UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE

~~Terminated~~ (or cancelled) without certification. DMEA No. 821

This is the official contract file containing all official records of the project. Duplicate material has been removed. The records contained in the files are checked and are arranged in this manner:

Left Side

Certificate of Audit (Final).

Interim Audit(s).

Report of Review.

Termination Notice or Agreement.

✓ Recision Notice.

Assignment of Contract.

Contract Amendments (latest on top).

✓ Contract with all exhibits and annexes.

Owner's Consent to Lien.

Subordination Agreement.

Leases and assignments of leases.

✓ Application and attachments.

Schedule of Collections.

Operator's monthly reports and all attachments (latest on top).

Right Side

Project summary.

Work completed analysis.

All other material is filed in chronological order with correspondence including the following reports as checked:

Final Field Team Report. (Tab)

Operator's Final Report.

Interim Reports.

✓ On-site Exam Report(s). (Tab)

Settlement Sheets.

If additional folders are required because of volume of records, show folder numbers and contents below:

Maps in folder number _____

Operator's Monthly Reports in folder number _____

WMC
Reviewer's Initials

7973

MF-20
(April 1

No. Card
Card
Reviewed

Docket No. DMA 821x
Commodity Cu,Pb,Zn
Idm-E62

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

EXPLORATION PROJECT CONTRACT[1]

AUG

It is agreed this 18th day of July, 1951, between the United States of America, acting through the Department of the Interior, Defense Minerals Administration, hereinafter called the "Government," and[2] the Golden Messenger Corporation, 404 Riverside Ave., Spokane, Wash.

hereinafter called the "Operator," as follows:

1. *Authority for contract.* This agreement is entered into under the authority of the Defense Production Act of 1950, pursuant to Mineral Order 5, entitled "Regulations Governing Government Aid in Defense Exploration Projects."

2. *Operator's property rights.* The exploration project shall be conducted on that certain property situated in the State of Montana, County of Jefferson described as follows:[3] 7 unpatented claims, Survey Nos. 6037, 6036, 7986, 10216, 10438, 6035, and 5693, all in the Cataract Mining district.

with respect to which the Operator represents and undertakes:[4]

(*a*) That he is the sole owner, in possession and entitled to possession, and that the property is subject only to the following claims, liens, or encumbrances as to each of which the subordination agreement of the holder is attached: None

(*b*) ~~That he is a lessee, in possession and entitled to possession, and the subordination agreement of the lessor is attached.~~

3. *Exploration project.* The Operator, within _____ days from the date of this contract shall commence work on a project of exploration for[5] copper-lead-zinc ores; shall prosecute the work efficiently, expertly, in a workmanlike manner, in accordance with good mining standards, with suitable and adequate equipment, materials, and labor, all properly designed to bring the project to completion within a period of[6] one year from the date of this contract. The exploration project and the work to be performed are more fully described on Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, is made a part of this contract.

4. *Performance of the work.* The work shall be performed by the Operator, under his sole direction and control: *Provided,* That with the consent of the Government and its written approval of the contract or contracts, all or any part of the work may be performed by the Operator through contract or contracts with independent contractors. The Government shall have the right to enter and observe and inspect the work at all reasonable times, and the Operator shall provide the Government with all available means for doing so. The Government may consult with and advise the Operator on all phases of the work.

5. *Fixtures and improvements.* The Operator shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of the exploration project without any allowance for the use, rental value, depreciation, depletion, or other cost of acquiring, owning, or holding possession thereof. Attached hereto, marked "Exhibit 'B'," is a detailed list of additional facilities, buildings, and fixtures, to be purchased, installed, or erected by the Operator, with the estimated cost of each, to which the Government will contribute its agreed pro-rata share of the cost. The difference between the cost of such additional facilities, buildings, or fixtures, and the salvage value thereof at the conclusion of the work, shall be charged as a cost of the project to which the Government has contributed its pro-rata share.

6. *Operating equipment.* Attached hereto, marked "Exhibit 'C'," is a detailed list of operating equipment divided into categories of items to be rented, purchased, or furnished by the Operator, with the allowable rental, purchase price, or rental value, as the case may be, annexed to each. As to equipment purchased for the project, the Government will contribute its agreed pro-rata share of the cost thereof, and the difference between the cost and the salvage value at the conclusion of the work shall be charged as a cost of the project to which the Government has contributed its pro-rata share.

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] State name, address, and nature of organization if any.
[3] Give legal description or enough to identify the property.
[4] Strike out the provision not applicable.
[5] Name of mineral.
[6] Not in excess of 2 years.

7. *Title to and disposition of property.* All facilities, buildings, fixtures, equipment, or other items costing more than $50 each, paid for or purchased with funds contributed jointly by the Operator and the Government, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the termination of the contract, if they have salvage value, shall be disposed of for their joint account unless the Government, in writing, waives its interest in any such items. The Government may require the dismantling, severance from land, and removal of any such items in order to realize its interest in the salvage value thereof, and the cost of any such removal and of the disposal of the items shall be for the joint account of the parties in proportion to their respective interests.

8. *Labor and supervision.* Attached hereto, marked "Exhibit 'D'," is an itemized schedule of labor, by numbers and classes (miners, muckers, millmen, etc.), and of supervisors, by numbers and positions, with the maximum wages or salaries that may be paid to each as an allowable cost of the project.

9. *Rehabilitation and repairs.* Attached hereto, marked "Exhibit 'E'," is a detailed schedule of existing facilities, buildings, installations, and fixtures, with a statement of the cost of any necessary rehabilitation or repairs to put into useful and operable condition, which cost shall be allowed as a cost of the project.

10. *Allowable costs of the project.* The allowable costs of the project in which the Government will participate are limited to the necessary, reasonable, direct costs of performing the exploration work, including the costs of materials, supplies, engineering, power, water, and utilities, including items of equipment costing less than $50 each; and the costs referred to in Articles 5, 6, 8, and 9, and the exhibits annexed to and referred to in the contract. Although the Government may pay part of the cost of new or additional facilities, structures, buildings, and equipment, only the depreciation on such items, computed as indicated in Articles 5 and 6, will be charged as a cost of the project. No items of general overhead, corporate management, interest, or any other indirect costs not expressly allowed by these regulations, or work performed or costs incurred before the date of this contract, shall be allowed as costs of the project in which the Government will participate.

11. *Participation by the Government.* At the end of the first full calendar month after the Operator has commenced work under the project, and at the end of each succeeding calendar month, the Operator shall submit to the Government a voucher for payment with a detailed statement of work done and allowable costs (as defined in Article 10 of this agreement) incurred, in a form and with supporting data acceptable to the Government. After approving the voucher, the Government shall pay to the Operator fifty percent of the sum of such costs incurred; *Provided,* That the aggregate total of all sums paid by the Government under this agreement shall not exceed $30,937.50, which is fifty percent of the agreed estimated total cost of this project, $61,875.

12. *Accounts and audits.* The Operator shall keep suitable records and accounts of operations, which the Government may inspect and audit at any time. The Government may at any time require an audit of the Operator's records and accounts by a certified public accountant, the cost thereof to be treated as a cost of the project. The Operator shall keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract.

13. *Progress reports.* The Operator shall provide the Government with monthly reports of progress in form and content satisfactory to the Government, and upon the completion of the project or termination of the contract shall provide the Government with a comprehensive geologic and engineering report, including an estimate of ore reserves, to the best of his ability. Four copies of all reports shall be furnished to the Government.

14. *Repayment by Operator.* If, upon the completion of the exploration project or termination of the contract, the Government considers that a discovery or development has resulted from the work from which commercial production of ore may be made, the Government, within 6 months thereafter shall so certify to the Operator, particularly describing and delimiting its estimate of the discovery or the development. Thereafter, if and as ore is produced as a result of such discovery or development, the Operator and his successor in interest shall be and become obligated to pay to the Government a percentage royalty on the net smelter returns or other net proceeds realized from such ore, concentrates, or metal produced within ten (10) years from the date of this contract, until the total amount contributed by the Government, without interest, is fully repaid or said 10 years have elapsed, whichever occurs first, as follows:

Of net smelter returns or other net proceeds not in excess of eight dollars ($8.00) per ton of ore: One and one-half (1½) percent.

Of net smelter returns or other net proceeds in excess of eight dollars ($8.00) per ton of ore: One and one-half (1½) percent, plus one-half (½) percent additional for each full fifty cents ($0.50) in excess of eight dollars ($8.00) per ton of ore, but not in excess of a maximum of five (5) percent.

This obligation to repay from net returns or proceeds shall be and remain a claim and lien upon the property which is the subject of the exploration project and upon any production resulting from such discovery or development, in favor of the Government, until fully paid, or until said 10-year period has elapsed; and this claim and lien and the Government's right to repayment shall survive any termination of the contract, whether by completion of the exploration project or otherwise. This article is not to be construed as imposing any obligation on the Operator or his successor in interest to produce ore from any such discovery or development.

15. *No assignment of contract.* Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder.

16. *Termination and completion.* The Government may, at any time, by written notice to the Operator, terminate this contract: (*a*) If the Operator fails to provide his share of the money necessary to prosecute operations pursuant to the terms of the contract; (*b*) if the Operator, in the opinion of the Government, fails to prosecute operations pursuant to the terms of the contract; or (*c*) if in the opinion of the Government, operations up to the time of the notice have not indicated the probability of making any worthwhile discovery and in the opinion of the Government further operations are not justified. Upon the completion of the project or any termination of the contract the Operator shall render to the Government a full and final accounting of his operations under the contract and his expenditures of money; shall dispose of any unused materials, supplies, and equipment for the joint account of the Operator and the Government in the proportion of their respective interests; and shall pay to the Government its pro-rata share of any money remaining.

Executed in triplicate the day and year first above written.

Golden Messenger Corporation
(Operator)

By Frank Corwin Vice Pres.

THE UNITED STATES OF AMERICA

By C O Mittendorf

Director
Production Expansion Division
Defense Minerals Administration

U. S. GOVERNMENT PRINTING OFFICE 16—64066-1

Golden Messenger Corporation
Crystal Mine, Jefferson County, Montana

Exploration Project Contract

EXHIBIT "A"

Exploration project

1. Sink winze A from lowest adit level B 230 feet on vein structure.

2. Drift eastward 500 feet (drift B) and westward 130 feet (drift C) from winze A at the 200-ft. depth (slope distance).

3. Drive 3-compartment stull raise D about 200 feet from drift B to lowest adit level. Site of raise D is specified at a point 385 feet east of winze A.

4. Crosscutting (totaling 125 feet) from drifts B and C for parallel vein structure. This crosscutting shall consist of 25-foot headings driven from 5 points along drifts B and C.

