DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMA Docket No. 1650X

DO NOT DETACH THIS SLIP

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

This document has been recorded as

EXPLORATION LOAN

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

Routing Slip

To:	SUPPLY DIVISION	Date	SEP 12 1951 ~~SEP 12 1951~~
To:	SEP 12 1951	Date	
To:	Mr. Shoshan	Date	11-30-51
To:		Date	
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CONTROLLED DOCUMENT

MF-500

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

REFERENCE SLIP

DATE 11/30/51

REFERRED TO:

1. Mr. Shooshan
2.
3.
4.

FOR:

Action	Recommendation
Approval	Record
Comment	of
Conference	Referring
Consideration	to
Filing	Reply for signature of
Instructions	
Investigation	Rewriting
Initials	Signature
Mailing	Suggestions
Previous correspondence	Your information

REMARKS: The docket on this application contains a summary and all the details.

Check (X) before the items needing attention.

C. O. M. (W)

C. O. Mittendorf
Initials of sender.

fw

GPO 16—63815-1

Robert Shooshan
Mr. Shooshan
Mr. Ingoldsby

RM 1-535 DEPARTMENT OF THE INTERIOR
OFFICE OF THE SECRETARY
ROUTING SLIP

FOR ROUTING TO – FROM – AND WITHIN THE OFFICE OF THE SECRETARY
INDICATE ROUTING ORDER BY NUMBER — STRIKE OUT OFFICE NAME WHEN CLEARED

TO:

____	SECRETARY
____	UNDER SECRETARY
____	Assistant to the Secretary
____	Program Staff
____	Div. International Activities
____	Division of Information
____	Solicitor
____	Exec. Asst. to Secy./Defense
____	Def. Elec. Power Admn.
____	Def. Fisheries Admn.
____	Def. Minerals Admn.
____	Def. Solid Fuels Admn.
____	Petroleum Admn./Def.
X	C. O. Mattendorf
____	Mines
____	Rm. 4640

____	ASST. SECY./WATER & POWER
____	Water and Power Division
____	Bonneville Power Admn.
____	Bureau of Reclamation
____	Southeastern Power Admn.
____	Southwestern Power Admn.
____	ASST. SECY./MINERAL RES.
____	Minerals and Fuels Division
____	Division of Geography
____	Oil and Gas Division
____	Bureau of Mines
____	Geological Survey
____	
____	

____	ASST. SECY./PUB. LAND MGT.
____	Division of Land Utilization
____	Bureau of Indian Affairs
____	Bureau of Land Management
____	Fish and Wildlife Service
____	National Park Service
____	Office of Territories
____	ADMIN. ASST. SECRETARY
____	Div. Admin. Services
____	Div. Budget & Finance
____	Div. Management Research
____	Div. Personnel Management
____	Div. Property Management
____	
____	

REMARKS

IF MORE THAN ONE COPY IS ROUTED
____ORIGINAL ____INFORMATION COPY
TO:

From:
(Name and Office) Under Secretary (Phone) 4573

(Date) 12/11/51

90671

OFFICE OF THE
UNDER SECRETARY

UNITED STATES
DEPARTMENT OF THE INTERIOR
WASHINGTON

NOVEMBER 26, 1951

MEMORANDUM

TO: MR. C. O. MITTENDORF, ADMINISTRATOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

FROM: HARRY M. SHOOSHAN, JR.

WOULD YOU BE GOOD ENOUGH TO SEND ME FOR SECRETARY SEARLES' INFORMATION THE FACTS SURROUNDING THE REJECTION OF THE EAST SLOPE MINING COMPANY (COLORADO) APPLICATION FOR AN EXPLORATION LOAN.

SPECIAL ASSISTANT

DMA-1650X

FILE COPY
SURNAME: 350

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

SEP 13 1951

Campbell
Lyon
McKnight
Bishop
Billings

Re: DMA-1650X
East Slope Mining Co.
Betty Mine
Park County, Colorado
Exploration loan $56,039
Cobalt, zinc, copper

a.E.C.

Memorandum

To: Reports and Records Unit
Administrative Management Div.

From: Chief, Lead-Zinc Branch

Subject: Denial of exploration loan

The applicant has requested an exploration loan of $56,039 (Government participation, 90%) for work at the Betty Mine, Park County, Colorado. The applicant stated that the property contained cobalt and qualified for 90% Government participation.

The property was examined by the Field Team, Region IV, and a report was submitted. According to the report, the application can be denied immediately on the 90%-10% basis as no cobalt minerals were seen in the mine and assays of vein material showed less than 0.02% cobalt. The report states further that the field team would also recommend denial of a 50%-50% program, for the base metal ore deposits are small and erratic and there are no geologic indications that significant tonnages can be developed by the proposed exploration work to support a sustained and profitable operation.

The Lead-Zinc Branch concurs with the field team's recommentation that the loan be denied.

Returned herewith are:

1 copy "Review of Application"
3 copies Form MF-103 and attachments
3 " " MF-100 " "

The field team report is in the hands of Mr. Schroeder and will presumably be returned by him.

T. P. Billings, Chief
Lead-Zinc Branch

JF 9/13

ABCampbell:emp
G 9-12-51

Approved:

Tom Lyon
Director, Supply Division

Copies to: J. H. East, Jr. Reg. IV
Chief, Lead-Zinc Br.
E. T. McKnight 4204 GSA
O. Bishop
Directors r. files 4214
Br. r. files 4214 GSA
Administrators r. files

DMA docket files

FILE COPY
SURNAME:

350

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

Campbell
For cons. Pur.
McKnight
Bishop
Billings

SEP 13 1951

Re: DMA-1650X

G.E.C.

Mr. Anthony A. Abrutz
The East Slope Mining Company
Colorado Springs, Colorado

Dear Mr. Abrutz:

Your application (DMA-1650X) for a Government loan of $56,039 for an exploration project at the Betty Mine, Park County, Colorado, has been reviewed again by the Defense Minerals Administration after a report of an examination of your property was received from our field staff.

From this report, we conclude that the cobalt mineralization on your property is of very low grade (less than 0.02 per cent) and that the base metal deposits are small and erratic. There are no geologic indications that the exploration work which you propose would encounter cobalt mineralization of higher grade or that a significant tonnage of base metal ore would be developed. The Defense Minerals Administration does not consider that the chances of developing significant reserves of strategic minerals are great enough to warrant the expenditure of public funds which you request. I regret, therefore, that your application must be declined.

We wish to thank you for bringing this property to our attention.

Very truly yours,

Tom Lyon

Tom Lyon, Director
Supply Division

JF 9/13

ABCampbell:emp
G 9-12-51
Copies to: J. H. East, Jr. (2)
Chief, Lead-Zinc Br.
E. T. McKnight 4204 GSA
O. Bishop
Directors r. files 4214 GSA
Br. r. files 4214 GSA
Administrators r. files
DMA docket files

UNITED STATES
DEPARTMENT OF THE INTERIOR SEP 13 1951
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

Re: DMA-1650X
East Slope Mining Co.
Betty Mine
Park County, Colorado
Exploration loan $56,039
Cobalt, zinc, copper

Memorandum

To: Reports and Records Unit
Administrative Management Div.

From: Chief, Lead-Zinc Branch

Subject: Denial of exploration loan

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The property was examined by the Field Team, Region IV, and a report was submitted. According to the report, the application can be denied immediately on the 90%-10% basis as no cobalt minerals were seen in the mine and assays of vein material showed less than 0.02% cobalt. The report states further that the field team would also recommend denial of a 50%-50% program, for the base metal ore deposits are small and erratic and there are no geologic indications that significant tonnages can be developed by the proposed exploration work to support a sustained and profitable operation.

The Lead-Zinc Branch concurs with the field team's recommentation that the loan be denied.

Returned herewith are:

1 copy "Review of Application"
3 copies Form MF-103 and attachments
3 " " MF-100 " "

The field team report is in the hands of Mr. Schroeder and will presumably be returned by him.

T. P. Billings, Chief
Lead-Zinc Branch

Approved:
Tom Lyon
Director, Supply Division

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

224 New Customhouse
Denver, Colorado

June 28, 1951

Memorandum

To: A. H. Koschmann (with brochure)

P. T. Allsman

From: DMA Field Team, Region IV

Subject: DMA Docket 1650X, The Betty Lode Mine, Freshwater Mining District, Colorado
Applicant--The East Slope Mining Company, Colorado Springs, Colorado

We are enclosing the brochure on DMA 1650X and the "Review" made in the Washington office covering this application. Please make the necessary geologic field examination to determine if the project is worthy of an exploration loan. It should be specially noted that cobalt is claimed to be present.

If the geologic setting is favorable exploration costs should be investigated.

Paul Allsman
P. T. Allsman, Alternate

A. H. Koschmann
A. H. Koschmann

Attachments

FILE COPY
SURNAME:

Bourret.
McNaughton for
Moon
Lone

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

Docket
Mailed
6/22/51

June 21, 1951

Mr. Anthony A. Abruta
The East Slope Mining Co.
Colorado Springs, Colorado

Dear Mr. Abruta:

Your application docket DMA-1650x for exploration project in the amount of $56,039.00 has been received by the Minor and Rare Metals Branch of the Supply Division.

Before a decision can be reached on your request we find it is necessary to obtain additional information on your property. Your application therefore is being referred to the office of the Executive Officer of DMA field team IV, Mr. J. H. Last, Jr., 224 New Customhouse Building, Denver 2, Colorado, with the request that the needed information be supplied to us.

Yours very truly,

Tom Lyon, Director
Supply Division

WBourret/mh
cc: Adm. Read. File
Strobel
Lyon
Field Team IV
Bourret
Files

Dec 11 1950

858

FILE COPY
SURNAME:

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

June 18, 1951

Mr. Anthony A. Abrutz
The East Slope Mining Company
Colorado Springs, Colorado

Subject: DMA-1650X
Re: Exploration Loan
Betty Lode Mine

My dear Mr. Abrutz:

Receipt is acknowledged of your application and attachments of May 21, 1951 for an exploration loan under the Defense Production Act of 1950.

The application was assigned Docket Number DMA-1650X and was referred to Mr. Otto Herres, Chief, Lead-Zinc Branch on June 12, 1951.

In any future correspondence relating to your application, kindly refer to DMA-1650X.

Sincerely yours,

LANDON F. STROBEL

Landon F. Strobel
Executive Secretary

LFSTROBEL:js
cc: Strobel-2
Files
Herres
Lyon

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

JUN 22 1951

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

DIRECTOR'S
OFFICE
REGION IV
JUN 25 1951
BUREAU OF MINES
DENVER, COLORADO

Dear Sir:

We attach "Review of Application for Exploration Assistance" on:

Docket No. DMA-1650x

Commodity Cobalt, zinc, copper, lead

Applicant The East Slope Mining Company

Please expedite the consideration of this application with particular reference to the points raised in the attached "Review."

Very truly yours,

Tom Lyon, Chairman
Coordinating Committee

Lowell B. Moon
For Bureau of Mines

Edwin T. McKnight
For Geological Survey

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

JUN 25 1951

June 11, 1951

Mr. Anthony A. Bruta
The Last Chance Mining Co.
Colorado Springs, Colorado

Dear Mr. Bruta:

Your application docket [illegible]-1090x for exploration project in the amount of $[illegible],000.00 has been received by the Minor and Rare Metals Branch of the Supply Division.

Before a decision can be reached on your request we find it is necessary to obtain additional information on your property. Your application therefore is being referred to the Office of the Executive Officer of DMA Field Team IV, Mr. [illegible] Jr., [illegible] Customhouse Building, Denver 2, Colorado, with the request that the needed information be supplied to us.

Very truly yours,

For the Director
Supply Division

Bourret/ch
cc: [illegible] Chrono. File
Gribel
Lyon
Field Team IV
Bourret
Files

6/5/51

Defense Minerals Administration

Review of Application for Exploration Assistance

Docket No. DMA 1650-X

Commodity Cobalt, zinc, copper, lead

Total Amount $56,039.

Govt. Participation $50,435.10

1. Name and Address of Applicant The East Slope Mining Co., Colorado Springs, Colo.

2. Location of Property The Betty Lode Mines, Guffey, Colo., Freishwater Mining Dist., Park Co., T 15 S, R 73 W, Sec 21.

3. Mineral or metal yes Is it listed in Section 9 of MO-5?

If not, application will be rejected.

4. Geologic probability of discovery—based on data in application (question #16, 17, 18, 20 and 22)*

Mines or Survey reports, etc., do you rate chances:

a) Good ____

b) Poor X

c) None ____

d) Don't know—needs field examination ____

e) Is there an alternative and favorable project? no
(If so, attach an explanation)

5. Is the applicant's right to the property clearly stated? yes
(question 5, 6, 7)*

6. If applicant is a lessee, is a copy of the lease attached? yes

Does the lease have sufficient time to run to cover a future productive period? ____

*question numbers are those of MF-103

7. Are subordination agreements necessary?_____

a) MF-201?_____

b) MF-202_____

8. From the data presented, does the proposed project appear feasible from the point of view of:

a) Available manpower_____

b) Equipment and supplies_____
(Question 14 plus general knowledge of availability)*

c) Accessibility (question 12)*_____

d) Water (question 13)*_____

e) Power (question 13)*_____

Is a field check needed on any of these points?_____

9. Does the experience of the applicant appear to be adequate to assure that he can properly conduct the proposed project? (question 4)*_____

Is a field check needed on this point?_____

10. Exhibit A. (questions 21 and 22)*

a) Is the project adequately described? no

If not, are there sufficient data given so that you can describe the project? no If so, attach a draft.

b) Is there an adequate map or sketch of the proposed work? ~~no~~ yes

c) Is the proposed work "exploration" under the definition of Section 8, MO-5? ~~no~~ only in part

If not, what part of it is? drilling new drifts

Is this part a worthwhile exploration project? [illegible]

d) Are the cost estimates detailed?_____

Can they be summarized, as on page 2 of Procedural Instruction 5-A, from the available data?_____ If so, attach a draft.

e) Are the cost estimates reasonable?_____

f) Should more information be requested from applicant?_____

g) Is a field examination necessary to complete Exhibit A? yes

11. Exhibit B (question 23-d)*

a) Is it applicable?_____

b) If so, are sufficient data furnished?_____ If so, attach a draft.

c) Is a field check needed?_____

12. Exhibit C (question 23-e, f and g)*

a) Is it applicable?_____

b) Sufficient data?_____ If so, attach a draft.

c) Are rents and charges reasonable?_____

d) Is a field check needed?_____

13. Exhibit D (question 23-a, b)*

a) Are there sufficient data?_____

b) Is the schedule adequate for the work proposed?_____

c) Is the schedule excessive for the work proposed?_____

d) Are the proposed wages and salaries reasonable?_____

e) Is a field check needed?_____

14. Exhibit E (question 23-c)*

a) Is it applicable?

b) Sufficient data?

c) Reasonable?

d) Field check needed?

15. In your judgment, can the proposed work be done in the proposed time?

(All exploration must be completed within two years)

16. If field examination is not needed, attach your recommendation.
We recommend rejection in respect to cobalt. *

17. If field examination is needed, do you have any special instructions for the field team not indicated by your answers to the foregoing question?

* No evidence given that cobalt is present in workable grade. One assay of the dump which contain cobalt showed a trace. Application does not allow prospecting as indication of lead, zinc, or copper ores.

But it should receive a field examination and recommendation concerning base metals promptly, even though it was rec'd here after the deadline.
E.T.H. for Rove.

Reviewed by: [illegible]

Date 6/20/57

97692

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

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

DO NOT FILL IN THIS BLOCK

Docket No. DMA-1658X

Date received 6/12/51

Participation

The East Slope Mining Company,
Colorado Springs, Colorado.

Name and address of applicant

Date May 21st, 1951.

FILL IN THIS BLOCK

Date of application May 21st, 1951

Estimated cost $50,000.00

Mineral or metal Cobalt, zinc, copper, lead

Percentage of Government participation 90%

Location of mine Guffey, Colorado. The Betty Lode Mine is located in the Freshwater Mining District of Park County, Colorado; Township 15-South, Range 73-East, Section 21.

Date of filing MF-100

DMA Docket Number, if available

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation? Partnership.

*2. If a partnership, state names and addresses of partners. (See Schedule 2)

*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders. Not applicable.

*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project. (See Schedule 2)

*5. Are you the owner or the lessee of the property? Lessee

6. If owner, state what claims, liens, or encumbrances, if any, are against the property. Not applicable.

7. If lessee, attach a copy of the lease and state if it is in good standing. Attached. In good standing.

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement. (Schedule 2)

9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)? (See schedule 2)

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property. (See Schedule 1)

(*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted. (Sched.1)

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

*11. State the present and former names of the property, if any. Old name: Betty Lode Mine (Lone Chimney Mine)

*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads. (See Schedule 1)

*13. State source and quantity of water available for operations and its sufficiency at all seasons. (See Schedule 1) State amount of power to be used, rate per hour or other cost, and source. (See Schedule 1)

*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work. (See schedule 1)

15. State in detail how the ore could be shipped and how and where milled. (See schedule 1)

*16. History:

(*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations. (See schedule 1)

(*b*) State briefly the known history and production of adjoining and neighboring properties. Unknown.

(*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations. (See Engineer's Report)

*17. Production: Not applicable

(*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.) Not applicable.

(*a*) Describe the ore or mineral deposits briefly.

(*b*) Submit available maps and assay data.

(*c*) Give estimated tonnage and grade of each class of ore reserves.

19. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions. (See Engineer's Report)

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted? (Schedule 1)

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it. (See Schedule 1)

NOTE.—The Government will not participate in a project that will require more than 2 years to complete.

22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data. (See Engineer's Report)

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:

(*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each. (See Schedule 1)

(*b*) Supervisors, by numbers and positions, with salaries of each.

(*c*) Cost of necessary repairs to existing facilities, structures, and buildings.

(*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.

(*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.

(*f*) Cost of rental for equipment which the operator proposes to rent.

(*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.

(*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.

(*i*) Cost of power, water, utilities, and any other items not provided for above.

24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent. (See Schedule 1)

CERTIFICATION

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

Great Slope Mining Co.	By Anthony A. Abruzzo
(Name of company)	(Signature of authorized official)
5/28/51	Partner
(Date)	(Title)

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

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

SCHEDULE 1 (FORM MF-103)

Question No.	Answer
10.(a)	The Betty Lode Mining Claims are located in the Freshwater Mining District of Park County, Colorado; Township 15-South, Range 73-West, Section 21. This property is situated five miles South of Guffey, Colorado.
(b)	This claim, known as the Betty Lode Claim, is located in general in a North and South direction, 1500' x 600', starting at the South Line, 300' West to the Westerly line, thence North 1500' to the Northerly line, thence East 600' to the Easterly line, thence South 1500' to the Southerly line, thence 300' West to the point of beginning, the discovery being made 750' North from this point of beginning.
12.	This property is situated on good County road and accessible to the mine by excellent dirt road. The mine is approximately 30 miles by County road (Colorado #9) to Hartsel, Colorado, and then by paved Highway (U.S.#24) to Buena Vista, and U.S.Highway #285 North to Leadville and South to Salida. The mine is located 22 miles from Parkdale on County road (Colo.#9) on Highway (U.S.#50) from Pueblo, Canon City and Salida. Parkdale is the nearest loading station of the Santa Fe Railroad. The same railroad is also located at Buena Vista and is reached by U.S.Highway #24 to the North approximately 50 miles from the mine. Elevation of the mine is 9500 feet.
13.	Sufficient water is available in the mine for all mining operations. This property is adjoined by several small creeks, which will supply additional water if needed. Climatic conditions in this area are excellent the year around, and mining operations can be carried out continuously. Electrical power is available within 10 miles of the property, but facilities at the mine are sufficient at the present time by independent gasoline motive power to supply present needs for exploration work. Estimated cost of power per day of normal operations, about $8.00, for fuel.
14.	The mine at the present time is 90% equipped with compressors, hoists, tools, drifters, stopers, rails, cars, and general mining equipment, in excellent condition, to handle this exploratory work. Necessary buildings to house this equipment are now provided. Some additional equipment, outlined later, and one additional building will be necessary to carry out further exploration work, mainly for efficiency reasons.

15. It is recommended that all ore be shipped to the Santa Fe Railroad siding, 22 miles South of the mine, over County road, (Colo.#9) to U.S.Highway #50, at Parkdale, Colorado. From this loading point, ore could be shipped to all points east, or to points west, including Leadville, Colorado, and Salt Lake City, Utah.

16.(a) This property was discovered approximately 20 years ago and to the 100' level was mined primarily for high-grade gold, which was located in the tear pocket of an iron cap overlay. Extended drifting and deepening of the shaft has been carried on privately, and has developed in the past several tear pockets and horses of ore. This past work has been done without the benefit of geological or engineering supervision, and because of the faulting in the area has not developed definite ore bodies. In most cases the ore has not been followed, or means provided to carefully mine the developments on hand. By-passing of the ore bodies and lack of capital in the past have been the main reasons for the unsuccessful development of this property.

(b) Unknown.

(c) See Engineer's Report.

20. Predominate minerals so far explored are copper and zinc, the copper ore containing substantial silver and gold content. Cobalt is the major discovery, and is the reason for this necessity of further development for this rare ore, which past exploration substantiates to be present. High-grade lead has also been discovered, and needs additional exploration. The ore deposits are metamorphic, in a supergene enrichment by epithermal conditions.

21. Proposed work recommended is the exploration to continue the tracing of the cobalt deposit, and to extend the present commercial ores to greater depths, which indicate higher grade and greater volume of ore deposits. The work recommended is as follows:

1. Continue to explore the cobalt deposit on the 100' level and locate other ores that may develop. It is estimated that it will be necessary for about 50' of drifts for this exploration at this level.

2. Cobalt extensions should be intercepted on the 160' level by a 75' drift or raise off from the 48' drive as shown on map. Cobalt extension should also be explored by a raise at the station as indicated on the map.

3. Extend the 21' drift on the 200' level approximately 100' which should intercept the cobalt deposit from the 160' level. We also recommend the extension eastward 50' on the 21' drift to intercept the zinc and copper vein.

