MME Form 9
Rev. Mar. 59

UNITED STATES
DEPARTMENT OF THE INTERIOR
Office of Minerals Exploration

OFFICIAL DOCKET FILE Contract No. 14-23-_____ Docket No. MME-6535

Application
- [ ] Denied
- [x] Withdrawn

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

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

Folder No. 1:

Left Side

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

Right Side

- [ ] Project Summary (final)
- [ ] Work Completed Analysis (final)

All other material filed in chronological order including the following reports if checked:

- [ ] Field Team Semiannual Report for Certified Project
- [ ] Final Field Team Report (Tab)
- [ ] Operator's Final Report (Tab)
- [ ] Interim Field Team Reports
- [ ] Operator's monthly reports and all attachments
- [ ] On-site Exam. Report (Tab)
- [ ] Settlement Sheets
- [ ] Drill Logs

Additional Folders:

Left Side

Folders No._____: Reports

- [ ] Analysis of Semiannual Inspection Reports
- [ ] Project Summary (Interim) by MME Engineers

Right Side

- [ ] Field Team Semiannual Report for Certified Project
- [ ] Field Team Interim Reports
- [ ] Operator's Monthly Reports with Transmittal, Narrative and Maps

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

Folders No._____: Settlement Sheets

Folders No._____: Drill Logs

Folders No._____: Royalty Material

52625

MINE OFFICE
POST OFFICE BOX 395
SILVERTON, COLORADO 81433

MESA
TELEPHONE
964-2746

Silver Bay Mines, Inc.

1117 EAST 7TH PLACE
MESA, ARIZONA 85201

January 17, 1966

Mr Charles W. Merrill
Chief, Division of Minerals
United States Department of the Interior
Washington, D.C. 20240

Dear Sir:

We received from the Honorouble Stuart Symington of the United States Senate his letter dated September 24, 1965 enclosing a letter you wrote to Mr Symington dated September 22, 1965 and also enclosing pamphlet and other data from the Office of Minerals Exploration (OME) as requested by Mr Walter Erb of Washington, Missouri. We thank you for writing Senator Symington and sending him the material needed.

After receiving the forms, we have prepared the OME Loan application in two copies which are enclosed herewith. The loan application is being sent to your office so that you may become conversant with it and be able to inform Mr Symington, when he gets in touch with you, of the steps being taken to process this application. Will you please see that this application is sent to the proper department for further study and action.

Mr Walter Erb will be in touch with Senator Symington from time to time regarding this loan and we will greatly appreciate any thing you may be able to do in this matter.

Very sincerely,

C.V. Liljenquist

C.V. Liljenquist, Secretary
Silver Bay Mines, Inc.
1117 East 7th Place
Mesa, Arizona 85201

OFFICIAL COPY
O. M. E.
RECEIVED
FEB 2 1966
INITIALS | CODE

MME Form 40
Dec. 1958

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

Budget Bureau No. 42-R1368
Approval expires Dec. 31, 1963

APPLICATION FOR FINANCIAL ASSISTANCE IN MINERALS EXPLORATION

Pursuant to Public Law 85-701 (72 Stat. 700; 30 U.S.C. 641)

NAME OF APPLICANT *(Full legal name and mailing address as they should appear on contract if one is executed.)*

SILVER BAY MINES, INCORPORATED
1117 East 7th Place
Mesa, Arizona 85201

APPLICANT DO NOT USE THIS BLOCK

DOCKET NUMBER: 6535

DATE RECEIVED: 2-2-66

REGION: III

DIVISION CODE:

BUSINESS ORGANIZATION *(Check one)*

- INDIVIDUAL [ ]
- CORPORATION [X]
- PARTNERSHIP [ ]
- OTHER *(Specify)* [ ]

LIST CORPORATE OFFICERS OR PARTNERS HERE, IF APPLICABLE

NAME	ADDRESS	TITLE
Ray W. Clearman	1422- 41st St. Des Moines, Iowa	President
W.E. Liljenquist	1431 East 1st St. Mesa, Arizona 85201	Vice-President
C.V. Liljenquist	1117 East 7th Place, Mesa, Arizona 85201	Secretary