Recapitulation

Rehabilitation and repair of buildings	$ 690
Sinking, 230 feet @ $110	25,300
Drifting, 630 feet @ $25.50	16,065
Raising, 200 feet @ $43.00	8,600
Crosscutting, 125 feet @ $21.00	2,625
Equipment cost	8,595
Total cost of project	$61,875

Time Schedule	Estimated time allocation
1. Camp rehabilitation, preparation for sinking, and sinking winze (2 shift operation)	First 3 months
2. Drifting, crosscutting and raising	4th, 5th & 6th months

Golden Messenger Corporation
Crystal Mine, Jefferson County, Montana

Exploration Project Contract

EXHIBIT "B"

Fixtures and improvements

Any additional facilities, buildings, and fixtures to be purchased, installed, or erected by the Operator shall not be charged as a cost of the project.

Golden Messenger Corporation
Crystal Mine, Jefferson County, Montana

Exploration Project Contract

EXHIBIT "C"

Operating equipment

To be rented:

None

To be purchased:

Drill steel	$100.00
Air and water hose	450.00
Blower fan (air drive)	300.00
Air trammer	1,650.00
Sinking pump	610.00
Misc. small tools	200.00
Total	$3,310.00

To be furnished by Operator:

	Period of rental	Cost per period
1 - 105 cfm (gas) compressor	9 mos.	$1,165
1 - 212 cfm (gas) compressor	9 mos.	1,768
2 - Stopers (rotating)	6 mos.	335
2 - Drifters, complete	3 mos.	195
3 --Hand held drills	3 mos.	180
1 - Air hoist	9 mos.	180
1 - Eimco loader	9 mos.	898
20 - Mine cars	9 mos.	564
Total		$5,285

Golden Messenger Corporation
Crystal Mine, Jefferson County, Montana

Exploration Project Contract

EXHIBIT "D"

Labor and supervision

No. shifts	Classification	(Butte, Mont. scale) Rate per shift	Cost
235	Superintendent	$500.00/mo.	$ 4,500.00
235	Boss	13.06	3,069.10
250	Miner (shaft)	12.81	3,202.50
460	Miner (regular)	12.31	5,662.60
350	Trammers (underground)	12.31	4,308.50
350	Laborers	11.81	4,133.50
250	Hoistmen	13.06	3,265.00
	Subtotal		$28,141.20
	Overtime, insurance, Soc. Sec., etc.		3,468.80
	Total labor and supervision		$31,610.00

Wage rates are subject to change to comply with local union contracts. A shift differential of 8¢ and 12¢ per hour is paid for afternoon and graveyard shifts respectively.

Golden Messenger Corporation
Crystal Mine, Jefferson County, Montana

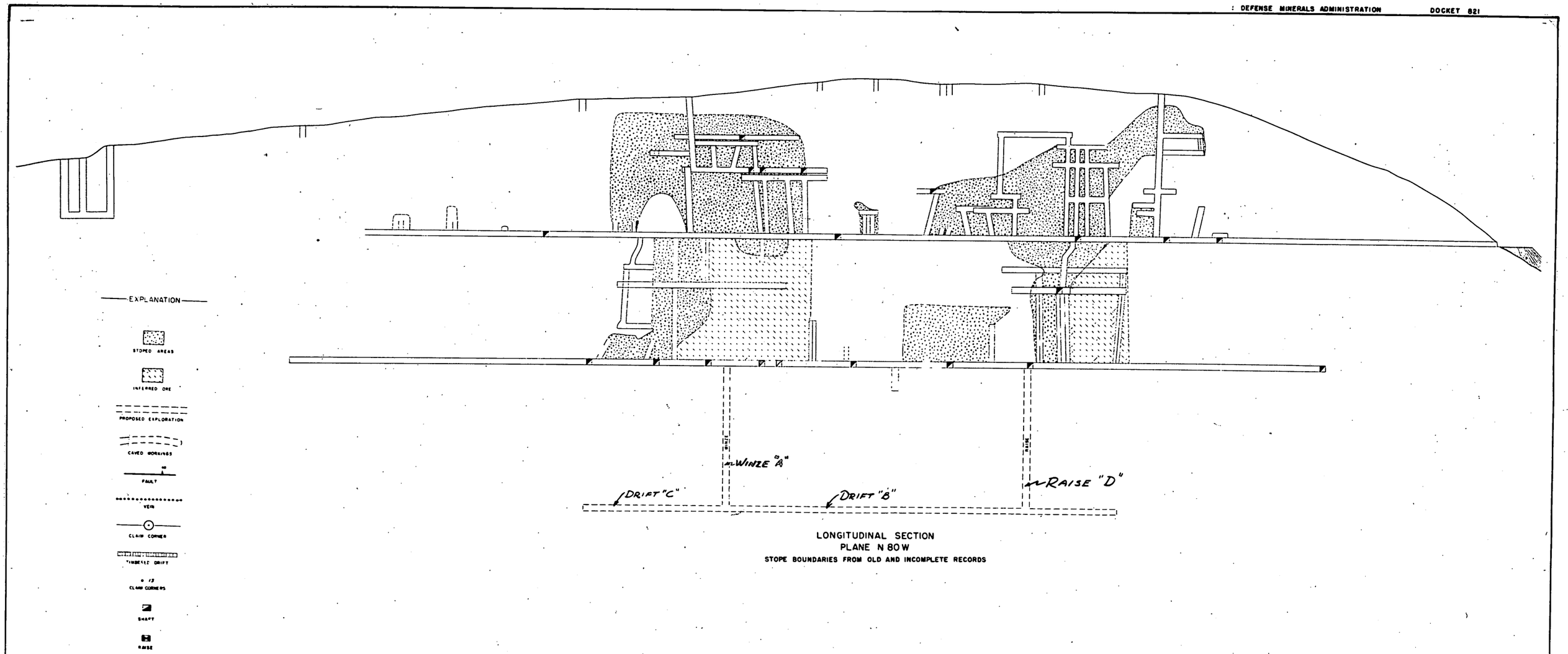
Exploration Project Contract

EXHIBIT "E"

Rehabilitation and repairs

Necessary rehabilitation and repairs to mine surface plant and camp buildings,

1 job @ $690 . . . . . $690



LONGITUDINAL SECTION
PLANE N 80 W
STOPE BOUNDARIES FROM OLD AND INCOMPLETE RECORDS

CRYSTAL MINE

GOLDEN MESSENGER CORPORATION

BASIN, JEFFERSON COUNTY, MONTANA

SEC 17, T 7 N, R 5 W

SCALE 50 0 50 100 150 200 250

AUG 8 1991

To accompany Application for Aid for Exploration Proje

Golden Messenger Corporation
W.404 Riverside Ave.
Spokane,Wash.

Item 21 It is proposed to (1) sink a winze from present tunnel 200' plus additional depth required for sump and (2) to open two levels from winze at 100' and 200' depth with 680' of drifting ontthese levels and (3)open a raise from lowest projected level to present tunnel and to do 125' of crosscutting from these levels,all in 9 months.

Item 23 Estimated classified costs-

(a)	Labor-Miners-6 @ 12.50		$17050
	" Hoistmen- 2 @ 12.50		5625
	" Topmen	2 @ 12.50	5625
(b)	" Foremen	1 @ 14.00	3150
	Mgr.	1	5400
(d)	Hoist room		500
(g)	Compressors,drills,cars,tools,etc.		4200
(h)	Explosives,steel,bits,timber		3500
(i)	Power-compressor operation		2500
			$47500

Item 24

Hoist room and preparatory work	1 month
Sinking	3 "
Drifting(2 headings)	3 "
Raising and crosscutting	3 "

The above contemplates no delays,particularly in sinking. The work outlined should certainly be finished in less than one year. Two operating shifts are planned but it may be possible to use three shifts

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 4 - 1951
LANCOLN F. STROBEL
Executive Secretary

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
8/4	Griswold	500
8/4	Selfridge	120
"	Johnson	110
8/4	Griswold	100
		220

AUG 4 1961

Mr. Elbert E. Lewis
President
E. E. Lewis, Inc.
P. O. Box 1481
Grand Junction, Colorado

Re: DMA-821 (Copper-Lead-Zinc)
Golden Messenger Corporation
The Crystal Mine
Jefferson County, Montana
Contract Idm-E62

Dear Mr. Lewis:

With reference to your July 28 letter and enclosure, we are forwarding the following material pertaining to the Golden Messenger Corporation application:

Form MF-100
Form MF-103
Map - Exhibit A
Map - Exhibit B
Report of the Crystal Mine, by C. H. Steele, dated June 27, 1936

Sincerely yours,

George Fumich, Jr.

Director

Enclosures

WRGriswold/gla
8-4-61
cc to: Director's Reading File
Region I (2) w/2 cys incoming letter and enclosure
Code 500
Docket

43683

OFFICIAL FILE COPY
O. M. E
RECEIVED AUG 1 1961

DATE	INITIALS	CODE
8-1	gad	NNO
		~~NNO~~
8/2		800
"	Brinsfield	500
		220

E. E. LEWIS, INC.
GENERAL MINING
P. O. Box 1481
GRAND JUNCTION, COLORADO

July 28, 1961

United States Department of Interior
Office of Minerals Exploration
Washington 25, D. C.

Re: DMA-821 (Copper-Lead-Zinc)
Golden Messenger Corporation
The Crystal Mine
Jefferson County, Montana
Contract Idm-E62

Gentlemen:

Reference your letter of July 13, 1961. We have endeavored to contact Mr. Frank Cowen and have been informed that he is deceased. We also contacted Mr. Lee Ireland, who was president of Golden Messenger Corporation in 1954. He stated that so far as he knowsa Mr. Cuello, who lives in California (city unknown), is the principal stockholder, but that Mr. Chester Bullock, who was manager of the Golden Messenger Corporation for several years, is still considered manager of the corporation.

In view that Mr. Cowen is deceased, Mr. Bullock was manager at the time of the application and is still considered by some of the directors as being manager, we have secured his signature on the enclosed letter of permission. We hope this will suffice and that you will send us a copy of the application submitted by the Golden Messenger Corporation for D.M.E.A.

Very truly yours,

E. E. LEWIS, INC.

Elbert E. Lewis

Elbert E. Lewis, President

EEL/gr

enc.

OFFICIAL FILE COPY
Elbert E. Lewis, E. M.; E. Met.
O. M. E.
President
RECEIVED AUG 1 1961

DATE	INITIALS	CODE

E. E. LEWIS, INC.
GENERAL MINING
P. O. Box 1481
GRAND JUNCTION, COLORADO

July 1961

United States Department of Interior
Office of Minerals Exploration
Washington 25, D. C.

