

Griswold
Hotlund
Appd. Sol. Off.
Chandler
Hedges
Newcomb
Selfridge
Johnson

INTERIOR DEPT.
FEB 28 1955
SOLICITOR

CERTIFICATION BY THE UNITED STATES OF AMERICA OF A DISCOVERY OR DEVELOPMENT UNDER AN EXPLORATION PROJECT CONTRACT

To: Mr. A. H. Featherstone, President
Golconda Lead Mines
Wallace, Idaho

Pursuant to the provisions of Exploration Project Contract No. Idm-E475, dated January 14, 1953, Docket No. DMEA-2637, hereinafter called the "contract", between you and the United States of America, hereinafter called the "Government"; to establish and fix the Government's percentage royalty on production and its lien thereon and on the land described in the contract, the Government considers and therefore certifies that discovery or development from which production may be made has resulted from the exploration work.

The nature of said discovery or development is described broadly or indicated as follows: Drifting on the 1800 level of the Golconda mine has shown the existence of lead-zinc ores occurring within a vein in metamorphic rocks.

Dated: MAR 2 1955

THE UNITED STATES OF AMERICA

By O O Mitchell
Administrator, Defense Minerals
Exploration Administration

WRGriswold/er (written 2/24/55)
Copy to: Docket
Irving Gumbel, Dr.,MD,EPS
Mr. Hedges, 4604
Mr. Kiilsgaard, 5224
Admr R File
Op. Committee
Base Metals
Cont.Adm.&Audit Div.
Finance Office
Region I, NW Dist. (2)
Mr. F. E. Johnson
Mr. W. R. Griswold
M Chron.

Exploration Project Contract No. Idm-1475
Golconda Lead Mines
Docket No. DMEA-2637

Amendment No. 6

Exhibit "F"

WHEREAS, it is now apparent to the Operator and the Government that contract objectives can best be reached by permitting the use of a part of the contract funds originally intended for extra timbering for additional drifting and crosscutting over and above that provided for in the contract as previously amended;

WHEREAS, the contract as modified by Item 2 of Amendment No. 1 and by Amendment No. 4 provides a maximum of $83,000 for drifting and crosscutting, which at a unit price of $41.00 per foot, including ordinary timbering, allows for 2024.39 feet of drifting and crosscutting; and

WHEREAS, it is now apparent that 2035.70 feet of drifting and crosscutting are required to adequately test contract objectives;

NOW THEREFORE, the contract is hereby further amended to provide for an additional 11.31 feet of drifting and crosscutting over and above that provided in the contract as previously amended; thus bringing the total drifting and crosscutting allowed in the contract to 2035.70 feet. This additional drifting and crosscutting will be at locations mutually agreed on by the Operator and the Government. Funds amounting to $463.70 for this additional drifting and crosscutting will be at the expense of the $1,000 provided for extra timbering in Exhibit "A" of the contract, "Estimated Costs of the Project" under section "200 feet of extra timbering at $5.00 per foot." The unit costs of drifting, crosscutting and extra timbering as set forth in the contract are not changed by this amendment, but the total funds provided for extra timbering is reduced to $536.30.

Exploration Project Contract No. Idm-2475
Golconda Lead Mines
Docket No. DMEA-2637

Justification for Amendment No. 6

Disclosures made by the exploration work indicate that an additional 11.31 feet of drifting and crosscutting are needed to adequately test contract objectives. As only $150 of the $1,000 provided for extra timbering has been used, it is advantageous to use $463.70 of the funds originally intended for extra timbering for this additional drifting and crosscutting.

James J. Quinlan

Exploration Project Contract No. Idm-2475
Golconda Lead Mines
Docket No. DMEA-2637

Justification of Amendment No. 2

Experience gained from drilling short holes to test walls of drift in ground similar to that found to exist in areas being explored under this project has shown that results are not conclusive.

Desired information can be obtained at a moderate cost by driving "dog-hole" raises or crosscuts. It therefore became desirable both to the Government and the Operator to amend the contract to allow "dog-hole" raises or crosscuts in lieu of exploring by diamond drilling in those particular cases where drilling will not suffice.

A G R E E M E N T

THIS AGREEMENT, entered into this 24th day of July, 1947, between GOLCONDA LEAD MINES, a corporation organized and existing under the laws of the State of Idaho, hereinafter referred to as "Golconda", and SQUARE DEAL MINING & MILLING COMPANY, LIMITED, a corporation organized and existing under the laws of the State of Idaho, hereinafter referred to as "Square Deal", WITNESSETH:

WHEREAS, Golconda is the owner of a group of lode mining claims situated in Hunter Mining District, Shoshone County, Idaho, within which said group Golconda has developed and is now operating the "Golconda Mine", and upon which said group of claims Golconda has heretofore constructed and is now operating a concentration mill which is commonly known as the"Golconda Mill"; and

WHEREAS, Square Deal is the owner of a group of lode mining claims which lie adjacent to and northeasterly from Golconda's said group of claims and which are so situated that they could be explored at depth through the deep openings in Golconda's property more advantageously and economically than in any other manner;

NOW, THEREFORE, in consideration of the premises and in consideration of the work to be performed and of the expenditures to be made by Golconda, as hereinafter set out, and in consideration of the mutual benefits and advantages to be gained by both parties hereto, and in consideration of the covenants hereinafter mentioned, IT IS HEREBY MUTUALLY AGREED:

1. Golconda has heretofore driven a drift from its main haulage tunnel a distance of approximately 250 feet in a northeasterly direction on what is commonly known and referred to as the "Golconda Vein". Golconda shall continue driving said drift in a northeasterly direction into and for the purpose of exploring Square Deal's said group of claims. The entire cost of said drift shall be paid by Golconda without any charge of any character being made to or against Square Deal until said drift shall have reached a point six hundred(600) feet westerly from a plane projected vertically downward through the west end line of Square Deal's MANHATTAN EXTENSION claim, Mineral Survey No. 3192. From that point Golconda shall extend said drift in approximately the same direction into Square Deal's said property. Said drift shall be continued for such distance into Square Deal's Ground as in Golconda's judgement shall appear to be warranted by the geological conditions which shall be encountered. It is recognized by both parties hereto that it

would not be practicable at this time to specify in this agreement the distance said drift shall be entended into Square Deal's property, not to specify with particularity any additional work which shall be performed by Golconda in Square Deal's ground. IT IS UNDERSTOOD AND AGREED, however that in addition to driving said drift Golconda shall perform such other exploratory work, by crosscutting, raising, sinking or diamond drilling, in Square Deal's property as, in the judgement of Golconda, it shall be necessary to perform in order to thoroughly explore Square Deal's said ground.

2. Any an all drifting, crosscutting, raising or other work of an exploratory character which Golconda shall or may perform under the terms of this agreement beyond or northeasterly from the vertical plane mentioned in the last preceding paragraph shall be performed under the exclusive direction and supervision of Golconda, and Golconda shall be the exclusive judge as to the character and the amount of work to be performed and as to the place or places where said work shall be done. The entire cost of all drifting and other exploration work which shall or may be performed by Golconda northeasterly from said vertical plane shall be advanced and paid by Golconda but shall be charged to Square Deal, and the entire cost of all such work shall be repaid by Square Deal to Golconda in the manner following, that is to say, that Golconda shall keep a complete and detailed record of all its direct and indirect costs and expenses in connection with its performance of said work and with which Square Deal is being charged, and from time to time as Golconda shall furnish to Square Deal an itemized statement of such costs and expenses which have been charged to Square Deal, Square Deal shall issue and deliver to Golconda, in full payment of said charges, Square Deal stock at the rate of seven and one-half cents (7½¢) per share.

3. If as a result of this work to be performed by Golconda under the terms of this agreement, any commercial ore shall be found in any vein or veins which are owned by Square Deal by virtue of its ownership of the apex or apices of such vein or veins, or otherwise, then one-half of any and all such ore shall be and remain the property of Square Deal,and that the other one-half of any and all such ore shall become and remain the property of Golconda, and that upon demand therefor by Golconda, Square Deal will make, execute and deliver to Golconda a good and sufficient deed conveying one-half of any and all such ore to Golconda, or that without any such deed being so executed and delivered, this agreement shall be considered and treated as such conveyance.

4. If any commercial ore shall be found as in the last preceding paragraph set out, Golconda shall, of course, have the right to mine and extract its one-half thereof and it ismutually understood and agreed that Golconda shall also mine and extract Square Deal's share of said ore, that is to say, one-half thereof, and shall mill the same and shall keep accurate and complete records of all ore mined and milled for Square Deal and shall, in the name of Golconda, but for the account of Square Deal, ship and sell said ore or the concentrates derived therefrom to the smelter or smelters with which Golconda shall have smelting or selling arrangements, and Golconda shall pay over to Square Deal the full amount of net smelter returns which shall from time to time be received by Golconda for and on account of said ore or concentrates. The first payment of such net smelter returns to Square Deal shall be made by Golconda within sixty (60) days from and after the first shipment of such ore or concentrates to the smelter and thereafter settlements with Square Deal shall be made monthly by Golconda or at such other intervals as may from time to time be agreed upon by exchange of letters between the parties hereto. At the time each settlement is made Golconda shall furnish to Square Deal duplicates of all smelter settlement sheets pertaining to the ore and/or concentrates for or on account of which such settlement is being made. The term "net smelter returns", as herein used, shall be construed to mean the net amount (based upon normal metal prices) which shall be paid by the smelter or smelters for Square Deal's said ore or concentrates after the deduction of all smelter treatment charges and penalties an transportation costs upon such ore or concentrates from the mill to the smelter. If the United States Government or any agency thereof shall then be paying any premium or bonus or subsidy for or on account of the mining of Square Deal's said ore, then Square Deal shall make its own claim for and shall be entitled to collect such premium, bonus or subsidy.

5. Square Deal agrees to reimburse Golconda promptly upon receipt of billing for all costs and expenses incurred by Golconda which shall be properly chargeable to the mining, treatment and sale of Square Deal's said ore; that no charge or charges shall be made by Golconda against Square Deal for or on account of Golconda's mining, milling and marketing Square Deal's said ore over and above Golconda's actual costs, except that Golconda shall be entitled to make a reasonable charge against Square Deal for and on account of depreciation of Golconda's equipment and other facilities used in connection with the mining and movement of Square Deal's

ore. It is recognized by both parties hereto that it would be impossible to specify in this agreement exactly what charges shall or may be made by Golconda against Square Deal but it is understood and agreed that any and all charges which shall be so made shall be reasonable and equitable charges and that if ores are being mined or if work is being done by Golconda for itself or for other parties at the same time that Golconda is mining ore for Square Deal, then and in such event all of Golconda's costs which are not applicable to Square Deal alone shall be equitably and ratably apportioned between Square Deal and each and all of such other parties.

6. As and when Square Deal is billed for said costs and expenses, Golconda shall furnish Square Deal ststements in writing showing all of Golconda's charges against Square Deal in connection with the mining, processing and marketing of Square Deal's ore on account of which such billing is rendered. Such statements shall contain sufficient detail to fully inform Square Deal as to each item with which Square Deal has been or is being charged. Any and all questions which may arise with respect to the costs and expenses which Golconda shall be entitled to charge against the mining, treatment and sale of Square Deal's said ore, or with respect to the accounting procedure which shall be employed in arriving at the proper settlements between the parties hereto, shall be settled, if possible, by conferences between the managements of the parties hereto and shall be finally disposed of by exchange of letters but if such questions or any of them can not be settled and disposed of in this manner, then it is agreed that such questions or questions shall be settled by a decision of a majority of a panel of three arbitrators. One member of such panel shall be chosen by Golconda, one member by Square Deal and the two members thus chosen shall select the third member. Any and all data which shall be requested by such panel shall be promptly furnished by Golconda and said panel's determination of such question or questions shall be final and binding.

7. Golconda agrees that it will diligently and without any unnecessary delay prosecute all exploration work herein provided for and that if commercial ore shall be discovered in Square Deal's property at any time, Golconda will develop, mine and market said ore with reasonable diligence and without unnecessary delays. IT IS AGREED, however, that if by reason of strikes or other labor troubles or by reason of any Act or Acts of God or by reason of any other things beyond the control of the Golconda, it shall at any time or times be necessary to temporarily suspend said work, then such suspension or suspensions of work shall not be construed as a

default or as defaults under the terms of this agreement.

8. Golconda agrees that from and after the time the aforesaid drift shall enter Square Deal's ground Golconda shall furnish to Square Deal Monthly reports showing the character and amount of work that is being done in Square Deal's property and that if commercial ore shall be discovered in Square Deal's ground, then Golconda shall therea fter include in its said monthly repotts to Square Deal sufficient data to fully acquaint Square Deal with the amount and grade of ore that is being developed or mined and the amount, grade and value of the concentrates which are being produced from said ore after the commencement of milling operations.

9. It is further agreed that at any and all times Square Deal shall have the privilege of inspecting any and all work which is being done by Golconda under the terms of this agreement and that for such purpose the engineers and agents of Square Deal shall have the privilege of passing through Golconda's shaft and other underground workings, through which it may be necessary to pass, in order to reach the point or points at which work is being done hereunder. IT IS ALSO AGREED that Square Deal shall at any and all times have the privilege of observing Golconda's sampling of any and all ores which may be found in Square Deal's property and the privilege of observing Golconda's sampling of the concentrates produced from said ores and the privilege of having said ores or said concentrates sampled by its own geologists or other agents.

10. It is further agreed that Square Deal shall at any and all reasonable times have te privilege of examining or having examined any an all of Golconda's records which pertain to its mining, treatment and marketing of ore or concentrates under the terms of this agreement for the purpose of determining the correctness of the statements which are to be furnished by Golconda to Square Deal, as hereinabove provided, and that Square Deal shall have the privilege at any and all reasonable times of examining and making copies of any and all of Golconda's geological or other maps or charts pertaining to its work under this contract.

11. IT IS FURTHER EXPRESSLY UNDERSTOOD AND AGREED that Golconda shall have the perpetual right to use, without charge,any and all drifts, crosscuts, raises, sh shafts and other underground openings which may be driven or constructed under the terms of this agreement for the purpose of exploration and development work and/or mining operations not only in Golconda's own property but also in any and all other adjacent or nearby properties which may hereafter be acquired by Golconda or in

which Golconda may hereafter acquire any interest.

12. Throughout the life of this agreement Golconda shall at all times promptly pay any and all expenses which may be incurred by it for labor, materials, equipment and supplies and shall at no time permit any lien or other encumbrance to be imposed upon Square Deal's property or any part thereof by reason of any unpaid obligations which may have been incurred by Golconda in the performance of its work hereunder.

13. IT IS FURTHER UNDERSTOOD AND AGREED that throughout the life of this agreement Golconda shall not later than the first day of June in each and every calendar year subsequent to the year 1947, file in the office of the county recorder of Shoshone County, Idaho, an affidavit in the form provided by law in proof of the performance of all necessary assessment work for the protection of Square Deal's possessory rights in and to all of the unpatented claims in Square Deal's aforesaid group of claims.

14. IT IS FURTHER UNDERSTOOD AND AGREED that Square Deal's group of claims hereinabove referred to and to which this agreement pertains is the entire group owned by Square Deal that it includes the following named mining claims, to-wit:

> North Side, Amazon, Midnight, Midnight Extension, Apex, Jumbo, Arlington Manhattan, Manhattan Extension, and Square Deal, all of which were patented under Survey No. 3192, and Ketchikan which was patented under Survey No. 3218;

and any and all other claims which may at any time or times during the life of this agreement be located or otherwise acquired by Square Deal adjacent to or near Square Deal's present group of claims.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed in duplicate by their respective duly authorized officers the day and year herein first above written.

GOLCONDA LEAD MINES

By John A. Featherstone
Vice President

Attest:

W. H. North
Secretary

SQUARE DEAL MINING & MILLING COMPANY, LIMITED

BY A. H. Featherstone
President

Attest:

Margaret Featherstone
Secretary

State of Idaho)
) SS
County of Shoshone)

On this 24th day of July, 1947, before me, the undersigned, a Notary Public for the State of Idaho, personally appeared J. A. Featherstone and W. H. North, known to me and to me known to be the vice president and secretary, respectively, of Golconda Lead Mines, the corporation whose name is subscribed to the foregoing instrument, and severally acknowledged to me that said corporation executed the same.

Margaret Featherstone
Notary Public for the State of Idaho,
Residing at Wallace, Idaho

State of Idaho)
) SS
County of Shoshone)

On this 24th day of July, 1947, before me, the undersigned, a Notary Public for the State of Idaho, personally appeared A. H. Featherstone and Margaret Featherstone, known to me and to me known to be the president and secretary, respectively of Square Deal Mining & Milling Company, Limited, the corporation whose name is subscribed to the foregoing instrument, and severally acknowledged to me that said corporation executed the same.

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

John E. Wimer
Notary Public for the State of Idaho
Residing at Wallace, Idaho

NON-PRIVILEGED DOCUMENT

TO BE PHOTOCOPIED AND PRODUCED

DO NOT CODE

BATES NO. 0343

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

RECEIVED
JUL 25 1956

PROJECT SUMMARY REPORT

By: J. W. Alt July 12, 1956

1. Docket No. DMEA-2637 (Lead-Zinc)
   Contract No. Idm-E475
   Property: Golconda Mine
   Shoshene County, Idaho

   Operator: Golconda Lead Mines
   Insurance Building
   Wallace, Idaho

   Operator's Property Rights: Owner except the Manhattan Extension lode claim
   Agreement dated July 24, 1947.
   Owner's Consent to Lien dated October 22, 1952.

2. Contract dated January 14, 1953. To complete - 16 months.

   Work Authorized

   1. Drift east 1500 feet on the 1800-foot level.
   2. 2,000 feet of diamond drilling, EX size.
   3. Two 200 foot, two compartment timbered raises.

Estimated Cost of the Project
(Unit Costs - Short Form Contract)

1,500 feet of drifting @ $41.00/ft. including ordinary timbering. The cost per foot for drifting, where no ordinary timbering is necessary is $33.50/ft.	$61,500.00
200 feet extra timbering @ $5.00/ft.	1,000.00
2,000 feet of diamond drill holes @ $3.00/ft.	6,000.00
400 feet of timbered raises @ $53.75/ft.	21,500.00
Total Estimated Cost of Project	$90,000.00
Government Participation @ 50%	$45,000.00

Amendments

No. 1 Dated May 5, 1953.

1. The starting time is changed from 90 days to 120 days.
2. Delete the first sentence of item 1 under the "Description of the Work," and substitute: "1500 feet of drifting and crosscutting on the 1800-foot level of the Golconda Mine."

No. 2 Effective date , January 14, 1953.

1. Under "Description of the Work", add the following to to Article 2:

   "When approved by the Government, "dog-hole" crosscuts or raises may be driven in lieu of diamond drilling."

2. Under "Estimated Costs of the Project," deletions and additions are hereby made which changes the third item to read:

   "Either diamond drilling at $3.00/ft., or "dog-hole" raising and crosscutting @ $10.00/ft., the total combined costs of both not to exceed $6,000.00."

No. 3 Effective January 14, 1953.