STATE IN WHICH FIRM IS ORGANIZED: UTAH

MINERAL(S) FOR WHICH YOU WISH TO EXPLORE: Gold & Silver

ESTIMATED COST OF PROJECT: $ 249,996.80

PROPERTY NAME / LOCATION COUNTY / STATE: Hurley Tunnel Mine, San Juan, Colorado

GENERAL INSTRUCTIONS

Before filling out this application, please read the *OME Regulations for Obtaining Federal Assistance in Financing Explorations for Mineral Reserves* (30 CFR Chap. III). To assure prompt action, your application must provide all applicable material and information specified on the back of this application form. Avoid unnecessary correspondence and delays by submitting complete and accurate information. *Please submit four copies of this application and all accompanying papers* except as otherwise noted. Place your name and address on each sheet. Each item of information, maps, and reports required as a part of this application is described on the back of this form. Identify each attached statement by the item number to which it applies. If an item does not apply to your application, show the item number on your statement and after it write "not applicable." Maps or sketches should be used to supplement narrative descriptions of the property location and boundaries in item 2, existing mine workings and geology in item 3, and the proposed exploration work in item 5. When this information is not too complex, all of it may be shown on one map or sketch. All documents and other attachments submitted as a part of this application, except those in item 3(g) which you mark to be returned, become the property of the Government and will not be returned to the applicant. Send true copies, *not originals*, of leases, contracts, and other documents which are an essential part of your business records. *File this application with the Office of Minerals Exploration, Department of the Interior, Washington 25, D. C., or with the nearest OME Field Office.*

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief, and that he would not ordinarily undertake the proposed exploration under current conditions and circumstances at his sole expense.

17 January, 1966
DATED

Silver Bay Mines, Incorporated
BY *(Signature)* C.V. Liljenquist
TITLE Secretary

A wilfully false statement or certification to any Department or Agency of the United States Government is a criminal offense. U. S. Code, Title 18, Sec. 1001.

INFORMATION REQUIRED WITH THIS APPLICATION

1. Financial Eligibility:

(a) Submit evidence of efforts made within 90 days preceding the filing of this application to obtain credit from your bank of account and at least one other banking institution or other private source of credit. Such evidence shall include true copies of correspondence which show: (1) date of loan request, (2) amount and terms requested, (3) proposed use of loan funds, and (4) the replies from credit sources. If the loan was offered under terms which you consider unreasonable, state why you consider them so.

(b) List names and addresses of affiliated, parent, or controlling companies or organizations and state extent and nature of their interest.

(c) State how you propose to furnish your share of the cost of the exploration work.

2. Applicant's Rights in Land:

(a) State your interest in the land and mineral rights, whether owner, lessee, purchaser under contract, or other. If you are not the owner, submit one true copy of the lease, contract, or other document (with address of owner) under which you control the property. Describe all liens, mortgages, or other encumbrances on the land and state book and page number and official place where recorded.

(b) State the legal description (section, township, and range; metes and bounds; patent number of claims) of the land upon which you wish to explore and all adjacent land which you own or control. Describe any part of the land or workings which should not be subject to Government royalty and liens. If the land consists of unpatented claims, state book and page number for each recorded location notice, including amended locations, and official place where recorded. State all the names by which you know the property.

(c) For all land or mineral rights encumbered or not owned, submit five copies of Lien and Subordination Agreements on MME Form 52. If the agreements cannot be obtained, state reasons and provide copies of letters of refusal.

3. Physical Description:

(a) Describe in detail and illustrate with maps or sketches all mining or exploration operations which you know have been or are being conducted upon the land. Include existing mine workings and all production facilities.

(b) State your interest, if any, in operations described in (a).

(c) State, if you know, the past and current production, supporting your statement with copies of settlement sheets, mine records, or published data if available.

(d) Describe known ore reserves, giving quantities and grades and sampling methods used. Support your statement with copies of assay certificates and assay maps if available.

(e) Describe by narrative and maps or sketches the geologic features of the property, including ore minerals, geologic formations if known, and type of deposit (vein, bedded, etc.).

(f) State your reasons for expecting to find ore, and if you have sampled the area you propose to explore, show where the samples were taken, describe sampling methods used, and provide copies of assay certificates.

(g) Send with your application at least *two* copies of all geologic or engineering reports, assay maps, or technologic information which you have, indicating whether you require their return.