Re: DMA-821 (Copper-Lead-Zinc)
Golden Messenger Corporation
The Crystal Mine
Jefferson County, Montana
Contract Idm-E62

To Whom It May Concern:

The Golden Messenger Corporation no longer has any interest in the Crystal Mine and does not object to your supplying E. E. Lewis, Inc., a copy of the D.M.E.A. application submitted by the Golden Messenger Corporation.

The Golden Messenger Corporation hereby grants you permission to supply a copy of the application and any and all associated information concerning this application to E. E. Lewis, Inc., P. O. Box 1481, Grand Junction, Colorado.

Yours truly,

Chester Bullock Mgr.
Golden Messenger Corp.

On Lewis letterhead

Form 7
-58)

OFFICIAL FILE COPY

Date	Surname	Code
7/13	Selfridge	420
		~~500~~
7/13	Johnson	110
7/13	Fumich	100
7/14	gad	220

JUL 1 3 1961

Mr. Elbert E. Lewis, President
E. E. Lewis, Inc.
P. O. Box 1481
Grand Junction, Colorado

Re: DMA-821 (Copper-Lead-Zinc)
Golden Messenger Corporation
The Crystal Mine
Jefferson County, Montana
Contract Idm-E62

Dear Mr. Lewis:

In reply to your letter of July 5, 1961, I regret to inform you that the docket material concerning the subject application is considered confidential and is for Government use only. However, if you will furnish us written permission by the Golden Messenger Corporation, we shall gladly send you a copy of the application it submitted. At that time a Mr. Frank Cowen, West 404 Riverside Avenue, Spokane, Washington, represented the company.

Sincerely yours,

George Fumich, Jr.

Director

GCSelfridge/hb (7/12/61)
Copy to: Docket DMA-821
Director's Reading File
Region I (2) w/2 cys of incoming letter
Code 500
G. C. Selfridge

43683

Elbert E. Lewis, E. M.; E. Met.
President

E. E. LEWIS, INC.
GENERAL MINING
P. O. Box 1481
GRAND JUNCTION, COLORADO

July 5, 1961

DMEA 8 v 1
cancelled 10/30/51
T-5

Office of Minerals Exploration
Washington, D. C.

ATTENTION: Mr. Frank Johnson or Mr. George Selfridge

Gentlemen:

We have acquired by lease and option to purchase the Crystal Mine located near Basin, Jefferson County, Montana. This mine was formerly owned and operated by the Golden Messenger Corporation. The Golden Messenger Corporation initiated and had approved a D.M.E.A. loan for exploration of the mine. We would like to have a copy of the D.M.E.A. application and accompanying data as the records of the Golden Messenger Corporation were destroyed in a fire at Spokane, Washington. We contacted Mr. A. E. Wiessenborn, who was formerly in charge of the D.M.E.A. for that area, and he suggested our contacting you as copies of all applications are on file in Washington.

If it is not possible for you to send us a copy of this application, would it be possible for one of our representatives to come to Washington and examine and make extracts from the application.

Very truly yours,

E. E. LEWIS, INC.

Elbert E. Lewis

Elbert E. Lewis, President

EEL/gr

OFFICIAL FILE COPY
O. M. E
RECEIVED JUL 12 1961

DATE	INITIALS	CODE
		1V0

821

MONTANA

JEFFERSON COUNTY

February 1, 1952

Golden Messenger, I-DMA-E62, Pb-Zn

50-50 of $61,875.00

After receiving the contract the Golden Messenger Company decided to explore the mine by other means. The contract was therefore returned to Washington D. C. and cancelled.

FILE COPY
SURNAME:

410

F L Knouse

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

NOV 13 1951

Mr. A. E. Weissenborn
Executive Officer
Region II
South 157 Howard Street
Spokane 8, Washington

Re: Docket No. DMA - 821
Golden Messenger Corporation
Exploration Project Contract Idm-862

Dear Mr. Weissenborn:

Enclosed are two signed copies of the "Agreement to Rescind" concerning the above-subject contract, one of which is for your files, the other is for the Operator's information.

The copy for your Field Finance Officer has been passed to the Chief of the Finance Section for recording and mailing to the Field.

Sincerely yours,

(signed) FRANK E. JOHNSON (fw)

Acting Director
Production Expansion Division

Enclosures

11/8/51
FLKnouse/meb

cc to: Admr's Reading Files
Reports and Records
PED
Mr. Knouse
Docket

FILE COPY
SURNAME:

410

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

NOV 1 3 1951

Contract Service Section
General Accounting Office
4th Floor - New GAO Building
Washington 25, D. C.

Re: Docket No. DMA - 821
Golden Messenger Corporation
Exploration Project Idm-862

Gentlemen:

Attached hereto is the original of an executed "Agreement to Rescind" covering the above referenced contract. Please attach to the original contract previously sent to you.

Sincerely yours,

(signed) FRANK E. JOHNSON (for)

Acting Director
Production Expansion Division

Enclosure

FLKnouse/meb
11/8/51

cc to: Admr's Reading Files
Reports and Records
PED
Mr. Knouse
Docket

FILE COPY
SURNAME:

410

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

November 8, 1951

Memorandum

To: Chief, Finance Section

From: Production Expansion Division

Subject: Docket No. DMA - 821
Golden Messenger Corporation
Exploration Project I&m-E62

Herewith please find copy of letter dated October 30, 1951 from Mr. A. E. Weissenborn, Executive Officer, Region II, and a copy of the "Agreement to Rescind" to which the letter refers.

Please forward the copy of "Agreement to Rescind" to the Finance Officer, Region II, for attachment to his copy of the contract.

(signed) FRANK E. JOHNSON (for)

Acting Director

not stripped in R.J.R.

Enclosures

FLKnouse/rcb
11/8/51

cc to: Adm'r's Reading Files
Reports and Records
PED
Mr. Knouse
Docket

BL

FILE COPY
SURNAME:

410

J R Knowlton
F Johnson

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

November 8, 1951

Memorandum

To: Reports and Records Section

From: Production Expansion Division

Subject: Docket No. DMA -821
Golden Messenger Corporation
Exploration Project I&m-M62

Enclosed is an original of a letter dated October 30, 1951 from Mr. A. E. Weissenborn, Executive Officer, Region II, transmitting an "Agreement to Rescind", which is also enclosed, to the captioned Exploration Contract. Please attach the "Agreement to Rescind" to your copy of the contract.

(signed) FRANK E. JOHNSON (fw)

Acting Director

S.J. 11-13

Enclosures

Knouse/neb
11/8/51

cc to: Admr's Reading Files
Reports & Records
PED
Mr. Knouse
Docket

OFFICE OF THE ADMINISTRATOR

DEFENSE MINERALS ADMINISTRATION WASHINGTON 25, D. C. NOV 51

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

DEPARTMENT OF THE INTERIOR
RECEIVED
NOV 7 1951
Defense Minerals Administration,
Production Expansion Division.

So. 157 Howard Street
Spokane 4, Washington

October 30, 1951

Mr. C. O. Mittendorf
Acting Administrator
Defense Minerals Administration
Washington 25, D. C.

Re: Docket DMA-821
Golden Messenger Corporation
Exploration Project IDM-E62

Dear Mr. Mittendorf:

Enclosed are the original and five copies of an Agreement to Rescind Exploration project contract IDM-E62 signed by Frank Cowen, Vice President of the Golden Messenger Corporation.

These are being returned to you as requested in your letter of October 17, 1951.

Sincerely yours,

Elton A. Youngberg

Elton A. Youngberg
For: A. E. Weissenborn
Executive Officer, DMA
Field Team, Region II

Enclosures

FILE COPY
SURNAME:

410

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

OCT 17 1951

A.E.C.

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

Re: Docket No. DMA - 821
Golden Messenger Corporation
Exploration Project Contract Idm-862

Dear Mr. Weissenborn:

This will acknowledge receipt of letter dated October 4, 1951 signed by Mr. Volin and Mr. Kiilsgaard, enclosing copy of letter dated September 29, 1951 addressed to you from Golden Messenger Corporation, and two complete copies of the subject contract.

The comments of Messrs. Volin and Kiilsgaard, with respect to the withdrawal of the contract as well as the comments of Messrs. Norman and Cowen of Golden Messenger Corporation, have been read with interest. In view of the desire of the Operator to change its plans, the contract should be formally terminated. For this purpose we are enclosing a form of agreement to rescind this contract which you are requested to present to the Operator for execution. The original and five copies should be signed by the Operator and returned to my office for execution on behalf of the Government.

Sincerely yours,

C. O. Mittendorf

Acting Administrator

Enclosures

APPROVED:

Chairman, Coordinating Committee

Member, Geological Survey

Member, Bureau of Mines

FEJohnson/meb
10/11/51
cc to: Admr's Reading Files
Reports & Records
Messrs.Mittendorf/Olund
Mr. Hofflund
Budget/Fiscal Br.
Mrs. Terry
Mr. Johnson
Docket

Mr. Johnson

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 8 1951

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
So. 157 Howard Street
Spokane 4, Washington

DEPARTMENT OF THE INTERIOR
RECEIVED
OCT 8 1951
Defense Minerals Administration,
Production Expansion Division.

October 4, 1951

Memorandum

To: C. O. Mittendorf, Director, Production Expansion Division, DMA

From: DMA Field Team, Region II

DMA 821

Subject: Withdrawal of Exploration Project Contract on Crystal mine, Jefferson County, Montana, Idm-E62.

Enclosed are two copies of Exploration Project Contract Idm-E62, one copy from the applicant and one copy from this office, and a copy of a letter from the applicant stating reasons for withdrawal of the contract. The Crystal mine contract, while it has been in effect for some time, has not expended any DMA funds allotted to the contract.

The Field Team regrets the withdrawal of the subject contract as it has been regarded as one of the better exploration possibilities in the Region II area. The accompanying letter from the applicant states that reasons for withdrawing the contract are, (1) doubt that existing machinery could continuously supply power for the exploration project, and (2) desire to change the exploration project from lower level work to exploration above the drainage level. However, the Field Team has been advised by other sources that perhaps the primary contributing factor resulting in withdrawal of the contract was a dispute that arose among the directors of the Golden Messenger Corporation, and which resulted in the withdrawal of Bell, Manager and Director, of the Golden Messenger Corporation. Mr. Bell has been with Golden Messenger for many years, and is regarded in mining circles as a competent mining engineer. All DMA negotiations with Golden Messenger Corporation have been made through Mr. Bell. It was he who recommended the lower level exploration work, and who was of the opinion that company machinery could supply adequate power. The DMA examining team agreed with Mr. Bell in these respects. Both Bell and the examining team were aware of exploration possibilities in ground above the drainage level; however, both parties were agreed that the more favorable target was exploration of projected ore bodies to the lower levels inasmuch as these areas contained the most potential tonnage and offered the best possibility of putting the mine on a paying basis.