4. Extension of the 96' drift on the 225' level approximately 30' to the high grade lead vein.

21. 5. The 300' level should be drained, cleaned and repaired, and the present diggings should be explored for vein extensions from the above levels. It is estimated that contacts should be made on a East drive of 155' for cobalt, a Southwest drive of 100' for lead, and a Northwest drive of 60' for zinc and copper.

From the above ore deposits it is definitely indicated that the increased depth will produce higher grade and greater volume of ores. It is, therefore, recommended that the main shaft be sunk an additional two levels, or 200', with a 50' sump below the 500' level, stations and drifts to be developed from the information secured from the 300' level. At the present time there is sufficient water in the mine for mining purposes, but it will be necessary with the deepening of the shaft to add water-control pumps before work can be done on these lower levels.

Estimated time required - about 7½ months.

23. The above recommended work will require:

(a)	Labor - 2 Hoistmen $1.25 per Hr.	Crew per shift	$44.00
	- 2 Topmen $1.25 per Hr.		
	- 2 Miners $1.50 per Hr.		
	- 2 Muckers $1.50 per Hr.		
	For shaft deepening work 2 shifts will be used with the above men.		
(b)	Supervisors (2) $75.00 per week each	per shift	12.50
(c)	Estimated shaft repair, ladders, etc.:		
	Material		800.00
	Labor		200.00
	Head frame repair and sheave repair:		
	Material		150.00
	Labor		100.00
(d)	Locker room for miners, supply room, and office space, area 10' x 30', estimated cost		2000.00
(e)	Deepening of the shaft will require a jack hammer, hose, steel and bits		600.00
	Water pump and pipe for water control		1500.00
(f)	None		
(g)	Estimated rental value of all available equipment $250.00 per month	per shift	10.00
(h)	Dynamite fuse - 65' per day	per shift	1.30
	Powder - 25 lbs. per day	per shift	10.00
	Timber for shaft construction, 4 x 8, $125.00 per M Ft. cost approximately $40.00 for ten feet of shaft or -	per shift	13.00
(i)	Gasoline power estimated at $8.00	per shift	8.00

24. It is estimated that the time required to complete the above work will be about 7½ months. Deepening the shaft will be done at the rate of 14 feet per week per shift, or a total of 112 feet per month for two shifts. Deepening of the shaft will require approximately 3 months, including timbering and water removal. This operation will be necessary

24. before continued exploration on the upper levels because of mine safety regulations. Drifting as recommended in the Engineer's Report will be approximately 4 foot per shift, and will require the balance of the 4½ months to complete, including the necessary repairs and construction necessary for the project.

It is estimated on the basis of the above figures that the cost of deepening the shaft 250' will be at the rate of $40.00 per foot, with the total cost of $10,000.00.

Drifting on the different levels is estimated on the basis of the above figures minus the cost of timbering, to be $32.00 per foot; it will be necessary for total exploration to drift approximately 1120', at a total estimated cost of $35,840.00.

GEOPHYSICAL ENGINEERING, Division of:
BAZLEY & SCHUMACHER ENGINEERING COMPANY

By: Carl E. Bazley
C. E. Bazley.

May 21st, 1951.

frb.

SCHEDULE 2 (FORM MF-103)

Question No.	Answer
2.	The East Slope Mining Company is a partnership owned and operated by Anthony A. Abrutz, 514 Catalina Ave., Youngstown, Ohio, and Paul Sisk, c/o East Slope Mining Company, Guffey and Colorado Springs, Colorado.
4.	Anthony A. Abrutz is the sole owner of the Pitsy Coal Company, situated in Columbiana County, Ohio, and is the owner and operator of the Florist Exchange, 214 N. Walnut Street, Youngstown, Ohio, a wholesale florist establishment. Mr. Anthony A. Abrutz has had extensive managerial and commercial experience. His business enterprises have done a gross business of approximately $200,000.00 per year. Mr. Abrutz has had no ore mining experience; however, he has had considerable coal mining experience as owner and operator of the Pitsy Coal Company. Mr. Paul Sisk has had fifteen years mining management experience with the following companies: West Jellico Coal Company, Nortonville, Ky., North Star Coal Company, Madisonville, Ky., West Hartford Coal Company, Hartford, Ky., Parkhill Coal Company, Madisonville, Ky., Hart Coal Mining Company, Madisonville, Ky., and the West Kentucky Coal Company, Mr. H.L.Richardson, owner of the West Jellico Coal Company referred to above.
8.	Since the mine operations have been solely on a development and exploration basis, there is no profit and loss statement. The balance sheet is on page 2 of this schedule.

Question No.	Answer

8. East Slope Mining Company - Balance Sheet June 1st,1951.

Assets

Current Assets			
Cash in Bank- Youngstown, Ohio	$3,000.00		
- Colorado Springs	1,000.00	$4,000.00	
Inventory- Approximately 1,000 Tons of Raw Ore containing Lead,Copper,Zinc, Silver & Gold (Stock Pile)		20,000.00	
Total Current Assets			$24,000.00
Fixed Assets			
Hoisting Machinery			
Stoping Machine and Drills			
Air Compressor		18,200.00	
30-Ton Concentrating Mill		7,000.00	
Electric Charging Machine and Motor		5,000.00	
Chevrolet Truck, two ton		3,658.40	
Two (2) Tons Rail (New)		360.00	
Twenty (20) Acres Land		200.00	
Total Fixed Assets			34,418.40
Other Assets			
Development Cost			3,444.84
TOTAL ASSETS			$61,863.24

Liabilities & Net Worth

Current Liabilities		
°1 Chattel Mortgage on Truck	2,208.00	
°2 Notes Payable-Mining Equipment	9,000.00	
Total Current Liabilities		11,208.00
Net Worth Account		50,655.24
TOTAL LIABILITIES & NET WORTH		$61,863.24

°1. G.M.C.Finance Corporation
°2. Bazley & Schumaker Engineering Co.

9. Mr. Anthony A. Abrutz, co-owner of the East Slope Mining Company has invested considerable money in this property, and is prepared to assume his share of the project expense.

EAST SLOPE MINING COMPANY

By: Anthony A. Abrutz
Anthony A. Abrutz

Paul Sisk
Paul Sisk

May 28th, 1951.

COPY

This Agreement of Lease, Made and entered into this 9th day of December, A. D. 1950, by and between BUFORD G. DELL and HOWARD JAMES NEWBERRY, both of Park County, Colorado.

parties of the first part, and CARL E. BAZLEY, of El Paso County, Colorado.

party of the second part, **Witnesseth,** That the said parties of the first part, for and in consideration of the rents, covenants and agreements hereinafter expressed to be paid, kept and performed by the said party of the said second part, have leased, let and demised, and by these presents do lease, let and demise unto the said party of the second part, the following described premises, to-wit:

COPY

Betty Lode situated in the Freshwater Mining District of Park County, Colorado, held under location filed and recorded in Book 39, page 91, of the Records of Park County, Colorado, Section 21, Township 15 South, Range 73 West of the 6th P.M.

COPY

To Have and to Hold, For the purpose of mining, with power to assign ~~xxxxxxx~~ the whole ~~xxxxxxxxx~~ of said premises to a partnership formed for that purpose.

for the term of five (5) years

from the date hereof. Said party of the second part, for and in consideration of the premises aforesaid, has covenanted, contracted and agreed, and by these presents does covenant, contract and agree with said parties of the first part, their heirs, executors, administrators, successors or assigns, to commence work on said premises on or before December 15, 1950 and to work the same continuously and with reasonable diligence, in thorough and workmanlike manner; performing thereon at least fifteen shifts of work, of labor men each, during every calendar month of the life of said lease; keeping the same securely timbered in all parts during the term of this lease; to keep accurate accounts, and to render quarterly statements, accompanied by vouchers, to the said parties of the first part, their agent or attorney, showing the amount of all ore taken from said premises, and the yield of the same, and the cost of hauling and milling the same, and to pay quarterly to said parties of the first part, their agent or attorney, as rental for said premises, as follows, to-wit:

A royalty of 10 per cent of the value of all ores removed and processed.

It is understood and agreed that 4/5ths of such royalty shall be due to Buford G. Dell and 1/5th to Howard James Newberry.

Said party of the second part furthermore agrees that the said parties of the first part, their agent or attorney, shall have the right at any and all times to enter upon and descend into any and all parts of said premises, and that the said party of the second part will render to them all the assistance in his power in so doing.

Said party of the second part furthermore agrees that in case he fails to commence work on said premises as aforesaid, or to work the same continuously and with reasonable diligence and in workmanlike manner, or to keep the same securely timbered, or render said statements, or to pay said rental as aforesaid, or in any respect to keep and fulfill any and all agreements herein expressed or implied, then, and in that case, it shall be lawful for the said parties of the first part, their agent or attorney, to declare this lease void and of no effect thereafter, and without process of law to enter upon and take possession of said premises; ~~and~~

~~xxxxxxxx~~

and also at the expiration of this lease by limitation, said party of the second part agrees to surrender, yield and deliver to said parties of the first part, their heirs, administrators, executors, successors and assigns, quiet and peaceable possession of said premises in good condition.

It is further agreed that Party of the Second Part, or his assignees, shall carry compensation insurance covering any and all employees working on the property covered by this lease and that this lease shall include all materials and equipment now located on the property other than that of equipment which is owned by Mr. Walter Merritt.

It is further agreed that this lease may be extended for a further term of five years at the option of the Party of the Second Part, or his assignees, by giving written notice to Parties of the First Part at least 30 days before the expiration of this lease.

(SIGNED) AMY MERRITT
Witness - December 9th, 1950.

(SIGNED) BUFORD G. DELL Seal

(SIGNED) HOWARD JAMES NEWBERRY Seal

(SIGNED) CARL E. BAZLEY. Seal

Seal

Seal

Seal

MINING LEASE

FROM

TO

Office of
County Clerk and Recorder.

COUNTY OF Park
COLORADO.

I hereby certify that the within instrument was filed in this office for record on the 18th day of December A. D. 1950, at ..... o'clock ..... M., and was duly recorded in Book 144 Page 282

COUNTY CLERK AND RECORDER.

DEPUTY.

FEES, $.....

OUT WEST PRTG. & STATY. CO., COLO. SPRINGS H3472

RECORDED IN OFFICE OF COUNTY CLERK & RECORDER
PARK COUNTY, COLORADO
DATE: May 23rd, 1951
BOOK: 144
PAGE: 383

ASSIGNMENT OF MINING LEASE

KNOW ALL MEN BY THESE PRESENTS, That I, CARL E. BAZLEY, of El Paso County, Colorado, for and in consideration of Ten Dollars ($10.00) and other good and valuable considerations to me paid, hereby assign to EAST SLOPE MINING CO., a partnership, of Colorado Springs, Colorado, all my right, title and interest in and to a certain Mining Lease dated December 9, 1950 made by Buford G. Dell and Howard James Newberry to me, of the following described premises, to-wit:

> Betty Lode situated in the Freshwater Mining District of Park County, Colorado, held under location filed and recorded in Book 39, Page 91, of the Records of Park County, Colorado, Section 21, Township 15 South, Range 73 West of the 6th P.M.

and recorded in the Office of the County Clerk and Recorder of Park County, Colorado on the 18th day of December 1950 1950 in Book 144, Page 282, with all and singular the premises herein mentioned and described, TO HAVE AND TO HOLD The same to East Slope Mining Co. from the 23rd day of May, 1951, for and during all the remainder in the term mentioned in said Lease, subject to the agreements by the Lessee, and conditions contained in said Lease.

IN WITNESS WHEREOF, I have hereunto set my hand and seal this 23rd day of May, 1951.

(SEAL)

STATE OF COLORADO)
) ss.
COUNTY OF EL PASO)

The foregoing instrument was acknowledged before me this 23rd day of May, 1951, by CARL E. BAZLEY.

Witness my hand and official seal.

Notary Public

My commission expires: Apr.29,1954

ACCEPTANCE OF ASSIGNMENT

In consideration of the above and foregoing Assignment, the undersigned hereby assumes and agrees to make all the payments and perform all the covenants and conditions of the above described lease by said Carl E. Bazley to be made and performed.

IN WITNESS WHEREOF I have hereunto set my hand and seal this 23rd day of May, 1951.

EAST SLOPE MINING CO.

By (SIGNED) PAUL SISK (SEAL)
Partner

Form MF-100
(March 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

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

NOT TO BE FILLED IN BY APPLICANT

Docket No. _____

Date received _____

The East Slope Mining Company,
Colorado Springs, Colorado.

Name and address of applicant

Date May 21st, 1951.

INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, (4) Necessity Certificate pursuant to the provisions of Sec. 124-A (Amortization Deduction) of Internal Revenue Code, 1950, (5) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (6) other forms of Government assistance that might arise under the Act. Submit four (4) signed copies of the form and accompanying papers. Name and address should be stamped or typed on each sheet of this form and all accompanying papers. *When a question is inapplicable it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. (IF YOU CANNOT ANSWER A QUESTION, SO STATE.) If a question is answered elsewhere indicate where answered. It is not necessary to answer it again.

GENERAL TECHNICAL DATA

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

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

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.
4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated.
   (*b*) Are you operating this property as:
   - ☐ Owner.
   - ☒ Lessee.
   - ☐ Contractor.
5. Number of years in production None

   If not in production or operation, estimated date when production will begin January 1952.
6. Experience of operators:

   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project. See Question 4, EP-103
7. History:
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation. See Question 10, EP-103.
   (*b*) State briefly the known history and production of adjoining and neighboring properties.
   (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

8. Names and addresses of Officers, Directors, or Partners, and in addition thereto, the five largest stockholders if applicant is a corporation. See questions 2 & 3, MP-103

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

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

Item	Authorized (a)	Outstanding (b)	Par Value (c)	Number of Shares Outstanding (d)	Dividend Rate Last Paid* (e)
Common stock	$	$	$		
Preferred stock	$	$	$		

*Indicate period covered.

10. Production: None

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

11. Do you contemplate a change in the present average monthly rate of production? If so, state estimated maximum monthly production and basis of change. None

12. Ore or Mineral Reserves:

(a) Describe the ore or mineral deposit briefly. Accompany the application by any available report on the geology and ore reserves. See question 16(c), MP-103

(*b*) If deposit is other than placer: See Engineer's Report.

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

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

TOTAL ORE OR MINERAL RESERVES

Ore or Mineral Reserve	Estimated Tons (a)	Metal or Mineral Content Per Ton (Grade) (b)	Gross Value Per Ton (c)	Recoverable Unit Value Per Ton (d)	Estimated Cost of Production Per Ton (e)
Measured (proved)					
Indicated (probable)					

(*c*) If placer:

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

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

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

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

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

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

13. Access Roads: See question 12, MP-103

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

14. Water Supply: See question 13, MP-103

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

15. Power: See question 13, MP-103

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

16. Labor:

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

1 Hoistman, 1 Topman, 1 Mucker, 1 Miner, 1 Ore Sorter.

17. Equipment and Facilities:

See question 14, MP-103

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

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

None.

CERTIFICATION

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

East Slope Mining Co. (Name of company)

By Anthony A. Abruzzo (Signature of authorized official)

5/28/51 (Date)

Partner (Title)

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

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

SCHEDULE 1 (FORM MF-100)

Question No.	Answer:
1. (a)	Cobalt, Copper, Zinc, Lead.
(b)	Gold and Silver.
2.	Name: Betty Lode Mine (Old name: Lone Chimney Mine) Type: Metals, shaft and tunnel.
(a)	300 feet.
(b)	682 feet.
(c)	None
(d)	None
	At the present time the mine is flooded from the sump at the 300' level to just below the 225' level. Water is now retained at this level by the use of a bailer bucket, and is no problem in the mine operation at the present time. With reference to our recommendations for deepening the shaft it will be necessary to remove the water in this flooded level by pumps and pumping equipment, and retain it by sufficient pumps, for deepening of the shaft operation.
3. (a)	The mine is located five miles south of Guffey, Colorado, nearest town and residence point. It is also located 22 miles from Parkdale, Colorado, the nearest railroad shipping point, from which the ore can be shipped to any desired destination.
(b)	Freshwater Mining District.
(c)	Township 15-South, Range 73-West, Section 21.
(d)	Park County, Colorado.

GEOPHYSICAL ENGINEERING, Div.of:
BAZLEY & SCHUMAKER ENGINEERING COMPANY

By: Earl P. Bazley

May 21st, 1951.

cpb.

Report of:
GEOPHYSICAL ENGINEERING, Division of: BAZLEY & SCHUMAKER ENGR'G.CO.
on the
BETTY LODE MINE
for
EAST SLOPE MINING COMPANY
Colorado Springs, Colo.

Location: The Betty Lode Mining Claim is located in the Freshwater Mining District of Park County, Colorado; Township 15-South, Range 73-West, Section 21. This property is situated five miles South of Guffey, Colorado, on good County road and accessible to the mine by excellent dirt road. The mine is approximately 30 miles by County road (Colorado #9) to Hartsel, Colorado, and then by paved Highway (U.S.#24) to Buena Vista, and U.S.Highway #285 North to Leadville, and South to Salida. The mine is located 22 miles from Parkdale on County road, (Colo.#9) to Highway (U.S.#50) from Pueblo, Canon City and Salida. Parkdale is the nearest loading station of the Santa Fe Railroad. The same railroad is also located at Buena Vista and is reached by U.S.Highway #24 to the North approximately 50 miles from the mine. Elevation of the mine is 9500 feet. Climatic conditions in this area are excellent the year around, and mining operations can be carried out continuously.

Purpose of this Report: To determine and evaluate the possibilities of ore deposits and mineralization of the area, and particularly the Betty Lode mine from the present workings.

Methods Used: Geological survey, both surface and sub-surface, geophysical study, and geochemical analysis; maps of study enclosed with report.

Engineer's Report: This property is in a highly mineralized area, particularly the present mine location. The predominating formation present in the area is Algonkian Schist, Amphibole, Granite, and Lime Conglomerate, with late Rhyolite intrusions. The mine location is located in a highly faulted zone with the Rhyolite formation taking place last, and cutting through most of the earlier formations including the granites. Mineralization has taken place predominantly in the Algonkian Schist and Amphibole formations, the greatest faulting in these formations being created by the Rhyolite intrusions, thus moving and displacing the other earlier formations. Exploratory work done on the property in the past proves that the ore bodies increase in grade and volume with depth which sustains the geological determination of the faulting zone condition.

In general the predominant ore bodies at present are zinc, copper, lead, and cobalt. The lead ores and copper ores contain gold and silver content. Explanation and general condition of the explored levels are as follows:

1. 100' level shows indications of cobalt deposit. New exploration work exposed definite ore possibilities, and a general sample across area shows trace of cobalt, as per attached copy of assay. High grade sample indicates good percentage of cobalt ore. No other commercial ore exposed on this level at this time. There is possibility of discovery when cobalt is explored further.

2. 160' level shows definite exposure of zinc and copper ore bodies as indicated on east-west-cross section map enclosed. This level indicates the first possibility of commercial zinc and copper ore deposits. Cobalt bloom, same as on 100' level, is also shown on this level, and definitely indicates additional exploratory work to be done on the present 48' drive to cut the cobalt deposit from the 100' level. Also a raise should be made at the station side to cut the cobalt deposit from the 100' level.

3. 200' level shows extension of zinc, copper and lead deposits of higher grade and larger volume than the 160' level. All deposits are continuing with depth and are increasing in grade and volume. Exploration to the present time has opened three new faces of excellent ore. Cobalt should continue with depth and it appears from the condition of the other ore bodies that the cobalt will increase in grade and volume. A fourth face of zinc and copper can easily be opened by a short drift on the 21' present drive.

4. 225' level - continued exploration of this level has opened two new faces of zinc and copper and lead. The face as before indicates larger volume and higher grade. Cobalt should show on this level as all ore bodies are continuing.

5. 300' level - this level is under water and was not explored. This level should be drained and repaired and explored in the same manner as the upper levels for ore bodies. All indications are for continued ore deposits with depth.

Conclusion: The general survey and study of this property definitely indicates that the ore deposits occur from the 100' level to great depth, and that the ore bodies increase in grade and quantity with depth. This property is capable of mining selected high grade ore, but also contains large quantities of lower grade mill ore which would be wasted if developed only into a selected high grade mine. The average sorted ore in quantity produced 18% zinc and 14% copper. Ore screenings of the above mined ore ran 9% zinc and 7% copper. Lead deposits explored showed 6% to 9% with good silver content.

The accompanying assay sheets are included in this report and are recorded only as to the levels at which the samples were taken.

Sample 145 and 146 taken at the 100' level indicates presence of other minerals.

Sample 138 and 139, as a general sample of the 200' level shows increased mineralization and commercial ore.

Sample 142 from 225' level shows new ore discovery at this level.

Sample 144 is a new discovery on the 225' level, and shows a continuation of the above copper mineralization.

Engineer's Recommendations:

From the above study it is our recommendation that additional exploration is needed and justified to continue the tracing of the cobalt deposit, and to extend the present commercial ores to greater depths, which indicates higher grade and greater volume of ore deposits. Our recommendations are as follows:

1. Continue to explore the cobalt deposit on the 100' level and locate other ores that may develop. We estimate that it will be necessary for about 50' of drifts for this exploration at this level.

2. Cobalt extensions should be intercepted on the 160' level by a 75' drift or raise off from the 48' drive as shown on the map. Cobalt extension should also be explored by a raise at the station as indicated on the map.

3. Extend the 21' drift on the 200' level approximately 100' which should intercept the cobalt deposit from the 160' level. We also recommend the extension eastward 50' on the 21' drift to intercept the zinc and copper vein.

4. Extension of the 96' drift on the 225' level approximately 30' to the high grade lead vein.

5. We recommend that the 300' level which is now flooded be drained, cleaned and repaired, and to explore the present diggings for vein extensions from the above levels. We estimate that contacts should be made on a West drive of 155' for cobalt, a Southwest drive of 100' for lead, and a Northwest drive of 60' for zinc and copper.

From the above ore deposits it is definitely indicated that the increased depth will produce higher grade and greater volume of ores. We, therefore, recommend that the main shaft be sunk an additional two levels, or 200', with a 50' sump below the 500' level, stations and drifts to be developed from the information secured from the 300' level. At the present time there is sufficient water in the mine for mining purposes, but it will be necessary with the deepening of the shaft to add water control pumps before work can be done on these lower levels.