Exempting certain dumps, tailing ponds and two blocks of ground from the land contained in the contract which is subject to royalty.

No. 4 Effective date March 10, 1954.

To allow for additional drifting and crosscutting in lieu of the raising as stipulated in item 3 of the "Description of the Work".

No. 5 Effective date May 13, 1954.

Extends completion time from 16 to 24 months or to January 13, 1955.

No. 6 Effective date January 30, 1954.

To allow for addtional drifting and crosscutting of 11.31 feet bringing the total up to 2035.70 feet. Funds amounting to $463.70 are taken from the $1,000.00 allowed for extra timbering.

Work Completed

Drifting and crosscutting (regular timber) 2,035.70 feet @ $41.00/ft.	$83,463.70
Extra timber 30 feet @ $5.00/ft.	150.00
Diamond drilling 259 feet @ $3.00/ft.	777.00
Total Cost of project	$84,390.70
Government's participation @ 50%	$42,195.35

Work on the project was started May 12, 1953 and was completed on August 31, 1954.

By mutual agreement the contract was terminated effective November 8, 1954.

3. Audit Certificate (Report of Review) dated December 23, 1954.

Total as billed by Contractor	$84,390.70
Exceptions None	
Total Accepted Cost	$84,390.70
Government Participation @ 50%	$42,195.35

Operator's final report - Received January 24, 1955
Field Team final report - Received May 29, 1956

4. Certification date: March 2, 1955.

The discovery consisted of lead-zinc ores occurring within a vein in metamorphic rocks. The ore reserves resulting from the work are stated to be 14,900 tons, with an average grade of 1.1 ounces of silver per ton, 1.7 per cent lead and 7.4 per cent zinc.

5. Comments

Despite the heavy ground conditions, problems arising from the the feathering out of the vein in places and offsetting of the vein along transverse faults, project work was carried out in a workmanlike manner by a competent Operator.

The main factor affecting the drifting cycle was the continuous maintenance necessary to keep the drifts open. The badly broken and sheared ground induced extreme pressures on the timbers, causing them to fail, and in places the ground under the track would heave.

Project work adequately tested the vein on the 1800 level. Although some marginal and submarginal ore was found, the results of the project work were very disappointing.

Although the vein on the 1800 level proved disappointing, there is no evidence to suggest that ore bottoms on or above this level. It is entirely conceivable that good ore shoots may occur at greater depth, but considering the disappointing results of exploration on the 1800 level, the cost of testing the vein at greater depth is not commensurate with the risks involved.

Government participation in further exploration is not warranted at this time. Company geologic work might demonstrate the presence of major exploration targets of which Government participation would be warranted.

J. W. Alt

J. W. Alt

JWA/er 7/13/56
Copy to: Docket
Base Metals
Chron.

☒ Audited

☒ Certified

K ANALYSIS SHEET - DMEA PROJEC

Analysis as of 12/22/54.
Incl. Voucher for August 1954.

☐ Actual Cost

☒ Agreed Unit Costs

Name Golconda Lead Mines

Docket No. DMEA-2637

State Idaho

Commodity Lead-Zinc

Idm-E No. 475

OPERATION	AUTHORIZED Units	AUTHORIZED Cost	COMPLETED Units	COMPLETED Cost	NET COST
Drifting & Crosscutting Solid	2,037'	⊙ $84,660.00	2,035.7'	$83,613.70	$83,613.70
Raising					
Shafts					
Winzes					
Drilling (Specify) Sixbite Reaches or Diamond EX	1,780'	5,340.00	259'	777.00	777.00
Surface Excavation					
Underground Excavation					
Roads and Trails					
Operating Equipment Purchased					
Surface Rehabilitation & Repairs					
Underground Rehabilitation					
New Building, Improvements, etc.					
Other (Specify)					
Totals		$90,000.00		$84,390.70	$84,390.70

⊙ Includes 200' of timbering @ $5/ft or $1,000.00

Termination Agreement Signed. Total Royalty Payments to 12/31/55 $584.09

Waiting for Final Lease Report.

Royalty Expiration date = January 14, 1963.

Prepared by W. P. Klugescheed

Ore Reserve Estimate: 14,900 tons @ 7.4% Zn, 1.7% Pb, 1.1 oz Ag.

~~Expiration date of royalty payments:~~

Work has been continued by the Operator.

X copied

71626

Columbia Gas Alliance

Wallace Bridge

RECEIVED 3 1957

DATE

9/3 220

9/4 800

9/4 500

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

RECEIVED
MAY 29 1956

May 22, 1956

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

Re: Docket No. DMEA-2637 (Lead-Zinc)
Golconda Lead Mines
Golconda Mine
Shoshone County, Idaho
Contract No. Idm-E475

FINAL F.T. Report

Dear Mr. Selfridge:

Enclosed are four copies of a Field Team Final Report written by Eric G. Erickson, Mining Engineer, Bureau of Mines, and James J. Quinlan, Geologist, Geological Survey, on the Golconda mine.

The writers state that Government participation in further exploration is not warranted at this time. A certification of discovery has been issued as a result of exploration work on the 1800 level.

The Field Team concurs in the recommendations of the writers.

By Field Team, Region I, NW District

Wing G. Agnew

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

Verne C. Fryklund

Verne C. Fryklund, Jr., Acting Member
U. S. Geological Survey

Enclosures
cc: USBM(2)
USGS(SRO)
Quinlan

Reviewed by
DMEA OPERATING COMMITTEE
6-4-56
(date)

Maps in separate folder

DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

FIELD TEAM, REGION I
Northwest District

RECEIVED
MAY 29 1956

FINAL REPORT

Contract Idm-E475

by

Eric G. Erickson
Mining Engineer
U. S. Bureau of Mines

James J. Quinlan
Geologist
U. S. Geological Survey

GOLCONDA LEAD MINES
Insurance Building
Wallace, Idaho

Docket No.:	DMEA-2637
Commodity:	Lead-Zinc
Contract date:	January 14, 1953
Termination date:	November 23, 1954

Reviewed by
DMEA OPERATING COMMITTEE
6-4-56
(date)

GOLCONDA MINE
Lelande and Hunter Mining Districts
Shoshone County, Idaho

Spokane, Washington

May 1956

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7	Vert. Longitudinal Projection, Golconda Mine, Shoshone County, Idaho. Scale 1" = 50'	In pocket

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MAY 29 1956

FINAL REPORT

GOLCONDA LEAD MINES
Golconda Mine
Lelande and Hunter Mining Districts
Shoshone County, Idaho

Contract Idm-E475

* * * *

INTRODUCTION

This report describes an exploration project at the Golconda mine, Shoshone County, Idaho. The project was conducted jointly by Golconda Lead Mines, an Idaho corporation and Defense Minerals Exploration Administration.

Summary

The project was undertaken to test the Golconda vein on the 1800 level east of the area under the Main ore body which was tested in 1931 and in particular to test the area under an ore body which was found in the eastern part of the 1000 level in 1948.

Contract work completed consisted of 2,035.7 feet of drifting and crosscutting and 259 feet of diamond drilling. Besides authorized contract work the company on its own account completed 55 feet of drift rehabilitation, 77 feet of raising on the vein, 32 feet of doghole raising, and 925 feet of long-hole drilling in the DMEA exploration area. Contract work was done on a unit cost basis at a total cost of $84,390.70 of which the Government's share was 50 percent or $42,195.35.

Project work adequately tested the Golconda vein on the 1800 level. The vein tested was of only minor economic interest, and the company abandoned the level on completion of project work. In all, about 15,000 tons of marginal and submarginal ore were

indicated by project work. Of this 15,000-ton reserve 3,300 tons are in a structure similar to those being mined, under leasing systems, in other portions of the mine and by other operators in the Coeur d'Alene district.

Recommendations

A certification of discovery has been issued as a result of exploration work on the 1800 level.

Government participation in further exploration is not warranted at this time. Company geologic work might demonstrate the presence of major exploration targets of which Government participation would be warranted.

LOCATION AND ACCESSIBILITY

The Golconda mine is in sec. 30, T. 38 N., R. 5 E., B.M., Lelande and Hunter Mining Districts, Shoshone County, Idaho. It is about 2 miles east of Wallace, Idaho. The portal of the Main Adit level (1000 level) is on the north side of a valley traversed by the South Fork of the Coeur d'Alene River and adjacent to U. S. Highway 10 and the Wallace branch line of the Northern Pacific Railroad. The altitude of the portal is about 3,025 feet; altitudes on the property range from 2,900 to 4,700 feet.

The terrain in the vicinity of the property is of sharp relief and is covered with a moderately heavy growth of vegetation and thick overburden; thus many of the geologic features are obscured. The winters are severe, and snowfall is heavy. The nearness of the property to the highway makes it readily accessible throughout the year.

PROPERTY

The Operator's property rights as listed in the contract include the following patented mining claims:

Claim name	Number
Klondike	2215
Raymond	2885
Lead	2991
Juneau	2215
Snowflake	2215
Manhattan Extension	3192

The Operator owns all the above-listed claims with the exception of the Manhattan Extension which is held by lease.

History

The mining properties in the vicinity of the Golconda mine were first prospected before 1900. Shortly after 1900 mining properties owned by Hector Mining Co., Ltd., Mayflower Mining & Development Co., and the Square Deal Mining & Milling Co. were consolidated into what is presently known as the Golconda mine. The Square Deal Co., incorporated in 1906, still exists as an independent company although the stock is controlled by the Golconda Lead Mines.

The main 1000 level crosscut was driven 5,130 feet between the years 1900 and 1920 through the efforts of the Mayflower and Hector companies. The two companies continued until 1926 when the property of the Hector Mining Co., Ltd., and use of the Mayflower 1000 level crosscut were leased to N. C. Sheridan, A. H. Featherstone, and associates of Wallace, Idaho. The structure known as the Golconda vein was explored and developed.

The Golconda Lead Mines was incorporated on January 18, 1927, and development including drifting and sinking the north shaft 200 feet was completed during 1927. A 200-t.p.d. mill was completed by August 1928 to mill the ore. The Mayflower property was acquired, and the north shaft was deepened to the 1400 level. A south shaft was raised from the 1400 level in 1929, and in 1930 this shaft was deepened to the 1800 level.

Development of the property on the 1000, 1400, and 1600 levels was more or less intermittent from 1931 through 1946. The 1000 level was explored easterly during the period 1947-50. A winze was sunk on an ore shoot found near the face of the east drift on the 1000 level, and some development work and stoping was done. The total underground development as of 1951 exceeded 22,000 feet. A small production, mostly by lessees, has been maintained to the present time. During 1953-54, 2,035.7 feet of drifting and 259 feet of core drilling was completed under a DMEA exploration project contract.

The company is presently opening the 1600 level and plans on drifting easterly to the ore shoot indicated on the 1800 level and mined on the 1000 level and 1150 sublevel.

The mine workings have a vertical extent of about 1,000 feet and about 2,400 feet along strike. The mine has seven levels, namely, 800, 1000, 1150, 1200, 1400, 1600, and 1800. The vertical

level interval is not standard and ranges from 110 to 190 feet. The mine workings, for the most part, require timber support, and due to the heavy ground considerable maintenance is necessary.

The dead-end workings are ventilated by electric-driven fans and 12-inch galvanized tubing. Workings below the 1000 level are drained by intermittent operation of electric pumps.

The surface plant comprises five frame buildings used for compressor house, shop, 20-man change house, office, and motor barn. The buildings are in good condition. A 1,000 c.f.m. compressor, 75 h.p. D.D. electric hoist, a 4½-ton and a 2½-ton battery motor are the major equipment items. The mine is also equipped with mine cars, drills, electric fans, repair shop equipment, electric cap lamps, and sundry mine equipment. A 200-t.p.d. modern flotation mill is located on the property. Although the mine production is small, the mill is kept in more or less continuous operation by the volume of custom milling.

GEOLOGY

The general geology of the Coeur d'Alene district has been described in the following:

Ransome, F. L., and Calkins, F. C., 1908, Geology and ore deposits of the Coeur d'Alene district, Idaho: U. S. Geol. Survey Prof. Paper 62.

Umpleby, J. B., and Jones, E. C., 1923, Geology and ore deposits of Shoshone County, Idaho: U. S. Geol. Survey Bull. 732.

The general geology in the vicinity of the Golconda mine is best shown on a map prepared by R. E. Wallace, A. B. Griggs, and S. W. Hobbs, Geologic map and structure sections of the Mullan and vicinity Quadrangle, Idaho: U. S. Geol. Survey Open File map, 1953.

The country rock of the Coeur d'Alene district consists principally of quartzites and argillites of the Precambrian Belt series that have been folded, faulted, and intruded by granitic stocks and dikes of various types. The Belt series in the district consists, from the bottom up, of the Prichard, Burke, Revitt, St. Regis, Wallace, and Striped Peak formations. The series has an exposed total thickness of 23,000 feet.

The largest structural feature of the Coeur d'Alene district is the Osburn fault. This fault crosses the district in a west-northwesterly direction and is believed to have a post-ore strike-slip component of movement of about 16 miles, the south block having moved west relative to the north block.

The productive veins of the Coeur d'Alene district are localized along definite parallel zones or belts that, for the most part, trend slightly more northwest than the trend of the Osburn fault. In all, seven distinct belts and an eighth less perfect-developed belt are recognized. Two of the seven distinct belts lie south of the Osburn fault, and the others lie north of the fault. The eighth and less perfect-developed belt lies just north of the Osburn fault and is essentially parallel to it. The Golconda mine is near the western end of this eighth belt that extends from just west of Wallace to a point east of Mullan, a distance of over 6 miles. The Golconda and Lucky Friday mines are the only properties along this belt that have had any significant production, but likely prospects along the belt include the Alice, United Lead-Zinc, and Sisters.

Plate 1 accompanying this report shows the geology of the principal adit level workings in the vicinity of the Golconda mine and illustrates the general geologic setting of the deposit. It will be noted that the principal workings lie within a block of ground bounded on the south by the Osburn fault and on the north by the Golconda fault. Within the vicinity of the Golconda mine the Osburn fault strikes N. 80° W. and appears to be essentially vertical. The Golconda fault also strikes N. 80° W., and available information suggests that it dips steeply northeastward. The block of ground between these two faults is highly shattered and folded. Numerous late normal faults within this block as well as a few later reverse faults offset the Golconda vein a few to a few tens of feet.

The slightly metamorphosed sedimentary rock exposed in the Golconda workings within the block of ground between the Osburn and Golconda faults are a part of the upper section of the Prichard formation and the overlying Burke formation. That part of the Prichard formation exposed in the workings consists of dark-colored argillites interbedded with gray to white quartzites that are similar to the relatively thin-bedded quartzites of the overlying Burke formation. Although these rocks are highly contorted, the general regional trend of the formations is northward and the regional dip eastward at a moderate angle.

Hydrothermal bleaching of the metasediments is apparent at many places throughout the mine. Sideritization and "silicification" are prominent in areas adjacent to veins and some faults. The quartzitic rocks appear to be much more susceptible to bleaching than the dark-colored argillites.

The principal ore-bearing structure of the mine is the Golconda vein. The position of this vein in relation to the major structures in the area is shown on plate 1. The detailed geology of the vein and adjacent area is shown on the company's 50-scale

geologic level maps, copies of which also accompany this report. Plate 2 shows the geology of the 800, 1000 (Adit Level), and 1150 levels; plate 3, the geology of the 1200 and 1400 levels; plate 4, the geology of the 1600 level; and plate 5, the geology of the 1800 level.

The Golconda vein strikes approximately east except for a short section in the western area of the mine where it strikes N. 75° E. It dips 50°-75° S., averaging about 60° S. (pl. 6, geologic cross section of the vein through coordinate 5500 E.). The vein occurs within a highly sheared and shattered fault zone. The geologic map of the 1800 level, plate 5, illustrates the nature of this zone and shows the contorted nature of the bedding within the zone. Although it is not possible to accurately determine the movement along this fault, geologic mapping on the 1000 level shows that it is a reverse fault having a strike-slip component of movement of approximately 1,000 feet (pl. 1). The Golconda vein is cut off by the Golconda fault in the eastern part of the mine on the 1000 level. Work to the east of the Golconda fault has failed to locate the vein.

Although locally small ore lenses occur at many places along the Golconda vein, most of the ore is confined to two separate and distinct bodies or shoots. These bodies, designated as the Golconda Main and East ore shoots, are best illustrated on the company's vertical longitudinal projection of the Golconda vein, plate 7 accompanying this report. Both ore shoots rake toward the east. The Main ore shoot has been mined from about 50 feet above the 800 level to the 1600 level with the greater part of the ore occurring in the block of ground between the 1000 and 1400 levels. Between the 1000 and 1400 levels the length of the ore shoot ranges from about 350 to 500 feet. The East ore shoot has been mined from about 50 feet above the 1000 level to the 1150 level. This ore shoot is about 300 feet long. Within these two ore shoots the vein is reported to average 4 to 5 feet in thickness and consists of argentiferous galena and sphalerite in a quartz-siderite gangue. The ore in many places is sheared and contorted and even gougelike.

In addition to the Golconda vein, several other smaller veins have been found on the property. The most important of these is the Mayflower vein, which is immediately north of the Osburn fault. Over 2,500 feet of drifting was completed along this vein on the 1000 level, but the workings are now inaccessible (pl. 1). Several irregular pods of ore are reported to have been found along this vein, but the intense shattering and shearing made it difficult to follow the ore for more than a few or a few tens of feet.

THE PROJECT

The project was undertaken to test the Golconda vein on the 1800 level east of the area under the Main ore shoot and, in particular, to test the area under the East ore body which was found on the 1000 level in 1948. The company had conducted exploration on the 1800 level under the Main ore shoot in 1931 but had abandoned the level prior to the finding of the East ore shoot on the 1000 level. Company maps (pls. 3 and 7) also indicated that the 1400 level workings which were driven about 1932 extended into the area under the rake of the East ore shoot. An adequate geologic record of the nature of the vein exposed in the workings under Main and East ore shoots was not available when the company presented its application and the workings were inaccessible. It appeared quite possible, however, that a part of the 1400 level workings under the East ore shoot was not on the vein or that exploration had not been extended far enough eastward to test all possibilities in the area. The cost of rehabilitating the 1400 level, however, precluded opening it up to examine the area under the eastern ore shoot. Although it was apparent that early work under the two ore shoots had proved disappointing, there was no sound geologic reason on the basis of available information to suggest that all ore bottomed above the 1800 level or that other ore bodies might not be found on this level. Under the circumstances and in the light of finding a sizable ore body in the eastern area of the mine on the 1000 level it was believed that testing of the eastward extension of the Golconda vein on the 1800 level was warranted.

At the time the company presented its application, the shaft to the 1800 level was being rehabilitated and the company expected to have the 1800 level rehabilitated so that drifting under the proposed contract could start from the old east drift face (pl. 5). The contract, dated January 14, 1953, allowed 16 months for the completion of work and provided for 1,500 feet of drifting to test the Golconda vein on the 1800 level east of the area previously explored; two 200-foot raises to test any ore bodies found during the course of exploration; and 2,000 feet of diamond drilling to test the walls of the drift for offset segments of the vein or possible parallel structures. Because of unforeseen circumstances and conditions it was necessary to modify the work program.