Present exploration plans of the Golden Messenger Corporation involve exploring a block of ground about 500 feet east of present mine workings and above the drainage level. Corporation officials reason that if

a sizable body of ore is delineated in this area, by using company funds, that an application for a production loan may be made at a later date. Funds from such a loan would be used in mill and surface plant construction.

By Field Team, Region II

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

Thor H. Kiilsgaard
For: A. E. Weissenborn, Exec. Officer
(U. S. Geological Survey)

Enclosures

cc: U.S.B.M. Spokane
U.S.B.M. Albany

COPY

GOLDEN MESSENGER CORPORATION
P. O. Box 795
HELENA, MONTANA

September 29, 1951

Mr. A. E. Weissenborn
Executive Officer
D. M. A. Field Crew - Region 2
Spokane, Washington

Dear Sir:

Recent developments at our Crystal Mine, six miles north of Basin, Montana, has materially affected the plan of development which the U. S. Engineers and our own engineer agreed upon, and which called for the expenditure of all matching funds to $60,000 gross to the sinking of a 200 ft. shaft in the present Crystal ore shoot, crosscutting the ore shoot in a length of 500 feet at that adit depth, and raising to the tunnel level. Our present machinery plant, consisting of a gas-driven 200 C.F.M. compressor, plus the 30-year-old portable 75 C.F.M. would not, in our judgment, take care of the job, so that constant power would be available, for all of this work is below the water level of the creek which drains the upper area of the adjacent hills.

It will be remembered that Mr. C. H. Steele in his report on the mine to the then owners, in 1936, strongly recommended the extension of our present main drift in Crystal ground (400 ft. below the surface outcrop), a distance of 800 feet to reach beneath the St. Lawrence shaft, a total distance of under 700 feet. This work has now been extended more than 500 feet, about 90 feet of which has been on good ore. Steele insisted that this work should be performed before any attempt was made to seek a greater depth, but he recommended a shaft following the best ore encountered in the Crystal ore shoot, down 100 feet, so as to guarantee tonnage at that level. Mr. Steele was well aware of the ground east of the Crystal claim -- The Sparkling Water and Vermillion claims -- which was not then in the old corporation's possession; but the showing on the Sparkling Water could be reached by keeping in the Crystal vein, which has yet 300 feet to go to reach the western end line and an additional 700 feet to get beneath the showing on the Sparkling Water. This work would involve crossing under the bed of the creek and give water troubles, augmenting the flow at present leaving the mine. There are thus 3 known ore bodies -- the shaft on the St. Lawrence to the west, the Crystal ore body in the middle of the Crystal claim, and this old development on the Sparkling Water -- to feed the proposed mill, all having 300 to 400 feet of mine "backs" above the drift base.

Our company acquired the Sparkling Water and the Vermillion property some time ago, but it has only been since we have decided not to accept the government's offer for the loan that we have attempted any work pertaining to the opening of the Sparkling Water workings.

These workings date back to before 1900, when a first sample shipment was made, followed in 1913 by four carloads of ore, which was mined from it in 1913. A. C. Ray was the owner of the property at this period and afterwards drove the lower tunnel in the Crystal; he also shipped most of the Crystal ore under the name of A. C. Ray, and the Smelter Company, as a result, included the settlements for all five shipments in the list of shipments they furnished us at the time we tabulated the gross output of the Crystal property. I am sending you a copy of the shipments made. It is quite likely that the Sparkling Water property was at one time under bond to the owners of the Crystal. No ore was shipped from the Crystal lower level until Christmas of 1919.

These shipments apparently came from the hanging-wall side of the vein and from a streak of ore from 3 to 6 feet wide. The ground was pretty rough in the neighborhood and we finally hired a bulldozer to prospect the area in question. We have now opened up, above and below these workings, quite a sizeable body of ore, above and below the old dump, on a length of 260 feet and on width varying from 20 to 36 feet -- good looking ore similar in appearance to that earlier shipped from the property. Our Mr. Newberg is at present preparing for the sampling of this ground, which report should be available in a week's time and will later on be furnished you.

Our foreman is now starting a drift to prospect this ground from an elevation of 25 ft. above the creek level and expects to get underneath it, if it still goes down, within the next few days. It is estimated that a drift of 300 ft. will give us up to 175 ft. of "backs" on this orebody, at the upper end of the exposure, in a distance of 300 feet. Bullock expects to get into ore (if it goes down) in three or four days. The sampling of the orebody may be delayed a few days on account of snow, which is bothering us a little at this altitude.

I should like Mr. Erickson, should he visit the mine, to seek the acquaintance of Mr. George Newberg, who has done our engineering work since we purchased the property. Mr. Newberg is interested in the Crystal vein at its lowest workings in the Eva May ground, on the Cataract River and is in possession of some very valuable data on the early operation of the Eva May, before the turn of the century. Included in this mass is a map of the underground workings of the mine; it shows either 10 or 12 100-ft. levels, from which mining had been done. The elevation at the bottom of this shaft would be around 5,000 ft. as against 8,000 ft. - or thereabouts - elevation at the summit of the vein at Crystal. You can see from this that we who are acquainted with the properties are none of us worrying about the continuity of the present Crystal ore shoot to the additional depth of 200 ft, which was called for under the matching plan.

For the time being we are getting power for the exploration of the Sparkling Water from our compressors at the mouth of our main tunnel; and should ore be developed from our efforts, a short piece of road would like it up with the main road to the mine entrance.

Our foreman, Chester Bullock, advises that there is considerable oxide ore visible on the surface exposure. This could be shipped to the smelter direct, as it could not be treated in the mill.

We shall be very glad to furnish you with any additional information as it comes from the mine, and we are hoping to show up sufficient ore to justify the early necessity of building the necessary mill which will be required to process the ore and thus save the cost of shipping waste which has burdened all previous operations of this property.

The additional 200 feet of depth called for in the matching contract can be attained by a lower tunnel over one half mile in length. It would cost $80,000 to $90,000 but would eliminate all pumping and hoisting, and would be advisable if 50,000 tons of ore were developed above the tunnel level.

Very truly yours,

GOLDEN MESSENGER CORP.

s/ W. S. Norman
W. S. Norman, President

WSN:bm

s/ Frank Cowen
Frank Cowen, Vice President

EAST HELENA SMELTER SHIPMENTS

FROM THE

SPARKLING WATER MINE, BASIN, MONTANA

NOW THE PROPERTY OF THE GOLDEN MESSENGER CORPORATION

Date	Shipper	Lot No.	Dry Wght.	Silver	Gold	Copper	Lead	Zinc	Proceeds
9/23/1913		1785-1	6921	40.75	0.14	1.9	24.0	Tr	$ 137.49
7/14/1916	A. C. Ray	1292-1	85848	16.7	0.18	5.1	4.0	5.3	954.20
7/15/1916	A. C. Ray	1314-2	123669	13.4	0.19	4.2	3.0	4.6	1032.64
7/18/1916	A. C. Ray	1329-3	52045	11.0	0.17	3.4	2.5	3.6	263.35
7/24/1916	A. C. Ray	1356-4	83001	9.0	0.20	2.8	0.6	2.5	333.66
	TOTALS	1~~285-1~~	351484						$2,721.34

FILE COPY
SURNAME:

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

August 20, 1951

Memorandum

TO: Mr. A. E. Weissenborn, Executive Officer, DMA, Field Team, Region II

FROM: C. O. Mittendorf
Director, Production Expansion Division

SUBJECT: Docket No. DMA-821
Amendment - Golden Messenger Corporation
Exploration Contract Idm-E62

The amendment recommended in your memorandum of August 10, 1951, for the above subject case has been approved.

C. O. Mittendorf (a.h.) 8/22

C. O. Mittendorf

FLKnouse/meb
cc to: Admr's Reading File
Reports & Records
Messrs.Mittendorf/Olund
Gowan
Billings
C.H.Johnson
McKnight
Knouse
Docket

Johnson

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
So. 157 Howard Street
Spokane 4, Washington

August 10, 1951

Memorandum

To: C. O. Mittendorf, Director, Production Expansion Division

Through: L. F. Strobel

From: A. E. Weissenborn, Executive Officer, DMA, Field Team, Region II

Subject: Amendment of Golden Messenger Corporation Contract
Docket DMA 821 - Idaho E 62

A copy of a letter from the Golden Messenger Corporation is attached. They have requested a change in their contract to permit the relocation of their shaft. A letter approving this request by the Regional Field Team is also enclosed.

The request was granted as a saving in exploration costs are indicated and several operating advantages are gained. The change does not alter the objective of the exploration program as set up in the contract.

cc: U.S. Bur. Mines
Albany, Ore.
Spokane, Wn.
L. F. Strobel

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 17 1951

C
O
P
Y

WILLIAM LAWRENCE BELL
521 Sound Avenue
Spokane, Washington

August 8, 1951

Mr. A. E. Weissenborn,

Defense Minerals Administration,

Spokane, Wash.

Dear Mr. Weissenborn,-

I have discussed with Mr. Youngbird(Youngberg) a change in the proposed development at the Crystal mine of the Golden Messenger Corporation, Basin, Montana, with regard to the location of a proposed winze from the No. 2 or lower tunnel.

I suggest that the proposed winze be located as a continuation of a winze already sunk 30' and situated approximately at Sta. 8 on mine map, for the following reasons,-

(1) It will save some $3000 of expenditure for sinking.

(2) It will shorten tramming distance in the drift proposed at 200' below No. 2 tunnel, as the greater part of the tramming will be toward the portal instead of in reverse, as would be the case with the plan already outlined.

Mr. Youngbird(Youngberg) advised me that he had no objection to my suggestion, as it will not affect the proposed development. Consequently I request your approval of this proposed change.

Yours truly,

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
AUG 17 1951

/s/ Wm. Bell

cc: U.S. Bur. Mines
Albany, Ore.
Spokane, Wn.
L. F. Strobel

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
So. 157 Howard Street
Spokane 4, Washington

August 10, 1951

Mr. W. L. Bell, Manager
Golden Messenger Corporation
521 Sound Avenue
Spokane, Washington

Subject: Docket DMA 321

Dear Mr. Bell:

Your request has been received to change the location of the shaft from the position as shown on the map attached to the Golden Messenger Exploration Contract to station 8 in order to utilize existing workings.