We estimate at the present time that on the 100', 160', 200', and 225' levels, that it will be necessary to do 305' of drifting. By calculations we estimate that the drifting necessary on the drained 300' level will be 315'. Our estimate for additional work on the 400' and 500' levels to be 500' of drifts.

4' drift per shift is calculated at $32.00 per foot; at the 300, 400, & 500' levels we estimate the cost	$26,080.00
On the upper levels, 305' of drifts we estimate at	9,760.00
Deepening the shaft 250', estimated at $40.00 per foot	10,000.00
It will be necessary to construct a suitable office, locker-room and supply room on the premises, estimated at	2,000.00
Pumping facilities and pipe for water control	1,500.00
Repairs to the present shaft, material and labor	1,000.00
Readjustment and repairs to head frame. . .	250.00
It will be necessary to purchase a suitable jack hammer for the shaft deepening, estimate	600.00
	51,190.00
10% of the above total, for such items as miscellaneous costs, time loss costs and incidental repairs	5,119.00
We therefore submit that the total cost for the above recommendations will be approximately.	$56,309.00

GEOPHYSICAL ENGINEERING, Division of:
BAZLEY & SCHUMAKER ENGINEERING COMPANY

By: Earl E. Bazley

May 21st, 1951.

CEB/frb

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CHARLES O. PARKER & COMPANY
2114 Curtis Street,
Denver, Colo.

Folio: 5697

Date: May 19, 1951.

For: Paul Bisk,
c/o Bazley - Schumaker,
Colorado Springs, Colo.

- -

We hereby certify that the samples assayed for you gave the following results:

Sample No.2 Cobalt (Co): trace.

CHARLES O. PARKER & CO.
Chemists, Assayers & Engineers.

frb

THE COLORADO ASSAYING COMPANY, Inc.
2013 Welton Street,
Denver 1, Colorado.

COPY

Reports on Determinations Made for: Bazley & Schumaker Engr'g.Co.,
Colorado Springs, Colorado.

Sample Marks	Metals	Amt.per Ton Ozs.	Amt.per Ton Hds.	Per Cent	Value per Ton $	Value per Ton Cents
March 24th, 1951.						
100'level.#145	Gold	trace.				
	Silver	trace.				
	Lead			None.		
#146	Gold		.05			1.75
	Silver		.90			.81
	Lead			Trace.		

Gold at $35. per ounce
Silver at 90¢ per ounce.

By: (SIGNED) EDMUND PHILLIPS

January 8th, 1951.						
200'level. #138	Gold		.02			.70
	Zinc			14.8%		29.60
#139	Gold		.03			1.05
	Silver		4.40			3.96
	Copper			11.95%		47.80

By: (SIGNED) EDMUND PHILLIPS

Gold at $35. per ounce.
Silver at 90¢ per ounce
Lead at $3.00 per unit
Copper at $4.00 per unit.

February 23rd, 1951.						
225' drift #142	Gold		.04			1.40
	Silver		7.20			6.48
	Lead			6.1%		18.30

Gold at $35. per ounce.
Silver at 90¢ per ounce
Lead at $3.00 per unit
Copper at

By: (SIGNED) EDMUND PHILLIPS

February 27th, 1951.						
225' level #144	Gold		.01			.35
	Silver		1.60			1.44
	Copper			2.90%		11.60

Gold at $35. per ounce
Silver at 90¢ per ounce
Copper at $4.00 per unit

By: (SIGNED) EDMUND PHILLIPS.

Report of:
GEOPHYSICAL ENGINEERING, Division of: BAZLEY & SCHUMAKER ENGR'G.CO.
on the
BETTY LODE MINE
for
EAST SLOPE MINING COMPANY
Colorado Springs, Colo.

Location: The Betty Lode Mining Claim is located in the Freshwater Mining District of Park County, Colorado; Township 15-South, Range 73-West, Section 21. This property is situated five miles South of Guffey, Colorado, on good County road and accessible to the mine by excellent dirt road. The mine is approximately 30 miles by County road (Colorado #9) to Hartsel, Colorado, and then by paved Highway (U.S.#24) to Buena Vista, and U.S.Highway #285 North to Leadville, and South to Salida. The mine is located 22 miles from Parkdale on County road, (Colo.#9) to Highway (U.S.#50) from Pueblo, Canon City and Salida. Parkdale is the nearest loading station of the Santa Fe Railroad. The same railroad is also located at Buena Vista and is reached by U.S.Highway #24 to the North approximately 50 miles from the mine. Elevation of the mine is 9500 feet. Climatic conditions in this area are excellent the year around, and mining operations can be carried out continuously.

Purpose of this Report: To determine and evaluate the possibilities of ore deposits and mineralization of the area, and particularly the Betty Lode mine from the present workings.

Methods Used: Geological survey, both surface and sub-surface, geophysical study, and geochemical analysis; maps of study enclosed with report.

Engineer's Report: This property is in a highly mineralized area, particularly the present mine location. The predominating formation present in the area is Algonkian Schist, Amphibole, Granite, and Lime Conglomerate, with late Rhyolite intrusions. The mine location is located in a highly faulted zone with the Rhyolite formation taking place last, and cutting through most of the earlier formations including the granites. Mineralization has taken place predominantly in the Algonkian Schist and Amphibole formations, the greatest faulting in these formations being created by the Rhyolite intrusions, thus moving and displacing the other earlier formations. Exploratory work done on the property in the past proves that the ore bodies increase in grade and volume with depth which sustains the geological determination of the faulting zone condition.

In general the predominant ore bodies at present are zinc, copper, lead, and cobalt. The lead ores and copper ores contain gold and silver content. Explanation and general condition of the explored levels are as follows:

1. 100' level shows indications of cobalt deposit. New exploration work exposed definite ore possibilities, and a general sample across area shows trace of cobalt, as per attached copy of assay. High grade sample indicates good percentage of cobalt ore. No other commercial ore exposed on this level at this time. There is possibility of discovery when cobalt is explored further.

2. 160' level shows definite exposure of zinc and copper ore bodies as indicated on east-west-cross section map enclosed. This level indicates the first possibility of commercial zinc and copper ore deposits. Cobalt bloom, same as on 100' level, is also shown on this level, and definitely indicates additional exploratory work to be done on the present 48' drive to cut the cobalt deposit from the 100' level. Also a raise should be made at the station side to cut the cobalt deposit from the 100' level.

3. 200' level shows extension of zinc, copper and lead deposits of higher grade and larger volume than the 160' level. All deposits are continuing with depth and are increasing in grade and volume. Exploration to the present time has opened three new faces of excellent ore. Cobalt should continue with depth and it appears from the condition of the other ore bodies that the cobalt will increase in grade and volume. A fourth face of zinc and copper can easily be opened by a short drift on the 21' present drive.

4. 225' level - continued exploration of this level has opened two new faces of zinc and copper and lead. The face as before indicates larger volume and higher grade. Cobalt should show on this level as all ore bodies are continuing.

5. 300' level - this level is under water and was not explored. This level should be drained and repaired and explored in the same manner as the upper levels for ore bodies. All indications are for continued ore deposits with depth.

Conclusion: The general survey and study of this property definitely indicates that the ore deposits occur from the 100' level to great depth, and that the ore bodies increase in grade and quantity with depth. This property is capable of mining selected high grade ore, but also contains large quantities of lower grade mill ore which would be wasted if developed only into a selected high grade mine. The average sorted ore in quantity produced 18% zinc and 14% copper. Ore screenings of the above mined ore ran 9% zinc and 7% copper. Lead deposits explored showed 6% to 9% with good silver content.

The accompanying assay sheets are included in this report and are recorded only as to the levels at which the samples were taken.

Sample 145 and 146 taken at the 100' level indicates presence of other minerals.

Sample 138 and 139, as a general sample of the 200' level shows increased mineralization and commercial ore.

Sample 142 from 225' level shows new ore discovery at this level.

Sample 144 is a new discovery on the 225' level, and shows a continuation of the above copper mineralization.

Engineer's Recommendations:

From the above study it is our recommendation that additional exploration is needed and justified to continue the tracing of the cobalt deposit, and to extend the present commercial ores to greater depths, which indicates higher grade and greater volume of ore deposits. Our recommendations are as follows:

1. Continue to explore the cobalt deposit on the 100' level and locate other ores that may develop. We estimate that it will be necessary for about 50' of drifts for this exploration at this level.

2. Cobalt extensions should be intercepted on the 160' level by a 75' drift or raise off from the 48' drive as shown on the map. Cobalt extension should also be explored by a raise at the station as indicated on the map.

3. Extend the 21' drift on the 200' level approximately 100' which should intercept the cobalt deposit from the 160' level. We also recommend the extension eastward 50' on the 21' drift to intercept the zinc and copper vein.

4. Extension of the 96' drift on the 225' level approximately 30' to the high grade lead vein.

5. We recommend that the 300' level which is now flooded be drained, cleaned and repaired, and to explore the present diggings for vein extensions from the above levels. We estimate that contacts should be made on a West drive of 155' for cobalt, a Southwest drive of 100' for lead, and a Northwest drive of 60' for zinc and copper.

From the above ore deposits it is definitely indicated that the increased depth will produce higher grade and greater volume of ores. We, therefore, recommend that the main shaft be sunk an additional two levels, or 200', with a 50' sump below the 500' level, stations and drifts to be developed from the information secured from the 300' level. At the present time there is sufficient water in the mine for mining purposes, but it will be necessary with the deepening of the shaft to add water control pumps before work can be done on these lower levels.

We estimate at the present time that on the 100', 160', 200', and 225' levels, that it will be necessary to do 305' of drifting. By calculations we estimate that the drifting necessary on the drained 300' level will be 315'. Our estimate for additional work on the 400'and 500' levels to be 500' of drifts.

4' drift per shift is calculated at $32.00 per foot; at the 300, 400, & 500' levels we estimate the cost	$26,080.00
On the upper levels, 305' of drifts we estimate at	9,760.00
Deepening the shaft 250', estimated at $40.00 per foot	10,000.00
It will be necessary to construct a suitable office, locker-room and supply room on the premises, estimated at	2,000.00
Pumping facilities and pipe for water control	1,500.00
Repairs to the present shaft, material and labor	1,000.00
Readjustment and repairs to head frame. . .	250.00
It will be necessary to purchase a suitable jack hammer for the shaft deepening, estimate	600.00
	51,190.00
10% of the above total, for such items as miscellaneous costs, time loss costs and incidental repairs	5,119.00
We therefore submit that the total cost for the above recommendations will be approximately.	$56,309.00

GEOPHYSICAL ENGINEERING, Division of:
BAZLEY & SCHUMACHER ENGINEERING COMPANY

By: Earl E. Bazley

May 21st, 1951.

CEB/frb

C O P Y

C O P Y

CHARLES C. PARKER & COMPANY
2114 Curtis Street,
Denver, Colo.

Folio: 5697

Date: May 19, 1951.

For: Paul Sisk,
c/o Bazley & Schumaker,
Colorado Springs, Colo.

- -

We hereby certify that the samples assayed for you gave the following results:

Sample No.2 Cobalt (Co): trace.

CHARLES C. PARKER & CO.
Chemists, Assayers & Engineers.

frb

THE COLORADO ASSAYING COMPANY, Inc.
2013 Welton Street,
Denver 1, Colorado.

C O P Y

Reports on Determinations Made for: Bazley & Schumaker Engr'g.Co.,
Colorado Springs, Colorado.

Sample Marks	Metals	Amt.per Ton Ozs.	Amt.per Ton Hds.	Per Cent	Value per Ton $	Value per Ton Cents
March 24th, 1951. 100'level.#145	Gold	trace.				
	Silver	trace.				
	Lead			None.		
#146	Gold	.05				1.75
	Silver	.90				.81
	Lead			Trace.		

Gold at $35. per ounce
Silver at 90¢ per ounce.

By: (SIGNED) EDMUND PHILLIPS

January 8th, 1951. 200'level. #138	Gold	.02				.70
	Zinc			14.8%		29.60
#139	Gold	.03				1.05
	Silver	4.40				3.96
	Copper			11.95%		47.80

By: (SIGNED) EDMUND PHILLIPS

Gold at $35. per ounce.
Silver at 90¢ per ounce
Lead at $3.00 per unit
Copper at $4.00 per unit.

February 23rd, 1951. 225' drift #142	Gold	.04				1.40
	Silver	7.20				6.48
	Lead			6.1%		18.30

Gold at $35. per ounce.
Silver at 90¢ per ounce
Lead at $3.00 per unit
Copper at

By: (SIGNED) EDMUND PHILLIPS

February 27th, 1951. 225' level #144	Gold	.01				.35
	Silver	1.60				1.44
	Copper			2.90%		11.60

Gold at $35. per ounce
Silver at 90¢ per ounce
Copper at $4.00 per unit

By: (SIGNED) EDMUND PHILLIPS.

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

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

DO NOT FILL IN THIS BLOCK

Docket No. dma-1650 X

Date received 6/12/51

Participation

The East Slope Mining Company,
Colorado Springs, Colorado.

Name and address of applicant

Date May 21st, 1951.

FILL IN THIS BLOCK

Date of application May 21st, 1951

Estimated cost $56,039.00 309

Mineral or metal Cobalt, zinc, copper, lead

Percentage of Government participation 90%

Location of mine Guffey, Colorado. The Betty Lode Mine is located in the Freshwater Mining District of Park County, Colorado; Township 15-South, Range 73-West, Section 21.

Date of filing MF-100

DMA Docket Number, if available

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation? Partnership.

*2. If a partnership, state names and addresses of partners. (See Schedule 2)

*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders. Not applicable.

*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project. (See Schedule 2)

*5. Are you the owner or the lessee of the property? Lessee

6. If owner, state what claims, liens, or encumbrances, if any, are against the property. Not applicable.

7. If lessee, attach a copy of the lease and state if it is in good standing. Attached, In good standing.

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement. (Schedule 2)

9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)? (See schedule 2)

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property. (See Schedule 1)
    (*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted. (Sched.1)
    NOTE.—If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*b*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

*11. State the present and former names of the property, if any. Betty Lode Mine (Old name: Lone Chimney Mine)

*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads. (See Schedule 1)

*13. State source and quantity of water available for operations and its sufficiency at all seasons. (See Schedule 1)
State amount of power to be used, rate per hour or other cost, and source. (See Schedule 1)

*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work. (See schedule 1)

15. State in detail how the ore could be shipped and how and where milled. (See schedule 1)

*16. History:
    (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations. (See schedule 1)
    (*b*) State briefly the known history and production of adjoining and neighboring properties. Unknown.
    (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations. (See Engineer's Report)

*17. Production: Not applicable
    (*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.) Not applicable.
    (*a*) Describe the ore or mineral deposits briefly.
    (*b*) Submit available maps and assay data.
    (*c*) Give estimated tonnage and grade of each class of ore reserves.

19. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions. (See Engineer's Report)

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted? (Schedule 1)

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it. (See Schedule 1)
    NOTE.—The Government will not participate in a project that will require more than 2 years to complete.

22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data. (See Engineer's Report)

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:
    (*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each. (See Schedule 1)
    (*b*) Supervisors, by numbers and positions, with salaries of each.
    (*c*) Cost of necessary repairs to existing facilities, structures, and buildings.
    (*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.
    (*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.
    (*f*) Cost of rental for equipment which the operator proposes to rent.
    (*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.
    (*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.
    (*i*) Cost of power, water, utilities, and any other items not provided for above.

24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent. (See Schedule 1)

CERTIFICATION

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

East Slope Mining Co. (Name of company) By Anthony A. Abruzzo (Signature of authorized official)

5/28/65 (Date) Partner (Title)

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

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

SCHEDULE 1 (FORM MF-103)

Question No.	Answer
10.(a)	The Betty Lode Mining Claims are located in the Freshwater Mining District of Park County, Colorado; Township 15-South, Range 73-West, Section 21. This property is situated five miles South of Guffey, Colorado.
(b)	This claim, known as the Betty Lode Claim, is located in general in a North and South direction, 1500' x 600', starting at the South Line, 300' West to the Westerly line, thence North 1500' to the Northerly line, thence East 600' to the Easterly line, thence South 1500' to the Southerly line, thence 300' West to the point of beginning, the discovery being made 750' North from this point of beginning.
12.	This property is situated on good County road and accessible to the mine by excellent dirt road. The mine is approximately 30 miles by County road (Colorado #9) to Hartsel, Colorado, and then by paved Highway (U.S.#24) to Buena Vista, and U.S.Highway #285 North to Leadville and South to Salida. The mine is located 22 miles from Parkdale on County road (Colo.#9) on Highway (U.S.#50) from Pueblo, Canon City and Salida. Parkdale is the nearest loading station of the Santa Fe Railroad. The same railroad is also located at Buena Vista and is reached by U.S.Highway #24 to the North approximately 50 miles from the mine. Elevation of the mine is 9500 feet.
13.	Sufficient water is available in the mine for all mining operations. This property is adjoined by several small creeks, which will supply additional water if needed. Climatic conditions in this area are excellent the year around, and mining operations can be carried out continuously. Electrical power is available within 10 miles of the property, but facilities at the mine are sufficient at the present time by independent gasoline motive power to supply present needs for exploration work. Estimated cost of power per day of normal operations, about $8.00, for fuel.
14.	The mine at the present time is 90% equipped with compressors, hoists, tools, drifters, stopers, rails, cars, and general mining equipment, in excellent condition, to handle this exploratory work. Necessary buildings to house this equipment are now provided. Some additional equipment, outlined later, and one additional building will be necessary to carry out further exploration work, mainly for efficiency reasons.

15. It is recommended that all ore be shipped to the Santa Fe Railroad siding, 22 miles South of the mine, over County road, (Colo.#9) to U.S.Highway #50, at Parkdale, Colorado. From this loading point, ore could be shipped to all points east, or to points west, including Leadville, Colorado, and Salt Lake City, Utah.

16.(a) This property was discovered approximately 20 years ago and to the 100' level was mined primarily for high-grade gold, which was located in the tear pocket of an iron cap overlay. Extended drifting and deepening of the shaft has been carried on privately, and has developed in the past several tear pockets and horses of ore. This past work has been done without the benefit of geological or engineering supervision, and because of the faulting in the area has not developed definite ore bodies. In most cases the ore has not been followed, or means provided to carefully mine the developments on hand. By-passing of the ore bodies and lack of capital in the past have been the main reasons for the unsuccessful development of this property.

(b) Unknown.

(c) See Engineer's Report.

20. Predominate minerals so far explored are copper and zinc, the copper ore containing substantial silver and gold content. Cobalt is the major discovery, and is the reason for this necessity of further development for this rare ore, which past exploration substantiates to be present. High-grade lead has also been discovered, and needs additional exploration. The ore deposits are metamorphic, in a 2ndary; by descending surface waters. supergene enrichment by epithermal conditions. Deposition & Concentration @ slight depth.

21. Proposed work recommended is the exploration to continue the tracing of the cobalt deposit, and to extend the present commercial ores to greater depths, which indicate higher grade and greater volume of ore deposits. The work recommended is as follows:

1. Continue to explore the cobalt deposit on the 100' level and locate other ores that may develop. It is estimated that it will be necessary for about 50' of drifts for this exploration at this level.

2. Cobalt extensions should be intercepted on the 160' level by a 75' drift or raise off from the 48' drive as shown on map. Cobalt extension should also be explored by a raise at the station as indicated on the map.

3. Extend the 21' drift on the 200' level approximately 100' which should intercept the cobalt deposit from the 160' level. We also recommend the extension eastward 50' on the 21' drift to intercept the zinc and copper vein.

4. Extension of the 96' drift on the 225' level approximately 30' to the high grade lead vein.

21. 5. The 300' level should be drained, cleaned and repaired, and the present diggings should be explored for vein extensions from the above levels. It is estimated that contacts should be made on a West drive of 155' for cobalt, a Southwest drive of 100' for lead, and a Northwest drive of 60' for zinc and copper.

From the above ore deposits it is definitely indicated that the increased depth will produce higher grade and greater volume of ores. It is, therefore, recommended that the main shaft be sunk an additional two levels, or 200', with a 50' sump below the 500' level, stations and drifts to be developed from the information secured from the 300' level. At the present time there is sufficient water in the mine for mining purposes, but it will be necessary with the deepening of the shaft to add water-control pumps before work can be done on these lower levels.

Estimated time required - about 7½ months.

23. The above recommended work will require:

(a)	Labor - 2 Hoistmen $1.25 per Hr.	Crew per shift	$44.00
	- 2 Topmen $1.25 per Hr.		
	- 2 Miners $1.50 per Hr.		
	- 2 Muckers $1.50 per Hr.		
	For shaft deepening work 2 shifts will be used with the above men.		
(b)	Supervisors (2) $75.00 per week each 6 shifts	per shift	12.50
(c)	Estimated shaft repair, ladders, etc.:		
	Material		800.00
	Labor		200.00
	Head frame repair and sheave repair:		
	Material		150.00
	Labor		100.00
(d)	Locker room for miners, supply room, and office space, area 10' x 30', estimated cost		2000.00
(e)	Deepening of the shaft will require a jack hammer, hose, steel and bits		600.00
	Water pump and pipe for water control		1500.00
(f)	None		
(g)	Estimated rental value of all available equipment $250.00 per month	per shift	10.00
(h)	Dynamite fuse - 65' per day	per shift	1.30
	Powder - 25 lbs. per day	per shift	10.00
	Timber for shaft construction, 4 x 8, $125.00 per M Ft. cost approximately $40.00 for ten feet of shaft or -	per shift	13.00
(i)	Gasoline power estimated at $8.00	per shift	8.00

24. It is estimated that the time required to complete the above work will be about 7½ months. Deepening the shaft will be done at the rate of 14 feet per week per shift, or a total of 112 feet per month for two shifts. Deepening of the shaft will require approximately 3 months, including timbering and water removal. This operation will be necessary

24. before continued exploration on the upper levels because of mine safety regulations. Drifting as recommended in the Engineer's Report will be approximately 4 foot per shift, and will require the balance of the 4½ months to complete, including the necessary repairs and construction necessary for the project.