In all, the contract was amended six times; five of the amendments, that is, Nos. 1, 2, 4, 5, and 6, directly affected the work, whereas, one of the amendments, that is, No. 3, excluded from royalty payments certain reserve blocks and dumps that were known to exist prior to the contract but which inadvertently had not been excluded from the contract when it was prepared.

Amendment No. 1 was made because considerable difficulty was experienced in rehabilitating the 1800 level to the old east drift face, and contract work could not start from this face as scheduled. The amendment allowed an additional 30 days or a total of 120 days after the date of the contract in which to start work and changed the contract so that the 1,500 feet of proposed drifting would start at a point determined by the Government. This permitted the use of contract funds in driving a crosscut around a cave that blocked the east drift about 180 feet west of the old face.

As work progressed, it became apparent that more than 1,500 feet of drifting and crosscutting would be required to test the vein adequately on the 1800 level. An additional 537.5 feet of drifting and crosscutting was provided for by Amendments No. 4 and 6. Amendments No. 4 and 6 permitted the use of all or part of the contract funds originally intended for raising and a part of the funds originally intended for extra timbering for additional drifting and crosscutting. Because of certain unavoidable delays and heavy ground contract work could not be completed in the 16 months originally allowed, therefore, Amendment No. 5 was made allowing a 24-month period in which to complete the work. In addition, Amendment No. 2 was prepared to allow the company to drive doghole raises or crosscuts, in lieu of short diamond drill holes, to test the immediate walls of the drift. Although the company completed one doghole raise prior to the effective date of the amendment, no more doghole workings were required.

Thus, as amended, the contract in effect provided for 2,037.7 feet of drifting and crosscutting to test the Golconda vein on the 1800 level and 2,000 feet of diamond drilling or, where applicable, doghole raises or crosscuts to test drift walls for offset segments of the vein or possible parallel structures.

Contract work was started May 12, 1953, and completed August 31, 1954. Contract work completed included 2,035.7 feet of drifting and crosscutting and 259 feet of diamond drilling. Besides approved contract work, the company on its own account completed 55 feet of drift rehabilitation, 77 feet of raising on the vein, 32 feet of doghole raising, and 925 feet of long-hole drilling in the DMEA exploration area during this period. This work is shown on plate 5 accompanying this report.

The details of the geology exposed by the DMEA work are shown on the geologic map of the 1800 level (pl. 5). It will be noted that the vein zone is highly contorted, sheared, broken, and cut by numerous transverse faults. The vein within the shear zone is in places quite strong and distinct, but in other places it feathers out into a weak and indistinct structure. Many of the transverse faults offset the vein a few to a few tens of feet. Because

of problems arising from the feathering out of the vein, offsetting of the vein along transverse faults, and heavy ground conditions, it was not always possible to follow the vein with the exploration heading.

After 45 feet of drifting the vein was cut by a fault. The company believed the drift was entering a zone of small faults that had both right- and left-hand throws and following each vein segment would be very difficult.

It was, therefore, decided to crosscut northeastward on bearing to try to pick up the vein east of this zone. This work, however, failed to locate the vein as expected, but it did prospect an area for about 150 feet in the footwall of the vein (pl. 5). Work was then undertaken to locate the vein south of the drift, which was done, and the vein was followed eastward for about 330 feet to a point about 10 feet west of Survey Station 1814A.

In the vicinity of Survey Station 1814A the vein appeared to be feathering out, and it also was cut by a number of transverse faults. As it would be very difficult to follow the vein through such a section and inasmuch as the area under the East ore shoot was still some 700 to 800 feet east, it was decided to drive the drift on bearing, testing the vein by drill holes from the drift as work progressed. The drill holes failed to disclose a favorable structure so drifting was continued on bearing for about 780 feet to a point near Survey Station 1822 where the vein was again picked up. The Operator then followed the vein eastward for about 100 feet where a heavy flow of water was encountered at the face. This large inflow of water caused the clay within the vein zone to swell, giving rise to an extremely heavy ground condition, and the heading had to be temporarily abandoned. When work was resumed, the last 140 feet of drift was caved, and it appeared advisable to drive a crosscut around the caved area rather than rehabilitate the old heading. This runaround crosscut started at a point near Survey Station 1821A and continued about 240 feet east where a large fault was cut (pl. 5). Although not recognized at the time, the hanging-wall zone of this fault had been cut at the face of the main drift heading where the large flow of water was encountered. Crosscutting and long-hole drilling east of the fault failed to locate the vein so the project work was terminated by mutual agreement.

The company correlates the large fault encountered in the drift and the runaround crosscut with the Golconda fault which is exposed on the 1000 level. This correlation, however, may not be valid. In order to correlate the two, it is necessary to assume that the Golconda fault dips about 60° SW., whereas, available evidence in the upper part of the mine suggests that it dips steeply northeastward, and the fault exposed in the runaround crosscut dips steeply southwestward.

The results of the work were disappointing. Although the Operator milled approximately 1,250 tons of development rock from the DMEA exploration heading and an additional 300 tons from a company raise in the exploration area, the grade was very low. All rock milled came from three marginal or submarginal ore shoots. Two of these shoots are immediately east of the area under the Main ore body and the third in the area under the East ore body.

The first shoot is about 50 feet in length and extends from a point 15 feet east of Survey Station 1811A to a point about 5 feet east of Survey Station 1812A (described in the Operator's Final Report as from Survey Station 1811A + 5 for 60 feet). Within this area the vein ranges in width from 1 to 2.5 feet and contains excellent zinc values. Three samples taken across the vein in this area averaged 1.83 feet in width, 3.1 ounces of silver per ton, 3.56 percent lead, and 22.45 percent zinc. The Operator milled approximately 280 tons of development rock from this area. Car samples of this rock averaged 0.57 ounce of silver per ton, 0.63 percent lead, and 4.73 percent zinc.

The second shoot is about 90 feet in length and extends from a point 40 feet east of Survey Station 1813A to a point 130 feet east of this station (described in the Operator's Final Report as from Survey Station 1813A + 55 feet for 90 feet). On the level within this area the vein varies in width from less than a foot to over 4 feet. Eight samples taken across the vein in this area averaged 1.71 feet in width, 4.57 ounces of silver per ton, 7.74 percent lead, and 23.24 percent zinc. The Operator milled approximately 515 tons of development ore from the level in this area. Car samples of this ore averaged 0.64 ounce of silver per ton, 0.91 percent lead, and 5.21 percent zinc. A raise (pl. 6) was driven on company account near the western margin of the second shoot. This raise follows the vein for a distance of 77 feet. Sublevel drifts were driven 15 feet east and west from the top of the raise. Cut samples of the vein taken from the last 40 feet of the raise averaged 1.9 feet in width, 2.12 ounces of silver per ton, 4.16 percent lead, and 21.73 percent zinc. The Operator reports approximately 300 tons of ore from the raise were milled. Available car samples indicate that this ore averaged about 0.5 ounce silver, 1.4 percent lead, and 7.6 percent zinc.

The third shoot is about 100 feet in length and extends from a point 25 feet west of Survey Station 1822A to the main east drift face (described in the Operator's Final Report as 110 feet long between Survey Station 1821A + 42 feet and 1823 + 23 feet). The vein in this third area is strong but low grade. The principal vein is about 7 feet wide and contains appreciable amounts of gouge and quartz. Stringers and irregular lenses of sphalerite with subordinate amounts of galena occur throughout the vein; however, they

appear to be more numerous in the footwall portion. The only cut sample taken in the area was taken by a DMEA representative. This sample 7.3 feet wide assayed 0.2 ounce of silver per ton, 0.3 percent lead, and 8.4 percent zinc. The Operator milled approximately 450 tons of development ore from this area. Car samples of this ore averaged 0.26 ounce of silver per ton, 0.40 percent lead, and 3.01 percent zinc.

Ore Reserves

It is difficult to assign a tonnage estimate to the marginal and submarginal ore shoots found on the 1800 level because there is little information as to the vertical continuity of ore within them. The one raise within the limits of the second ore shoot, however, does show that the ore continues at least to the top of the raise or 77 feet above the level. Although the 1600 level workings extend into the area up dip from the first and second ore shoots, these workings are inaccessible; company maps, however, show several raises and sublevel workings off the 1600 level in the vicinity where these shoots would project through. For these reasons it appears logical to assume for the purpose of reserve calculation that the first and second ore shoots extend to the 1600 level which on the dip of the vein would be about 150 feet.

The third shoot which is very low grade and of little economic importance presents a very different problem. True, this shoot is in an area down rake from the large East ore body on the 1150 level, but it is not prudent to connect the two, particularly, in that the 1400 level workings also extend under the East ore body. There is, however, very little geologic information on the nature of the vein for the easternmost 250 feet of the 1400 level, and it may even be that a part of these workings are not on the vein. Under the circumstances it appears best for the purpose of reserve calculation to assume that the third ore shoot also extends to the 1600 level.

Tabulated below are the reserve blocks:

Block I (First Ore Shoot)

Location: 15 feet east of Survey Station 1811A to 5 feet west of Survey Station 1812A

Length of shoot indicated on 1800 level - 50 feet

Width of shoot indicated on 1800 level - 1.8 feet

Tons shoot would contain if continuous to 1600 level - 1,200

Grade based on cut samples on 1800 level - 3.1 ounces silver, 3.6 percent lead, and 22.5 percent zinc

Block II (Second Ore Shoot)

Location: 40 feet east of Survey Station 1813A to 130 feet east of Survey Station 1813A

Length of shoot indicated on 1800 level - 90 feet

Width of shoot indicated on 1800 level - 1.7 feet

Tons shoot would contain if continuous to 1600 level - 2,100

Grade based on cut samples on 1800 level - 4.6 ounces silver, 7.7 percent lead, and 23.2 percent zinc

Block III (Third Ore Shoot)

Location: 25 feet west of Survey Station 1822A to Main East drift face

Length of shoot indicated on 1800 level - 100 feet

Width of shoot indicated on 1800 level - 7 to 10 feet

Tons shoot would contain if continuous to 1600 level - 11,600

Grade based on development rock samples on 1800 level - 0.3 ounce silver, 0.4 percent lead, and 3.0 percent zinc

Summary

Indicated ore

Block	Tons	Oz.Ag	%Pb	%Zn
I	1,200	3.1	3.6	22.5
II	2,100	4.6	7.7	23.2
		Submarginal rock		
III	11,600	0.3	0.4	3.0
	14,900			

There is also some ore on the margins of old stopes in the levels above the 1800 level. It is difficult to estimate the tonnage and grade of the ore remaining, but it is not large.

Exploitation Possibilities

The Operator has abandoned the 1800 level drifts, at least for the present time, and is opening the 1600 level east workings. He plans to mine the fringes of the old stopes on the 1600 level and may extend the level easterly. The grade of the ore being mined by lessees from the fringes of the old stopes on the 1600 level has averaged about 5.5 percent lead, 8.0 percent zinc, and 4.0 ounces of silver per ton. Unless the ore grade shows an improvement when encountered by the extension of the 1600 level drift, it cannot be mined below this level at the present prices mainly because of the rehabilitation necessary to open the 1800 level drifts, high maintenance cost, and the high ratio of zinc to lead in the ore. Lead concentrates net about 70 percent of the gross metal value whereas zinc concentrates net about 50 percent of the gross value. Eighty-five percent of the silver is in the lead concentrates as almost all the silver is associated with the lead ore.

The mine production record, according to data furnished by the Operator, started in 1927, and through December 31, 1955, a total of 340,145 dry short tons had been mined. The grade, based on recovered metal, was 3.845 ounces of silver per ton, 5.4 percent lead, and 3.81 percent zinc. A total of 1,307,901 ounces of silver, 36,719,126 pounds of lead, and 25,902,719 pounds of zinc were recovered. There were also an estimated 250,000 pounds of copper recovered.

Recent sustained mine production for the period 1948 to December 31, 1955, was 43,363 dry tons of ore that contained 6.27 percent lead, 2.77 percent zinc, and 6.07 ounces of silver per ton based on recovered content. The crude ore produced 3,679.75 tons of lead concentrates and 1,836.30 tons of zinc concentrates. An over-all recovery of 95, 92, and 95 percent is made of the lead, zinc, and silver, respectively. The 1948-55 production had a net smelter worth of $21.94 per ton, freight deducted. The actual direct milling cost, not including depreciation, was about $2.00 per ton, and the custom rate is from $3.00 to $4.00 per ton, depending on the quantity and character of the ore.

The majority of the recent production is made by lessees who pay 17½ percent royalty. The company furnishes the compressed air and maintains the major items of equipment. The lessees pay other costs including milling. The large amount of "dead work", the high mining costs due to necessary ground support and selective mining, and the small isolated reserves allow the lessees only a small profit which is reported to be somewhat better than a day's pay mining. The Operator has found that he cannot mine these isolated fringe reserves profitably by company operation.

Summary of Factual Data

Following is a tabulation of the completed work items approved, number of units, unit cost, and total cost:

Work item	No. units approved	Unit cost (foot)	Total cost
Drifting (regular timber)	2,035.7 ft.	$41.00	$83,463.70
(Extra timber allowance)	30.0 ft.	$ 5.00	150.00
Core drilling	259.0 ft.	$ 3.00	777.00
Total approved cost			$84,390.70

Total amount of contract	$90,000.00
Government's share at 50 percent	$45,000.00
Total amount expended	$84,390.70
Government's participation	$42,195.35
Total amount unexpended	$ 5,609.30
Government's share unexpended	$ 2,804.65
Royalty payments received	$ 584.09

There was no equipment purchased under the contract.

The main factor affecting the drifting cycle was the continuous maintenance necessary to keep the drifts open. The badly broken and sheared ground induced extreme pressures on the timbers, causing them to fail, and in places the ground under the track would heave. Temporary repairs were made continually, but it was necessary to stop work in the heading periodically and make extensive repairs.

Discussion of Conclusions

Despite the heavy ground conditions, problems arising from the feathering out of the vein in places, and offsetting of the vein along transverse faults, project work was carried out in a workmanlike manner by a competent Operator. The Operator is to be commended for the excellent geologic and assay map (pl. 5) that was kept of the DMEA workings.

Project work adequately tested the vein on the 1800 level. Although some marginal and submarginal ore was found, the results of project work were very disappointing.

Although the vein on the 1800 level proved disappointing, there is no evidence to suggest that ore bottoms on or above this level. It is entirely conceivable that good ore shoots may occur at greater depth, but considering the disappointing results of exploration on the 1800 level, the cost of testing the vein at greater depth is not commensurate with the risks involved.

It would have been well to have drilled several long diamond drill holes in the eastern part of the 1800 level working to test for possible parallel veins and for the possible offset segment of the vein east of the large fault exposed in the runaround crosscut. Such drilling would be of a long-shot nature, but it would still be sound exploration considering the block of virgin ground that would be tested. As the level has been abandoned, it will probably be too costly to reopen it at a future time to consider such a drilling project; however, the Operator is reopening the 1600 level and plans to extend it eastward. Drilling could be performed at this intermediate horizon.

Admittedly, the future of the Golconda mine is not too promising. It may be possible to recover some ore from the margins of old stopes for a short period of time, but if the mine is to continue to operate, it will be necessary to find a new ore body. The chances of finding a new ore body, however, appear slim. It is possible that testing of the vein on the 1000 level west of the present workings might prove worth while. At best, however, this target area is highly speculative, and it is questioned whether exploration to test it is warranted. The company is at present interested in uranium prospecting and development outside the Coeur d'Alene district, and it is believed that the management feels, and probably justifiably so, that funds can better be spent toward this end than trying to find a new ore body at the Golconda mine at this time. Geologic work by the company may demonstrate the presence of suitable exploration targets at the property, but at present further major exploration with or without Government participation is not warranted.

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

File Copy
Surname
Griswold
Hedges
Newcomb
Selfridge
Johnson

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

MAR 3 - 1955

Mr. Irving Gumbel, Acting Director
Materials Division
Emergency Procurement Service
General Services Administration
Washington 25, D. C.

INTERIOR DEPT.
FEB 28 1955
SOLICITOR

Re: Docket No. DMEA-2637 (Lead-Zinc)
Golconda Lead Mines
Golconda Mine
Shoshone County, Idaho
Contract No. Idm-E475

My dear Mr. Gumbel:

Enclosed is a copy of a Certification of Discovery or Development related to the Exploration Project Contract No. Idm-E475.

The contract was dated January 14, 1953, with the Government participating to the extent of 50 per cent in an exploration project estimated to cost $90,000.00. Actual expenditures were $84,390.70, with the Government's share half of such amount, or $42,195.35.

The total amount of work provided for under the contract consisted of 2,036 feet of drifting and crosscutting and 2,000 feet of diamond drilling. Work actually done consisted of 2,036 feet of drifting and 259 feet of diamond drilling.

The discovery consisted of lead-zinc ores occurring within a vein in metamorphic rocks. The ore reserves resulting from the work are stated to be 14,900 tons, with an average grade of 1.1 ounces of silver per ton, 1.7 per cent lead and 7.4 per cent zinc.

Sincerely yours,

C. O. Mittendorf

Administrator

Enclosure

WRGriswold/er 2/25/55
Copy to: Docket
Region I, NW Dist. (2)
Cont. Audit Div.
Base Metals
Admr. R.File
Op. Committee
Mr. Hedges, 4604
Mr. Kiilsgaard, 5224
Mr. F. E. Johnson
Mr. W. R. Griswold
Chron.

R.C.L.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 3 1955

January 28, 1955

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

Re: Docket No. DMEA-2637 (lead-zinc)
Golconda Lead Mines
Golconda Mine
Shoshone County, Idaho
Contract No. Idm-E475

Dear Mr. Selfridge:

In answer to your letter of January 13, 1955, and in accordance with the P.S. to our letter of January 17, we are enclosing a memorandum by James J. Quinlan, geologist, Geological Survey, giving a preliminary ore estimate with the grade of the ore.

We trust that this is sufficient for you to certify the project.

Sincerely yours,

John S. Vhay

John S. Vhay
Acting Member, DMEA
Field Team, Region I
Northwest District

Enclosure
cc: USBM(2)
Quinlan

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB - 3 1955

January 25, 1955

Memorandum

To: DMEA Field Team, Region I (Northwest District)

From: James J. Quinlan, Geologist, U. S. Geological Survey

Subject: Docket No. DMEA-2637 (lead-zinc), Preliminary reserve estimate, Golconda Lead Mines, Golconda mine, Shoshone Co., Idaho, Contract No. Idm-E475

Mr. Selfridge, in a letter dated January 13, 1955, requests a preliminary reserve estimate on the ore found under the captioned contract.

My memorandum of October 20, 1954, describes three marginal to submarginal oreshoots encountered in DMEA workings on the 1800 level. While it is possible to describe the shoots on the 1800 level, it is difficult to assign a tonnage estimate as there is so little information as to the vertical continuity of ore within them. One raise within the limits of the second oreshoot, however, does show that the ore continues at least to the top of the raise or 77 feet above the level (erroneously reported as 68 feet in my memorandum of October 20, 1954). Although the 1600-level workings extend into the area up dip from the first and second shoots, these workings are now inaccessible; there are reported to be several raise and sublevel workings off the 1600 level in the vicinity where these shoots would project through. For these reasons I have calculated the following indicated reserves on the basis that ore found under the DMEA program will extend to the 1600 level which on the dip of the vein would be about 150 feet. The grade assigned to each block is from sample data on the level.