This letter is your authorization to make the above change and becomes a part of the contract.

Very truly yours,

Elton A. Youngberg
For: A. E. Weissenborn
Executive Officer, DMA
Field Team, Region II

cc: U.S. Bur. Mines
Albany, Ore.
Spokane, Wn.
L. F. Strobel

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 17 1951

410

FILE COPY
SURNAME:

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

FEJohnson
Mittendorf

August 1, 1951

A.E.C

Contract Services Section
General Accounting Office
4th Floor - New GAO Building
Washington 25, D. C.

Re: Docket No. DMA-821
Golden Messenger Corporation
Exploration Project Contract
No. Idm-E62

Gentlemen:

Enclosed for recording in your office is the original of an executed Exploration Project Contract between the Operator named in the above reference and the Government of the United States.

Sincerely yours,

C. O. Mittendorf 8/3

C. O. Mittendorf, Director
Production Expansion Division

Enclosure (1)

FEJohnson/ecl

cc to: Admr's. Reading Files
Reports & Records
Mittendorf - Olund
A. E. Weissenborn, Reg. II (2)
Lyon
Holderer
Docket
Billingsley
FEJohnson

FILE COPY 410
SURNAME:

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

AIR MAIL

JUL 19 1951

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

Re: Docket No. DMA-821
Golden Messenger Corporation
Exploration Project Contract

Dear Mr. Weissenborn:

There are enclosed an original and five copies of an Exploration Project Contract, No. Idm-E62, dated July 18, 1951, which I have signed, and the following attachments in sextuplet:

Exhibits "A" to "E" inclusive

Section map, Crystal Mine

Please contact the Operator and have the original and all copies of the contract executed by a properly authorized officer of Golden Messenger Corporation in your presence.

The original and three copies of the completed contract with all attachments should be returned to my office. One copy of the completed contract and attachments should be given to the Operator. This is the Operator's authority to proceed with the project so should not be released until completed.

The sixth copy of the contract and attachments should be retained for your files. The copy of the contract required by the Regional Finance Officer together with accounting

instructions will be forwarded at a later date by the Finance Division in Washington.

Sincerely yours,

C. O. Mittendorf

C. O. Mittendorf, Director
Production Expansion Division

Enclosures

APPROVED:
John Lyon

Chairman, Coordinating Committee

Member, Geological Survey

Lowell H. Moon

Member, Bureau of Mines

FEJohnson/ecl

cc to: Admr's. Reading File
Messrs. Mittendorf - Olund
R. & R. Br.
Lyon
Rove
Moon
Johnson
F I L E S

DEFENSE MINERALS ADMINISTRATION

FILE COPY

SURNAME:

SALARIES AND EXPENSES DEFENSE PRODUCTION ACT DEPARTMENT OF INTERIOR

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

Billings
O'Leary
(Fermore)
McKnight

JULY 19, 1951

MR. FRANK COHEN
GOLDEN MESSENGER CORPORATION
1040 RIVERSIDE AVENUE
SPOKANE WASHINGTON

RETEL DMA 821 CONTRACT NUMBER DMCS 62 FINAL APPROVAL HAS BEEN FORWARDED FOR YOUR SIGNATURE.

T. P. Billings

T. P. BILLINGS, CHIEF
LEASING BRANCH

TPBILLINGS:ks

cc: Reports & Records
Mr. Mayo
Audits
Mote
McKnight
Billings
Files

Dmcs 821

7953

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W. P. MARSHALL, PRESIDENT

SYMBOLS
DL=Day Letter
NL=Night Letter
LT=Int'l Letter Telegram
VLT=Int'l Victory Ltr.

...letters is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination

PA248 LB395 18 ... 5

PRB667 PR.SKA053 NL PD=SPOKANE WASH 18=

LANDON F. STROBEL, EXEC SECY DEFENSE MINERALS ADMIN=

:DEPT OF INT WASHDC=

PLEASE ADVISE STATUS OF EXPLORATION CONTRACT GOLDEN MESSENGER CORPORATION, DOCKET D.M.A. 821 SHORT OPEN SEASON REQUIRES EARLY ACTION IF PROJECT IS TO BE STARTED THIS SEASON. WIRE COLLECT=

:GOLDEN MESSENGER CORP FRANK COWEN W. 4040 RIVERSIDE AVE=

JUL 19 1951

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

BUREAU OF MINES
MAIL ROOM
WASHINGTON, D. C.
JUL 19 7 55 AM '51

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 19 1951
LANDON F. STROBEL
Executive Secretary

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

July 16, 1951

Memorandum

To: C. O. Mittendorf

From: J. L. Hofflund

Subject: Golden Messenger Corporation, Exploration Project Contract — Docket No. DMA 821X.

The contract on the captioned case is approved as to form and legality subject to:

1. Proper execution by the Operator.

2. Government approval of all subcontracts under which any of the work is to be performed.

At the time of execution by the Government the effective date should be inserted.

Your file is returned herewith.

J. L. Hofflund
General Counsel

Attachment

To Production Expansion Division

Brought for McKnight 6/6/51 Herres

Defense Minerals Administration 6-29-51

Review of Application for Exploration Assistance

Docket No. DMA-821

Commodity Lead, zinc, copper

Total Amount $66,000.00

Govt. Participation 50%

1. Name and Address of Applicant Golden Messenger Corporation, W. 404 Riverside Ave., Spokane, Washington

2. Location of Property Crystal mine, Cataract mining district, Secs. 17, 18, 20, T.7 N., R.5 W., Jefferson County, Montana. (8 miles from Basin, Montana).

3. Mineral or metal Lead, zinc, copper silver Is it listed in Section 9 of MO-5? Yes

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 See attached report, Field Team, Region II.

b) Poor

c) None

d) Don't know—needs field examination Has been examined

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. See attached contract.
(question 5, 6, 7)*

6. If applicant is a lessee, is a copy of the lease attached? Not applicable

Does the lease have sufficient time to run to cover a future productive period? Not applicable.

*question numbers are those of MF-103

7. Are subordination agreements necessary? No

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 Yes

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

c) Accessibility (question 12)* Yes

d) Water (question 13)* Yes

e) Power (question 13)* Yes

Is a field check needed on any of these points? Has been checked.

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

_____

Is a field check needed on this point? Has been checked.

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

a) Is the project adequately described? Yes

If not, are there sufficient data given so that you can describe the project? _____ If so, attach a draft.

b) Is there an adequate map or sketch of the proposed work? Yes

_____

c) Is the proposed work "exploration" under the definition of Section 8, MO-5? Yes

If not, what part of it is? _____

_____

_____

_____

Is this part a worthwhile exploration project? _____

d) Are the cost estimates detailed? Yes

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

e) Are the cost estimates reasonable? Yes

f) Should more information be requested from applicant? No

g) Is a field examination necessary to complete Exhibit A? Has been checked

11. Exhibit B (question 23-d)*

a) Is it applicable? No

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? Yes

b) Sufficient data? Yes If so, attach a draft See Exhibit C, attached contract.

c) Are rents and charges reasonable? Yes

d) Is a field check needed? Has been checked.

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

a) Are there sufficient data? Yes. See Exhibit D, attached contract.

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

c) Is the schedule excessive for the work proposed? No

d) Are the proposed wages and salaries reasonable? Yes

e) Is a field check needed? Has been checked.

14. Exhibit E (question 23-c)*

a) Is it applicable? Yes.

b) Sufficient data? Yes. See Exhibit E, attached contract and Item 23 d, Form MF-103.

c) Reasonable? Yes.

d) Field check needed? Has been checked.

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

(All exploration must be completed within two years)

16. If field examination is not needed, attach your recommendation.
Field examination made. Recommended for approval.

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?

Reviewed by: A.J.Bodenlos, U.S.G.S.

E.A.Apell, U.S.B.M.

approved
Tom Lyon

Date 6/29/51

97692

dma-821X

On-Site Rpt

UNITED STATES
DEPARTMENT OF THE INTERIOR
OSCAR L. CHAPMAN, SECRETARY

DEFENSE MINERALS ADMINISTRATION

REPORT BY EXAMINATION TEAM
Region II

DMA-821, Golden Messenger Corporation, Crystal Mine

Jefferson County, Montana

Elton A. Youngberg, Geologist
U.S. Geological Survey

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

Eric C. Erickson, Mining Engineer
U.S. Bureau of Mines

May 31, 1951

May 31, 1951

EXAMINATION TEAM REPORT

Crystal Mine, Golden Messenger Corporation

DMA Docket No. 821 Basin, Jefferson County, Montana

Elton A. Youngberg USGS
Willard P. Puffett USGS
Eric C. Erickson USBM

APPLICANT

The Golden Messenger Corporation, W. 404 Riverside Avenue, Spokane, Washington.

LOCATION AND OWNERSHIP

The Crystal mine and accompanying claims: namely, Crystal, survey no. 6037; Jack, survey no. 6036; Vermillion, survey no. 7986; Mammoth, survey no. 10216; Snowbird, survey no. 10438; St. Lawrence, survey no. 6035; Sparkling Water, survey no. 5693, are in the Cataract mining district, Jefferson County, Montana. According to courthouse records these claims are owned by the Golden Messenger Corporation.

CONCLUSIONS

The proposed exploration program on the Crystal mine is expected to indicate about 40,000 tons of copper-lead-zinc ore. Such a tonnage will justify a 50 ton per day mining and milling operation.

The program is intended to explore the downward extensions of the ore shoots found productive above the lower level. Smelter records of shipments show that 20,000 tons of shipping ore was produced from these shoots. Geologic features suggest that these shoots will continue to be productive below the stoped areas and that exploration below the lower level will encounter shipping and milling grade ore.

A large part of the equipment required to carry out the proposed exploration program is now on the property or is available at other properties owned by the applicant. Additional necessary equipment can be purchased from machinery dealers in the Northwest.

The Golden Messenger Corporation is capable of carrying out the proposed program under the direction of Mr. W. L. Bell, a mining engineer who has successfully directed this and associated company's operations for the past 15 years.

RECOMMENDATIONS

It is recommended that the Defense Minerals Administration enter into a exploration contract in the amount of $66,000 with the Golden Messenger Corporation for the purpose of exploring ore extensions below the lower level of the Crystal mine. It is anticipated that the applicant's proposed exploration program of sinking, drifting, crosscutting, and raising will be made a part of the contract.

HISTORY AND PAST PRODUCTION

See DMA Docket No. 821, NSRB Form-146, Exhibit "C".