It is estimated on the basis of the above figures that the cost of deepening the shaft 250' will be at the rate of $40.00 per foot, with the total cost of $10,000.00.

Drifting on the different levels is estimated on the basis of the above figures minus the cost of timbering, to be $32.00 per foot; it will be necessary for total exploration to drift approximately 1120', at a total estimated cost of $35,840.00.

GEOPHYSICAL ENGINEERING, Division of:
BAZLEY & SCHUMAKER ENGINEERING COMPANY

By: Carl E. Bazley
C. E. Bazley.

May 21st, 1951.

frb.

SCHEDULE 2 (FORM MF-103)

Question No.	Answer
2.	The East Slope Mining Company is a partnership owned and operated by Anthony A. Abrutz, 514 Catalina Ave., Youngstown, Ohio, and Paul Sisk, c/o East Slope Mining Company, Guffey and Colorado Springs, Colorado.
4.	Anthony A. Abrutz is the sole owner of the Pitsy Coal Company, situated in Columbiana County, Ohio, and is the owner and operator of the Florist Exchange, 214 N. Walnut Street, Youngstown, Ohio, a wholesale florist establishment. Mr. Anthony A. Abrutz has had extensive managerial and commercial experience. His business enterprises have done a gross business of approximately $200,000.00 per year. Mr. Abrutz has had no ore mining experience; however, he has had considerable coal mining experience as owner and operator of the Pitsy Coal Company. Mr. Paul Sisk has had fifteen years mining management experience with the following companies: West Jellico Coal Company, Nortonville, Ky., North Star Coal Company, Madisonville, Ky., West Hartford Coal Company, Hartford, Ky., Parkhill Coal Company, Madisonville, Ky., Hart Coal Mining Company, Madisonville, Ky., and the West Kentucky Coal Company, Mr. H.L.Richardson, owner of the West Jellico Coal Company referred to above.
8.	Since the mine operations have been solely on a development and exploration basis, there is no profit and loss statement. The balance sheet is on page 2 of this schedule.

Question No.	Answer

8. East Slope Mining Company - Balance Sheet June 1st, 1951.

Assets

Current Assets			
Cash in Bank- Youngstown, Ohio	$3,000.00		
- Colorado Springs	1,000.00	$4,000.00	
Inventory- Approximately 1,000 Tons of Raw Ore containing Lead, Copper, Zinc, Silver & Gold (Stock Pile)		20,000.00	
Total Current Assets			$24,000.00
Fixed Assets			
Hoisting Machinery			
Stoping Machine and Drills			
Air Compressor		18,200.00	
30-Ton Concentrating Mill		7,000.00	
Electric Charging Machine and Motor		5,000.00	
Chevrolet Truck, two ton		3,658.40	
Two (2) Tons Rail (New)		360.00	
Twenty (20) Acres Land		200.00	
Total Fixed Assets			34,418.40
Other Assets			
Development Cost			3,444.84
TOTAL ASSETS			$61,863.24

Liabilities & Net Worth

Current Liabilities			
°1 Chattel Mortgage on Truck		2,208.00	
°2 Notes Payable-Mining Equipment		9,000.00	
Total Current Liabilities			11,208.00
Net Worth Account			50,655.24
TOTAL LIABILITIES & NET WORTH			$61,863.24

°1. G.M.C.Finance Corporation
°2. Bazley & Schumaker Engineering Co.

9. Mr. Anthony A. Abrutz, co-owner of the East Slope Mining Company has invested considerable money in this property, and is prepared to assume his share of the project expense.

EAST SLOPE MINING COMPANY

By: Anthony A. Abrutz
Anthony A. Abrutz

Paul Sisk
Paul Sisk

May 28th, 1951.

COPY

This Agreement of Lease, Made and entered into this 9th day of December, A. D. 19 50, by and between BUFORD G. DELL and HOWARD JAMES NEWBERRY, both of Park County, Colorado,

part ies of the first part, and CARL E. BAZLEY, OF El Paso County, Colorado.

COPY

party of the second part, **Witnesseth,** That the said part ies of the first part, for and in consideration of the rents, covenants and agreements hereinafter expressed to be paid, kept and performed by the said part y of the said second part, ha ve leased, let and demised, and by these presents do lease, let and demise unto the said part y of the second part, the following described premises, to-wit:

Betty Lode situated in the Freshwater Mining District of Park County, Colorado, held under location filed and recorded in Book 39, page 91, of the Records of Park County, Colorado, Section 21, Township 15 South, Range 73 West of the 6th P.M.

COPY

To Have and to Hold, For the purpose of mining, with power to assign ~~or sublet~~ the whole ~~xxxxxxxx~~ of said premises to a partnership formed for that purpose

for the term of five (5) years

from the date hereof. Said part y of the second part, for and in consideration of the premises aforesaid, ha s covenanted, contracted and agreed, and by these presents do es covenant, contract and agree with said part ies of the first part, their heirs, executors, administrators, successors or assigns, to commence work on said premises on or before December 15, 1950 and to work the same continuously and with reasonable diligence, in thorough and workmanlike manner; performing thereon at least fifteen shifts of work, of labor men each, during every calendar month of the life of said lease; keeping the same securely timbered in all parts during the term of this lease; to keep accurate accounts, and to render quarterly statements, accompanied by vouchers, to the said part ies of the first part, their agent or attorney, showing the amount of all ore taken from said premises, and the yield of the same, and the cost of hauling and milling the same, and to pay quarterly to said part ies of the first part, their agent or attorney, as rental for said premises, as follows, to-wit:

A royalty of 10 per cent of the value of all ores removed and processed.

It is understood and agreed that 4/5ths of such royalty shall be due to Buford G. Dell and 1/5th to Howard James Newberry.

Said party of the second part furthermore agrees that the said parties of the first part, their agent or attorney, shall have the right at any and all times to enter upon and descend into any and all parts of said premises, and that the said party of the second part will render to them all the assistance in his power in so doing.

Said party of the second part furthermore agrees that in case he fails to commence work on said premises as aforesaid, or to work the same continuously and with reasonable diligence and in workmanlike manner, or to keep the same securely timbered, or render said statements, or to pay said rental as aforesaid, or in any respect to keep and fulfill any and all agreements herein expressed or implied, then, and in that case, it shall be lawful for the said parties of the first part, their agent or attorney, to declare this lease void and of no effect thereafter, and without process of law to enter upon and take possession of said premises; ~~xxx~~

~~xxxxxxxx~~

and also at the expiration of this lease by limitation, said party of the second part agrees to surrender, yield and deliver to said parties of the first part, their heirs, administrators, executors, successors and assigns, quiet and peaceable possession of said premises in good condition.

It is further agreed that Party of the Second Part, or his assignees, shall carry compensation insurance covering any and all employees working on the property covered by this lease and that this lease shall include all materials and equipment now located on the property other than that of equipment which is owned by Mr. Walter Merritt.

It is further agreed that this lease may be extended for a further term of five years at the option of Party of the Second Part, or his assignees, by giving written notice to Parties of the First Part at least 30 days before the expiration of this lease.

(SIGNED) AMY MERRITT
Witness - December 9th, 1950.

(SIGNED) BUFORD G. DELL Seal

(SIGNED) HOWARD JAMES NEWBERRY Seal

(SIGNED) CARL E. BAZLEY Seal

Seal

Seal

Seal

MINING LEASE

FROM

TO

Office of
County Clerk and Recorder.

COUNTY OF Park
COLORADO.

I hereby certify that the within instrument was filed in this office for record on the 18th day of December A. D. 19 50, at ..... o'clock ..... M., and was duly recorded in Book 144 Page 282.

COUNTY CLERK AND RECORDER.

DEPUTY.

FEES, $.....

OUT WEST PRTG. & STATY. CO., COLO. SPRINGS H3472

RECORDED IN OFFICE OF COUNTY CLERK & RECORDER
PARK COUNTY, COLORADO.
DATE: May 23rd, 1951
BOOK: 144
PAGE: 383

ASSIGNMENT OF MINING LEASE

KNOW ALL MEN BY THESE PRESENTS, That I, CARL H. BAILEY, of El Paso County, Colorado, for and in consideration of Ten Dollars ($10.00) and other good and valuable considerations to me paid, hereby assign to EAST SLOPE MINING CO., a partnership, of Colorado Springs, Colorado, all my right, title and interest in and to a certain Mining Lease dated December 9, 1950 made by Buford B. Bell and Howard James Newberry to me, of the following described premises, to-wit:

> Betty Lode situated in the Freshwater Mining District of Park County, Colorado, held under location filed and recorded in Book 39, Page 91, of the Records of Park County, Colorado, Section 21, Township 15 South, Range 73 West of the 6th P.M.

and recorded in the Office of the County Clerk and Recorder of Park County, Colorado on the 14th day of December 1950 1950 in Book 144, Page 298, with all and singular the premises herein mentioned and described, TO HAVE AND TO HOLD The same to East Slope Mining Co. from the 23rd day of May, 1951, for and during all the remainder in the term mentioned in said Lease, subject to the agreements by the Lessee, and conditions contained in said Lease.

IN WITNESS WHEREOF, I have hereunto set my hand and seal this 23rd day of May, 1951.

(SEAL)

STATE OF COLORADO)
) ss.
COUNTY OF EL PASO)

The foregoing instrument was acknowledged before me this 23rd day of May, 1951, by CARL H. BAILEY.

Witness my hand and official seal.

Notary Public

My commission expires: Apr.29,1954

ACCEPTANCE OF ASSIGNMENT

In consideration of the above and foregoing Assignment, the undersigned hereby assumes and agrees to make all the payments and perform all the covenants and conditions of the above described lease by said Carl E. Bazley to be made and performed.

IN WITNESS WHEREOF I have hereunto set my hand and seal this 23rd day of May, 1951.

EAST SLOPE MINING CO.

By (SIGNED) PAUL SISK (SEAL)
Partner

Form MF-100
(March 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

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

NOT TO BE FILLED IN BY APPLICANT

Docket No. _____

Date received _____

The East Slope Mining Company,
Colorado Springs, Colorado.

Name and address of applicant

Date May 21st, 1951.

INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, ~~(4) Necessity Certificate pursuant to the provisions of Sec. 124 A (Amortization Deduction) of Internal Revenue Code, 1950~~, (4) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (5) other forms of Government assistance that might arise under the Act. Submit four (4) signed copies of the form and accompanying papers. Name and address should be stamped or typed on each sheet of this form and all accompanying papers. *When a question is inapplicable it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. (IF YOU CANNOT ANSWER A QUESTION, SO STATE.) If a question is answered elsewhere indicate where answered. It is not necessary to answer it again.

GENERAL TECHNICAL DATA

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

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

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.
4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated.
   (*b*) Are you operating this property as:
   - ☐ Owner.
   - ☒ Lessee.
   - ☐ Contractor.
5. Number of years in production None
   If not in production or operation, estimated date when production will begin January 1952.
6. Experience of operators:
   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project. See question 4, MF-103
7. History:
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation. See question 16, MF-103.
   (*b*) State briefly the known history and production of adjoining and neighboring properties.
   (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

8. Names and addresses of Officers, Directors, or Partners, and in addition thereto, the five largest stockholders if applicant is a corporation. See questions 2 & 3, MF-103

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

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

Item	Authorized (a)	Outstanding (b)	Par Value (c)	Number of Shares Outstanding (d)	Dividend Rate Last Paid* (e)
Common stock	$	$	$		
Preferred stock	$	$	$		

*Indicate period covered.

10. Production: None

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

11. Do you contemplate a change in the present average monthly rate of production? If so, state estimated maximum monthly production and basis of change. None

12. Ore or Mineral Reserves:

(a) Describe the ore or mineral deposit briefly. Accompany the application by any available report on the geology and ore reserves. See question 16(c), MF-103

(*b*) If deposit is other than placer: See Engineer's Report.

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

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

TOTAL ORE OR MINERAL RESERVES

Ore or Mineral Reserve	Estimated Tons (a)	Metal or Mineral Content Per Ton (Grade) (b)	Gross Value Per Ton (c)	Recoverable Unit Value Per Ton (d)	Estimated Cost of Production Per Ton (e)
Measured (proved)					
Indicated (probable)					

(*c*) If placer:

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

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

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

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

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

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

13. Access Roads: See question 12, MF-103

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

14. Water Supply: See question 13, MF-103

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

15. Power: See question 13, MF-103

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

16. Labor:

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

1 Hoistman, 1 Topman, 1 Mucker, 1 Miner, 1 Ore Sorter.

17. Equipment and Facilities:

See question 14, MF-103

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

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

None.

CERTIFICATION

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

East Slope Mining Co
(Name of company)

By Anthony R. Abruzzo
(Signature of authorized official)

5/28/51
(Date)

Partner
(Title)

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

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

SCHEDULE 1 (FORM MF-100)

Question No.		Answer:
1.	(a)	Cobalt, Copper, Zinc, Lead.
	(b)	Gold and Silver.
2.		Name: Betty Lode Mine (Old name: Lone Chimney Mine) Type: Metals, shaft and tunnel.
	(a)	300 feet.
	(b)	682 feet.
	(c)	None
	(d)	None
		At the present time the mine is flooded from the sump at the 300' level to just below the 225' level. Water is now retained at this level by the use of a bailer bucket, and is no problem in the mine operation at the present time. With reference to our recommendations for deepening the shaft it will be necessary to remove the water in this flooded level by pumps and pumping equipment, and retain it by sufficient pumps, for deepening of the shaft operation.
3.	(a)	The mine is located five miles south of Guffey, Colorado, nearest town and residence point. It is also located 22 miles from Parkdale, Colorado, the nearest railroad shipping point, from which the ore can be shipped to any desired destination.
	(b)	Freshwater Mining District.
	(c)	Township 15-South, Range 73-West, Section 21.
	(d)	Park County, Colorado.

GEOPHYSICAL ENGINEERING, Div.of:
BAZLEY & SCHUMAKER ENGINEERING COMPANY

By: Carl E. Bazley

May 21st, 1951.

frb.

Report of:
GEOPHYSICAL ENGINEERING, Division of: BAZLEY & SCHUMAKER ENGR'G.CO.
on the
BETTY LODE MINE
for
EAST SLOPE MINING COMPANY
Colorado Springs, Colo.

Pike Nat'l Forest.

Location: The Betty Lode Mining Claim is located in the Freshwater Mining District of Park County, Colorado; Township 15-South, Range 73-West, Section 21. This property is situated five miles South of Guffey, Colorado, on good County road and accessible to the mine by excellent dirt road. The mine is approximately 30 miles by County road (Colorado #9) to Hartsel, Colorado, and then by paved Highway (U.S.#24) to Buena Vista, and U.S.Highway #285 North to Leadville, and South to Salida. The mine is located 22 miles from Parkdale on County road, (Colo.#9) to Highway (U.S.#50) from Pueblo, Canon City and Salida. Parkdale is the nearest loading station of the Santa Fe Railroad. The same railroad is also located at Buena Vista and is reached by U.S.Highway #24 to the North approximately 50 miles from the mine. Elevation of the mine is 9500 feet. Climatic conditions in this area are excellent the year around, and mining operations can be carried out continuously.

Purpose of this Report: To determine and evaluate the possibilities of ore deposits and mineralization of the area, and particularly the Betty Lode mine from the present workings.

Methods Used: Geological survey, both surface and sub-surface, geophysical study, and geochemical analysis; maps of study enclosed with report.

Engineer's Report: This property is in a highly mineralized area, particularly the present mine location. The predominating formation present in the area is Algonkian Schist, Amphibole, Granite, and Lime Conglomerate, with late Rhyolite intrusions. The mine location is located in a highly faulted zone with the Rhyolite formation taking place last, and cutting through most of the earlier formations including the granites. Mineralization has taken place predominantly in the Algonkian Schist and Amphibole formations, the greatest faulting in these formations being created by the Rhyolite intrusions, thus moving and displacing the other earlier formations. Exploratory work done on the property in the past proves that the ore bodies increase in grade and volume with depth which sustains the geological determination of the faulting zone condition.

In general the predominant ore bodies at present are zinc, copper, lead, and cobalt. The lead ores and copper ores contain gold and silver content. Explanation and general condition of the explored levels are as follows:

1. 100' level shows indications of cobalt deposit. New exploration work exposed definite ore possibilities, and a general sample across area shows trace of cobalt, as per attached copy of assay. High grade sample indicates good percentage of cobalt ore. No other commercial ore exposed on this level at this time. There is possibility of discovery when cobalt is explored further.

2. 160' level shows definite exposure of zinc and copper ore bodies as indicated on east-west-cross section map enclosed. This level indicates the first possibility of commercial zinc and copper ore deposits. Cobalt bloom, same as on 100' level, is also shown on this level, and definitely indicates additional exploratory work to be done on the present 48' drive to cut the cobalt deposit from the 100' level. Also a raise should be made at the station side to cut the cobalt deposit from the 100' level.

3. 200' level shows extension of zinc, copper and lead deposits of higher grade and larger volume than the 160' level. All deposits are continuing with depth and are increasing in grade and volume. Exploration to the present time has opened three new faces of excellent ore. Cobalt should continue with depth and it appears from the condition of the other ore bodies that the cobalt will increase in grade and volume. A fourth face of zinc and copper can easily be opened by a short drift on the 21' present drive.

4. 225' level - continued exploration of this level has opened two new faces of zinc and copper and lead. The face as before indicates larger volume and higher grade. Cobalt should show on this level as all ore bodies are continuing.

5. 300' level - this level is under water and was not explored. This level should be drained and repaired and explored in the same manner as the upper levels for ore bodies. All indications are for continued ore deposits with depth.

Conclusion: The general survey and study of this property definitely indicates that the ore deposits occur from the 100' level to great depth, and that the ore bodies increase in grade and quantity with depth. This property is capable of mining selected high grade ore, but also contains large quantities of lower grade mill ore which would be wasted if developed only into a selected high grade mine. The average sorted ore in quantity produced 18% zinc and 14% copper. Ore screenings of the above mined ore ran 9% zinc and 7% copper. Lead deposits explored showed 6% to 9% with good silver content.

The accompanying assay sheets are included in this report and are recorded only as to the levels at which the samples were taken.

Sample 145 and 146 taken at the 100' level indicates presence of other minerals.

Sample 138 and 139, as a general sample of the 200' level shows increased mineralization and commercial ore.

Sample 142 from 225' level shows new ore discovery at this level.

Sample 144 is a new discovery on the 225' level, and shows a continuation of the above copper mineralization.

Engineer's Recommendations:

From the above study it is our recommendation that additional exploration is needed and justified to continue the tracing of the cobalt deposit, and to extend the present commercial ores to greater depths, which indicates higher grade and greater volume of ore deposits. Our recommendations are as follows:

1. Continue to explore the cobalt deposit on the 100' level and locate other ores that may develop. We estimate that it will be necessary for about 50' of drifts for this exploration at this level.

2. Cobalt extensions should be intercepted on the 160' level by a 75' drift or raise off from the 48' drive as shown on the map. Cobalt extension should also be explored by a raise at the station as indicated on the map.

3. Extend the 21' drift on the 200' level approximately 100' which should intercept the cobalt deposit from the 160' level. We also recommend the extension eastward 50' on the 21' drift to intercept the zinc and copper vein.

4. Extension of the 96' drift on the 225' level approximately 30' to the high grade lead vein.

5. We recommend that the 300' level which is now flooded be drained, cleaned and repaired, and to explore the present diggings for vein extensions from the above levels. We estimate that contacts should be made on a West drive of 155' for cobalt, a Southwest drive of 100' for lead, and a Northwest drive of 60' for zinc and copper.

From the above ore deposits it is definitely indicated that the increased depth will produce higher grade and greater volume of ores. We, therefore, recommend that the main shaft be sunk an additional two levels, or 200', with a 50' sump below the 500' level, stations and drifts to be developed from the information secured from the 300' level. At the present time there is sufficient water in the mine for mining purposes, but it will be necessary with the deepening of the shaft to add water control pumps before work can be done on these lower levels.

We estimate at the present time that on the 100', 160', 200', and 225' levels, that it will be necessary to do 305' of drifting. By calculations we estimate that the drifting necessary on the drained 300' level will be 315'. Our estimate for additional work on the 400'and 500' levels to be 500' of drifts.

4' drift per 315' shift is calculated at $32.00 per foot; at the 300, 400, & 500' levels we estimate the cost	$26,080.00
On the upper levels, 305' of drifts we estimate at	9,760.00
Deepening the shaft 250', estimated at $40.00 per foot	10,000.00
It will be necessary to construct a suitable office, locker-room and supply room on the premises, estimated at	2,000.00
Pumping facilities and pipe for water control	1,500.00
Repairs to the present shaft, material and labor	1,000.00
Readjustment and repairs to head frame. . .	250.00
It will be necessary to purchase a suitable jack hammer for the shaft deepening, estimate	600.00
	51,190.00
10% of the above total, for such items as miscellaneous costs, time loss costs and incidental repairs	5,119.00
We therefore submit that the total cost for the above recommendations will be approximately.	$56,309.00

GEOPHYSICAL ENGINEERING, Division of:
BAZLEY & SCHUMAKER ENGINEERING COMPANY

By: Carl E. Bazley

May 21st, 1951.

CEB/frb

C
O
P
Y

C
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Y

CHARLES O. PARKER & COMPANY
2114 Curtis Street,
Denver, Colo.

Folio: 5697

Date: May 19, 1951.

For: Paul Sisk,
c/o Bazley & Schumaker,
Colorado Springs, Colo.

- -

We hereby certify that the samples assayed for you gave the following results:

Sample No.2 Cobalt (Co): trace.

CHARLES O. PARKER & CO.
Chemists, Assayers & Engineers.

frb

THE COLORADO ASSAYING COMPANY, Inc.
2013 Welton Street,
Denver 1, Colorado.

C O P Y

Reports on Determinations Made for: Bazley & Schumaker Engr'g.Co.,
Colorado Springs, Colorado.