Block I

Location: 15 feet east of Survey Station 1811A to 5 feet west of Survey Station 1812A.
Length of shoot indicated on 1800 level - 50 feet
Width of shoot indicated on 1800 level - 1.8 feet
Tons shoot would contain if it continues to 1600 level - 1,200
Grade: 3.1 oz. Ag,* 3.6 % Pb, 22.5% Zn

* 0.75 ounce average previously reported was based on average of three samples, two for which there was no silver return given. Company now reports this average of the silver on the three samples as indicated.

Note: Car samples of drift (average about 9 feet wide) muck from 1800 level within this shoot averaged 0.6 oz. Ag., 0.6% Pb, and 4.3% Zn.

Block II

Location: 40 feet east of Survey Station 1813A to 130 feet east of Survey Station 1813A
Length of shoot indicated on 1800 level - 90 feet
Width of shoot indicated on 1800 level - 1.7 feet
Tons shoot would contain if continuous to 1800 level - 2,100
Grade: 4.6 oz. Ag, 7.7% Pb, 23.2% Zn.

Note: Car samples of drift muck from 1800 level within this shoot averaged: 0.6 oz. Ag, 0.91% Pb, and 5.21% Zn. Car samples of raise muck from this shoot averaged 0.8 oz. Ag, 1.3% Pb, and 7.5% Zn.

Block III

Location: 25 feet west of Survey Station 1822A to main east drift face.
Length of shoot indicated on 1800 level - 100 feet
Width of shoot indicated on 1800 level - 7 to 10 feet
Tons shoot would contain if continuous to 1600 level - 11,600
Grade based on sample of drift muck: 0.3 oz. Ag, 0.4% Pb, and 3.0% Zn.

In summary, therefore, a preliminary estimate shows:

	Tons	Oz. Ag	% Pb	% Zn
Block I	1,200	3.1	3.6	22.5
Block II	2,100	4.6	7.7	23.2
Block III	11,600	0.3	0.4	3.0

This gives a total of 14,900 tons averaging approximately 1.1 ounces silver, 1.7 percent lead, and 7.4 percent zinc.

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

RECEIVED
BUREAU OF MINES
NOV 5 1954
SPOKANE, WASH.

EXPLORATION PROJECT CONTRACT
GOLCONDA LEAD MINES
DOCKET No. DMEA-2637 Idm E475

FINAL REPORT

DEPARTMENT OF THE INTERIOR
Bureau of Mines Laboratory
RECEIVED
OCT 4 1955

Final Report

Introduction

The purpose of exploration work on Project Contract Idm E475, Golconda Lead Mines, Wallace, Idaho, was to explore on the 1,800 level, the possible downward and eastward extension of the main vein system. The principal target was the rake projection of the vein below and east of the 1,150 winze level. In 1948 a new ore shoot was developed from above the 1,000 level down to the 1,150 winze level. During the period, 1948-1952, production from this area aggregated 29,000 tons with net smelter returns of approximately $760,000.00. The ore values were largely in lead and silver, with minor amounts of zinc. A program was initiated by the company to unwater the main shaft and reopen the 1,800 level in February, 1952. Application was made for a DMEA loan in June, 1952. DMEA Contract Idm 475 for $90,000.00, with the Government paying 50%, was signed in January, 1953.

Progress Summary

The Golconda main shaft had been allowed to fill with water in 1943. Due to the labor shortage during World War II, maintenance work was limited. As all workings of the mine are in unstable ground, requiring timber and regular repair, the shaft station caved. Work to rehabilitate the shaft station was started in March, 1952. Unwatering was started in July and completed to the 1,800 level in November, 1952. The 750 feet of old workings on this level were so badly caved that almost complete retimbering and in some cases, spileing was required. Progress was slow and expensive. By the end of April, 1953, only 600 feet had been reopened. As 150 feet still remained to be opened to reach designated starting point for DMEA project, this agency was contacted. It was agreed that the project could be expedited by running a new lateral to by-pass remaining caved workings. This was done during May and June, 1953. The old drift face was reached early in July.

Drifting to the east along the vein structure was carried on with two contract shifts. The first 60 feet followed a weak vein structure with subcommercial ore values. Cross faulting terminated mineralization at Sta. #1809 + 35 feet. Drifting was continued in a northeasterly direction for several rounds. Long holes drilled to the south failed to pick up conclusive evidence of a vein off-set in that direction. Drifting was then continued in a northeasterly direction for 270 feet to Sta. 1814 + 17 feet to explore for the possible downward continuation of vein structure indicated from 1,400 and 1,600 levels above. No mineralization was encountered.

Cuttings from long holes previously drilled to the south were re-examined. Although no lead or zinc sulfides were observed, enough quartz to indicate a possible vein was found. On September 3, 1953, a

side swipe was started at Sta. #1810-A. The drift was then advanced about 50 feet to Sta. 1811-A + 5 feet, where weak sulfides of lead and zinc were encountered. In the next round, a well defined vein structure, carrying a 1.0-foot highgrade sphalerite stringer, was cut. This was followed for about 60 feet to Sta. #1812A + 5 feet at which point cross faulting again terminated mineralization.

Drifting was continued eastward along a weak, indefinite vein structure. A 30-foot doghole raise was driven in the south wall, to test for possible parallel structure, at Sta. 1812A + 50 feet. Nothing was found, so drifting was continued eastward to Sta. #1813A + 55 feet. At this point, another ore shoot with a 1.0' highgrade sphalerite stringer was encountered. For the next 90 feet this narrow, highgrade stringer continued until it weakened and turned into the north wall against cross-faulting. Long holes were drilled into both walls, without finding any additional mineralization. All ground penetrated was weak Prichard argillite that required close timbering. Some areas exhibited swelling characteristics that necessitated relieving of the timber at frequent intervals. The expense of repair work added substantially to the drifting cost.

With the principal target still to the east, drifting was continued in an easterly direction. A strong fault was encountered at Sta. #1815 + 80 feet. At this point, Burke quartzite was in fault contact with Prichard formation. No vein structure was in evidence, so drifting was pushed ahead to Sta. #1817. About 25 feet back from the face, a diamond drill station was prepared. Diamond Drill Hole #1803 was drilled to the north, a distance of 134 feet. Very weak mineralization from 79 to 86 feet suggested a possible vein structure. Drifting eastward was resumed on December 28, 1953, and continued through January, 1954, to Sta. #1819 + 25. The last 150' in this section was through wet, heavy, swelling ground. Much time was lost through timber failure. During the month of February, 1954, only 30 feet advance was made in the face. The balance of the time was spent removing broken timber and cutting down the drift floor, which, in places, came up as much as two feet.

During the time repair work was being carried on, Diamond Drill Hole #1804 was drilled 125 feet on a bearing N. 15°E. Nothing of economic importance was cut in this hole.

Drifting was resumed about March, 1954. At Station #1820, bearing was changed to No. 55°E. On April 10, 1954, a well defined vein structure was cut at Station #1822. This structure was followed approximately 100 feet to a point where it was apparently cut off by faulting. A heavy flow of water from the vein footwall in the face caused timber failure. Timber could not be replaced as fast as it broke, so this section of drift was abandoned. Long holes 1W, 2W, and 3W were drilled between Sta. #1821 and #1822, to check vein structure to the west. Mineralization in that direction as indicated by sludge samples, became weaker.

As water flow had reached pump capacity, extra pumps had to be installed. While this was in progress, a two cap raise was driven

77 feet on ore shoot at Station #1813A + 45 feet. The ore grade and width was similar to that opened along the drift.

Early in June, 1954, a lateral to go around caved workings was started at Station #1821A. This heading was driven almost due east to Station 1824, and then turned northeast. The fault in the face at Station #1823 + 25 feet was again cut at Station 1824 + 65 feet. Drifting was continued into the footwall to Station #1825. Long Holes 5W, 6W, 7W and 8W were drilled without locating any vein structure. The drift was turned southeast and run an additional 75 feet. Long Holes 9W, 10W and 11W were drilled without encouraging results. Work was discontinued August 28, 1954.

Work on this project included: 2,035.7 feet of drifting; 32 feet dog hole raise; 77 feet of two cap-double joker chute raise; 925 feet of longhole drilling; and 259 feet of diamond drilling.

Geologic Summary

Prichard formation rocks of the Belt Series are exposed from the 1,800 shaft station to Station #1815 + 80', where they are in fault contact with the Burke formation (See 50 scale 1,800 Level Plan). The Prichard formation is largely thin bedded black argillite and gray argillaceous quartzite interbedded with lesser amounts of light gray and gray-green impure quartzite. The Belt Series, Burke formation, consists of medium thick beds of light gray and gray-green impure quartzites, with short sections of gray to white, nearly pure quartzites. It forms the country rock from the above fault contact to the face at Station #1826 + 50'. A lamprophyre dike of uncertain attitude is exposed from 1,800 shaft station to survey Station #1802 + 150'.

Regional dip is easterly at a low angle. However, the beds have been strongly contorted and flexed into many small folds, some of which are complexly broken and faulted. Several strong, normal faults with northwesterly strike dip northeasterly at high angles. Probably they branch from the major Paymaster fault to the north. In general the structural pattern is similar to that observed at the 1,000 level.

Rock alteration is apparent throughout the mine. Sericitization is dominant and widespread, in places, to a high degree. Sideritization and silicification are less extensive but very prominent in areas adjacent to veins and some faults. Pyritization is irregularly distributed throughout. Quartzite rocks appear to be much more susceptible to alteration than do the black argillites.

The Golconda vein is exposed between Survey Station #1809 + 0' and Survey Station #1813A + 150' for a strike length of 325 feet. It strikes easterly and dips between 60° and 80° south. At Survey Station #1813A + 150' the vein weakens and swings into northwall. No continuation was found by longhole drilling. The vein is narrow and discontinuous with two short, lowgrade ore shoots exposed. The first, measured from Survey Station #1811A + 5', is 60 feet in length; the second, measured from Survey Station 1813A + 55', is 90 feet long. A weakly mineralized and indefinite vein structure connects these two shoots.

Ore minerals are predominantly sphalerite with minor galena and pyrite confined to one narrow highgrade stringer. Quartz is main gangue mineral. An ore shoot 110 feet long was exposed between Survey Station #1821A + 42' and #1823 + 23'. This section, marked by a strong shear 10 feet in width, contains sphalerite and minor galena and pyrite in seams, stringers, lenses and pods with a quartz gangue. This exposure is terminated at Survey Station #1822 + 90' by strong fault. Additional drifting and extensive longhole drilling failed to pick up any vein structure to the east. Projected and estimated position of any vein structure between Survey Stations #1814A and #1822 has been penetrated by longholes and diamond drill holes without significant results.

The project has adequately accomplished its objectives. The vein structure in coming down to the 1,800 level, has become weaker. Ore widths and shoot lengths have decreased, together with ore mineral values. Further down dip exploration does not appear justified. Results do not preclude the possibility of unknown veins to the south and east. However, such targets are highly speculative.

Ore reserves

No measured or blocked out ore has resulted from this project. The narrow ore widths and short ore shoots, together with marginal grade and heavy ground conditions does not permit profitable mining at present metal prices (11 1/2¢ Zn., 15¢ Pb.).

Sampling results are summarized as follows:

Ore Shoot No. 1 - 60 feet long, Sta. #1811A + 5 -- 1811A + 65
Average ore width 1.8', Average grade 3.1 oz. Ag., 3.6% Pb., 22.5% Zn.
(Above from face channel cuts)

Drift width 9.0', Average grade 0.55 oz. Ag., 0.6% Pb., 4.75% Zn.
(Above from 155 car grab samples)

Ore Shoot No. 2 - 90 feet long, Sta. #1813A + 55 -- 1813A + 145
Average ore width 1.7', Average grade 4.6 oz. Ag., 7.7% Pb., 23.2% Zn.
(Above from face channel cuts)

Drift width 9.0', 0.90 oz. Ag., 1.50% Pb., 4.60% Zn.
(Above from 274 car grab samples)

All drift ore from Ore Shoot No. 1 and Ore Shoot No. 2 was combined in Mill Run #1 - 1,800 level, with the following results: 796 Dry tons; Average head assay, 0.6 oz. Ag., 1.03% Pb., 4.28% Zn.

Raise on Ore Shoot No. 2 - 77 feet, 2 caps, 2 joker chutes
Average raise width 5.0', Car grab samples approximately 300 tons
Average length 11.0', Average 0.84 oz. Ag., 1.33% Pb., 7.5% Zn.

Ore Shoot No. 3, 110' long, Sta. #1821A + 42 -- 1823 + 23'
Average drift width 9.0', Average grade 0.27 oz. Ag., 1.43% Pb., 3.10% Zn.
First 65' Sampled (Above from 242 car grab samples)

All ore from raise and drift ore shoot #3 was combined in Mill Run #2 - 1,800 level, with following results:

800 Dry Tons; Average head assay, 0.9% Pb., 5.0% Zn. Net smelter returns from the above mill lots totalled $11,681.86, making the value per ton for the ore approximately $7.32.

Conclusions

The project has adequately explored the designated target areas. Three short ore shoots of marginal grade ore (September, 1954 metal prices.) have been discovered. A raise driven on the best ore shoot indicates that about the same grade ore continues upward for 77 feet, where it is again cut off by faulting. Heavy ground conditions throughout the mine preclude the profitable mining of any ore discovered. Unknown veins may exist to the south and east, but such targets are highly speculative.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

RECEIVED

January 17, 1955

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

Re: Docket No. DMEA-2637 (lead-zinc)
Golconda Lead Mines
Golconda Mine
Shoshone County, Idaho
Contract No. Idm-E475

Dear Mr. Selfridge:

Enclosed are the original and ~~three~~ two copies of the Operator's final report received in this office on November 5, 1954. The Operator had submitted the maps ahead of the report, and they were used with Quinlan's memorandum of October 20, 1954. However, these maps became lost, and others are being mailed under separate cover.

Since you will eventually have eight copies of the maps (four copies being distributed today and four with the Field Team final report at a later date), we did not think it necessary to make additional copies to accompany the Operator's report.

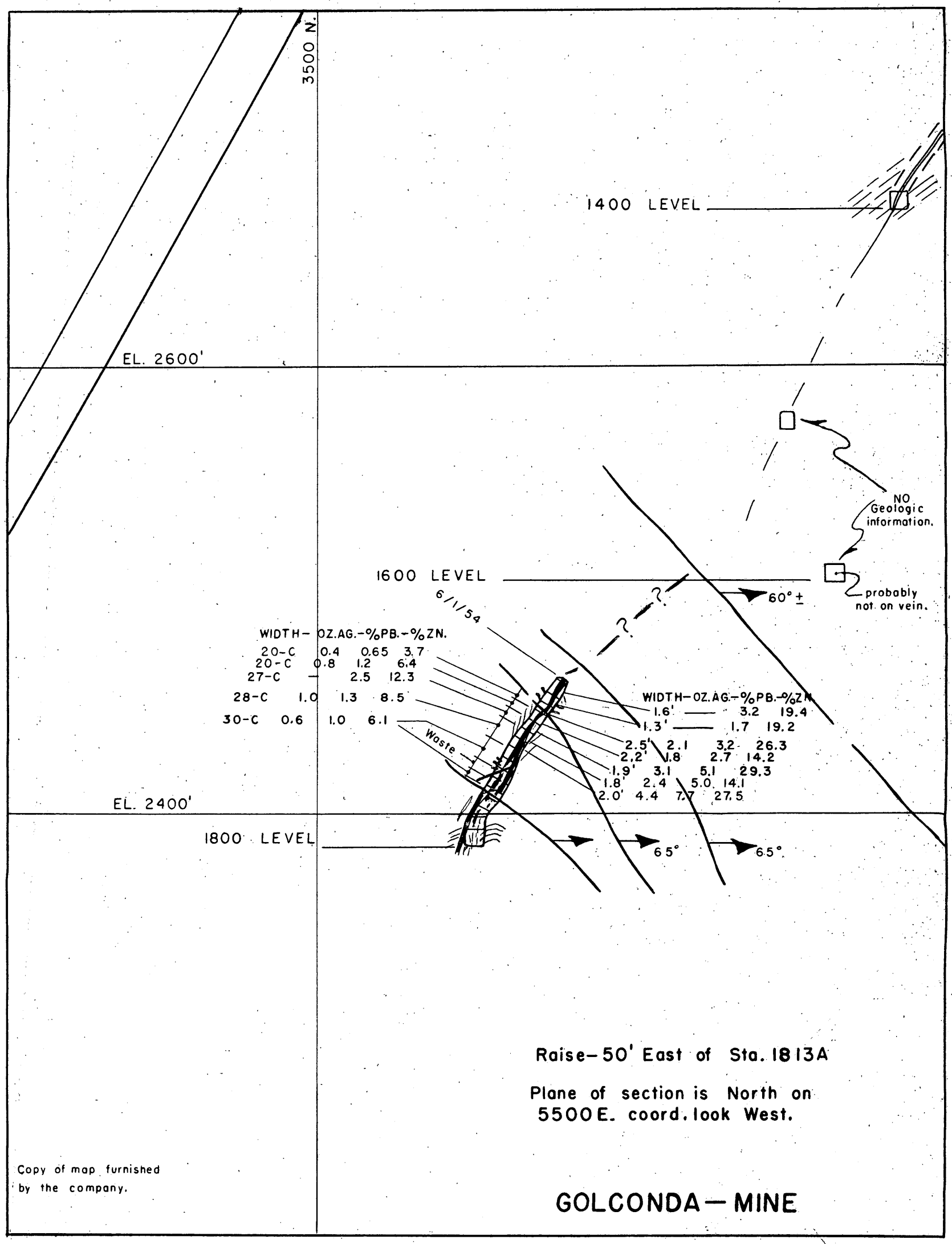
This report has been accepted as satisfactory by the Field Team.

Sincerely yours,

John S. Vhay

John S. Vhay
Acting Member, DMEA
Field Team, Region I
Northwest District

Enclosure 1 (in trip.)
cc: USBM(2)
USBM(AD)
Quinlan


3500 N.
1400 LEVEL
EL. 2600'
NO Geologic information.
1600 LEVEL
probably not on vein.
60° ±
6/1/54
WIDTH- OZ.AG.-%PB.-%ZN.
20-C 0.4 0.65 3.7
20-C 0.8 1.2 6.4
27-C — 2.5 12.3
28-C 1.0 1.3 8.5
30-C 0.6 1.0 6.1
Waste
WIDTH-OZ.AG.-%PB.-%ZN.
1.6' — 3.2 19.4
1.3' — 1.7 19.2
2.5' 2.1 3.2 26.3
2.2' 1.8 2.7 14.2
1.9' 3.1 5.1 29.3
1.8' 2.4 5.0 14.1
2.0' 4.4 7.7 27.5
EL. 2400'
1800 LEVEL
65°
65°
Raise-50' East of Sta. 1813A
Plane of section is North on 5500E. coord. look West.
Copy of map furnished by the company.
GOLCONDA—MINE
FEET.
0
50
100
150
Scale. 1"= 50'

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 8 - 1954

November 5, 1954

Memorandum

To: W. R. Griswold, Base Metals Branch, DMEA

From: O. M. Bishop, Base Metals Branch, USBM
(reviewed by Walter E. Lewis)

Subject: Docket No. DMEA-2637 (Lead-Zinc) Golconda Lead Mines, Shoshone County, Idaho - Final Inspection Report - Termination of Contract - Certification of Discovery

We have reviewed the field team report by J. J. Quinlan and the attached correspondence and note that the company requested termination of the contract in a letter to the DMEA Executive Officer, Region II, August 28, 1954.