DESCRIPTION OF PROPOSAL (as submitted)

It is proposed to: (1) sink a winze from present tunnel 200 feet plus additional depth required for sump; (2) to open two levels from winze at 100- and 200-foot depths with 680 feet of drifting at these levels; and (3) open a raise from the lowest planned level to the present tunnel and to do 125 feet of crosscutting from these levels. This work is to be completed in 9 months.

Description of the Mine Workings

The Crystal mine workings consist of two main levels, a No. 1 and No. 2 intermediate level, numerous sub-levels above the upper main level, a winze from the lower main level, and a number of stopes between the two main levels and above the upper main level. There are also a number of shafts and prospect pits on the surface.

The lower main level is a 1300-foot drift which is reached by a 900-foot adit at an elevation of 7636 feet. At places on the lower level there are exploratory crosscuts for short distances from the drift and in two places pillars have been left where parallel drifting has followed veins in the foot or hanging wall. The west 100 feet of the lower level is now caved. A winze, 660 feet west of the intersection of the adit and the main lower drift, has been sunk 38 feet down the dip of the vein.

The upper level, at an elevation of 7801 feet, is a drift over 1400 feet long. It is now caved in a number of places but can be reached by a raise from the lower level through the No. 2 intermediate, and is also accessible for a short distance inward from the portal.

The raise to the No. 1 intermediate level from the lower main level is 300 feet from the intersection of the adit and the lower main drift. The No. 1 intermediate consists of two short levels, the lower being 85 feet above the sill of the lower main level and the upper intermediate level being 20 feet higher. A raise connects the upper intermediate to the upper main level. The west end of the upper intermediate level is now caved.

The No. 2 intermediate level can be reached from the lower main level by a raise which is 230 feet west of the raise to the No. 1 intermediate levels. This No. 2 intermediate is 90 feet above the sill of the lower main level and is 210 feet long.

A stope extends from the lower main level to the lower No. 1 intermediate from where it lengthens along the strike and extends upward to the upper main level. Seventy feet west of this stope, another stope begins which is 110 feet long and extends upward for 70 feet above the lower main level. Another area is stoped on both sides of the raise that extends through the No. 2 intermediate level to the upper main level. A large volume has been stoped from numerous sublevels above the upper main level but these workings are now inaccessible.

Heavy ground has required that the ore be mined by cut and fill stoping. The main and intermediate levels are timbered only where they intersect major faults and shear zones.

GEOLOGY

The ore at the Crystal mine occurs as fillings and replacements within and along a sheeted fissure vein in quartz-monzonite and aplite of the Boulder Batholith. The veins strike N 70-80°W. and dip 60-70° to the north.

Three parallel structures, separated from each other by from a few inches of altered wall rocks to as much as ten or fifteen feet of relatively fresh monzonite and aplite, give evidence of three periods of mineralization. The footwall vein contains mainly pyrite, copper, gold, and silver minerals, and minor amounts of zinc and lead minerals. The middle vein contains primarily galena, sphalerite, and silver minerals. The hanging wall fissure is mineralized with galena, silver minerals, and some sphalerite. In places these structures have been mined separately, but where close enough together two of the structures have been mined as one vein. The footwall and middle vein have been the most productive, although one stope on the hanging wall vein has produced a small tonnage of high-grade lead ore. The footwall vein containing copper, gold, and minor lead-zinc and the adjacent

zinc-lead hanging wall vein are the most persistent. The hanging-wall lead-zinc vein has been broken by a post-mineral strike fault which formed a breccia zone made up of fragments of quartz and sulphides. The two footwall fissures are continuous on the strike, pinching and swelling over short distances. Stoping of shipping ore has been over lengths of 20-100 feet along the strike and comparable distances along the dip of the veins. Two ore shoots have been mined for a depth of about 400 feet below the surface and along the strike for approximately 680 feet.

Ore exposures on the lower adit level do not indicate any marked changes in the mineral assemblages from those of the levels above other than in the reduction in the amount of oxidized ore present. Some changes in the characteristics of the primary ore with depth are contemplated but it does not appear that a sharp change will be encountered with an additional 200 feet of depth.

On the strike of the vein to the west of the present workings an ore shoot has been partially mined from several shafts. This shoot has been designated as the St. Lawrence ore shoot. These workings and the surface area around them were not examined because of the snow conditions at the time of the examination. It is reported though that $50,000.00 of shipping-grade ore was mined from these workings.

ORE RESERVES

Because of past production by leasers, who indiscriminately mined all easily available ore of shipping grade and who did not keep maps of the stoped areas, the ore reserves of the Crystal mine are difficult to determine. Two blocks of ore between the lower level and the Number 1 level are believed to contain about 7,000 tons of milling ore containing 0.10 ounces of gold per ton, 8.0 ounces of silver per ton, 3.0 percent lead, 6.0 percent zinc, and 1.0 percent copper. Additional tonnages of milling ore may exist in unstoped portions of the center fissure above the Number 1 level and on extremities of the old stopes where the ore was too low grade to be mined for shipping ore. Much of the ore mined as shipping ore was closely sorted in the stopes, the zinc ore being gobbed because of smelter penalties for that metal. Because of this type of sorting, it is believed that some of the old gob may be included as reserves for milling ore.

ORE POSSIBILITIES

There are two exploration possibilities for finding additional ore reserves in the mine. One possibility is drifting laterally along the vein to the west to explore the downward extensions of the St. Lawrence ore shoot. The second possibility is to sink below the lower adit level on the present ore body.

The lower adit of the Crystal mine has been extended toward the St. Lawrence workings but has not been extended far enough to intersect the downward extension of the ore. The continuation of this drift is worthy of consideration as an exploration project but such a program involves a greater exploration risk than sinking on the productive ore shoots and, consequently, is not being considered in the proposed exploration project.

Sinking below the main (lower) adit level to explore downward extensions of known ore shoots appears to have a good possibility of developing ore reserves of milling grade. It is believed that sinking 200 feet on the dip of the vein and drifting 680 feet along the strike of the vein will expose 40,000 tons of additional ore reserves of milling grade.

Mining Methods and Costs

Stoping operations to date at the Crystal mine have been done by lessees. Cost data, therefore, are not available. The stoping method varied both with the character of the vein and the miners involved in the operation. Modified cut and fill with flat or rill back appears to be the preferred method.

The mineralized parts of the vein vary in width from a few inches to 7 feet. The copper ore is confined largely to the footwall and the lead-zinc ore to the hanging wall. These ores usually are

separated by a streak of waste which ranges from a few inches to several feet wide, and which would, at times, require selective mining. As the ore lenses overlap, systematic exploration of the walls and a flexible mining method will be required. Ore blocks in broken sections of the vein probably will require timbering while other sections will require a minimum of timbering. Filling costs will vary with the source of filling, whether taken from development headings or broken from the stope walls. The ore must be trammed on lower levels, hoisted, and again trammed to the ore bin via a transportation level. The mining width appears to average about 4-1/2 feet. A direct mining cost of $9.50 a ton and an exploration and development charge of $2.50 per ton is estimated.

Milling Methods and Costs

As the Crystal ore is an intermixture of complex sulfides, close milling control will be required to recover marketable products. Milling tests (Appendix A) demonstrate the desirability of a three-product separation. Mill location has not been decided upon. Therefore, a transportation charge from mine to mill may be anticipated. Considering the complex ore and probable transportation charge, a cost of $4.25 per ton milled is estimated. This would allow about $0.50 a ton credit toward amortization of facilities.

Mining and milling costs are estimated on a 50-ton per day basis. This basis is believed consistent with the limitations imposed by the mining method required and related factors.

Rate of Production

There is no present production. Ore may be produced at the rate of 50 tons per day upon completion of the exploration program. This rate would be expanded if ore reserves, grade, availability of equipment, and manpower will permit.

Time Schedule

Camp rehabilitation and preparation for a sinking (winze) operation will take about 2 weeks. The actual sinking operation, based on a two-shift continuous operation, will require about 3 months. Drifting, crosscutting, and raising operations should be completed within 6 months. The entire project as proposed may be completed within 9 months. It is believed that any unforeseen delays may be offset by a three-shift operation when required.

Marketing Facilities

The lead-copper concentrate will be sold to the American Smelting and Refining Co.'s smelter at East Helena, Montana. The zinc concentrate will be sold to the Anaconda zinc plant at Great Falls, Montana, provided representative samples meet that plant's requirements. The pyrite concentrate may be sold to East Helena.

EQUIPMENT AND FACILITIES

The existing mine plant equipment and the additional equipment to be purchased are considered adequate to carry out the proposed project. Existing equipment to be rented under an exploration contract agreement and equipment to be purchased are tabulated in Table 1 (cost of proposal). Other equipment and facilities, as listed in the original proposal, Docket DMA No. 821, NSRB Form-146, are to be made available to the project as deemed necessary at no additional cost except a rehabilitation charge as tabulated in Table 1.

LABOR SUPPLY

The Golden Messenger Company is doing maintenance work at the present time. It is believed that the local labor supply is adequate for the proposed project.

The local wage scale is controlled in part by the established Butte scale. At the present time the Golden Messenger Company is paying $12.50 per shift and time and one-half for work over 40 hours per week, which approximates the Butte, Montana, scale. One operator near Boulder, Montana, is paying $15 per shift.

POWER

The available power supply at the mine consists of two gas engine powered air compressors. Electric power is available at the cost of approximately $10,000 for installation. Such an installation, however, is not being considered at the present time.

TRANSPORTATION

The nearest railhead is Basin, Montana, a distance of 8 miles from the Crystal mine. A haulage rate of $1.50 a ton for ore or concentrates is anticipated by a truck owner in Basin, Montana. Supplies will be bought f.o.b. mine when possible or shipped to Basin and hauled to mine by company truck.

A 3-mile access road to the mine was constructed by the U.S. Forest Service in 1943. No additional road construction is planned or considered necessary to carry out the project.

ADEQUACY OF REQUESTED FUNDS

The applicant has estimated and requested the amount of $47,500. After discussion the applicant considers the amount to be inadequate to complete the project. He expressed a willingness to consider a project of the proportion outlined in Table 1 or a modification or alteration of the same.

Cost of Proposal

Table I

Equipment to purchase

drill steel	$100
air and water hose	450
air blower	300
air trammer	1,650
sinker pump	610
misc. tools, etc.	200
	$3,310

Rental equipment

1 - 105 cfm (gas) compressor, 9 mos.	
1 - 210 cfm (gas) compressor, 9 mos.	$3,537
2 - drifters, 3 mos.	441
3 - sinkers, 3 mos.	243
1 - air hoist, 9 mos.	657
1 - Eimco loader, 9 mos.	2,700
20 - mine cars, 9 mos.	4,680
	$12,258

(Cost (new) of above items is $23,500.)