Sample Marks	Metals	Amt.per Ton Ozs.	Amt.per Ton Hds.	Per Cent	Value per Ton $	Value per Ton Cents
March 24th, 1951.						
100'level.#145	Gold		trace.			
	Silver		trace.			
	Lead			None.		
#146	Gold		.05			1.75
	Silver		.90			.81
	Lead			Trace.		

Gold at $35. per ounce
Silver at 90¢ per ounce.

By: (SIGNED) EDMUND PHILLIPS

January 8th, 1951.						
200'level. #138	Gold		.02			.70
	Zinc			14.8%		29.60
#139	Gold		.03			1.05
	Silver		4.40			3.96
	Copper			11.95%		47.80

By: (SIGNED) EDMUND PHILLIPS

Gold at $35. per ounce.
Silver at 90¢ per ounce
Lead at $3.00 per unit
Copper at $4.00 per unit.

February 23rd, 1951.						
225' drift #142	Gold		.04			1.40
	Silver		7.20			6.48
	Lead			6.1%		18.30

Gold at $35. per ounce.
Silver at 90¢ per ounce
Lead at $3.00 per unit
Copper at

By: (SIGNED) EDMUND PHILLIPS

February 27th, 1951.						
225' level #144	Gold		.01			.35
	Silver		1.60			1.44
	Copper			2.90%		11.60

Gold at $35. per ounce
Silver at 90¢ per ounce
Copper at $4.00 per unit

By: (SIGNED) EDMUND PHILLIPS.

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

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

DO NOT FILL IN THIS BLOCK

Docket No. DMA-1658X

Date received 6/12/51

Participation

The East Slope Mining Company,
Colorado Springs, Colorado.

Name and address of applicant

Date May 21st, 1951.

FILL IN THIS BLOCK

Date of application May 21st, 1951

Estimated cost $56,039.00

Mineral or metal Cobalt, zinc, copper, lead

Percentage of Government participation 90%

Location of mine Guffey, Colorado. The Betty Lode Mine is located in the Freshwater Mining District of Park County, Colorado; Township 15-South, Range 73-West, Section 21.

Date of filing MF-100

DMA Docket Number, if available

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation? Partnership.

*2. If a partnership, state names and addresses of partners. (See Schedule 2)

*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders. Not applicable.

*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project. (See Schedule 2)

*5. Are you the owner or the lessee of the property? Lessee

6. If owner, state what claims, liens, or encumbrances, if any, are against the property. Not applicable.

7. If lessee, attach a copy of the lease and state if it is in good standing. Attached. In good standing.

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement. (Schedule 2)

9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)? (See schedule 2)

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property. (See Schedule 1)

(*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted. (Sched.1)

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

*11. State the present and former names of the property, if any. Betty Lode Mine Old name: (Lone Chimney Mine)

*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads. (See Schedule 1)

*13. State source and quantity of water available for operations and its sufficiency at all seasons. (See Schedule 1) State amount of power to be used, rate per hour or other cost, and source. (See Schedule 1)

*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work. (See schedule 1)

15. State in detail how the ore could be shipped and how and where milled. (See schedule 1)

*16. History:

(*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations. (See schedule 1)

(*b*) State briefly the known history and production of adjoining and neighboring properties. Unknown.

(*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations. (See Engineer's Report)

*17. Production: Not applicable

(*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.) Not applicable.

(*a*) Describe the ore or mineral deposits briefly.

(*b*) Submit available maps and assay data.

(*c*) Give estimated tonnage and grade of each class of ore reserves.

19. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions. (See Engineer's Report)

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted? (Schedule 1)

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it. (See Schedule 1)

NOTE.—The Government will not participate in a project that will require more than 2 years to complete.

22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data. (See Engineer's Report)

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:

(*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each. (See Schedule 1)

(*b*) Supervisors, by numbers and positions, with salaries of each.

(*c*) Cost of necessary repairs to existing facilities, structures, and buildings.

(*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.

(*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.

(*f*) Cost of rental for equipment which the operator proposes to rent.

(*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.

(*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.

(*i*) Cost of power, water, utilities, and any other items not provided for above.

24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent. (See Schedule 1)

CERTIFICATION

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

East Slope Mining Co. (Name of company) By Anthony A. Abruzzo (Signature of authorized official)

5/28/51 (Date) Partner (Title)

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

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

SCHEDULE 1 (FORM MF-103)

Question No.	Answer
10.(a)	The Betty Lode Mining Claims are located in the Freshwater Mining District of Park County, Colorado; Township 15-South, Range 73-West, Section 21. This property is situated five miles South of Guffey, Colorado.
(b)	This claim, known as the Betty Lode Claim, is located in general in a North and South direction, 1500' x 600', starting at the South Line, 300' West to the Westerly line, thence North 1500' to the Northerly line, thence East 600' to the Easterly line, thence South 1500' to the Southerly line, thence 300' West to the point of beginning, the discovery being made 750' North from this point of beginning.
12.	This property is situated on good County road and accessible to the mine by excellent dirt road. The mine is approximately 30 miles by County road (Colorado #9) to Hartsel, Colorado, and then by paved Highway (U.S.#24) to Buena Vista, and U.S.Highway #285 North to Leadville and South to Salida. The mine is located 22 miles from Parkdale on County road (Colo.#9) on Highway (U.S.#50) from Pueblo, Canon City and Salida. Parkdale is the nearest loading station of the Santa Fe Railroad. The same railroad is also located at Buena Vista and is reached by U.S.Highway #24 to the North approximately 50 miles from the mine. Elevation of the mine is 9500 feet.
13.	Sufficient water is available in the mine for all mining operations. This property is adjoined by several small creeks, which will supply additional water if needed. Climatic conditions in this area are excellent the year around, and mining operations can be carried out continuously. Electrical power is available within 10 miles of the property, but facilities at the mine are sufficient at the present time by independent gasoline motive power to supply present needs for exploration work. Estimated cost of power per day of normal operations, about $8.00, for fuel.
14.	The mine at the present time is 90% equipped with compressors, hoists, tools, drifters, stopers, rails, cars, and general mining equipment, in excellent condition, to handle this exploratory work. Necessary buildings to house this equipment are now provided. Some additional equipment, outlined later, and one additional building will be necessary to carry out further exploration work, mainly for efficiency reasons.

15. It is recommended that all ore be shipped to the Santa Fe Railroad siding, 22 miles South of the mine, over County road, (Colo.#9) to U.S.Highway #50, at Parkdale, Colorado. From this loading point, ore could be shipped to all points east, or to points west, including Leadville, Colorado, and Salt Lake City, Utah.

16.(a) This property was discovered approximately 20 years ago and to the 100' level was mined primarily for high-grade gold, which was located in the tear pocket of an iron cap overlay. Extended drifting and deepening of the shaft has been carried on privately, and has developed in the past several tear pockets and horses of ore. This past work has been done without the benefit of geological or engineering supervision, and because of the faulting in the area has not developed definite ore bodies. In most cases the ore has not been followed, or means provided to carefully mine the developments on hand. By-passing of the ore bodies and lack of capital in the past have been the main reasons for the unsuccessful development of this property.

(b) Unknown.

(c) See Engineer's Report.

20. Predominate minerals so far explored are copper and zinc, the copper ore containing substantial silver and gold content. Cobalt is the major discovery, and is the reason for this necessity of further development for this rare ore, which past exploration substantiates to be present. High-grade lead has also been discovered, and needs additional exploration. The ore deposits are metamorphic, in a supergene enrichment by epithermal conditions.

21. Proposed work recommended is the exploration to continue the tracing of the cobalt deposit, and to extend the present commercial ores to greater depths, which indicate higher grade and greater volume of ore deposits. The work recommended is as follows:

1. Continue to explore the cobalt deposit on the 100' level and locate other ores that may develop. It is estimated that it will be necessary for about 50' of drifts for this exploration at this level.

2. Cobalt extensions should be intercepted on the 160' level by a 75' drift or raise off from the 48' drive as shown on map. Cobalt extension should also be explored by a raise at the station as indicated on the map.

3. Extend the 21' drift on the 200' level approximately 100' which should intercept the cobalt deposit from the 160' level. We also recommend the extension eastward 50' on the 21' drift to intercept the zinc and copper vein.

4. Extension of the 96' drift on the 225' level approximately 30' to the high grade lead vein.

21. 5. The 300' level should be drained, cleaned and repaired, and the present diggings should be explored for vein extensions from the above levels. It is estimated that contacts should be made on a West drive of 155' for cobalt, a Southwest drive of 100' for lead, and a Northwest drive of 60' for zinc and copper.

From the above ore deposits it is definitely indicated that the increased depth will produce higher grade and greater volume of ores. It is, therefore, recommended that the main shaft be sunk an additional two levels, or 200', with a 50' sump below the 500' level, stations and drifts to be developed from the information secured from the 300' level. At the present time there is sufficient water in the mine for mining purposes, but it will be necessary with the deepening of the shaft to add water-control pumps before work can be done on these lower levels.

Estimated time required - about 7½ months.

23. The above recommended work will require:

(a)	Labor - 2 Hoistmen $1.25 per Hr.	Crew per shift	$44.00
	- 2 Topmen $1.25 per Hr.		
	- 2 Miners $1.50 per Hr.		
	- 2 Muckers $1.50 per Hr.		
	For shaft deepening work 2 shifts will be used with the above men.		
(b)	Supervisors (2) $75.00 per week each	per shift	12.50
(c)	Estimated shaft repair, ladders, etc.:		
	Material		800.00
	Labor		200.00
	Head frame repair and sheave repair:		
	Material		150.00
	Labor		100.00
(d)	Locker room for miners, supply room, and office space, area 10' x 30', estimated cost		2000.00
(e)	Deepening of the shaft will require a jack hammer, hose, steel and bits		600.00
	Water pump and pipe for water control		1500.00
(f)	None		
(g)	Estimated rental value of all available equipment $250.00 per month	per shift	10.00
(h)	Dynamite fuse - 65' per day	per shift	1.30
	Powder - 25 lbs. per day	per shift	10.00
	Timber for shaft construction, 4 x 8, $125.00 per M Ft. cost approximately $40.00 for ten feet of shaft or -	per shift	13.00
(i)	Gasoline power estimated at $8.00	per shift	8.00

24. It is estimated that the time required to complete the above work will be about 7½ months. Deepening the shaft will be done at the rate of 14 feet per week per shift, or a total of 112 feet per month for two shifts. Deepening of the shaft will require approximately 3 months, including timbering and water removal. This operation will be necessary

24. before continued exploration on the upper levels because of mine safety regulations. Drifting as recommended in the Engineer's Report will be approximately 4 foot per shift, and will require the balance of the 4½ months to complete, including the necessary repairs and construction necessary for the project.

It is estimated on the basis of the above figures that the cost of deepening the shaft 250' will be at the rate of $40.00 per foot, with the total cost of $10,000.00.

Drifting on the different levels is estimated on the basis of the above figures minus the cost of timbering, to be $32.00 per foot; it will be necessary for total exploration to drift approximately 1120', at a total estimated cost of $35,840.00.

GEOPHYSICAL ENGINEERING, Division of:
BAZLEY & SCHUMAKER ENGINEERING COMPANY

By: Earl E. Bazley
C. E. Bazley.

May 21st, 1951.

frb.

SCHEDULE 2 (FORM MF-103)

Question No.	Answer
2.	The East Slope Mining Company is a partnership owned and operated by Anthony A. Abrutz, 514 Catalina Ave., Youngstown, Ohio, and Paul Sisk, c/o East Slope Mining Company, Guffey and Colorado Springs, Colorado.
4.	Anthony A. Abrutz is the sole owner of the Pitsy Coal Company, situated in Columbiana County, Ohio, and is the owner and operator of the Florist Exchange, 214 N. Walnut Street, Youngstown, Ohio, a wholesale florist establishment. Mr. Anthony A. Abrutz has had extensive managerial and commercial experience. His business enterprises have done a gross business of approximately $200,000.00 per year. Mr. Abrutz has had no ore mining experience; however, he has had considerable coal mining experience as owner and operator of the Pitsy Coal Company. Mr. Paul Sisk has had fifteen years mining management experience with the following companies: West Jellico Coal Company, Nortonville, Ky., North Star Coal Company, Madisonville, Ky., West Hartford Coal Company, Hartford, Ky., Parkhill Coal Company, Madisonville, Ky., Hart Coal Mining Company, Madisonville, Ky., and the West Kentucky Coal Company, Mr. H.L.Richardson, owner of the West Jellico Coal Company referred to above.
8.	Since the mine operations have been solely on a development and exploration basis, there is no profit and loss statement. The balance sheet is on page 2 of this schedule.

Question No.	Answer

8. East Slope Mining Company - Balance Sheet June 1st,1951.

A s s e t s

Current Assets			
Cash in Bank- Youngstown, Ohio	$3,000.00		
- Colorado Springs	1,000.00	$4,000.00	
Inventory- Approximately 1,000 Tons of Raw Ore containing Lead,Copper,Zinc, Silver & Gold (Stock Pile)		20,000.00	
Total Current Assets			$24,000.00
Fixed Assets			
Hoisting Machinery			
Steping Machine and Drills			
Air Compressor		18,200.00	
30-Ton Concentrating Mill		7,000.00	
Electric Charging Machine and Motor		5,000.00	
Chevrolet Truck, two ton		3,658.40	
Two (2) Tons Rail (New)		360.00	
Twenty (20) Acres Land		200.00	
Total Fixed Assets			34,418.40
Other Assets			
Development Cost			3,444.84
TOTAL ASSETS			$61,863.24

Liabilities & Net Worth

Current Liabilities		
*1 Chattel Mortgage on Truck	2,208.00	
*2 Notes Payable-Mining Equipment	9,000.00	
Total Current Liabilities		11,208.00
Net Worth Account		50,655.24
TOTAL LIABILITIES & NET WORTH		$61,863.24

*1. G.M.C.Finance Corporation
*2. Bazley & Schumaker Engineering Co.

9. Mr. Anthony A. Abrutz, co-owner of the East Slope Mining Company has invested considerable money in this property, and is prepared to assume his share of the project expense.

EAST SLOPE MINING COMPANY

By: Anthony A. Abrutz
Anthony A. Abrutz

Paul Sisk
Paul Sisk

May 28th, 1951.

COPY

COPY

COPY

This Agreement of Lease, Made and entered into this 9th day of December, A. D. 19 50, by and between BUFORD G. DELL and HOWARD JAMES NEWBERRY, both of Park County, Colorado,

part ies of the first part, and CARL E. BAZLEY, OF El Paso County, Colorado.

party of the second part, **Witnesseth,** That the said parties of the first part, for and in consideration of the rents, covenants and agreements hereinafter expressed to be paid, kept and performed by the said party of the said second part, have leased, let and demised, and by these presents do lease, let and demise unto the said party of the second part, the following described premises, to-wit:

Betty Lode situated in the Freshwater Mining District of Park County, Colorado, held under location filed and recorded in Book 39, page 91, of the Records of Park County, Colorado, Section 21, Township 15 South, Range 73 West of the 6th P.M.

To Have and to Hold, For the purpose of mining, with power to assign ~~or sublet~~ the whole ~~or any part~~ of said premises to a partnership formed for that purpose

for the term of five (5) years

from the date hereof. Said party of the second part, for and in consideration of the premises aforesaid, has covenanted, contracted and agreed, and by these presents does covenant, contract and agree with said parties of the first part, their heirs, executors, administrators, successors or assigns, to commence work on said premises on or before December 15, 1950 and to work the same continuously and with reasonable diligence, in thorough and workmanlike manner; performing thereon at least fifteen shifts of work, of labor men each, during every calendar month of the life of said lease; keeping the same securely timbered in all parts during the term of this lease; to keep accurate accounts, and to render quarterly statements, accompanied by vouchers, to the said parties of the first part, their agent or attorney, showing the amount of all ore taken from said premises, and the yield of the same, and the cost of hauling and milling the same, and to pay quarterly to said parties of the first part, their agent or attorney, as rental for said premises, as follows, to-wit:

A royalty of 10 per cent of the value of all ores removed and processed.

It is understood and agreed that 4/5ths of such royalty shall be due to Buford G. Dell and 1/5th to Howard James Newberry.

Said party of the second part furthermore agrees that the said parties of the first part, their agent or attorney, shall have the right at any and all times to enter upon and descend into any and all parts of said premises, and that the said party of the second part will render to them all the assistance in his power in so doing.

Said party of the second part furthermore agrees that in case he fails to commence work on said premises as aforesaid, or to work the same continuously and with reasonable diligence and in workmanlike manner, or to keep the same securely timbered, or render said statements, or to pay said rental as aforesaid, or in any respect to keep and fulfill any and all agreements herein expressed or implied, then, and in that case, it shall be lawful for the said parties of the first part, their agent or attorney, to declare this lease void and of no effect thereafter, and without process of law to enter upon and take possession of said premises; ~~and~~ xxx

~~incumbrance~~

and also at the expiration of this lease by limitation, said party of the second part agrees to surrender, yield and deliver to said parties of the first part, their heirs, administrators, executors, successors and assigns, quiet and peaceable possession of said premises in good condition.

It is further agreed that Party of the Second Part, or his assignees, shall carry compensation insurance covering any and all employees working on the property covered by this lease and that this lease shall include all materials and equipment now located on the property other than that of equipment which is owned by Mr. Walter Merritt.

It is further agreed that this lease may be extended for a further term of five years at the option of Party of the Second Part, or his assignees, by giving written notice to Parties of the First Part at least 30 days before the expiration of this lease.

(SIGNED) AMY MERRITT
Witness - December 9th, 1950.

(SIGNED) BUFORD G. DELL Seal

(SIGNED) HOWARD JAMES NEWBERRY Seal

(SIGNED) CARL E. BAZLEY Seal

Seal

Seal

Seal

MINING LEASE

FROM

TO

Office of
County Clerk and Recorder.

COUNTY OF Park
COLORADO.

I hereby certify that the within instrument was filed in this office for record on the 18th day of December A. D. 19 50, at ..... o'clock ..... M., and was duly recorded in Book 144 Page 282.

COUNTY CLERK AND RECORDER.

DEPUTY.

FEES, $.....

OUT WEST PRTG. & STATY. CO., COLO. SPRINGS H3472

RECORDED IN OFFICE OF COUNTY CLERK & RECORDER
PARK COUNTY, COLORADO
DATE: May 23rd, 1951.
BOOK: 144
PAGE: 383

ASSIGNMENT OF MINING LEASE

KNOW ALL MEN BY THESE PRESENTS, That I, CARL M. BAILEY, of El Paso County, Colorado, for and in consideration of Ten Dollars ($10.00) and other good and valuable considerations to me paid, hereby assign to EAST SLOPE MINING CO., a partnership, of Colorado Springs, Colorado, all my right, title and interest in and to a certain Mining Lease dated December 9, 1950 made by Buford J. Bell and Howard James Newberry to me, of the following described premises, to-wit:

> Betty Lode situated in the Freshwater Mining District of Park County, Colorado, held under location filed and recorded in Book 39, Page 91, of the Records of Park County, Colorado, Section 21, Township 15 South, Range 73 West of the 6th P.M.

and recorded in the Office of the County Clerk and Recorder of Park County, Colorado on the 14th day of December 1950 1950 in Book 144, Page 282, with all and singular the premises herein mentioned and described, TO HAVE AND TO HOLD The same to East Slope Mining Co. from the 23rd day of May, 1951, for and during all the remainder in the term mentioned in said Lease, subject to the agreements by the Lessee, and conditions contained in said Lease.

IN WITNESS WHEREOF, I have hereunto set my hand and seal this 23rd day of May, 1951.

[illegible] (SEAL)

STATE OF COLORADO)
) ss.
COUNTY OF EL PASO)

The foregoing instrument was acknowledged before me this 23rd day of May, 1951, by CARL M. BAILEY.

Witness my hand and official seal.

( ) [illegible]
Notary Public

My commission expires: Apr.29,1954

ACCEPTANCE OF ASSIGNMENT

In consideration of the above and foregoing Assignment, the undersigned hereby assumes and agrees to make all the payments and perform all the covenants and conditions of the above described lease by said Carl E. Bazley to be made and performed.

IN WITNESS THEREOF I have hereunto set my hand and seal this 23rd day of May, 1951.

EAST SLOPE MINING CO.

By (SIGNED) PAUL SISK (SEAL)
Partner

Form MF-100
(March 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

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

NOT TO BE FILLED IN BY APPLICANT

Docket No. _____

Date received _____

The East Slope Mining Company,
Colorado Springs, Colorado.

Name and address of applicant

Date May 21st, 1951.

INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, (~~4) Necessity Certificate pursuant to the provisions of Sec. 124 A (Amortization Deduction) of Internal Revenue Code, 1950~~, (4) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (5) other forms of Government assistance that might arise under the Act. Submit four (4) signed copies of the form and accompanying papers. Name and address should be stamped or typed on each sheet of this form and all accompanying papers. *When a question is inapplicable it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. (IF YOU CANNOT ANSWER A QUESTION, SO STATE.) If a question is answered elsewhere indicate where answered. It is not necessary to answer it again.

GENERAL TECHNICAL DATA

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

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

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.
4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated.
   (*b*) Are you operating this property as:
   - ☐ Owner.
   - ☒ Lessee.
   - ☐ Contractor.
5. Number of years in production None
   If not in production or operation, estimated date when production will begin January 1952.
6. Experience of operators:
   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project. See question 4, MF-103
7. History:
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation. See question 16, MF-103.
   (*b*) State briefly the known history and production of adjoining and neighboring properties.
   (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

8. Names and addresses of Officers, Directors, or Partners, and in addition thereto, the five largest stockholders if applicant is a corporation. See questions 2 & 3, MF-103

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

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

Item	Authorized (a)	Outstanding (b)	Par Value (c)	Number of Shares Outstanding (d)	Dividend Rate Last Paid* (e)
Common stock	$	$	$		
Preferred stock	$	$	$		

*Indicate period covered.

10. Production: None

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

11. Do you contemplate a change in the present average monthly rate of production? If so, state estimated maximum monthly production and basis of change. None

12. Ore or Mineral Reserves:

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

See question 16(c), MF-103

(*b*) If deposit is other than placer: See Engineer's Report.