The DMEA Field Team, Region II, in the subject report, recommends that the contract be terminated by mutual agreement and also that a Certification of Discovery be made to protect the government's contribution to the exploration. We concur in these recommendations.

We do not however share even the limited amount of optimism expressed by the field team that the ore shoots found by the exploration project may be mined by leasers on the 1,600 level or above. It is doubtful if leasers will ever attempt to mine the third ore shoot, which is cut off by what may be the Paymaster fault. Heavy swelling ground conditions near the fault would not be characteristic of this level alone, and it is quite likely that the same conditions will be found on the 1,600 level and above.

In the second ore shoot the vein structure is cut off by faulting on the eastern end, 15 feet west of survey station 1814A. The same faulting condition exists in the east sublevel drift driven from the company raise at approximately 68 feet above the 1,800 level. The continuation of the vein structure eastward in the 1,800 level was not found until the third ore shoot was encountered, a distance of approximately 800 feet. Apparently, company officials thought that the fault at 1814A evidenced a right throw because the first three long holes were drilled south after progressing due eastward with the main level drift. The surprising thing about these long holes is that they were drilled so far. Almost all of L.H. 1, 2/3 of L.H. 2, and 1/3 of L.H. 3

are in the footwall of the fault. L.H. 4 was drilled north directly opposite from L.H. 2. This drilling failed to locate the vein structure, unless the small amount of faulting shown at 36 feet from the collar is the vein. From 0 to 78 feet, L.H. 5, drilled south is an excellent exploration hole in the hanging wall of the fault.

The first evidence of a possible continuation of the vein structure from the east end of the second ore shoot is in DD 1803, 79 feet from the collar of the hole. However, this is questionable as actual mineralization was not encountered. If this actually was the vein, the fault had a left throw rather than a right throw.

In all probability, the location of this vein structure in the hanging wall of the fault on the 1,600 level will be just as difficult to find as on the 1,800 level. It is hardly a job that a leaser would want to undertake.

The sketch of the raise at station 1813A that is included with the report, shows the vein structure (with question marks) continuing from the back of the raise to the 1,600 level. The third fault starting from the 1,800-level sill is the fault that offset the vein in the 1,800 level drift and also in the sublevel east drift from the top of the raise. No vein structure should be shown in the hanging wall of this fault, as development work on the 1,800 level was unable to find any mineralization until the third ore shoot was encountered.

Some leasing may be done on the first ore shoot depending upon the amount of development openings that are available in the same general area in the 1,600 level. The size of the ore shoot will support only a limited amount of development. In any event, the monetary returns to the government from the exploration project will be small or limited to that already paid.

The exploration conducted in the footwall of the Paymaster fault to find the offset segment from the third ore shoot is based mainly on the assumption of a right throw, and in all 245 feet of the offset has been investigated. About 20 feet of westerly exploration has been done on the basis that the throw might have been to the left. Exploration in both directions met with failure, and that fact coupled with previous experience with the Paymaster fault, lead to the conclusion that further exploration would be useless.

We recommend that the contract be terminated by mutual agreement. We also recommend that the project be certified as a discovery to protect the government's contribution to the exploration.

O. M. Bishop

O. M. Bishop

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

IN REPLY REFER TO:

Defense Minerals Administration
RECEIVED
NOV 4 - 1954

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

November 3, 1954

Re: DMEA-2637
Golconda Lead Mines
(Golconda Mine)
Shoshone Co., Idaho
Lead-Zinc

Memorandum

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

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

Subject: Field Team recommendation for termination of contract Idm-E475

The operator has notified the Field Team that they do not wish to carry out further work on their project. About $5,000 in unexpended funds remain on the contract.

The objectives of the DMEA program have been explored and it is not to the Government's interests to withhold a termination agreement.

DMEA exploration has disclosed a small amount of submarginal ore below the 1600 level. It is entirely possible that a small operation could be carried out at some future time from the 1600 level. In order to protect the Government's lien a certificate of discovery should be issued.

A termination by mutual agreement should be prepared on the Golconda mine contract.

E. L. Newcomb

E. L. Newcomb

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

Defense Minerals Administration
RECEIVED
OCT 25 1954

October 20, 1954

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

Re: Docket No. DMEA 2637 (lead-zinc)
Golconda Lead Mines
Golconda Mine
Shoshone County, Idaho
Contract Idm-E475

Dear Mr. Selfridge:

Enclosed are two copies of a letter dated August 28, 1954, from Mr. Wray Featherstone of the Golconda Company stating that the company does not wish to do further work on the project. Also enclosed is a memorandum dated October 8, 1954, from J. J. Quinlan, Geological Survey, summarizing the situation and the results of the project work.

The Field Team believes that this project has been brought to a logical conclusion and recommends that the contract be terminated by mutual agreement.

The operator has paid $584.09 in royalties primarily on development rock milled from the DMEA exploration area. The Government interest in these royalties is fully protected by Article b(1), Annex I of Amendment No. 3 to the contract.

In appraising the results of the DMEA exploration, it is evident that no discovery of any great significance has been made. In fact, if the operator abandons the 1800 level, as he now apprently plans on doing, it is possible that the level may cave so completely that it may be too costly to ever re-open in view of the small size and narrow widths of the oreshoots found there. Unfortunately, therefore, it appears doubtful that the amount the Government has contributed to the cost of the DMEA exploration will be recovered. Nevertheless, ore bodies comparable in size and grade have been successfully exploited elsewhere in the Coeur d'Alene district, usually under a leasing system. Furthermore, it is possible that even if the 1800 level is lost, the upper part of the oreshoots found by DMEA work might be mined by lessees from the 1600 level.

In view of this, we believe there is ample justification for certifying the project as a discovery in order to protect the Government's contribution to the exploration. Consequently, the Field Team recommends that a Certification of Discovery or Development be made, although we recognize that the oreshoots discovered may be submarginal at the present price of zinc.

By Field Team, Region II

A. E. Weissenborn

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

Wing G. Agnew

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

Enclosures

cc: USBM (2)
USBM (AD)
Quinlan

Wash

Golconda Lead Mines

Wallace, Idaho

August 28, 1954

RECEIVED
BUREAU OF MINES
AUG 30 1954
SPOKANE, WASH.

WJR
JEW

United States Department of the Interior
Defense Minerals Exploration Administration
1201 North Division Street
Spokane, 2, Washington

Re: Exploration Project Contract
Golconda Lead Mines
Docket No. DMEA 2637
Lead-zinc
Idm E 475

Attention: A. E. Weissenborn
Wing G. Agnew

Gentlemen:

This letter is in regard to our recent conversations concerning discontinuance of work on Exploration Project Contract Idm E475.

Additional crosscutting and long hole drilling during the month of August has failed to pick up any vein structure beyond the face of July 31st. There is also a possibility that the Paymaster fault area has been entered.

In view of this and the fact that heavy ground conditions and increased water flow have materially raised costs, Golconda's directors do not feel that additional work should be considered at this time.

Golconda's cost for the last 1500 feet of drilling and crosscutting has greatly exceeded the project estimate of $41.00 per foot. This is due entirely to the heavy, swelling condition of the ground almost the entire distance. Many of the posts have been replaced three times. Almost eighty percent have been replaced once. Two sections 100 to 150 feet in length have required complete retimbering as well as cutting down the pushed up drift floor as much as two feet. The small amount of ore that has been discovered to date is too low grade for profitable mining under these conditions.

The above facts together with the company's very limited ability to finance additional work are the reasons we do not feel that additional work should be considered.

Very truly yours,

GOLCONDA LEAD MINES

Wray Featherstone

Wray Featherstone, Mine Supt.

RECEIVED
AUG 31 1954
U. S. G. S.
SPOKANE, WASH.

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

April 12, 1954

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

Re: Docket No. DMEA 2637 (lead-zinc)
Golconda Lead Mines
Shoshone County, Idaho
Contract No. Idm-E475

Dear Mr. Selfridge:

Enclosed are two copies of a letter dated April 12 which we have sent to the Golconda Lead Mines. This letter was prepared in order to advise the company that it would be possible to use contract funds originally intended for raising for additional drifting.

Work to date on the project has proved rather discouraging. No structure has been exposed which merits raising on. Present information indicates the downward projection of the ore body mined near the east end of the 1,000 level may be 200 to 250 feet northeast of the 1,800 level east drift face. (See attached sketch.) We believe that this possibility should be tested before contract work is completed. You will recall that one of the objectives of the contract work was to test for the downward extension of this body. When the original contract was prepared it was estimated that 1,500 feet of drifting and crosscutting would be required to test contract objectives on the 1,800 level. This footage has almost all been used and we are short of this one target. As there is no structure on which to raise, we believe it would be best to use the funds originally intended for 200 feet of raising for additional drifting and crosscutting.

The operator requested that an amendment be prepared to allow for this additional drifting and crosscutting. We do not believe that an amendment is necessary as it is our understanding that the units of work specified in a short-form contract are estimates and not allowable maximum items unless otherwise stated. If so, such estimates may be exceeded; provided, that there are funds available in the contract for

such work and that it will not be done at the expense of other work outlined in the contract which is needed to accomplish the contract objectives. Would you please advise if this interpretation is correct. If not, we will prepare an amendment authorizing the use of raising funds for additional drifting and crosscutting.

By Field Team, Region II

A. E. Weissenborn

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

Wing G. Agnew

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

Enclosure

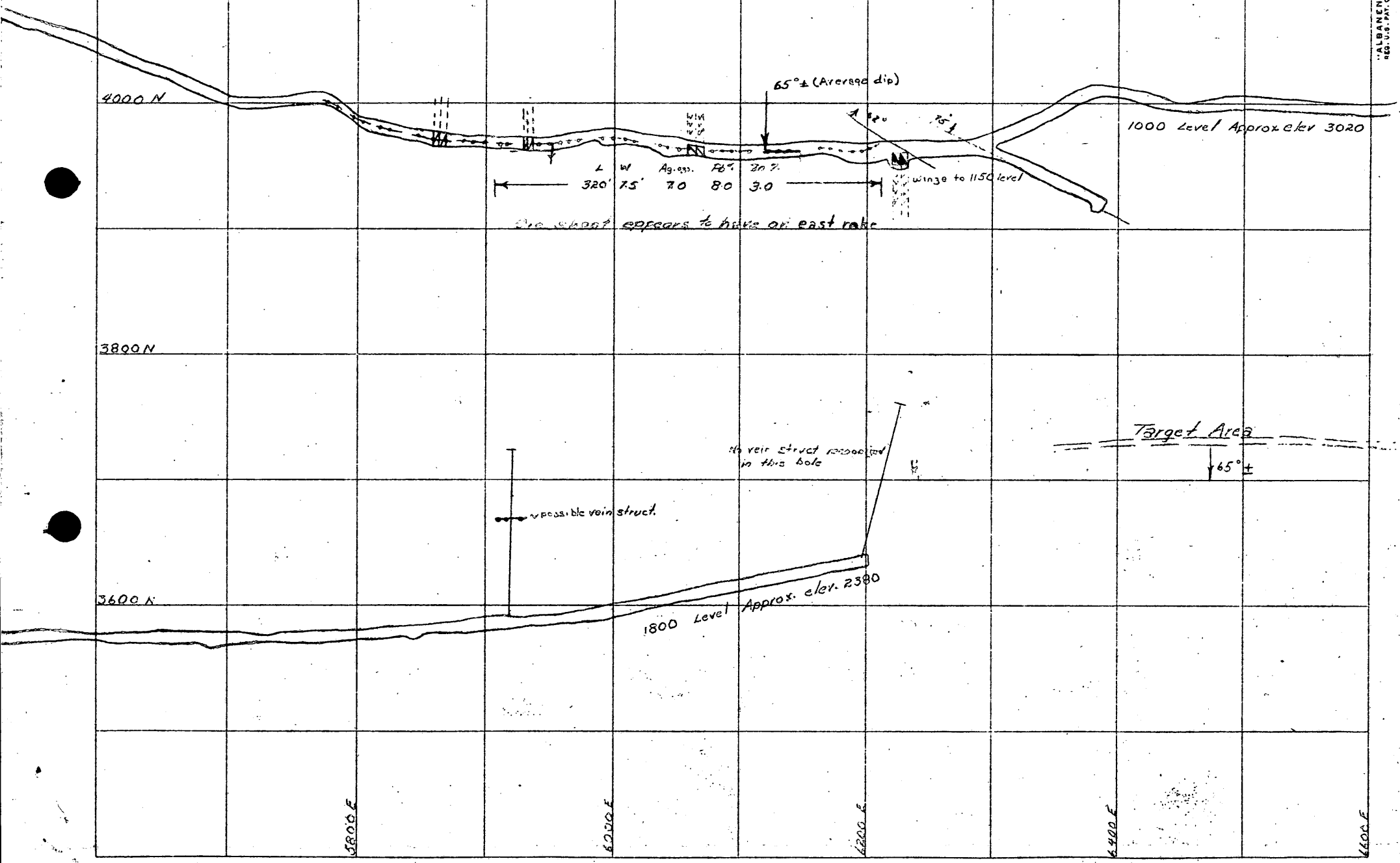
cc: USBM (2)
Quinlan

DOCKET No. DMEA 2637

GOLCONDA LEAD MINES

Shoshone County, Idaho

1" = 100'



"ALBANENE" No. 196M K&E CO., N.Y. REG. U.S. PAT. OFF.

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

April 12, 1954

Golconda Lead Mines
Insurance Building
Wallace, Idaho

Re: Docket No. 2637 (lead-zinc)
Golconda Lead Mines
Shoshone County, Idaho
Contract No. Idm-E475

Attention: Mr. Wray Featherstone

Gentlemen:

Reference is made to the last paragraph of your February monthly report dated March 10, 1954. In this you request that the subject contract be amended in order to allow the use of funds originally intended for raising for additional drifting.

It is our interpretation that the units of work outlined in the contract are only estimates of the work necessary to accomplish contract objectives. Being estimates, individual units of work outlined in the contract may be exceeded in order to accomplish contract objectives; provided, that there are funds available in the contract for such work and that it will not be done at the expense of other work which is needed to accomplish contract objectives.

Inasmuch as the 1,500 feet of drifting and crosscutting originally estimated is insufficient to adequately test the original contract objectives and no structure has been exposed to date which merits raising on, we concur that it would be best to continue drifting and crosscutting on the 1,800 level to explore the indicated target area northeast of the present 1,800 level east drift face.

By Field Team, Region II

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

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

cc: USBM (2)
DMEA (2)
Quinlan

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 15 1954

December 21, 1953

United States Department of the Interior
Defense Minerals Exploration Administration
1201 North Division Street
Spokane, 2, Washington

Attention: A. E. Weissenborn
M. E. Volin

Re: Exploration Project Contract
Golconda Lead Mines
Docket No. DMEA 2637
Lead-zinc
Idm E475

Gentlemen:

Enclosed herewith is royalty check in the amount of $139.58, covering zinc concentrates recovered from development ore from Golconda 1800 level. An Anaconda settlement sheet is enclosed. Your attention is called to the fact that this was a mixed lot shipment, part of which was not subject to D.M.E.A. royalty. The part covered amounted to $2,791.69. The balance, $779.04, was from ore shipped by lessees.

In going over our D.M.E.A. contract, it appears that everything produced could be subject to D.M.E.A. royalty, regardless of location in the mine. In other words, the claims included in the contract cover that part of the mine between 1150 winze level and the 1000 level now being worked under lease, and also a section on the west end of the 1600 level where the company is doing some work entirely independent of D.M.E.A. help. At the present time it appears that only limited production may come from these areas.

Inasmuch as we understand that royalty will only be on an ore discovery resulting from D.M.E.A. aid, we are wondering if a location amendment or a closer definition should not be made in the contract. Plan and section maps are enclosed, showing the possible discovery area which it appears the D.M.E.A. roylaty should apply on.

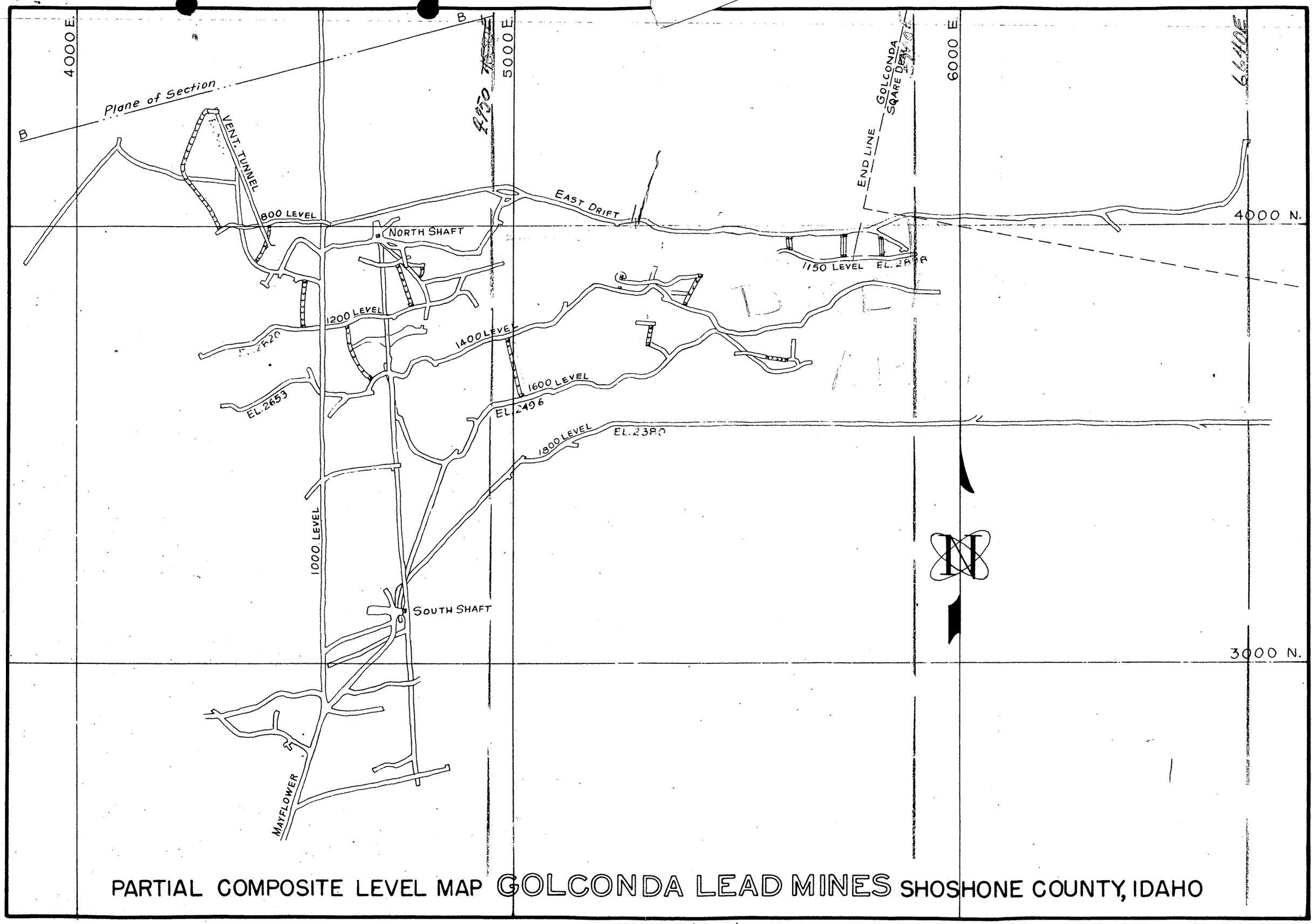
We should like to have your opinion on this subject.