Supplies

Powder, caps, and fuse	$5,400	
timber	3,400	
track (complete) 12-pound	680	
compressor fuel and oil and repair	2,500	
pipe, 2-inch and 1-inch	650	
transportation, fuel oil and repair	750	
drill bit-steel consumption and machinery repair	850	
		$14,230

Labor (direct and supervision)

winze (230 feet)	11,500	
drifting and crosscutting (805 feet)	15,000	
raising (200 feet)	4,800	
		31,300 1/

1/ Allowance for industrial accident insurance, includes O.A.B., and unemployment compensation.

Rehabilitation ----------	1,000-	1,000
Engineering and contingencies ----------	4,000	4,000
GRAND TOTAL		$66,098
Say		$66,000

Cost of equipment to be purchased is based on new equipment (delivery cost) and no allowance made for salvage.

Rental prices shown are based on rates established in 1950 by the Associated Equipment Distributors. It is the operator's (rentor) responsibility to put the equipment on the job in first-class condition.

Using the operator's equipment on a rental basis will eliminate the question of availability of those items and allow the project to start immediately.

Transportation will be furnished by operator; maintenance upkeep and supplies for transportation units are considered a cost of the proposed project. Existing mining facilities are to be used as necessary to carry out the proposed project with no cost to the project other than the rehabilitation mentioned in the foregoing.

APPENDIX A

May 16, 1951

MEMORANDUM

To: A. E. Weissenborn, Executive Officer, DMA Field Team, Region II

From: J. D. Bardill

Subject: Results of metallurgical tests on samples of Crystal mine zinc-lead-copper ores, Jefferson County, Montana.

Reports indicate the presence of three types of ore in the Crystal mine; copper, zinc-lead, and a complex zinc-lead-copper ore.

Bureau of Mines metallurgical tests made at the Salt Lake City laboratories in 1943-44 indicated that by selective flotation a concentrate assaying 23.2 percent copper, 2.7 percent lead, 0.1 ounce gold, and 57.6 ounces silver per ton could be recovered from a sample of the copper ore containing 5.35 percent copper, 0.65 percent lead, nil zinc, 0.07 ounce gold and 12.85 ounces silver with 82 percent copper and 79 percent silver recoveries. Selective flotation of a sample of zinc-lead ore assaying 15.4 percent zinc, 7.25 percent lead, 0.5 percent copper, 0.05 ounce gold and 9.65 ounces silver per ton yielded lead and zinc concentrates. The lead concentrate assaying 56.8 percent lead, 5.2 percent zinc, 2.7 percent copper, 0.1 ounce gold and 64.5 ounces silver contained 68 percent of the silver and 78 percent of the lead. An 86 percent zinc recovery was obtained in a zinc concentrate assaying 52.8 percent zinc, 2.2 percent lead, 0.5 percent copper, 0.02 ounce gold and 5.0 ounces silver per ton. The sample of complex zinc-lead-copper ore assayed 2.45 percent lead, 0.72 percent copper, 3.5 percent zinc, 0.18 ounce gold and 9.65 ounces silver per ton. Selective flotation yielded a lead-copper concentrate containing 47.8 percent lead, 11.9 percent copper, 5.4 percent zinc, 0.1 ounce gold and 135.7 ounces silver per ton, representing an 88 percent recovery of the lead, 67 percent of the copper and 68 percent of the silver. Since the zinc is largely oxidized, only 52 percent was recovered in a zinc concentrate assaying 43 percent zinc, 1.5 percent lead, 1.3 percent copper, 0.08 ounce gold and 15.5 ounces silver per ton. The zinc cleaner tailing combined with a rougher iron concentrate contained 81.7 percent of the gold and assayed 2.8 percent zinc, 36.9 percent iron, 0.46 ounce gold and 5.9 ounces silver per ton. The probably presence of antimony and bismuth in the lead-copper concentrate may result in a small penalty. Because the relative proportions of each type of ore are not know, it is impossible to calculate overall metal recoveries from the ore.

Denver Equipment Company made a metallurgical test at Denver, Colorado in 1947 on a composite ore sample containing about 0.11 ounce gold, 10.1

ounces of silver, 1.87 percent copper, 6.52 percent lead, and 3.9 percent zinc. Coarse galena was recovered in a jig concentrate containing 58.6 percent lead, 0.45 percent copper, 0.60 percent zinc and 28.7 ounces of silver per ton. Selective flotation of the jig tailings yielded a lead-copper concentrate and a zinc concentrate. The lead-copper concentrate recovering 43.5 percent of the lead, 73.2 percent of the copper, 9.6 percent of the zinc and 55 percent of the silver contained 33.1 percent lead, 18.2 percent copper, 4.3 percent zinc. Combining the jig and lead-copper concentrates yielded a lead recovery of 81.6 percent, 74.1 percent copper, 10.3 percent zinc and 66 percent silver. The zinc concentrate recovered an additional 3.9 percent of the lead, 8.8 percent of the copper, 63.9 percent of the zinc and 8.6 percent of the silver in a concentrate containing 16 ounces of silver, 4.2 percent lead, 3.1 percent copper and 41.6 percent zinc. Overall recoveries in these concentrates would be approximately 85.5 percent lead, 82.9 percent copper, 74.2 percent zinc and 74.6 percent silver. An additional rougher iron concentrate assaying about 0.26 ounce gold, 5 ounces silver and 31 percent iron containing 60.3 percent of the total gold and 11.3 percent of the silver.

Because of the complexity of the ore, numerous variations in selective flotation methods will yield many combinations of products. The ore will require some means of concentration and at least partial separation of the minerals into their respective concentrates. The metallurgical results obtained by the Bureau of Mines and Denver Equipment Company indicate good grades of concentrates may be made by selective flotation with reasonable metal recoveries. The reports mention the presence of antimony and bismuth in the ores but not quantitatively. Excessive amounts of these elements in the respective concentrates might result in high smelter penalties, even to the point of exclusion by the smelter. Since ore samples are not available for analysis or metallurgical testing, these questions cannot be readily verified.

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

June 29, 1951

AIR MAIL

Through Landon F. Strobel

Mr. Otto Herres, Chief
Lead-Zinc Branch
Defense Minerals Administration
Department of Interior
Washington 25, D. C.

Re: DMA Docket 821

Dear Mr. Herres:

Enclosed is the data and original application submitted by the Golden Messenger Corporation, which was forwarded to this office to be used by the field team in their field examination. We are sorry that in the press of business we neglected to enclose this data at the time we forwarded to you the field team report and the copy of the Exploration Project Contract.

We would like to add that Mr. W. L. Bell, applicant, was in the office yesterday, and stated that he was in favor of the terms in the contract. He further stated that he would sign it at the first opportunity providing his application was accepted.

Very truly yours,

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

Enclosures

cc: L. F. Strobel

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 2 1951
LANDON F. STROBEL
Executive Secretary

JUL 3 1951

FILE COPY
SURNAME:

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

Ryan
Brisbane
for McKnight
Mote
Herres

June 25, 1951

Airmail

Re: Docket DMA-821

Mr. A. E. Weissenborn
Executive Officer of Field Team
Region II
South 157 Howard Street
Spokane 8, Washington

Dear Mr. Weissenborn:

We have received the field team report on the application (DMA-821) submitted by the Golden Messenger Corporation, but we have not been able to locate the original application and data which was sent to you. Would you kindly check your files for this docket, and if you have it, send it to us immediately by airmail.

Very truly yours,

Otto Herres

Otto Herres, Chief
Lead-Zinc Branch

EJLyons:emp
G 6/25/51
Copies to: Chief, Lead-Zinc Br.
E. T. McKnight 4204 GSA
R. H. Mote
L. F. Strobel
Directors r file 4214 GSA
Br. r. file 4214 GSA
Files

Docket 821

Dma-821 X

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

So. 157 Howard Street
Spokane 4, Washington

June 22, 1951

Mr. Landon F. Strobel
Executive Secretary
Defense Minerals Administration
U. S. Department of the Interior
Washington 25, D. C.

Dear Mr. Strobel:

Re: DMA Docket 821
Golden Messenger Corporation
Crystal mine
Jefferson County, Montana

Enclosed herewith are four copies of a DMA Examination Team report on the Crystal mine, Jefferson County, Montana; six unsigned exploration project contracts and exhibits pertaining to the applicant in question; and four copies of a memorandum from the Field Team, Region II, to Mr. Otto Herres.

Please forward the aforementioned data to the proper committee.

Yours sincerely,

Thor H. Kiilsgaard

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

Enclosures as indicated.

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

June 22, 1951

MEMORANDUM

To: Otto Herres, Chief
Lead-Zinc Branch
Defense Minerals Administration

From: Field Team, Region II

Subject: Transmittal of report on Crystal Mine, Jefferson County, Montana. DMA Docket-821

Enclosed are four copies of a DMA Examination Team report on the Crystal mine, Jefferson County, Montana. Also enclosed are six unsigned copies of an exploration project contract together with required exhibits which have been worked out with the applicant. In an effort to save time we are forwarding the contracts without signature.

The field team recommends that the Defense Minerals Administration enter into an exploration contract with the applicant in question. This recommendation is based on the opinions of the DMA Examining Team who believe that the Crystal mine warrants further exploration. The mine has been productive in the past and this is every reason to believe that exploration on lower levels will encounter shipping and milling grade ore.

Management of the proposed project should be excellent. Mr. W. L. Bell, who will be in direct charge of operations, is a mining engineer of wide experience who has successfully directed mining operations for the Golden Messenger Corporation and other concerns for many years.

By Field Team, Region II

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

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

Enclosures
cc: M. E. Volin

DMA-821X

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

So. 157 Howard Street
Spokane 8, Washington

June 6, 1951

Mr. Landon F. Strobel
Executive Secretary
Defense Minerals Administration
Department of Interior
Washington 25, D. C.

Dear Mr. Strobel:

Attached are four copies of a memo from the Field Team, Region II, with reference to the Crystal mine, Jefferson County, Montana, Docket DMA-821. Also enclosed are 4 copies of a report by the Bureau of Mines--Geological Survey Examination Team. Will you please forward the above to the Lead-Zinc Branch.

Form MF-103 being held.

The fourth copy of Form MF-103 which was retained here to facilitate discussion with the applicant is enclosed. Four copies of MF-200 are being filled out and will be forwarded as soon as possible.

Sincerely yours,

Walter H. Tiilsgaard, for.