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

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

TOTAL ORE OR MINERAL RESERVES

Ore or Mineral Reserve	Estimated Tons (a)	Metal or Mineral Content Per Ton (Grade) (b)	Gross Value Per Ton (c)	Recoverable Unit Value Per Ton (d)	Estimated Cost of Production Per Ton (e)
Measured (proved)					
Indicated (probable)					

(*c*) If placer:

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

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

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

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

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

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

13. Access Roads: See question 12, MF-103

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

14. Water Supply: See question 13, MF-103

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

15. Power: See question 13, MF-103

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

16. Labor:

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

1 Hoistman, 1 Topman, 1 Mucker, 1 Miner, 1 Ore Sorter.

17. Equipment and Facilities: See question 14, MF-103

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

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

None.

CERTIFICATION

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

East Slope Mining Co. By [signature]

(Name of company) (Signature of authorized official)

5/28/51 Partner

(Date) (Title)

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

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

SCHEDULE 1 (FORM MF-100)

Question No.	Answer:
1. (a)	Cobalt, Copper, Zinc, Lead.
(b)	Gold and Silver.
2.	Name: Betty Lode Mine (Old name: Lone Chimney Mine) Type: Metals, shaft and tunnel.
(a)	300 feet.
(b)	682 feet.
(c)	None
(d)	None
	At the present time the mine is flooded from the sump at the 300' level to just below the 225' level. Water is now retained at this level by the use of a bailer bucket, and is no problem in the mine operation at the present time. With reference to our recommendations for deepening the shaft it will be necessary to remove the water in this flooded level by pumps and pumping equipment, and retain it by sufficient pumps, for deepening of the shaft operation.
3. (a)	The mine is located five miles south of Guffey, Colorado, nearest town and residence point. It is also located 22 miles from Parkdale, Colorado, the nearest railroad shipping point, from which the ore can be shipped to any desired destination.
(b)	Freshwater Mining District.
(c)	Township 15-South, Range 73-West, Section 21.
(d)	Park County, Colorado.

GEOPHYSICAL ENGINEERING, Div.of:
BAZLEY & SCHUMAKER ENGINEERING COMPANY

By: Earl E. Bazley

May 21st, 1951.

frb.

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

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

DO NOT FILL IN THIS BLOCK

Docket No. DMA-1650X

Date received 6/12/51

Participation

The East Slope Mining Company,
Colorado Springs, Colorado.

Name and address of applicant

Date May 21st, 1951.

FILL IN THIS BLOCK

Date of application May 21st, 1951

Estimated cost $56,039.00

Mineral or metal Cobalt, zinc, copper, lead

Percentage of Government participation 90%

Location of mine Guffey, Colorado. The Betty Lode Mine is located in the Freshwater Mining District of Park County, Colorado; Township 15-South, Range 73-West, Section 21.

Date of filing MF-100

DMA Docket Number, if available

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation? Partnership.

*2. If a partnership, state names and addresses of partners. (See Schedule 2)

*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders. Not applicable.

*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project. (See Schedule 2)

*5. Are you the owner or the lessee of the property? Lessee

6. If owner, state what claims, liens, or encumbrances, if any, are against the property. Not applicable.

7. If lessee, attach a copy of the lease and state if it is in good standing. Attached, In good standing.

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement. (Schedule 2)

9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)? (See schedule 2)

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any exis mine or operating property. (See Schedule 1)
    (*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted. (Sched.

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

*11. State the present and former names of the property, if any. Betty Lode Mine Old name: (Lone Chimney Mine)

*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads. (See Schedule 1)

*13. State source and quantity of water available for operations and its sufficiency at all seasons. (See Schedule 1) State amount of power to be used, rate per hour or other cost, and source. (See Schedule 1)

*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work. (See schedule 1)

15. State in detail how the ore could be shipped and how and where milled. (See schedule 1)

*16. History:
    (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations. (See schedule 1)
    (*b*) State briefly the known history and production of adjoining and neighboring properties. Unknown.
    (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations. (See Engineer's Report)

*17. Production: Not applicable
    (*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.) Not applicable.
    (*a*) Describe the ore or mineral deposits briefly.
    (*b*) Submit available maps and assay data.
    (*c*) Give estimated tonnage and grade of each class of ore reserves.

19. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions. (See Engineer's Report)

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted? (Schedule 1)

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it. (See Schedule 1)

    NOTE.—The Government will not participate in a project that will require more than 2 years to complete.

22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data. (See Engineer's Report)

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:
    (*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each. (See Schedule 1)
    (*b*) Supervisors, by numbers and positions, with salaries of each.
    (*c*) Cost of necessary repairs to existing facilities, structures, and buildings.
    (*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.
    (*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.
    (*f*) Cost of rental for equipment which the operator proposes to rent.
    (*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.
    (*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.
    (*i*) Cost of power, water, utilities, and any other items not provided for above.

24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent. (See Schedule 1)

CERTIFICATION

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

East Slope Mining Co
(Name of company)

By Anthony R. Abruzzo
(Signature of authorized official)

5/26/57
(Date)

Partner
(Title)

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

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

SCHEDULE 1 (FORM MF-103)

Question No.	Answer
10.(a)	The Betty Lode Mining Claims are located in the Freshwater Mining District of Park County, Colorado; Township 15-South, Range 73-West, Section 21. This property is situated five miles South of Guffey, Colorado.
(b)	This claim, known as the Betty Lode Claim, is located in general in a North and South direction, 1500' x 600', starting at the South Line, 300' West to the Westerly line, thence North 1500' to the Northerly line, thence East 600' to the Easterly line, thence South 1500' to the Southerly line, thence 300' West to the point of beginning, the discovery being made 750' North from this point of beginning.
12.	This property is situated on good County road and accessible to the mine by excellent dirt road. The mine is approximately 30 miles by County road (Colorado #9) to Hartsel, Colorado, and then by paved Highway (U.S.#24) to Buena Vista, and U.S.Highway #285 North to Leadville and South to Salida. The mine is located 22 miles from Parkdale on County road (Colo.#9) on Highway (U.S.#50) from Pueblo, Canon City and Salida. Parkdale is the nearest loading station of the Santa Fe Railroad. The same railroad is also located at Buena Vista and is reached by U.S.Highway #24 to the North approximately 50 miles from the mine. Elevation of the mine is 9500 feet.
13.	Sufficient water is available in the mine for all mining operations. This property is adjoined by several small creeks, which will supply additional water if needed. Climatic conditions in this area are excellent the year around, and mining operations can be carried out continuously. Electrical power is available within 10 miles of the property, but facilities at the mine are sufficient at the present time by independent gasoline motive power to supply present needs for exploration work. Estimated cost of power per day of normal operations, about $8.00, for fuel.
14.	The mine at the present time is 90% equipped with compressors, hoists, tools, drifters, stopers, rails, cars, and general mining equipment, in excellent condition, to handle this exploratory work. Necessary buildings to house this equipment are now provided. Some additional equipment, outlined later, and one additional building will be necessary to carry out further exploration work, mainly for efficiency reasons.

15. It is recommended that all ore be shipped to the Santa Fe Railroad siding, 22 miles South of the mine, over County road, (Colo.#9) to U.S.Highway #50, at Parkdale, Colorado. From this loading point, ore could be shipped to all points east, or to points west, including Leadville, Colorado, and Salt Lake City, Utah.

16.(a) This property was discovered approximately 20 years ago and to the 100' level was mined primarily for high-grade gold, which was located in the tear pocket of an iron cap overlay. Extended drifting and deepening of the shaft has been carried on privately, and has developed in the past several tear pockets and horses of ore. This past work has been done without the benefit of geological or engineering supervision, and because of the faulting in the area has not developed definite ore bodies. In most cases the ore has not been followed, or means provided to carefully mine the developments on hand. By-passing of the ore bodies and lack of capital in the past have been the main reasons for the unsuccessful development of this property.

(b) Unknown.

(c) See Engineer's Report.

20. Predominate minerals so far explored are copper and zinc, the copper ore containing substantial silver and gold content. Cobalt is the major discovery, and is the reason for this necessity of further development for this rare ore, which past exploration substantiates to be present. High-grade lead has also been discovered, and needs additional exploration. The ore deposits are metamorphic, in a supergene enrichment by epithermal conditions.

21. Proposed work recommended is the exploration to continue the tracing of the cobalt deposit, and to extend the present commercial ores to greater depths, which indicate higher grade and greater volume of ore deposits. The work recommended is as follows:

1. Continue to explore the cobalt deposit on the 100' level and locate other ores that may develop. It is estimated that it will be necessary for about 50' of drifts for this exploration at this level.

2. Cobalt extensions should be intercepted on the 160' level by a 75' drift or raise off from the 48' drive as shown on map. Cobalt extension should also be explored by a raise at the station as indicated on the map.

3. Extend the 21' drift on the 200' level approximately 100' which should intercept the cobalt deposit from the 160' level. We also recommend the extension eastward 50' on the 21' drift to intercept the zinc and copper vein.

4. Extension of the 96' drift on the 225' level approximately 30' to the high grade lead vein.

21. 5. The 300' level should be drained, cleaned and repaired, and the present diggings should be explored for vein extensions from the above levels. It is estimated that contacts should be made on a West drive of 155' for cobalt, a Southwest drive of 100' for lead, and a Northwest drive of 60' for zinc and copper.

From the above ore deposits it is definitely indicated that the increased depth will produce higher grade and greater volume of ores. It is, therefore, recommended that the main shaft be sunk an additional two levels, or 200', with a 50' sump below the 500' level, stations and drifts to be developed from the information secured from the 300' level. At the present time there is sufficient water in the mine for mining purposes, but it will be necessary with the deepening of the shaft to add water-control pumps before work can be done on these lower levels.

Estimated time required - about 7½ months.

23. The above recommended work will require:

(a)	Labor - 2 Hoistmen $1.25 per Hr.)		
	- 2 Topmen $1.25 per Hr.)Crew per shift		$44.00
	- 2 Miners $1.50 per Hr.)		
	- 2 Muckers $1.50 per Hr.)		
	For shaft deepening work 2 shifts will be used with the above men.		
(b)	Supervisors (2) $75.00 per week each	per shift	12.50
(c)	Estimated shaft repair, ladders, etc.:		
	Material		800.00
	Labor		200.00
	Head frame repair and sheave repair:		
	Material		150.00
	Labor		100.00
(d)	Locker room for miners, supply room, and office space, area 10' x 30', estimated cost		2000.00
(e)	Deepening of the shaft will require a jack hammer, hose, steel and bits		600.00
	Water pump and pipe for water control		1500.00
(f)	None		
(g)	Estimated rental value of all available equipment $250.00 per month	per shift	10.00
(h)	Dynamite fuse - 65' per day	per shift	1.30
	Powder - 25 lbs. per day	per shift	10.00
	Timber for shaft construction, 4 x 8, $125.00 per M Ft. cost approximately $40.00 for ten feet of shaft or -	per shift	13.00
(i)	Gasoline power estimated at $8.00	per shift	8.00

24. It is estimated that the time required to complete the above work will be about 7½ months. Deepening the shaft will be done at the rate of 14 feet per week per shift, or a total of 112 feet per month for two shifts. Deepening of the shaft will require approximately 3 months, including timbering and water removal. This operation will be necessary

24. before continued exploration on the upper levels because of mine safety regulations. Drifting as recommended in the Engineer's Report will be approximately 4 foot per shift, and will require the balance of the 4½ months to complete, including the necessary repairs and construction necessary for the project.

It is estimated on the basis of the above figures that the cost of deepening the shaft 250' will be at the rate of $40.00 per foot, with the total cost of $10,000.00.

Drifting on the different levels is estimated on the basis of the above figures minus the cost of timbering, to be $32.00 per foot; it will be necessary for total exploration to drift approximately 1120', at a total estimated cost of $35,840.00.

GEOPHYSICAL ENGINEERING, Division of:
BAZLEY & SCHUMAKER ENGINEERING COMPANY

By: Carl E. Bazley
C. E. Bazley.

May 21st, 1951.

frb.

SCHEDULE 2 (FORM MF-103)

Question No.	Answer
2.	The East Slope Mining Company is a partnership owned and operated by Anthony A. Abrutz, 514 Catalina Ave., Youngstown, Ohio, and Paul Sisk, c/o East Slope Mining Company, Guffey and Colorado Springs, Colorado.
4.	Anthony A. Abrutz is the sole owner of the Pitsy Coal Company, situated in Columbiana County, Ohio, and is the owner and operator of the Florist Exchange, 214 N. Walnut Street, Youngstown, Ohio, a wholesale florist establishment. Mr. Anthony A. Abrutz has had extensive managerial and commercial experience. His business enterprises have done a gross business of approximately $200,000.00 per year. Mr. Abrutz has had no ore mining experience; however, he has had considerable coal mining experience as owner and operator of the Pitsy Coal Company. Mr. Paul Sisk has had fifteen years mining management experience with the following companies: West Jellico Coal Company, Nortonville, Ky., North Star Coal Company, Madisonville, Ky., West Hartford Coal Company, Hartford, Ky., Parkhill Coal Company, Madisonville, Ky., Hart Coal Mining Company, Madisonville, Ky., and the West Kentucky Coal Company, Mr. H.L.Richardson, owner of the West Jellico Coal Company referred to above.
8.	Since the mine operations have been solely on a development and exploration basis, there is no profit and loss statement. The balance sheet is on page 2 of this schedule.

Question No.	Answer

8. **East Slope Mining Company - Balance Sheet June 1st, 1951.**

A s s e t s

Current Assets			
Cash in Bank- Youngstown, Ohio	$3,000.00		
- Colorado Springs	1,000.00	$4,000.00	
Inventory- Approximately 1,000 Tons of Raw Ore containing Lead, Copper, Zinc, Silver & Gold (Stock Pile)		20,000.00	
Total Current Assets			$24,000.00
Fixed Assets			
Hoisting Machinery			
Stoping Machine and Drills			
Air Compressor		18,200.00	
30-Ton Concentrating Mill		7,000.00	
Electric Charging Machine and Motor		5,000.00	
Chevrolet Truck, two ton		3,658.40	
Two (2) Tons Rail (New)		360.00	
Twenty (20) Acres Land		200.00	
Total Fixed Assets			34,418.40
Other Assets			
Development Cost			3,444.84
TOTAL ASSETS			$61,863.24

Liabilities & Net Worth

Current Liabilities		
°1 Chattel Mortgage on Truck	2,208.00	
°2 Notes Payable-Mining Equipment	9,000.00	
Total Current Liabilities		11,208.00
Net Worth Account		50,655.24
TOTAL LIABILITIES & NET WORTH		$61,863.24

°1. G.M.C.Finance Corporation
°2. Bazley & Schumaker Engineering Co.

9. Mr. Anthony A. Abrutz, co-owner of the East Slope Mining Company has invested considerable money in this property, and is prepared to assume his share of the project expense.

EAST SLOPE MINING COMPANY

By: Anthony A. Abrutz
Anthony A. Abrutz

Paul Sisk
Paul Sisk

May 28th, 1951.

COPY

COPY

COPY

This Agreement of Lease, Made and entered into this 9th day of December A. D. 19 50, by and between BUFORD G. DELL and HOWARD JAMES NEWBERRY, both of Park County, Colorado,

part ies of the first part, and CARL E. BAZLEY, OF El Paso County, Colorado.

party of the second part, **Witnesseth,** That the said part ies of the first part, for and in consideration of the rents, covenants and agreements hereinafter expressed to be paid, kept and performed by the said part y of the said second part, ha ve leased, let and demised, and by these presents do lease, let and demise unto the said part y of the second part, the following described premises, to-wit:

Betty Lode situated in the Freshwater Mining District of Park County, Colorado, held under location filed and recorded in Book 39, page 91, of the Records of Park County, Colorado, Section 21, Township 15 South, Range 73 West of the 6th P.M.

To Have and to Hold, For the purpose of mining, with power to assign ~~or~~ the whole ~~xxxxxxxx~~ of said premises to a partnership formed for that purpose

for the term of five (5) years

from the date hereof. Said part y of the second part, for and in consideration of the premises aforesaid, ha s covenanted, contracted and agreed, and by these presents do es covenant, contract and agree with said part ies of the first part, their heirs, executors, administrators, successors or assigns, to commence work on said premises on or before December 15, 1950 and to work the same continuously and with reasonable diligence, in thorough and workmanlike manner; performing thereon at least fifteen shifts of work, of labor men each, during every calendar month of the life of said lease; keeping the same securely timbered in all parts during the term of this lease; to keep accurate accounts, and to render quarterly statements, accompanied by vouchers, to the said part ies of the first part, their agent or attorney, showing the amount of all ore taken from said premises, and the yield of the same, and the cost of hauling and milling the same, and to pay quarterly to said part ies of the first part, their agent or attorney, as rental for said premises, as follows, to-wit:

A royalty of 10 per cent of the value of all ores removed and processed.

It is understood and agreed that 4/5ths of such royalty shall be due to Buford G. Dell and 1/5th to Howard James Newberry.

Said party of the second part furthermore agrees that the said parties of the first part, their agent or attorney, shall have the right at any and all times to enter upon and descend into any and all parts of said premises, and that the said party of the second part will render to them all the assistance in his power in so doing.

Said party of the second part furthermore agrees that in case he fails to commence work on said premises as aforesaid, or to work the same continuously and with reasonable diligence and in workmanlike manner, or to keep the same securely timbered, or render said statements, or to pay said rental as aforesaid, or in any respect to keep and fulfill any and all agreements herein expressed or implied, then, and in that case, it shall be lawful for the said parties of the first part, their agent or attorney, to declare this lease void and of no effect thereafter, and without process of law to enter upon and take possession of said premises; ~~and~~ xxx

~~xxxxxxxx~~

and also at the expiration of this lease by limitation, said party of the second part agrees to surrender, yield and deliver to said parties of the first part, their heirs, administrators, executors, successors and assigns, quiet and peaceable possession of said premises in good condition.

It is further agreed that Party of the Second Part, or his assignees, shall carry compensation insurance covering any and all employees working on the property covered by this lease and that this lease shall include all materials and equipment now located on the property other than that of equipment which is owned by Mr. Walter Merritt.

It is further agreed that this lease may be extended for a further term of five years at the option of Party of the Second Part, or his assignees, by giving written notice to Parties of the First Part at least 30 days before the expiration of this lease.

(SIGNED) AMY MERRITT
Witness - December 9th, 1950.

(SIGNED) BUFORD G. DELL Seal

(SIGNED) HOWARD JAMES NEWBERRY Seal

(SIGNED) CARL E. BAZLEY Seal

Seal

Seal

Seal

MINING LEASE

FROM

.....

TO

.....

Office of
County Clerk and Recorder.

COUNTY OF Park
COLORADO.

I hereby certify that the within instrument was filed in this office for record on the 18th day of December A. D. 19 50, at ..... o'clock ..... M., and was duly recorded in Book 144 Page 282.

.....
COUNTY CLERK AND RECORDER.

.....
DEPUTY.

FEES, $.....

OUT WEST PRTG. & STATY. CO., COLO. SPRINGS H3472

RECORDED IN OFFICE OF COUNTY CLERK & RECORDER
PARK COUNTY, COLORADO
DATE: May 23rd, 1951
BOOK: 144
PAGE: 383

ASSIGNMENT OF MINING LEASE

KNOW ALL MEN BY THESE PRESENTS, That I, CARL E. BAZLEY, of El Paso County, Colorado, for and in consideration of Ten Dollars ($10.00) and other good and valuable considerations to me paid, hereby assign to EAST SLOPE MINING CO., a partnership, of Colorado Springs, Colorado, all my right, title and interest in and to a certain Mining Lease dated December 9, 1950 made by Buford G. Dell and Howard James Newberry to me, of the following described premises, to-wit:

> Betty Lode situated in the Freshwater Mining District of Park County, Colorado, held under location filed and recorded in Book 39, Page 91, of the Records of Park County, Colorado, Section 21, Township 15 South, Range 73 West of the 6th P. M.

and recorded in the Office of the County Clerk and Recorder of Park County, Colorado on the 18th day of December 1950 1950 in Book 144, Page 282, with all and singular the premises herein mentioned and described. TO HAVE AND TO HOLD The same to East Slope Mining Co. from the 23rd day of May, 1951, for and during all the remainder in the term mentioned in said Lease, subject to the agreements by the Lessee, and conditions contained in said Lease.

IN WITNESS WHEREOF, I have hereunto set my hand and seal this 23rd day of May, 1951.

(SIGNED) CARL E. BAZLEY (SEAL)

STATE OF COLORADO)
) ss.
COUNTY OF EL PASO)

The foregoing instrument was acknowledged before me this 23rd day of May, 1951, by CARL E. BAZLEY.

Witness my hand and official seal.

(SIGNED) Myron S. Collins
Notary Public

My commission expires: April 29th, 1954

ACCEPTANCE OF ASSIGNMENT

In consideration of the above and foregoing Assignment, the undersigned hereby assumes and agrees to make all the payments and perform all the covenants and conditions of the above described lease by said Carl E. Bazley to be made and performed.

IN WITNESS WHEREOF I have hereunto set my hand and seal this 23rd day of May, 1951.

EAST SLOPE MINING CO.

By (SIGNED) PAUL SISK (SEAL)
Partner

Form MF-100
(March 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

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

NOT TO BE FILLED IN BY APPLICANT

Docket No. _____

Date received _____

The East Slope Mining Company,
Colorado Springs, Colorado.

Name and address of applicant

Date May 21st, 1951.

INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, (~~4) Necessity Certificate pursuant to the provisions of Sec. 124-A (Amortization Deduction) of Internal Revenue Code, 1950~~, (4) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (5) other forms of Government assistance that might arise under the Act. Submit four (4) signed copies of the form and accompanying papers. Name and address should be stamped or typed on each sheet of this form and all accompanying papers. *When a question is inapplicable it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. (IF YOU CANNOT ANSWER A QUESTION, SO STATE.) If a question is answered elsewhere indicate where answered. It is not necessary to answer it again.