Very truly yours,

GOLCONDA LEAD MINES

By Wray Featherstone
Wray Featherstone, Supt.

RECEIVED



PARTIAL COMPOSITE LEVEL MAP GOLCONDA LEAD MINES SHOSHONE COUNTY, IDAHO

OCTOBER, 1952

SCALE 1"=200'

R.A. KERR

FILE COPY
SURNAME:

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

May 1, 1953

Memorandum

To: The Administrator

From: Chief, Base Metals Division

Subject: Justification for Amendment No. 1 to Docket No. 2637
Contract No. Idm-2475, Colconda Lead Mines,
Shoshone County, Idaho (Lead-Zinc)

In concurrence with the Field Team, this office approves the amending of this contract. This amendment will not increase the estimated total cost of the project nor the agreed unit costs of any item of work.

Rehabilatation of the 1,800-foot level was undertaken at the sole expense of the company. The amount of rehabilitation required has been considerably more than estimated, consequently, the time allowed to complete rehabilitation is insufficient. The time for commencing the work of the project has been increased from 90 days to 120 days.

The starting point has been changed and will allow the Operator to drift and crosscut around a badly caved section of the crosscut and drift that was to have been rehabilitated. This will reduce the total amount of drifting on the vein by about 280 feet but will not effect the target of the exploration. The total amount of crosscutting and drifting is 1,500 feet.

The total amount of this contract is $90,000.00, and all items are on the unit cost basis.

W. R. Griswold

W. R. Griswold

Attachment

JWAlt/hmj
5/1/53
CC to: Docket
Op. Committee
Base Metals
Mr. Alt
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

4/28/53 - Received by J.W.A.

April 23, 1953

Air Mail

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 27 1953

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

Re: Docket No. DMEA-2637 (Lead-Zinc)
Golconda Lead Mines
Shoshone County, Idaho
Contract Idm-E475

Dear Mr. Selfridge:

Enclosed is the letter from the Golconda Lead Mines referred to in our teletype of April 22, 1953, regarding the subject contract. This letter outlines difficulties encountered in rehabilitating the first 425 feet of crosscut in order to reach the point where drifting is to start under the terms of the contract. Workings now have been opened to within 25 feet of the vein and approximately 280 feet of crosscut and drift remain to be opened before work can start under the terms of the contract. The Operator believes, and we concur, that it would be advisable to drive 280 feet of run-around crosscut and drift to reach the starting point of drifting as stipulated in the contract.

Rehabilitation was undertaken at the sole expense of the company. The amount of rehabilitation required has been considerably more than estimated, consequently, the time allowed to complete rehabilitation is insufficient. The Operator requests that he be allowed until June 25, 1953, to reach this point. This is considered a reasonable request.

The Operator has requested that DMEA participate in driving the run-around drift and crosscut to reach the point originally stipulated as the starting point of the contract. The Field Team believes this to be a legitimate cost of exploration and the most practicable way to reach the starting point as stipulated in the contract. Therefore, it is recommended that the starting point of the drifting be set 425 feet northeast of the shaft in order to allow 280 feet of run-around drift and crosscut. This work could start immediately. If this plan is followed the proposed contract amendment should allow additional time in which to start work as the starting date was originally set as April 14, 1953. There would be no need to increase the total amount of

drifting or the total cost of the contract; at least there is no reason to do so until we have had a sufficient look at the vein to better appraise its possibilities.

By DMEA Field Team, Region II

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

M. E. Volin, Member
(U. S. Bureau of Mines)

Enclosure

cc: USBM (2)
Quinlan

Golconda Lead Mines

RECEIVE
BUREAU OF MIN
APR 22 1953
SPOKANE, WASH

Wallace, Idaho

April 20, 1953

United States Department of the Interior
Defense Minerals Exploration Administration
1201 North Division Street
Spokane, 2, Washington

Attention: A. E. Weissenborn
M. E. Volin

Gentlemen:

Following the suggestion of Mr. Howard during a telephone conversation regarding our Defense Minerals Contract Idm-E475, we are writing this letter.

First, because of the unusually large amount of rehabilitation work required, the starting point designated in the contract will not be reached by April 23, 1953, the time that was originally set. We are asking that this time be extended another sixty days or until about June 25, 1953.

Second, because the last 190' of the 1800' X-cut has been solid cave which is more expensive to open than driving a new drift off X-cut, we are asking a revision of the contract. Assuming the ground conditions ahead will be similar and everything will be caved, we would like to drive a new heading, approximately parallel to and north of the old drift, intersecting it near the face shown on our composite map. This point was to have been the original starting point of our contract. For your information, the 1800' X-cut is now open for approximately 425 feet or to within 25 feet of the place where the vein structure was encountered and the drifting started with a sharp turn to the right. If approval can be obtained, we would like this footage to apply on the contract. The additional distance would be about 280 feet.

We do not definitely know that all of this drift will be caved ahead. If it is not, our work may move ahead at a good rate. However, the original heading was driven so small that it has been necessary to plug out the bottom in order to use a 12B mucking machine and larger cars. This, as well as the caved ground is our reason for wanting to run a new drift.

If any further information is required, please call. Our office telephone is 4151, Wallace; mine 2221, Wallace.

Very truly yours,

GOLCONDA LEAD MINES

Wray Featherstone

Wray Featherstone, Supt.

303 WA SP /I-GS-G/

SPOKANE 4-22-53 448P

GEORGE C. SELFRIDGE

CHAIRMAN OPERATING COMMITTEE

DEFENSE MINERALS EXPLORATION ADMIN.

WA 25, DC

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 23 1953

REOURTEL APRIL 21, DOCKET NO. 2637 /LEAD-ZINC/ CONTRACT IDM-E 475 GOLCONDA LEAD MINES. MORE ACRATE DATA NOW AVAILABLE AMOUNT OF REHABILITATION COMPLETED SHOULD READ 425 FEET INSTEAD OF 600. WORKINGS NOW OPENED TO WITHIN 25 FEET OF VEIN AND 280 FEET OF DRIFT IN FOOT WALL OF VEIN REQUIRED TO REACH FORMER STARTING POINT OF CONTRACT.

LETTER FROM OPERATOR FOLLOWS AIRMAIL.

A E WEISSENBORN

21 2637 IDM-E 475 425 600 25 280

VA 450P

APR 23 9 39 AM '53
BUREAU OF MINES
MAIL ROOM
WASHINGTON, D. C.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 22 1953

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APR 21 3 32 PM '53
GENERAL SERVICES ADM
PUBLIC BLDGS SERVICE
SPO - CAPT LOUIS STAGG

291 WA SP /I-GS-G/

SPOKANE, WASH. 4-21-53 150P

GEORGE C. SELFRIDGE, CHAIRMAN, OPERATING COMMITTEE, DMEA,

WA /25/

RE DOCKET NUMBER 2637 /LEAD-ZINC/ CONTRACT IDM-E475 GALCONDA LEAD MINES /SEE CONTRACT MAPS/ 1800 LEVEL CROSSCUT REHABILITATED TO POINT APPROXIMATELY 600 FEET NORTHEAST OF SHAFT. OPERATOR USING OWN FUNDS FOR THIS WORK. CROSSCUT IN SUCH BAD CONDITION THAT IT IS ADVISABLE TO DRIVE 150 TO 200 FEET OF NEW CROSSCUT TO REACH VEIN. FIELD TEAM BELIEVES THIS TO BE LEGITIMATE COST OF EXPLORATION AND MOST PRACTICABLE WAY TO REACH VEIN. CAN WE AUTHORIZE THIS CROSSCUTTING AS PART OF DRIFTING ALLOWED UNDER CONTRACT/QM/ STARTING DATE OF CONTRACT EXPIRED APRIL 14. ADDITIONAL TIME NEEDED TO REACH STARTING POINT OF CONTRACT. IF NEW CROSSCUT IS AUTHORIZED, WORK UNDER CONTRACT CAN START IMMEDIATELY. IF NOT, STARTING DATE SHOULD BE EXTENDED 75 DAYS. REQUEST AUTHORIZATION TO PREPARE AMENDMENT TO EXTEND STARTING DATE FOR EITHER PLAN FOLLOWED.

A E WEISSENBORN, EXEC OFFICER DMEA FIELD TEAM

REGION II, SP

2637 IDM-E475 1800 600 150 200 14 75

EC 153P

APR 22 9 07 AM '53
BUREAU OF MINES
MAIL ROOM
WASHINGTON, D.C.

IN REPLY REFER TO:

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

December 31, 1952

Memorandum

Re: Docket DMEA-2637
Golconda Mine
Hunter District
Shoshone County, Idaho
$90,000
Lead-zinc

To: Mr. A. George Keating

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

Subject: Concurrence with field team's recommendation for approval.

The applicant requests Government assistance to explore two parallel veins by drifting and crosscutting 2800 feet on the 1800 level.

The field team recommends a modified program involving 1500 feet of drifting, drilling ten 200-foot diamond drill holes, and two 200-foot raises from the 1800 level.

The Golconda mine has been developed on a prominent shear zone which strikes east and dips 45-55° south. The country rocks are quartzites and argillites of the pre-Cambrian Belt series. Mineralization consists mainly of argentiferous galena accompanied by a quartz-siderite gangue. The intensity of shearing in the main vein zone has caused the development of numerous vein splits and the offsetting of many mineralized segments in the Golconda vein.

Two main ore shoots have been developed on the Golconda vein. However, only the east ore shoot is presently being mined. Data on the west ore shoot is limited as the old workings in this part of the mine are inaccessible, but there is no indication that the ore shoot bottomed above the 1800 level.

Total past production up to 1950 from the Golconda mine has been estimated to have been 314,000 tons averaging 5.3 per cent lead, 3.8 per cent zinc and 3.6 oz. of silver. Present daily rate of production from east ore body above the 1150 level is about 40 tons with an average grade of 8.0 per cent lead, 2.5 per cent zinc, and 6 oz. of silver.

The proposed project is well planned and thorough enough in scope to fully explore the possible downdip extension of the east ore

shoot, including vein splits and any nearly parallel veins. This project has a very good chance of being successful as it is in an area characterized by extensive and significant lead-zinc mineralization.

We concur with the field team's recommendation for approval.

E L Newcomb/GAK

E. L. Newcomb
Geologist

O. M. Bishop

O. M. Bishop
Base Metals Branch

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
DEC 22 1952
Rec'd by Jnt. O.

December 16, 1952

Mr. Frank E. Johnson, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Rec'd by O.C.
11-24-52

Re: Docket DMEA-2637 (lead-zinc)
Golconda Mine
Shoshone County, Idaho

Dear Mr. Johnson:

Reference is made to your letter of December 2, 1952, in which you request additional geologic information on the Golconda mine.

Enclosed are four copies of a Geologic Map and Section of the Area of the Golconda mine and four copies of a map showing the relation of Golconda mine structures to those of nearby workings. These are all the maps we have of the Golconda mine. We could probably obtain some larger scaled maps of the Golconda workings from the applicant; however, we believe they will not be too extensive inasmuch as a greater part of the mine is now inaccessible and has been for some time. We have therefore made no effort to obtain any maps from the applicant but will do so upon request.

It is reported that the Golconda vein, where seen in the stope off the 1150 level, is typical of the lead, zinc, and silver veins of the Coeur d'Alene district. It averages from four to five feet in thickness, although it locally tends to be lenticular and contorted by late normal faults. We have no assay data of the vein other than that it has contained a good grade of ore in those areas where it has been mined. We do know that the mine is profitably operating at the present time, and we have been informed that current rehabilitation work is being financed directly by mine profits.

The 1800-foot level is inaccessible and there are no maps available to indicate whether or not the main ore body or the vein were intersected, although it would appear that the vein had been drifted on for a short distance. The proposed exploration program, however, would extend the 1800-foot level to the east for 1500 feet to intersect the projection of the ore body currently being mined from the 1150 level. It is believed that this ore body, as well as the main ore body, rakes eastward. There is no reason to believe that the ore bodies bottom above the 1800-foot level.

The proposed diamond drilling program is designed to test for veins parallel to the Golconda structure. These are believed to be largely splits from the Golconda vein or faulted vein segments. Such a split was found in the stope off the 1150 level by a long hole driven into the wall. The enclosed maps show other veins adjacent to the Golconda, but it is not believed that the applicant intends to explore these at the present time.

Mr. R. E. Wallace has recently left this office for duty with the U. S. Geological Survey at Washington, D. C. We therefore suggest that he be advised if further geological information is desired. In the absence of available maps, we are sure he will be able to provide necessary information to the application examiners.

By DMEA Field Team, Region II

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

M. E. Volin, Member
(U. S. Bureau of Mines)

Enclosures

cc: USBM (2)
Hobbs

IN REPLY REFER TO:

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

December 2, 1952

Memorandum

Re: DMEA-2637
Golconda Mine
Hunter District
Shoshone County, Idaho
$90,000

To: Mr. H. F. Keller

From: E. L. Newcomb

Subject: Review of application and field team report

Our review of the subject application and field team report indicates that a more adequate presentation of geological data is required before we can concur with the field team's approval of the proposed work.

The description of the geological conditions on the property should have been accompanied by a geological map and one or more cross sections. The present report does not show the relationship of the main shear zone (Golconda vein) to the Golconda fault, the Osburn fault, the rock formations in the area, or the other reported veins on the applicant's property. A geological map and a cross section would be the best way to present this information.

Apparently all of the mine workings are inaccessible, except in the area of the east ore shoot above the 1150 level. If this is the case, we would like to know the average thickness of the ore shoot, its average grade, and the nature of the mineralization in this part of the Golconda vein.

The projected longitudinal section does not indicate that any ore has been mined from the 1800 level. This could mean that the west ore shoot bottoms above the level. The field team should be able to obtain information about the mineralization on this level.

The field team reports that numerous veins occur on the applicant's claims which warrant further exploration. However, we cannot determine the significance of these veins or their relationship to the Golconda vein without a geological map.

The field team should be requested to supplement their present report by submitting a geological map of the property and one or more sections. These maps and sections will be needed before we can make a recommendation on the applicant's proposal.

E. L. Newcomb
E. L. Newcomb
Geologist

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

Spokane, Washington
November 10, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 14 1952

MEMORANDUM

To: Chairman, Operating Committee, DMEA, Washington, D. C.

From: Field Team, Region II

Subject: Docket No. DMEA 2637 (lead-zinc)
Golconda Lead Mines, Inc.
Shoshone County, Idaho

Enclosed is a joint report (4 copies) on the subject property by H. T. Reno, Mining Engineer, U. S. Bureau of Mines, and R. E. Wallace, Geologist, U. S. Geological Survey. Enclosed also are two copies of a specimen contract, prepared by Mr Reno 6 copies each of two maps showing the proposed work, 6 copies of an "Owner's Consent to Lien," and 1 copy of an agreement which includes a clause covering rights on veins which might apex on adjacent property owned by the Square Deal Mining Company.

The proposed project is unusually attractive by reason of the numerous veins which are virtually unexplored and its geologically favorable location. The Field Team concurs with the examining team and recommends that a short form contract be negotiated.

By Field Team, Region II

A.E. Weissenborn
A.E. Weissenborn, Exec. Officer
U. S. Geological Survey
So. 157 Howard Street

M. E. Volin
M. E. Volin, Member
U. S. Bureau of Mines
1201 N. Division St.

Reviewed by DMEA Oper. Com. 11-24-52

Enclosures

On-Site Exam Rpt.

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 1 6 1952

1201 North Division St.
Spokane 2, Washington

October 29, 1952

MEMORANDUM

To: DMEA Field Team, Region II

From: R. E. Wallace, Geologist, U. S. Geological Survey, and
H. T. Reno, Mining Engineer, U. S. Bureau of Mines

Subject: Golconda Lead Mines, Shoshone County, Idaho
Docket No. DMEA 2637 (lead-zinc)

RECOMMENDATION

It is recommended that the DMEA enter into a short form contract with the Applicant in the amount of $90,000. The applicant is prepared to furnish one-half of this amount.

EXAMINATION

Wallace conferred with the Operators on September 8, 1952. He had studied the geology of the mine and district in 1951; therefore no new examination was necessary. Reno examined the active workings and discussed the proposed project with Mr. Wray Featherstone, October 16, 1952.

LOCATION AND ACCESSIBILITY

The Golconda mine is in the Coeur d'Alene mining region in Lelande and Hunter district of Shoshone County, Idaho, 2-1/2 miles east of Wallace, Idaho in Sec. 30, T. 38 N., R. 5 E. The main portal on the 1000 foot level is adjacent to a branch of the Northern Pacific Railroad and to U. S. Highway No. 10, both of which follow the valley of the South Fork of the Coeur d'Alene River.

PROPERTY

The property consists of six patented lode mining claims as follows:

Claim	Patent No.
Klondike	2215
Raymond	2885
Lead	2991
Juneau	2215
Snowflake	2215
Manhattan Extension	3192

All claims except the Manhattan Extension No. 3192 are owned by the applicant. The Manhattan Extension claim is owned by the Square Deal Mining and Milling Co., Limited.

The project, as proposed, might find veins that apex on Square Deal ground. Therefore, one copy of the applicant's agreement with the Square Deal Mining and Milling Co. covering the Manhattan Extension claim and six signed copies of Form MF-203, "Owner's Consent to Lien", are attached.

The maximum amount of the Government's lien is to be filled in on Form MF-203.

The proposed contract should exclude ore mined above the 1150-foot level west of coordinate line 6000E from that liable for repayment to the Government.

WORKINGS AND FACILITIES

The mine has approximately 23,000 feet of workings (see applicant's map) but only slightly more than 5000 feet are accessible. The 1200, 1400, and 1600 foot levels are inaccessible and in such shape that it would cost more to rehabilitate them than to drive new openings. The main haulage way on the 1000 foot level and the East drift are open; present mining is in the vicinity of the East winze where the 1150 foot level is accessible. The South shaft is being rehabilitated by the company.