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

Enclosures

JUN 13 1951

Dma-821X

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

So. 157 Howard Street
Spokane 8, Washington

June 6, 1951

Memorandum

To: Chairman, Lead-Zinc Branch

From: Field Team, Region II

Subject: Golden Messenger Corporation, Crystal mine, Docket DMA-821

An examination was made of the Crystal mine, Jefferson County, Montana, and a proposed exploration project was discussed with the applicant. On the basis of this examination, the results of which are described in the attached report by Youngberg and Puffett of the Geological Survey, and Erickson of the Bureau of Mines, the Field Team strongly recommends that an exploration contract be made with the applicant to do the work as outlined in the report. The total cost will be $66,000 of which 50 percent will be borne by the Government.

By Field Team, Region II

Elmer H. Stilegaard, for
A. E. Weissenborn, Executive Officer
(U. S. Geological Survey)

Glenn A. Reed, for
M. E. Volin, Member
(U. S. Bureau of Mines

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
So. 157 Howard Street
Spokane 8, Washington

May 31, 1951

Mr. Landon F. Strobel
Executive Secretary
Defense Minerals Administration
Department of Interior
Washington 25, D. C.

Dear Mr. Strobel:

Enclosed is an application for an exploration project on the Crystal Mine, Basin, Montana, by the Golden Messenger Corporation.

The original application, DMA Docket-821 was for a production loan. The applicant, after a discussion of the feasibility of a production loan with the field team, requests that the application be considered as an application for aid for an exploration project and submits the enclosed exploration application.

The field team is completing a report recommending the proposed exploration project which will be forwarded in a few days.

Sincerely yours,

Elton A. Youngberg

Elton A. Youngberg
For: A. E. Weissenborn
Executive Officer, DMA
Field Team, Region II

Enclosure

cc: U.S.B.M.

JUN 7 19 5

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
JUN 4 - 1951
LANDON F. [illegible]
Executive Secretary

APPENDIX A

May 16, 1951

MEMORANDUM

To: A. E. Weissenborn, Executive Officer, DMA Field Team, Region II

From: J. D. Bardill

Subject: Results of metallurgical tests on samples of Crystal mine zinc-lead-copper ores, Jefferson County, Montana.

Reports indicate the presence of three types of ore in the Crystal mine: copper, zinc-lead, and a complex zinc-lead-copper ore.

Bureau of Mines metallurgical tests made at the Salt Lake City laboratories in 1943-44 indicated that by selective flotation a concentrate assaying 23.2 percent copper, 2.7 percent lead, 0.1 ounce gold, and 57.6 ounces silver per ton could be recovered from a sample of the copper ore containing 5.35 percent copper, 0.65 percent lead, nil zinc, 0.07 ounce gold and 12.85 ounces silver with 82 percent copper and 79 percent silver recoveries. Selective flotation of a sample of zinc-lead ore assaying 15.4 percent zinc, 7.25 percent lead, 0.5 percent copper, 0.05 ounce gold and 9.65 ounces silver per ton yielded lead and zinc concentrates. The lead concentrate assaying 56.8 percent lead, 5.2 percent zinc, 2.7 percent copper, 0.1 ounce gold and 64.5 ounces silver contained 68 percent of the silver and 78 percent of the lead. An 86 percent zinc recovery was obtained in a zinc concentrate assaying 52.8 percent zinc, 2.2 percent lead, 0.5 percent copper, 0.02 ounce gold and 5.0 ounces silver per ton. The sample of complex zinc-lead-copper ore assayed 2.45 percent lead, 0.72 percent copper, 3.5 percent zinc, 0.18 ounce gold and 9.05 ounces silver per ton. Selective flotation yielded a lead-copper concentrate containing 47.8 percent lead, 11.9 percent copper, 5.4 percent zinc, 0.1 ounce gold and 135.7 ounces silver per ton, representing an 88 percent recovery of the lead, 67 percent of the copper and 68 percent of the silver. Since the zinc is largely oxidized, only 52 percent was recovered in a zinc concentrate assaying 43 percent zinc, 1.5 percent lead, 1.3 percent copper, 0.08 ounce gold and 15.5 ounces silver per ton. The zinc cleaner tailing combined with a rougher iron concentrate contained 81.7 percent of the gold and assayed 2.8 percent zinc, 36.9 percent iron, 0.46 ounce gold and 5.9 ounces silver per ton. The probable presence of antimony and bismuth in the lead-copper concentrate may result in a small penalty. Because the relative proportions of each type of ore are not known, it is impossible to calculate overall metal recoveries from the ore.

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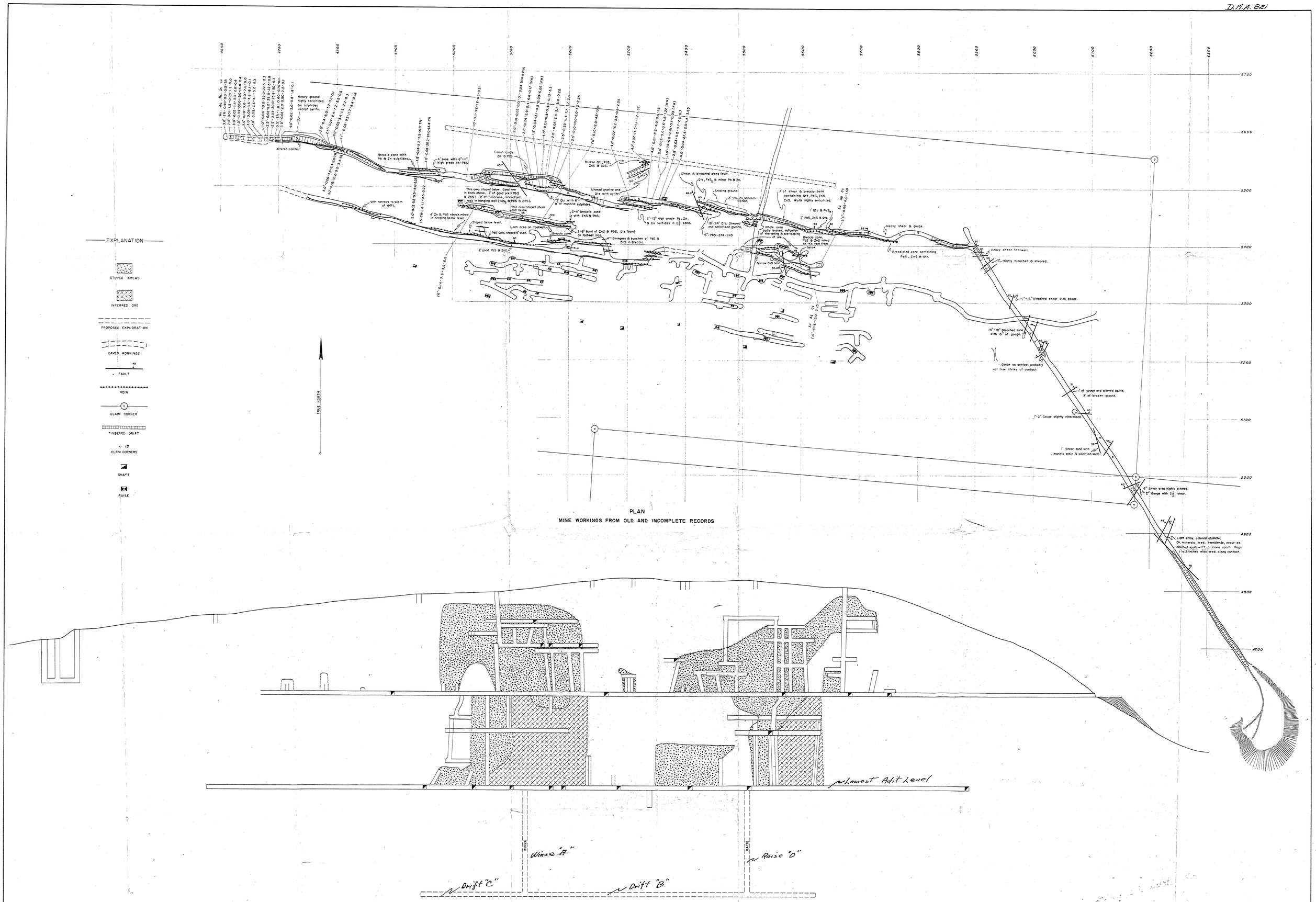
Because of the complexity of the ore, numerous variations in selective flotation methods will yield many combinations of products. The ore will require some means of concentration and at least partial separation of the minerals into their repective concentrates. The metallurgical results obtained by the Bureau of Mines and Denver Equipment Company indicate good grades of concentrates may be made by selective flotation with reasonable metal recoveries. The reports mention the presence of antimony and bismuth in the ores but not quantitatively. Excessive amounts of these elements in the respective concentrates might result in high smelter penalties, even to the point of exclusion by the smelter. Since ore samples are not available for analysis or metallurgical testing, these questions cannot be readily verified.

Uma-82

The Following is a Copy of A Report By Paul Billingsley and J. A. Grimes, Ore Deposits of the Boulder B tholith, published in Transactions of the A.I.M.E., Vol. LVIII,1918.

The crystal vein is at once the simplest and most representative of the type (Fig.14). Its total developed length is about 6 miles; its average width about 30 ft., and it has been explored from within the andesite roof blocks to a depth of about 1500 ft. within the granite. The section shown in the Crystal mine is typical of the entire extent. Here the total width of mineralization is about 50 ft., with a bordering zone on either side of silicified and sericitized aplite. Within this 50 ft., bands of true fissure filling--quartz and sulphides--alternate with belts of mineralized country rock traversed by numerous tiny stringers. The vein bands average 2 to 5 ft. wide; the intervals may run up to 10 ft. Along the course of the vein great variation is found. The several quartz-sulphide fissures terminate or finger out, and new bodies appear in the mineralized aplite between. The richer ore ceases in one belt, to begin in another hitherto barren. In short, while the zone itself is continuous, the separate fissures and ore shoots that compose it are of limited extent, existing only as overlapping lenses and reticulated cracks within a belt of silicified and sercitized country rock. The belt has in the Crystal, as almost invariable throughout the region, been followed by post-mineral faulting, which closely parallels the banding of the vein system.

D.M.A. 821



PLAN
MINE WORKINGS FROM OLD AND INCOMPLETE RECORDS

LONGITUDINAL SECTION
PLANE N 80 W
STOPE BOUNDARIES FROM OLD AND INCOMPLETE RECORDS

CRYSTAL MINE

GOLDEN MESSENGER CORPORATION
BASIN, JEFFERSON COUNTY, MONTANA
SEC 17, T 7 N, R 5 W

SCALE
50 0 50 100 150 200 250

ADVANCE or TRIAL COPY
Not Yet Approved for Official Release. Subject to Recall and Revision. Your Comments Are Invited
U. S. GEOLOGICAL SURVEY