GENERAL TECHNICAL DATA

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

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

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.
4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated.
   (*b*) Are you operating this property as:
   - ☐ Owner.
   - ☒ Lessee.
   - ☐ Contractor.
5. Number of years in production ____None____
   If not in production or operation, estimated date when production will begin ____January 1952.____
6. Experience of operators:
   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project. See question 4, MF-103
7. History:
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation. See question 16, MF-103.
   (*b*) State briefly the known history and production of adjoining and neighboring properties.
   (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

8. Names and addresses of Officers, Directors, or Partners, and in addition thereto, the five largest stockholders if applicant is a corporation. See questions 2 & 3, MF-103

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

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

Item	Authorized (a)	Outstanding (b)	Par Value (c)	Number of Shares Outstanding (d)	Dividend Rate Last Paid* (e)
Common stock	$	$	$		
Preferred stock	$	$	$		

*Indicate period covered.

10. Production: None

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

11. Do you contemplate a change in the present average monthly rate of production? If so, state estimated maximum monthly production and basis of change. None

12. Ore or Mineral Reserves:

(a) Describe the ore or mineral deposit briefly. Accompany the application by any available report on the geology and ore reserves. See question 16(c), MF-103

(*b*) If deposit is other than placer: See Engineer's Report.

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

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

TOTAL ORE OR MINERAL RESERVES

Ore or Mineral Reserve	Estimated Tons (a)	Metal or Mineral Content Per Ton (Grade) (b)	Gross Value Per Ton (c)	Recoverable Unit Value Per Ton (d)	Estimated Cost of Production Per Ton (e)
Measured (proved)					
Indicated (probable)					

(*c*) If placer:

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

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

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

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

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

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

13. Access Roads: See question 12, MF-103

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

14. Water Supply: See question 13, MF-103

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

15. Power: See question 13, MF-103

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

16. Labor:

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

1 Hoistman, 1 Topman, 1 Mucker, 1 Miner, 1 Ore Sorter.

17. Equipment and Facilities: See question 14, MF-103

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

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

None.

CERTIFICATION

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

East Slope Mining Co.
(Name of company)

By Anthony A. Abreu
(Signature of authorized official)

5/28/51
(Date)

Partner
(Title)

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

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

SCHEDULE 1 (FORM MF-100)

Question No.		Answer:
1.	(a)	Cobalt, Copper, Zinc, Lead.
	(b)	Gold and Silver.
2.		Name: Betty Lode Mine (Old name: Lone Chimney Mine) Type: Metals, shaft and tunnel.
	(a)	300 feet.
	(b)	682 feet.
	(c)	None
	(d)	None
		At the present time the mine is flooded from the sump at the 300' level to just below the 225' level. Water is now retained at this level by the use of a bailer bucket, and is no problem in the mine operation at the present time. With reference to our recommendations for deepening the shaft it will be necessary to remove the water in this flooded level by pumps and pumping equipment, and retain it by sufficient pumps, for deepening of the shaft operation.
3.	(a)	The mine is located five miles south of Guffey, Colorado, nearest town and residence point. It is also located 22 miles from Parkdale, Colorado, the nearest railroad shipping point, from which the ore can be shipped to any desired destination.
	(b)	Freshwater Mining District.
	(c)	Township 15-South, Range 73-West, Section 21.
	(d)	Park County, Colorado.

GEOPHYSICAL ENGINEERING, Div.of:
BAZLEY & SCHUMAKER ENGINEERING COMPANY

By: Earl F. Bazley

May 21st, 1951.

frb.

Report of:
GEOPHYSICAL ENGINEERING, Division of: BAZLEY & SCHUMAKER ENGR'G.CO.
on the
BETTY LODE MINE
for
EAST SLOPE MINING COMPANY
Colorado Springs, Colo.

Location: The Betty Lode Mining Claim is located in the Freshwater Mining District of Park County, Colorado; Township 15-South, Range 73-West, Section 21. This property is situated five miles South of Guffey, Colorado, on good County road and accessible to the mine by excellent dirt road. The mine is approximately 30 miles by County road (Colorado #9) to Hartsel, Colorado, and then by paved Highway (U.S.#24) to Buena Vista, and U.S.Highway #285 North to Leadville, and South to Salida. The mine is located 22 miles from Parkdale on County road, (Colo.#9) to Highway (U.S.#50) from Pueblo, Canon City and Salida. Parkdale is the nearest loading station of the Santa Fe Railroad. The same railroad is also located at Buena Vista and is reached by U.S.Highway #24 to the North approximately 50 miles from the mine. Elevation of the mine is 9500 feet. Climatic conditions in this area are excellent the year around, and mining operations can be carried out continuously.

Purpose of this Report: To determine and evaluate the possibilities of ore deposits and mineralization of the area, and particularly the Betty Lode mine from the present workings.

Methods Used: Geological survey, both surface and sub-surface, geophysical study, and geochemical analysis; maps of study enclosed with report.

Engineer's Report: This property is in a highly mineralized area, particularly the present mine location. The predominating formation present in the area is Algonkian Schist, Amphibole, Granite, and Lime Conglomerate, with late Rhyolite intrusions. The mine location is located in a highly faulted zone with the Rhyolite formation taking place last, and cutting through most of the earlier formations including the granites. Mineralization has taken place predominantly in the Algonkian Schist and Amphibole formations, the greatest faulting in these formations being created by the Rhyolite intrusions, thus moving and displacing the other earlier formations. Exploratory work done on the property in the past proves that the ore bodies increase in grade and volume with depth which sustains the geological determination of the faulting zone condition.

In general the predominant ore bodies at present are zinc, copper, lead, and cobalt. The lead ores and copper ores contain gold and silver content. Explanation and general condition of the explored levels are as follows:

1. 100' level shows indications of cobalt deposit. New exploration work exposed definite ore possibilities, and a general sample across area shows trace of cobalt, as per attached copy of assay. High grade sample indicates good percentage of cobalt ore. No other commercial ore exposed on this level at this time. There is possibility of discovery when cobalt is explored further.

2. 160' level shows definite exposure of zinc and copper ore bodies as indicated on east-west-cross section map enclosed. This level indicates the first possibility of commercial zinc and copper ore deposits. Cobalt bloom, same as on 100' level, is also shown on this level, and definitely indicates additional exploratory work to be done on the present 48' drive to cut the cobalt deposit from the 100' level. Also a raise should be made at the station side to cut the cobalt deposit from the 100' level.

3. 200' level shows extension of zinc, copper and lead deposits of higher grade and larger volume than the 160' level. All deposits are continuing with depth and are increasing in grade and volume. Exploration to the present time has opened three new faces of excellent ore. Cobalt should continue with depth and it appears from the condition of the other ore bodies that the cobalt will increase in grade and volume. A fourth face of zinc and copper can easily be opened by a short drift on the 21' present drive.

4. 225' level - continued exploration of this level has opened two new faces of zinc and copper and lead. The face as before indicates larger volume and higher grade. Cobalt should show on this level as all ore bodies are continuing.

5. 300' level - this level is under water and was not explored. This level should be drained and repaired and explored in the same manner as the upper levels for ore bodies. All indications are for continued ore deposits with depth.

Conclusion: The general survey and study of this property definitely indicates that the ore deposits occur from the 100' level to great depth, and that the ore bodies increase in grade and quantity with depth. This property is capable of mining selected high grade ore, but also contains large quantities of lower grade mill ore which would be wasted if developed only into a selected high grade mine. The average sorted ore in quantity produced 18% zinc and 14% copper. Ore screenings of the above mined ore ran 9% zinc and 7% copper. Lead deposits explored showed 6% to 9% with good silver content.

The accompanying assay sheets are included in this report and are recorded only as to the levels at which the samples were taken.

Sample 145 and 146 taken at the 100' level indicates presence of other minerals.

Sample 138 and 139, as a general sample of the 200' level shows increased mineralization and commercial ore.

Sample 142 from 225' level shows new ore discovery at this level.

Sample 144 is a new discovery on the 225' level, and shows a continuation of the above copper mineralization.

Engineer's Recommendations:

From the above study it is our recommendation that additional exploration is needed and justified to continue the tracing of the cobalt deposit, and to extend the present commercial ores to greater depths, which indicates higher grade and greater volume of ore deposits. Our recommendations are as follows:

1. Continue to explore the cobalt deposit on the 100' level and locate other ores that may develop. We estimate that it will be necessary for about 50' of drifts for this exploration at this level.

2. Cobalt extensions should be intercepted on the 160' level by a 75' drift or raise off from the 48' drive as shown on the map. Cobalt extension should also be explored by a raise at the station as indicated on the map.

3. Extend the 21' drift on the 200' level approximately 100' which should intercept the cobalt deposit from the 160' level. We also recommend the extension eastward 50' on the 21' drift to intercept the zinc and copper vein.

4. Extension of the 96' drift on the 225' level approximately 30' to the high grade lead vein.

5. We recommend that the 300' level which is now flooded be drained, cleaned and repaired, and to explore the present diggings for vein extensions from the above levels. We estimate that contacts should be made on a West drive of 155' for cobalt, a Southwest drive of 100' for lead, and a Northwest drive of 60' for zinc and copper.

From the above ore deposits it is definitely indicated that the increased depth will produce higher grade and greater volume of ores. We, therefore, recommend that the main shaft be sunk an additional two levels, or 200', with a 50' sump below the 500' level, stations and drifts to be developed from the information secured from the 300' level. At the present time there is sufficient water in the mine for mining purposes, but it will be necessary with the deepening of the shaft to add water control pumps before work can be done on these lower levels.

We estimate at the present time that on the 100', 160', 200', and 225' levels, that it will be necessary to do 305' of drifting. By calculations we estimate that the drifting necessary on the drained 300' level will be 315'. Our estimate for additional work on the 400'and 500' levels to be 500' of drifts.

4' drift per shift is calculated at $32.00 per foot; at the 300, 400, & 500' levels we estimate the cost	$26,080.00
On the upper levels, 305' of drifts we estimate at	9,760.00
Deepening the shaft 250', estimated at $40.00 per foot	10,000.00
It will be necessary to construct a suitable office, locker-room and supply room on the premises, estimated at	2,000.00
Pumping facilities and pipe for water control	1,500.00
Repairs to the present shaft, material and labor	1,000.00
Readjustment and repairs to head frame. . .	250.00
It will be necessary to purchase a suitable jack hammer for the shaft deepening, estimate	600.00
	51,190.00
10% of the above total, for such items as miscellaneous costs, time loss costs and incidental repairs	5,119.00
We therefore submit that the total cost for the above recommendations will be approximately.	$56,309.00

GEOPHYSICAL ENGINEERING, Division of:
BAZLEY & SCHUMAKER ENGINEERING COMPANY

By: Earl E. Bazley

May 21st, 1951.

CEB/frb

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CHARLES O. PARKER & COMPANY
2114 Curtis Street,
Denver, Colo.

Folio: 5697

Date: May 19, 1951.

For: Paul Sisk,
c/o Bazley & Schumaker,
Colorado Springs, Colo.

- -

We hereby certify that the samples assayed for you gave the following results:

Sample No.2 Cobalt (Co): trace.

CHARLES O. PARKER & CO.
Chemists, Assayers & Engineers.

frb

THE COLORADO ASSAYING COMPANY, Inc.
2013 Welton Street,
Denver 1, Colorado.

C O P Y

Reports on Determinations Made for: Bazley & Schumaker Engr'g.Co.,
Colorado Springs, Colorado.

Sample Marks	Metals	Amt.per Ton Ozs.	Amt.per Ton Hds.	Per Cent	Value per Ton $	Value per Ton Cents
March 24th, 1951. 100'level.#145	Gold	trace.				
	Silver	trace.				
	Lead			None.		
#146	Gold	.05				1.75
	Silver	.90				.81
	Lead			Trace.		

Gold at $35. per ounce
Silver at 90¢ per ounce.

By: (SIGNED) EDMUND PHILLIPS

January 8th, 1951. 200'level. #138	Gold	.02				.70
	Zinc			14.8%		29.60
#139	Gold	.03				1.05
	Silver	4.40				3.96
	Copper			11.95%		47.80

By: (SIGNED) EDMUND PHILLIPS

Gold at $35. per ounce.
Silver at 90¢ per ounce
Lead at $3.00 per unit
Copper at $4.00 per unit.

February 23rd, 1951. 225' drift #142	Gold	.04				1.40
	Silver	7.20				6.48
	Lead			6.1%		18.30

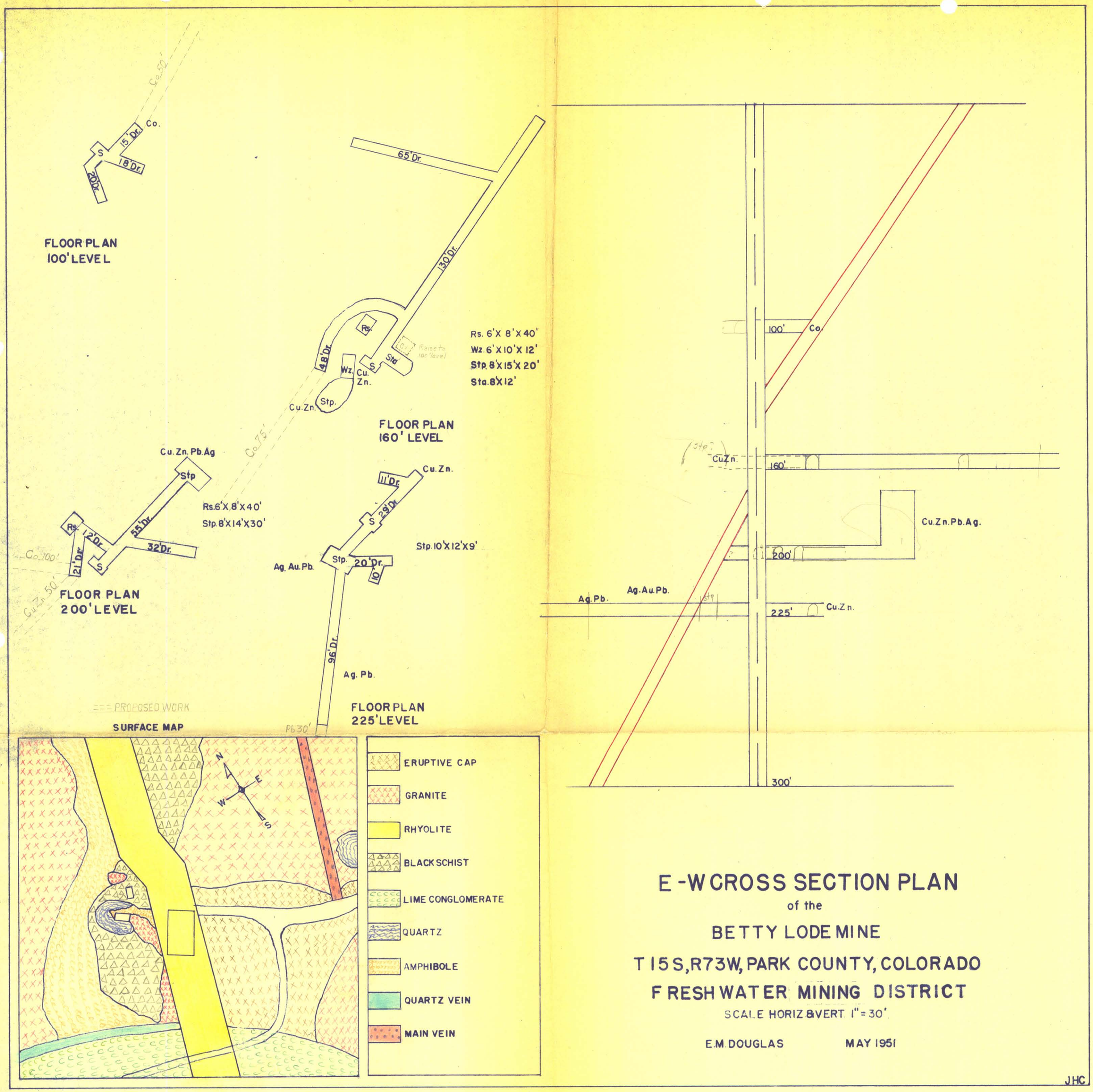
Gold at $35. per ounce.
Silver at 90¢ per ounce
Lead at $3.00 per unit
Copper at

By: (SIGNED) EDMUND PHILLIPS

February 27th, 1951. 225' level #144	Gold	.01				.35
	Silver	1.60				1.44
	Copper			2.90%		11.60

Gold at $35. per ounce
Silver at 90¢ per ounce
Copper at $4.00 per unit

By: (SIGNED) EDMUND PHILLIPS.