In the crosscuts the ground stands fairly well although it is heavy in all of the drifts. Soon after a drift is excavated and timbered, the ground takes an initial squeeze which must be relieved. This squeeze slowly decreases; after a month or two the drifts can be kept open by cleaning up the muck that comes through the lagging.

The drifts must be advanced through cross faults by either booming a set ahead or by spiling. The sill through these areas squeezes upward and must be lowered about once a year in order to maintain headroom.

The practice has been to drive a high section drift, timber with 10 - 12 inch round posts and caps, lag the back with 3 inch dimension fir, and lag the sides with 4 - 6 inch split cedar. This procedure has proved satisfactory and economical considering the bad ground.

The company operates a 200 ton mill which mills Golconda ore and also provides a custom-milling service for other mines in the district.

PAST OPERATION AND PRODUCTION

The Golconda Mine has been in operation intermittently since 1927. According to Gerwel's report on the mine and company records it has produced 325,438 dry tons containing 1,227,609 ounces of silver, 295,659 pounds of copper, 34,851,070 pounds of lead and 24,431,848 pounds of zinc.

Following is the production record to date:

Year	Dry Tons	Year	Dry Tons
1927	887	1940	2,641
1928	22,342	1941	5,964
1929	65,567	1942	6,756
1930	17,500	1943	4,571
1931	16,209	1944	585
1932	18,614	1945	0
1933	33,758	1946	0
1934	57,792	1947	0
1935	17,643	1948	3,525
1936	6,140	1949	7,342
1937	9,819	1950	6,672
1938	4,375	1951	2,883
1939	5,629	1952(to date)	8,234

COMPETENCE OF OPERATOR

The operators are experienced in mining in the Coeur d'Alene region and have carried on successful mining operations in the past.

GEOLOGY

The Golconda mine has produced principally from ore bodies in a shear zone which strikes almost east and dips 45-55 degrees to the south. Stope sections suggest a rake of the ore bodies to the east. Vein matter is chiefly argentiferous galena in a quartz-siderite gangue.

The main shear zone diverges to the west from the Golconda fault which strikes slightly north of west. The Osburn fault, forming a 300-foot wide sheared and shattered zone, lies approximately 1100 feet south of the vein on the 1000-foot level and approximately parallels the Golconda fault.

The block of ground between the Osburn fault and the Golconda fault is highly shattered and folded. Numerous late normal faults displace the ore bodies a few feet to a few tens of feet. The ore is in places gouge-like, and may be twisted and contorted with the enclosing country rock.

The country rock consists of metasediments, principally quartzites and argillites, some of which are metamorphosed to phylites and schists. These metasediments belong principally to the Burke and Prichard formations of the pre-Cambrian Belt series.

In addition to the main vein system numerous other mineralized zones have been discovered. Immediately north of the Osburn fault several irregular pods of ore have been found, but the general high intensity of shattering and faulting made it difficult to follow any for more than a short distance. Northeast of the main vein in Square Deal property other pods of mineralized rock have been found.

The Golconda claims are in what might be called the heart of the Coeur d'Alene region. The known presence of veins at numerous places within the claims gives promise of additional ore being found by exploration on the property.

PROPOSED WORK

As shown on the applicant's map and stope sections, the present exploration project is aimed at prospecting the downward and eastward extensions of the main vein system by extending the drift on the 1800-foot level 1500 feet. This drift will probe for ore bodies east of the main ore body and will be 500 feet below the ore now being mined on the 1150-foot level and 650 feet below ore which was mined near the eastern end of the East drift on the 1000-foot level.

Ten 200-foot diamond drill holes are provided for two purposes: (1) to test for possible parallel veins, and (2) to prospect for offset segments of the vein.

Inasmuch as data obtained on the 1000 and 1150-foot levels would be too far above to afford safe correlation, two 200-foot raises are provided to explore the vertical component of any ore found.

Inasmuch as the applicant is now rehabilitating the shaft and 1800-foot level and will have completed this work within 60 days, it is proposed to start the project at the present face of the 1800 level drift. Work done prior to this will be for the account of the applicant.

Detailed estimates of drifting and raising costs and a proposed short form contract are attached. Attention is directed to the proposed increase in drifting cost of $5.00 per linear foot through transverse fault area. This cost is based on the applicant's experience in faulted areas on the upper levels. It is believed to be conservative.

CONCLUSIONS

The Golconda property is worthy of extensive additional exploration work as it lies in one of the more promising areas of the Coeur d'Alene mining districts. Assistance from DMEA will allow a more continuous and forceful program than the company is able to undertake on its own.

Exploration under the proposed contract represents only a part of that warranted, but represents about all that the company wishes to pursue at this time.

R. E. Wallace, Geologist
U. S. Geological Survey

H. T. Reno, Mining Engineer
U. S. Bureau of Mines
H. T. Reno

Orig. and 3 - Wash.
Wash., USBM (2)
USGS (2)
DMEA
R/O
M/D
HTR/vf

2637 Reclaimed

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

DEPARTMENT OF THE INTERIOR Defense Minerals Administration RECEIVED OCT 1 1952

No. 157 Howard Street
Spokane 4, Washington

File - docket

September 29, 1952

Memorandum

To: DMEA Field Team, Region II

From: R. L. Wallace, Geologist, U. S. Geological Survey

Subject: Golconda Mine, Shoshone County, Idaho. Preliminary conference with Operators. Docket No. DMEA-2637 (Lead-Zinc).

On September 8, 1952, I had a conference with Mr. Ray Featherstone regarding the application of the Golconda Mining Company for assistance from DMEA.

Inasmuch as I had examined the accessible workings and regional geology around the mine last year, I made no new examination. Mr. Richard Gerwels, working under the direction of Messrs. Roy Full and P. J. Shenon, wrote an M.S. thesis about the mine last winter while at the University of Utah. Gerwels' analysis and compilation of old maps affords an excellent basis for laying out an exploration program.

I discussed numerous exploration projects with Mr. Featherstone, and a tentative choice of a first objective was made. The choice represents about the amount the company could actively pursue during a two-year DMEA contract period.

Mr. Featherstone is to adapt one of Gerwels' plan maps and stope sections to illustrate exactly what the company proposes in the exploration project for which assistance will be requested.

In general, the proposed project will aim to reopen a lower level of the mine for which records are inadequate and will drive about 2,000 feet of new drift and crosscuts to explore the downward projection of the part of the vein now being mined.

The Golconda Mine has produced over $3,000,000 worth of metals, principally from argentiferous galena, and lies in one of the major belts of ore deposits in the Coeur d'Alene mining district. The company operates a mill on the property.

Present production rate from the mine is rather small and earnings do not allow a forceful exploration program although the property does warrant extensive exploration. However, the company has pushed exploration intermittently as funds have allowed. One of the desirable features of DMEA assistance would be to make it possible for the company to conduct the exploration continuously rather than intermittently, thus doing the job more efficiently and ultimately accomplishing exploration of this promising block of ground within fewer decades than without assistance.

When Mr. Featherstone completes the maps showing the specific proposal, I will prepare specific comments regarding the plan.

R. E. Wallace
Geologist

cc: DMEA (4)
USBM (2)
USGS (BRJ)
Wallace

6. We do not know how many shifts per day the Applicant intends to work on the exploration project, but it appears from the number of laborers that he has listed, that it will be on a three shift basis. If this is so, it should not take him 22 months to complete 2,000 feet of drifting and 800 feet of crosscutting.

7. Each item of equipment owned by Golconda Lead Mine which will be used on the project and for which depreciation will be allowed, should be listed as to its present value. It should be explained to the Applicant that the amount he will be allowed monthly for the use of this equipment is one-sixtieth of its present market value. This, too, should also be prorated if the same equipment is used for production.

8. Under 6 (a), "Rehabilitation and Repairs":

Repair worm hoist $1,590.00

This point should be checked, as the Government can only aid the Applicant in the cost of repairing the hoist in the prorated proportion established by its use on the project and on production. This should also be considered when calculating the allowable depreciation for the hoist.

9. If the project is recommended by the Field Team, drifting and crosscutting can be paid on a unit cost basis for work completed, and would include all costs necessary to complete this work, with the exception of new equipment to be purchased for the project. The usual breakdown of costs per foot for drifting and crosscutting should be included in the Field Team report.

Any other information that you may think is necessary for the processing of this application will be appreciated. We have only attempted to point out some of the items that we considered essential and realize that the usual Field examination is necessary.

Sincerely yours,

J. F. Teller (GB)

ACTING Chairman, Operating Committee

JWAlt/bjl/mb

August 26, 1952

Copy to: Docket
Adm. Reading File
Operating Committee
Mr. Keller (2)
Mr. Alt
Mr. Bishop
Mr. McKnight
Region II

B.H. 8-29-52

APPROVED:

C. W. Johnson (GB)
Member, Bureau of Mines

D. M. Lemmon (GB)
Member, Geological Survey

FILE COPY
500 SURNAME:

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

DMEA Matthewson

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

AUG 29 1952

Re: Docket No. DMEA-2637 (Lead-Zinc)
Golconda Lead Mines
Shoshone County, Idaho

Dear Mr. Weissenborn:

A review of the above-referenced docket, of which you have retained a copy, indicates that additional information is needed. Kindly order a Field examination of the Applicant's property.

The following points have been raised in reviewing the application. The Field Team should take up these different points with the Applicant and aid him in a revision of his application so as to present all the information necessary for a correct evaluation of the proposed project.

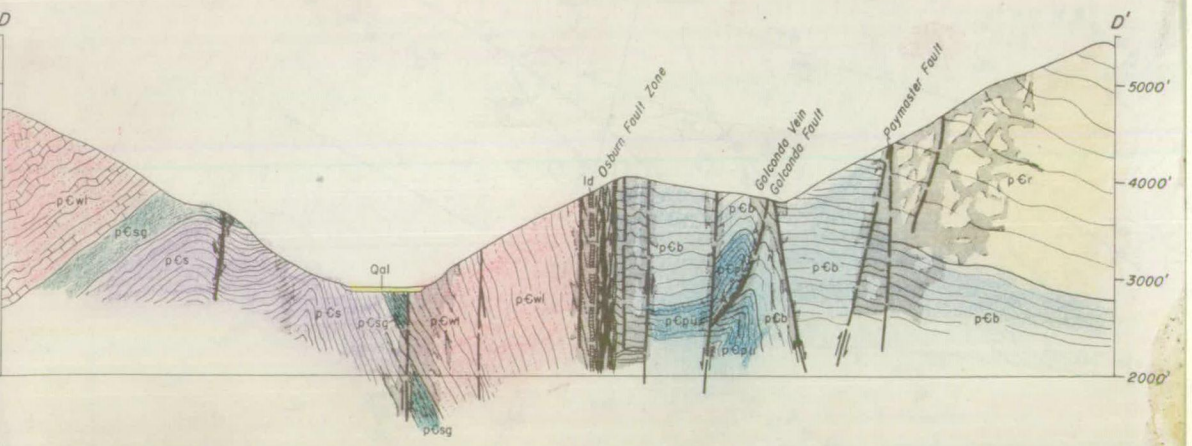
1. The geological feasibility of the project.

2. A map or maps showing the proposed drifting and cross-cutting. Four copies of essential maps and sections showing the proposed exploration work should be provided by the Applicant.

3. The Applicant states that the work will be carried on in the Klondike, Raymond, Lead, Juneau and Snowflake patented mining claims. He should give the patent numbers of these claims, which are essential for the legal description of this property.

4. Under Item 6 of the application, "Estimated Costs", the costs as given by the Applicant are excessively high and should be checked by the Field Team.

5. The Applicant states that the present production is about 40 tons per day. This being the case, labor such as hoistmen, motormen, cagers, surface labor and trackmen, as well as supervision and consultants, should be prorated. Furthermore, the estimated amount of labor for the proposed work seems excessive and should be checked.



EXPLANATION

Qal

Alluvial Deposits

pЄwl

Lower Wallace Formation

Interbedded, fine-grained, light-gray, more or less limy quartzite and dark gray argillite. Beds range from 1 to 12 inches thick. Some impure dolomitic beds near top. Shallow water features are characteristic.

pЄsg
pЄs

St. Regis Formation

Typified by purplish color of rocks. Grades from light purple quartzite at base to thin-bedded dark purple and gray argillite. Uppermost part is usually a thinly laminated, light greenish argillite(pЄsg).

pЄr

Revett Formation

Thick-bedded, vitreous, white quartzite. Cross-bedded and laminated in part. Grades into less pure quartzite at bottom and top.

pЄb

Burke Formation

Thin-bedded, light to greenish-gray, fine-grained argillaceous quartzite with more or less white or light purple, thick-bedded quartzite. Shallow water features are common.

pЄpu

Upper Prichard Formation

Thin- to thick-bedded, light gray to white, pure to argillaceous quartzite interbedded with thinly-laminated, dark gray argillite. Shallow water features are common.

pЄpq
pЄpl

Lower Prichard Formation

Banded dark gray argillite, laminated in part; partings usually contain numerous pyrite crystals. Weathers rusty red. The is a zone of interbedded white to light gray quartzite.

Veins at the Surface

Solid line where exposed; broken where approximately located.

Veins Projected From Underground Workings
Approximate position shown as if vein were continuous to surface, though not necessarily known to crop out.

Types of Veins

A = veins known to contain base metals
B = veins not known to contain base metals

Contact

Dashed where approximately located

Indefinite Contact

Includes gradational and obscured contacts, and boundaries of surficial deposits.

U
75 D
Fault Showing Dip

Dashed where approximately located; dotted where concealed.

U = upthrown side, D = downthrown side

? ? ? ?
Doubtful or Probable Fault; dotted where concealed

U
80 D
Faults Showing Dip, Projected on Dip to Surface From Underground Observation

U = Upthrown side, D = downthrown side

Zone of Shearing

Anticline

Showing trace of axial plane; dashed where approximately located; dotted where concealed.

Syncline

Showing trace of axial plane; dashed where approximately located; dotted where concealed.