E-W CROSS SECTION PLAN

of the

BETTY LODE MINE

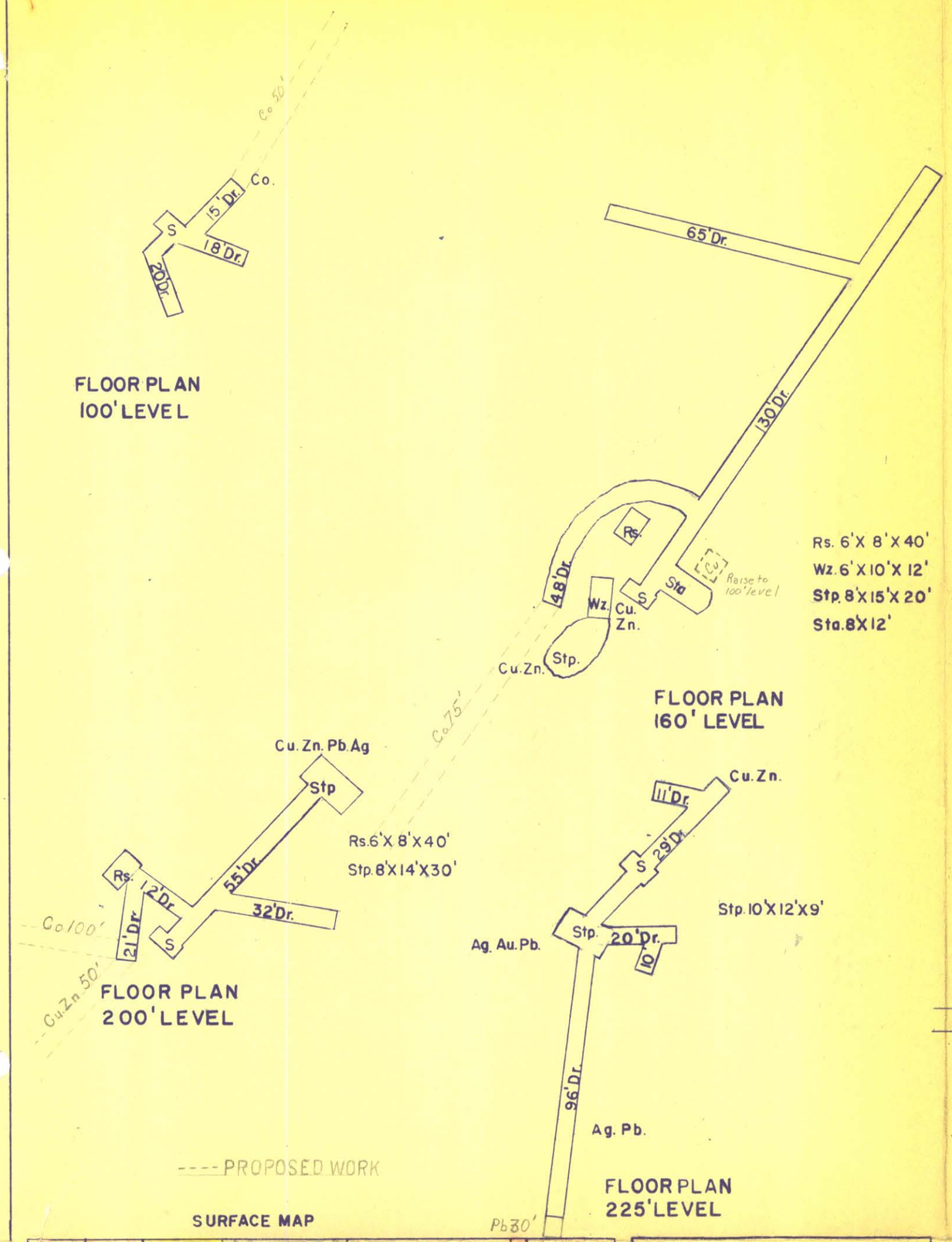
T 15 S, R 73 W, PARK COUNTY, COLORADO

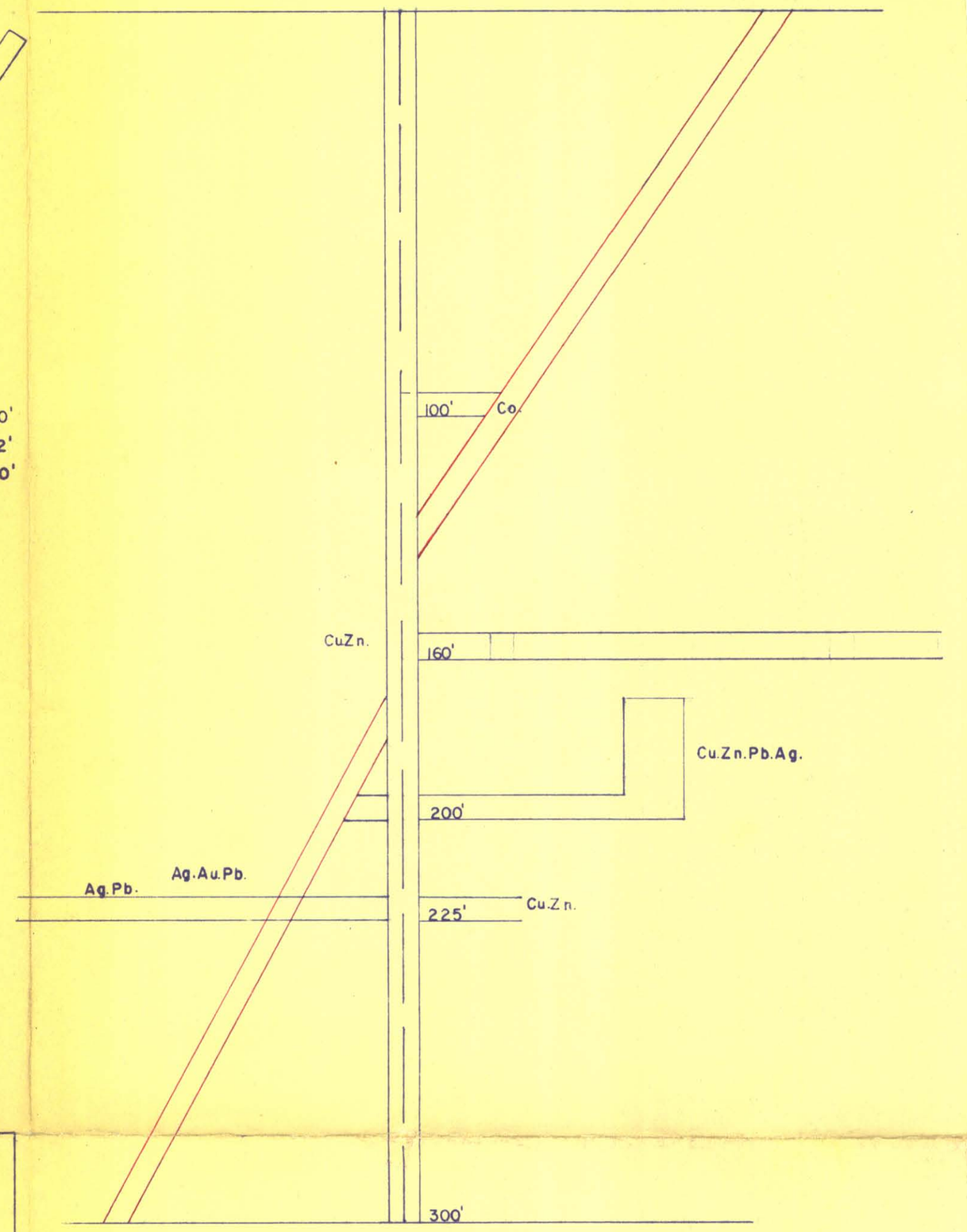
FRESH WATER MINING DISTRICT

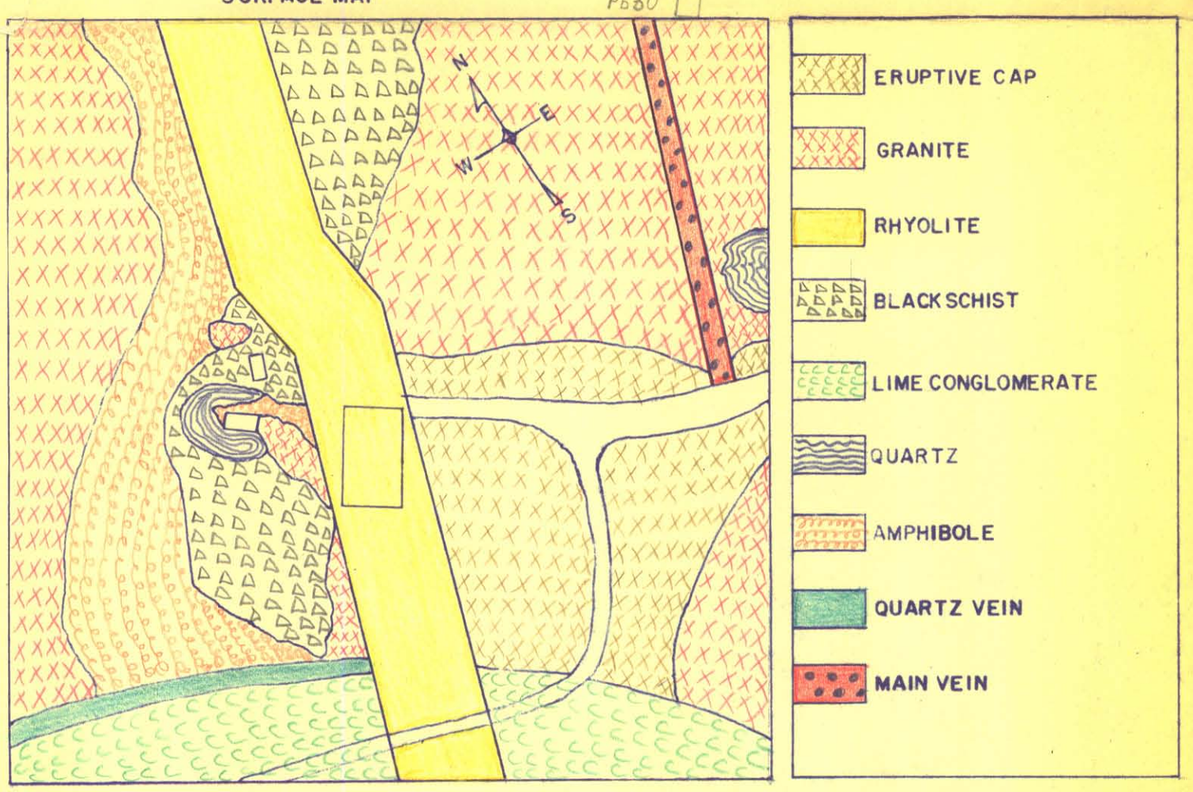
SCALE HORIZ. & VERT. 1" = 30'

E. M. DOUGLAS MAY 1951

JHC







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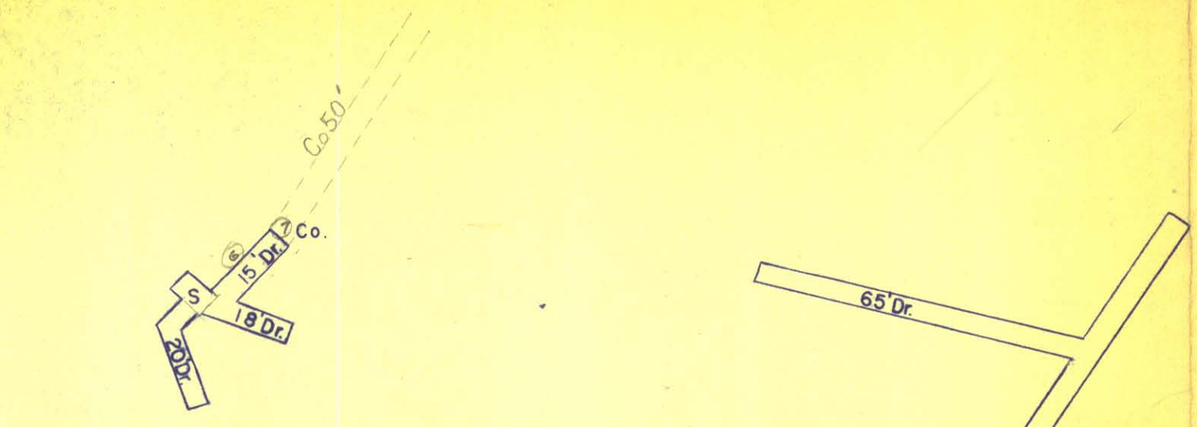
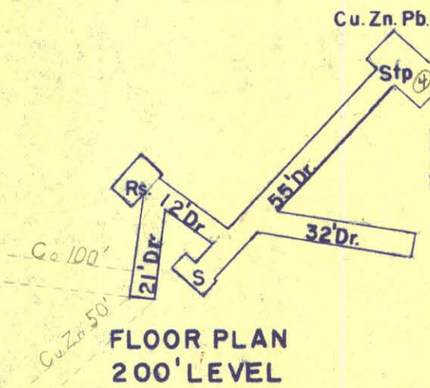
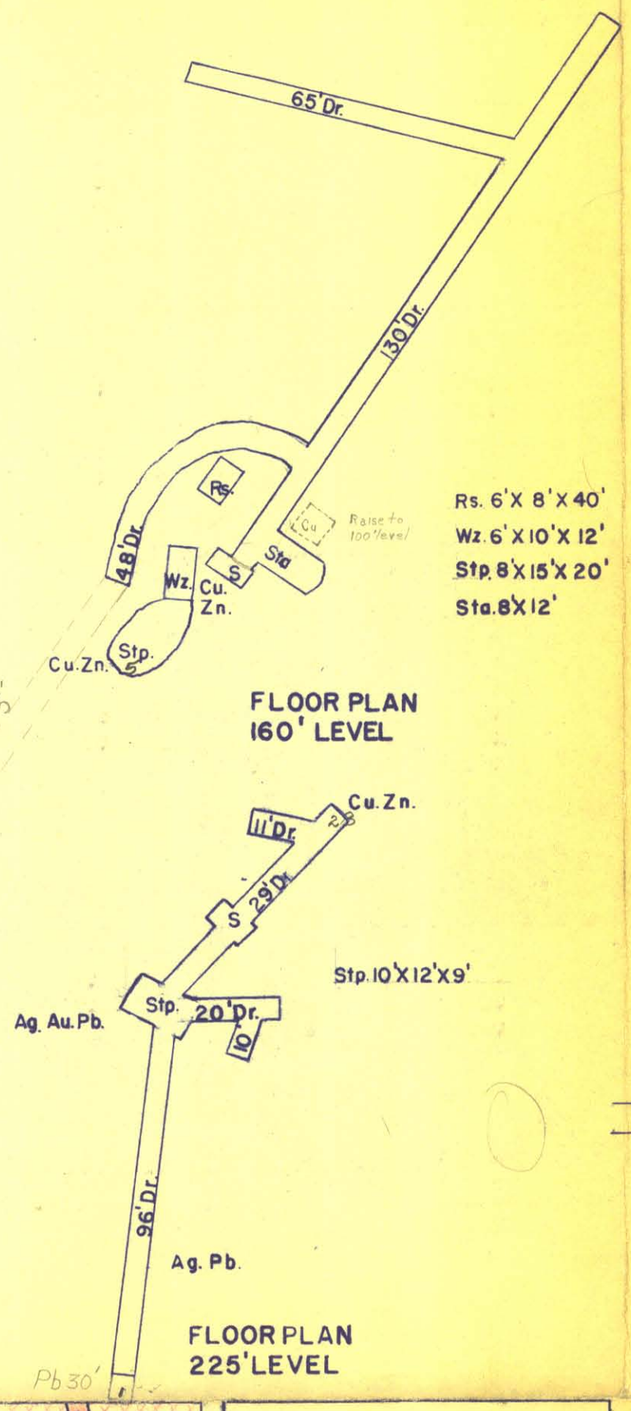


FLOOR PLAN
100' LEVEL



FLOOR PLAN
200' LEVEL

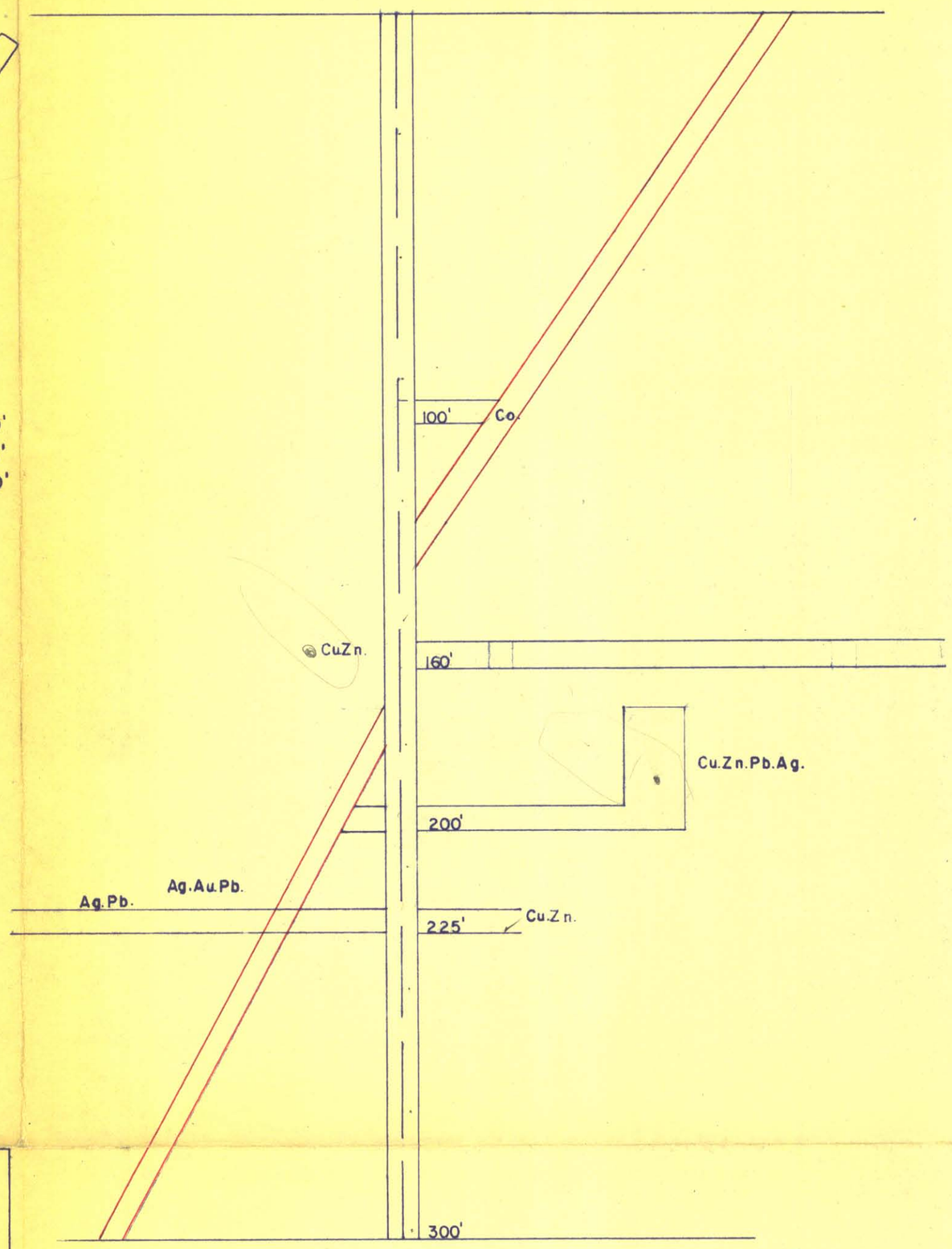


Rs. 6'X 8'X 40'
Wz. 6'X 10'X 12'
Stp. 8'X 15'X 20'
Sta. 8'X 12'

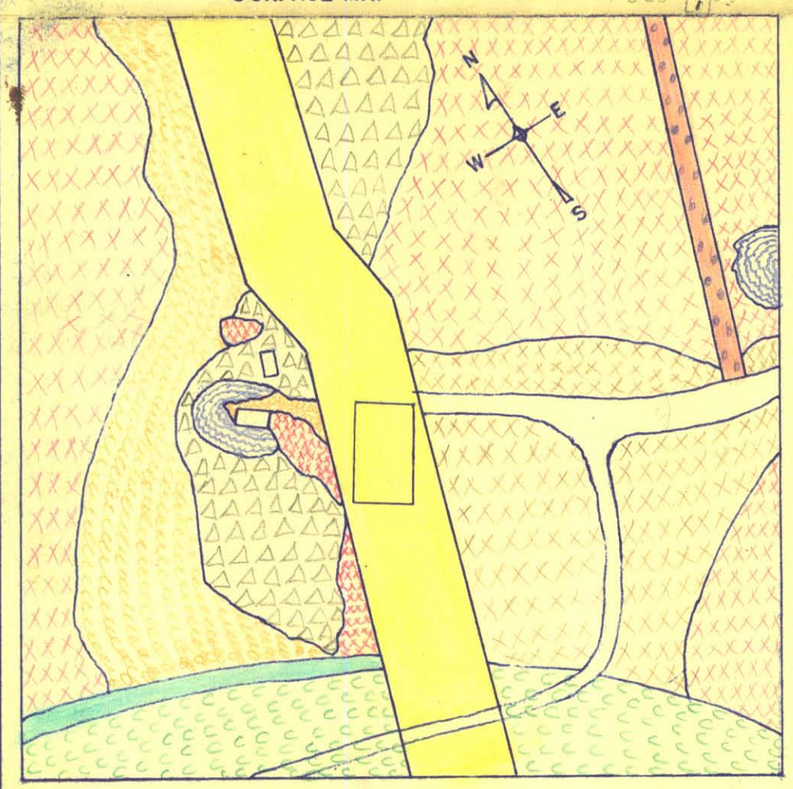
FLOOR PLAN
160' LEVEL

Stp. 10'X 12'X 9'

FLOOR PLAN
225' LEVEL



SURFACE MAP



- ERUPTIVE CAP
- GRANITE
- RHYOLITE
- BLACK SCHIST
- LIME CONGLOMERATE
- QUARTZ
- AMPHIBOLE
- QUARTZ VEIN
- MAIN VEIN

E-W CROSS SECTION PLAN

of the

BETTY LODE MINE

T 15 S, R 73 W, PARK COUNTY, COLORADO

FRESH WATER MINING DISTRICT

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E.M. DOUGLAS MAY 1951

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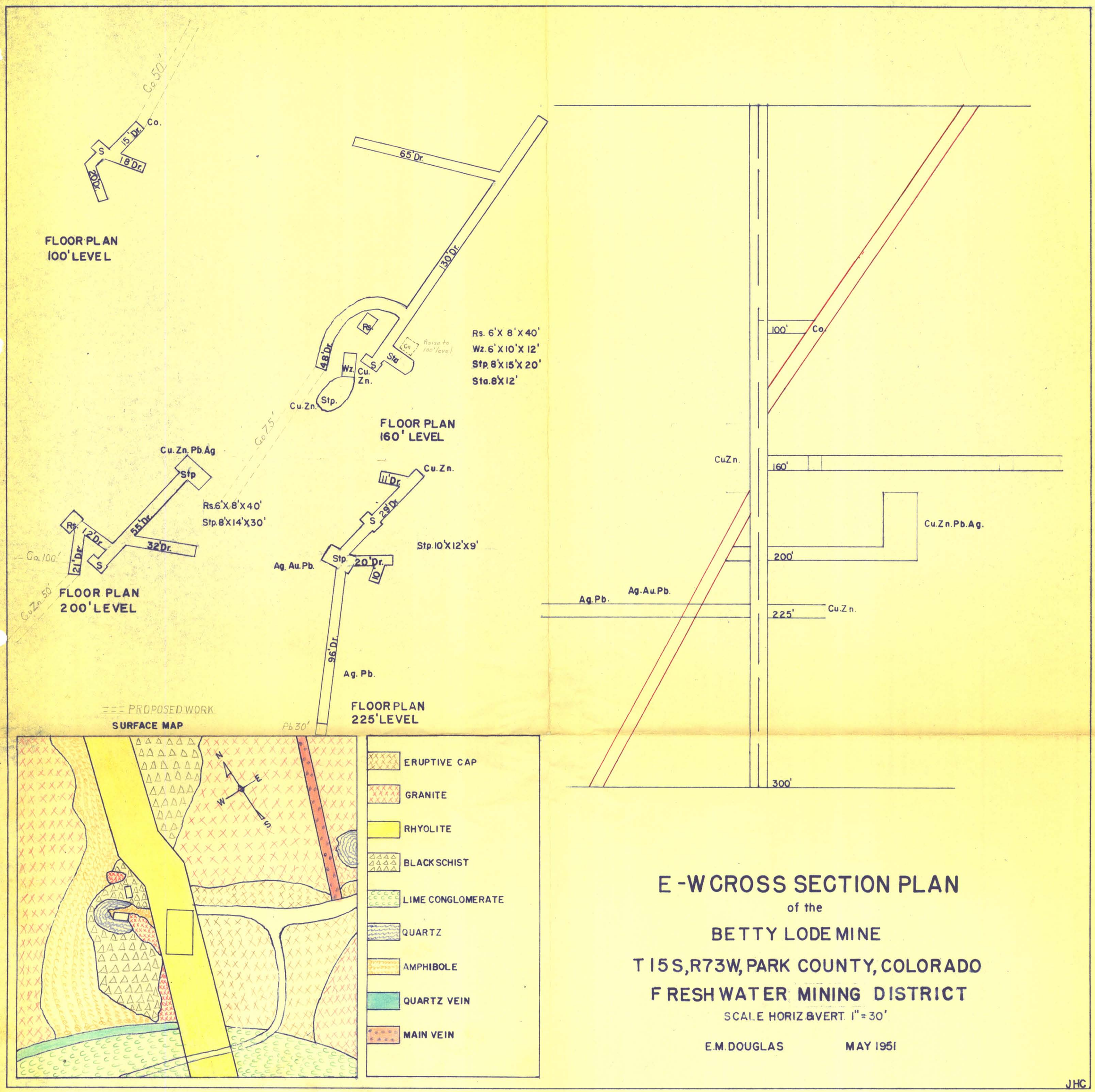
Co. 50'
15' Dr.
Co.
S
18' Dr.
20' Dr.
FLOOR PLAN
100' LEVEL
65' Dr.
130' Dr.
Rs.
Co
Raise to 100' level
Sta
S
48' Dr.
Wz.
Cu. Zn.
Stp.
Cu. Zn.
Rs. 6' X 8' X 40'
Wz. 6' X 10' X 12'
Stp. 8' X 15' X 20'
Sta. 8' X 12'
FLOOR PLAN
160' LEVEL
Co. 75'
Cu. Zn. Pb. Ag
Stp
Rs. 6' X 8' X 40'
Stp. 8' X 14' X 30'
Rs.
12' Dr.
55' Dr.
32' Dr.
21' Dr.
S
Co. 100'
50'
FLOOR PLAN
200' LEVEL
Cu. Zn.
11' Dr.
S
29' Dr.
Stp. 10' X 12' X 9'
Ag. Au. Pb.
Stp.
20' Dr.
10
96' Dr.
Ag. Pb.
FLOOR PLAN
225' LEVEL
Cu. Zn. 50'
=== PROPOSED WORK
SURFACE MAP
Pb 30'
N
E
W
S
ERUPTIVE CAP
GRANITE
RHYOLITE
BLACK SCHIST
LIME CONGLOMERATE
QUARTZ
AMPHIBOLE
QUARTZ VEIN
MAIN VEIN
100'
Co.
Cu. Zn.
160'
Cu. Zn. Pb. Ag.
200'
Ag. Pb.
Ag. Au. Pb.
225'
Cu. Zn.
300'
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