57
Strike and Dip of Beds

65
Strike and Dip of Beds Projected Vertically From Underground Observation

45
Strike and Dip of Overturned Beds

90
Strike of Vertical Beds

Horizontal Beds

23
Strike and Dip of Cleavage

90
Strike of Vertical Cleavage

Prospect Pit or Obscure Working

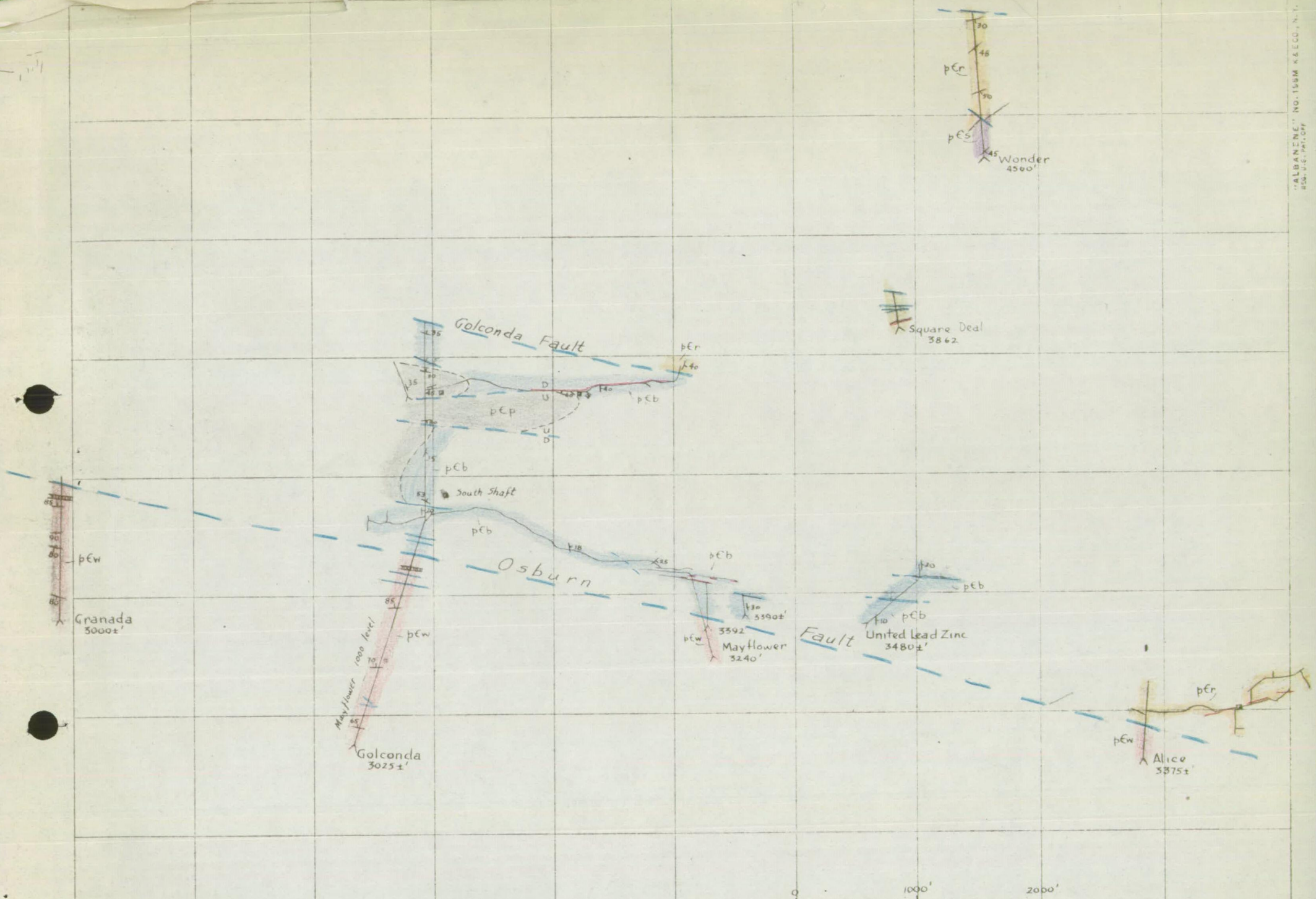
Portal of Adit

Shaft

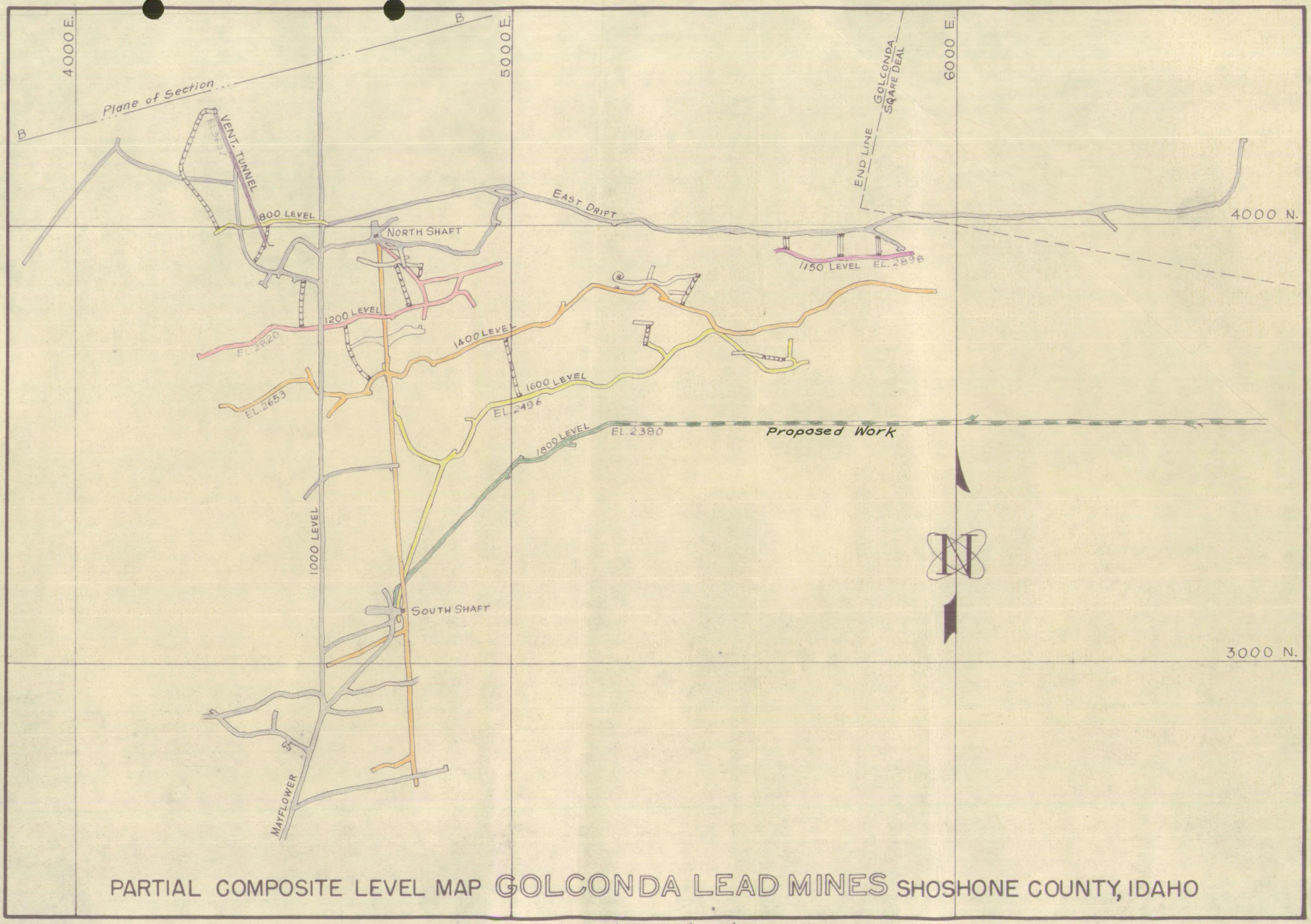
GEOLOGIC MAP AND SECTION OF THE AREA IN THE VICINITY OF THE GOLCONDA MINE

SCALE 1:24,000

1952



Map showing relation of Golconda mine structures to those of nearby workings

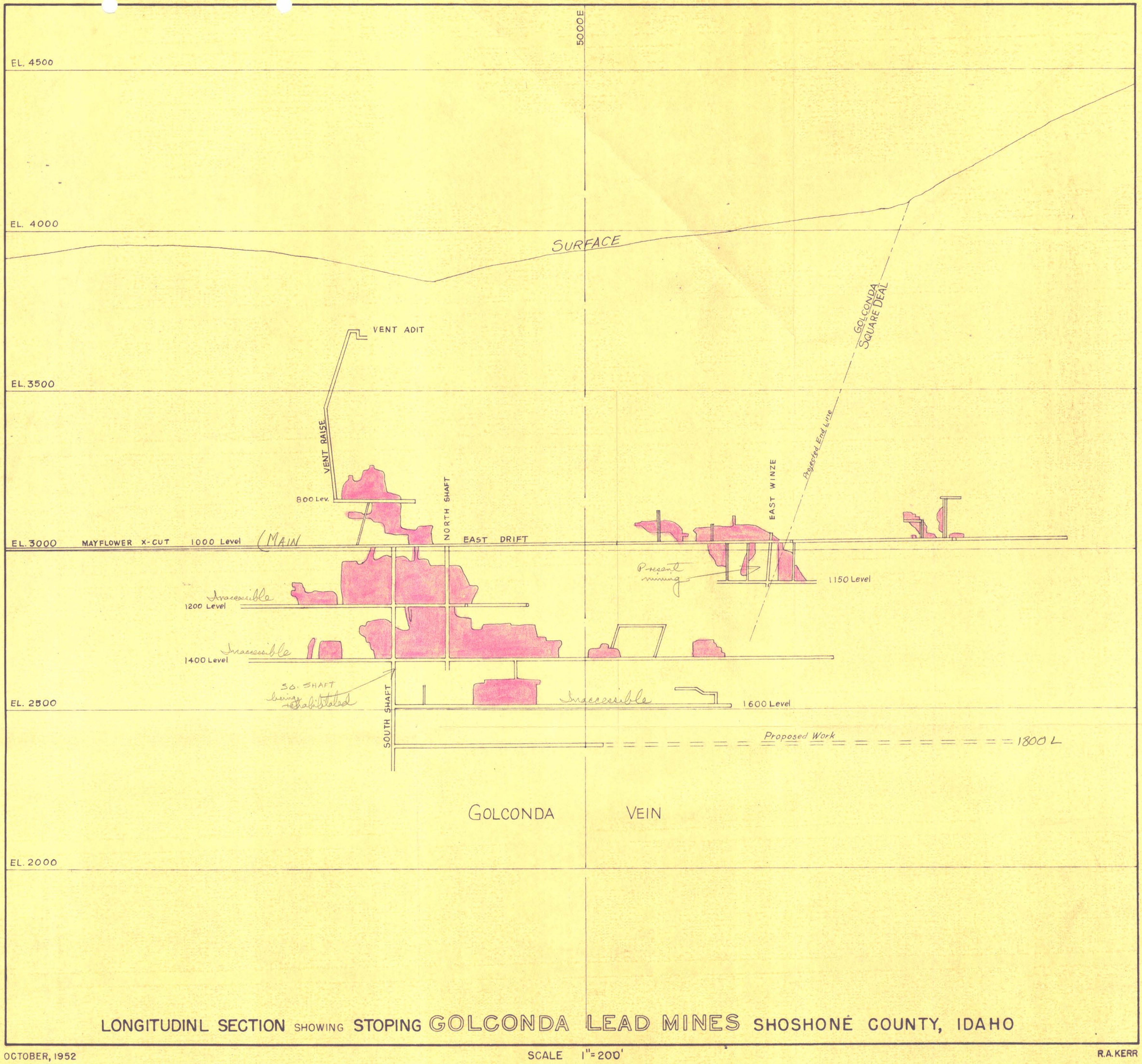


PARTIAL COMPOSITE LEVEL MAP GOLCONDA LEAD MINES SHOSHONE COUNTY, IDAHO

OCTOBER, 1952

SCALE 1"=200'

R.A. KERR

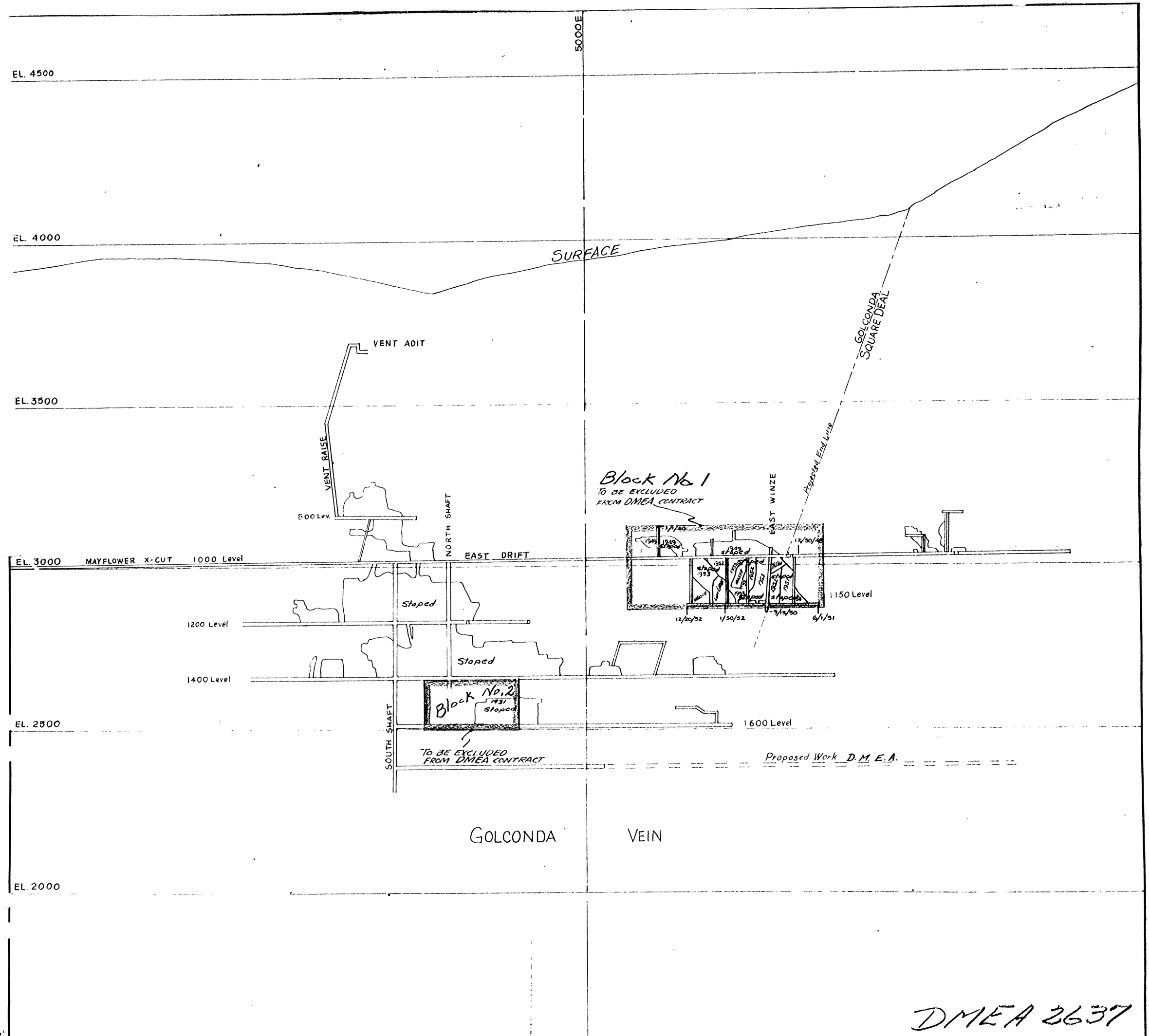


LONGITUDINL SECTION SHOWING STOPING GOLCONDA LEAD MINES SHOSHONE COUNTY, IDAHO

OCTOBER, 1952

SCALE 1"=200'

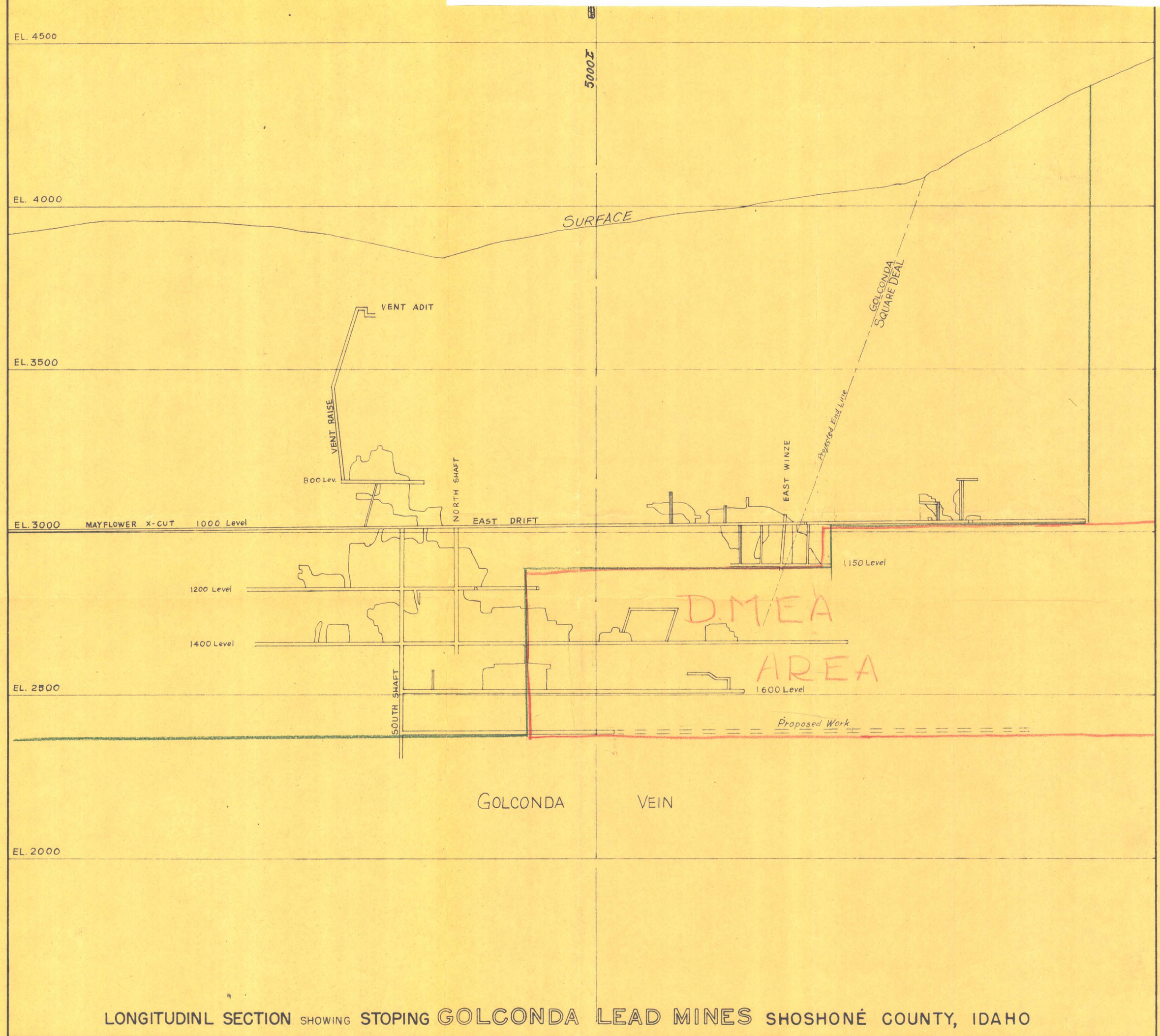
R.A. KERR



DMEA 2637

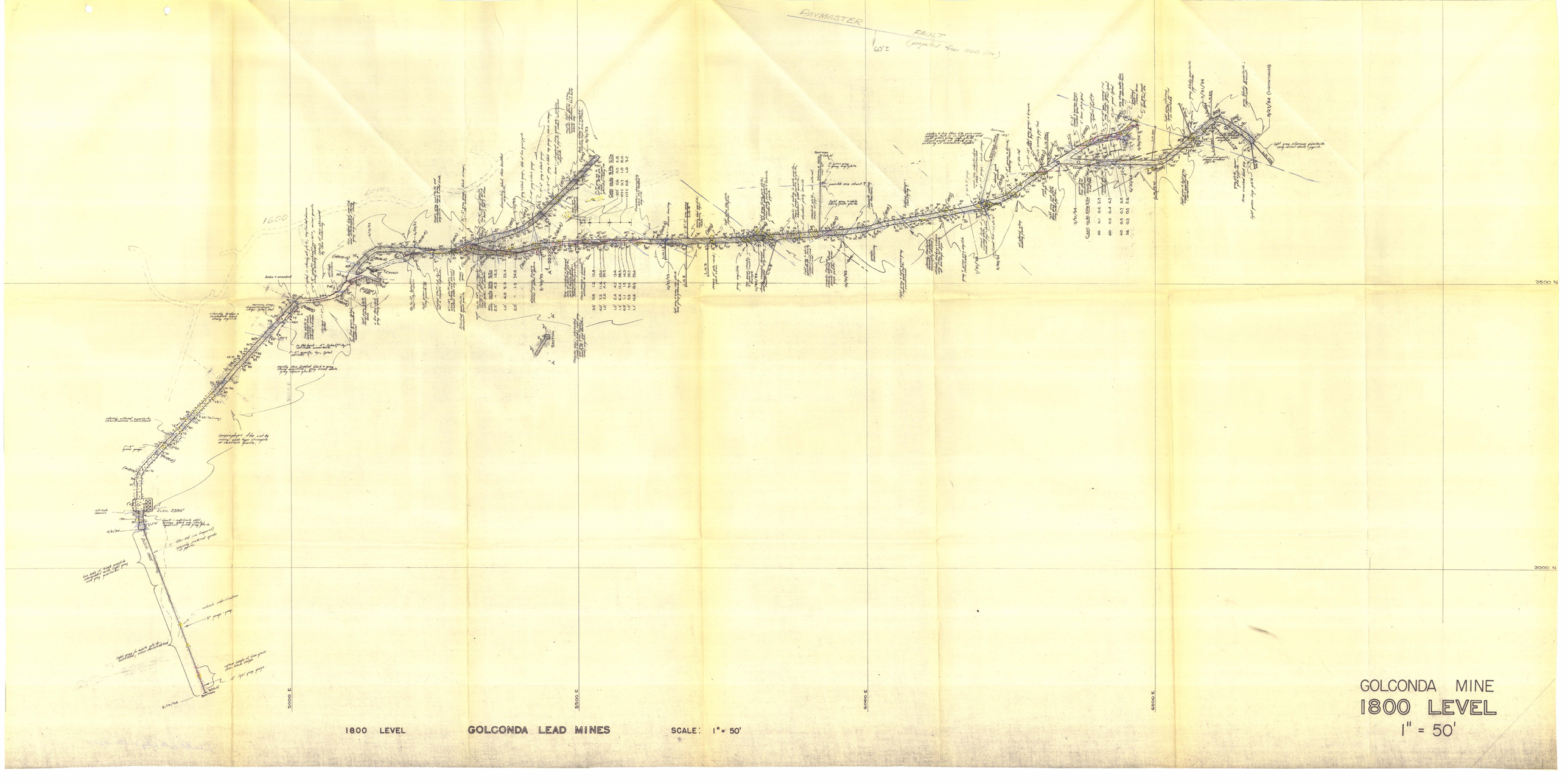
LONGITUDINL SECTION SHOWING STOPING GOLCONDA LEAD MINES SHOSHONE COUNTY, IDAHO

OCTOBER, 1952 SCALE 1"=200' R.A.KERR



LONGITUDINL SECTION SHOWING STOPING GOLCONDA LEAD MINES SHOSHONÉ COUNTY, IDAHO

OCTOBER, 1952 SCALE 1"=200' R.A.KERR



1800 LEVEL GOLCONDA LEAD MINES SCALE: 1" = 50'