4. Accessibility of Property:

(a) To aid the OME representative who may examine the property, state name and address of person who will meet him; give directions for reaching the property; and describe accessibility of property and of any mine workings.

(b) Name the shipping and supply points and state the distances to the property.

5. Exploration Work:

(a) Describe fully the proposed exploration work giving individual footages and sizes of openings *for each item of work.* Use narrative, maps, plans, and sections as necessary. Show location of the proposed work as related to geologic features such as veins, ore-bearing beds, contacts of rock formations, etc. Show also the relation of the proposed work to any existing mine workings and to *land boundaries* or to the closest identifiable corner.

(b) If an access road must be built, show the proposed location on the property map and state the length, type and construction methods proposed.

(c) If an OME contract is executed, state how soon thereafter work would be started and finished. State your anticipated average daily or monthly rate of progress for each type of work.

6. Experience:

State your operating experience and background to conduct this exploration work and also that of the person who will supervise the work.

7. Estimate of Costs:

Furnish detailed estimates of the necessary costs *for each item of the work proposed in 5(a)* under the headings listed below with a total for each heading and the estimated total cost of the work. Costs for any work to be performed by an independent contractor should be listed separately under category (a) below. Costs for any work that is not to be performed by an independent contractor should be listed under categories (b) through (g).

(a) Independent contracts. State the total cost of any proposed independent contract for all or any part of the work, and the number of units and the unit cost for each type of work, such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, or per cubic yard of material moved. Cost estimates should be supported by bids from three contractors if possible. (*Note*—If none of the work is to be contracted, write "none" after this item.)

(b) Personal services. The cost of supervision, engineering and geological services, outside consultants, and labor should be itemized by numbers and classes of employees; rates of wages, salaries or fees; and periods of employment. State whether these services are available.

(c) Operating materials and supplies. List items of material and supplies giving quantity and cost of each. Include under this heading power, water, and fuel, and units of equipment and tools costing less than $50 each.

(d) Operating equipment. List items of equipment and tools costing $50 or more per unit. Give specifications and indicate how each item is to be acquired—i.e., rented, purchased or provided by the applicant. If rented or purchased, state the estimated rental or purchase price. If furnished by the applicant, state condition and present fair market value.

(e) Initial rehabilitation and repairs. Describe the type and the cost of *initial* rehabilitation or repair of existing buildings, fixtures, installations (exclusive of mine workings), and movable operating equipment now owned by the applicant which will be used in the exploration work.

(f) New buildings, fixtures, installations. Describe each building, fixed improvement, and installation to be purchased, constructed, or installed for the exploration work, stating specifications and cost including labor, materials, and supervision.

(g) Miscellaneous. Describe the type and estimate the cost of repairs and maintenance of the operating equipment listed in 7(d). Do not repeat initial repairs listed in 7(e). Show also the costs of analytical work, accounting, workmen's compensation and employees' liability insurance, payroll taxes, and other required costs that do not fall within the previous categories. [*Note*—The Government will not contribute to costs incurred before the date of the contract, or to costs of or incident to: (1) acquiring, using, or possessing land and any existing improvements, facilities, buildings, installations, and appurtenances, or the depreciation and depletion thereof; (2) general overhead, corporate management, interest and taxes (other than payroll and sales taxes); (3) insurance (other than employees' liability insurance); and (4) damages to persons or property (other than authorized repair to or replacement of equipment or other property used in the work).]

INT.-DUP. SEC., WASH., D.C. 50399

SILVER BAY MINES, INCORPORATED
A UTAH CORPORATION

OFFICE AT 1117 East 7th Place, MESA, ARIZONA 85201

APPLICATION FOR FINANCIAL ASSISTANCE IN MINERALS EXPLORATION

1. Financial Eligibility:

To qualify A needs to submit copies of letters to banks for Amt equal to part of Bank participation.

Loan for retimbering reopening & development.

(a) Contact with First National Bank of Durango, Colorado. On September 5, 1965, the Secretary of the Corporation, Mr. C. V. Liljenquist, made application in person to the Vice President of this bank for a loan for $250,000.00 to be used retimbering portal, opening of Hurley Tunnel and development of mine as indicated on map marked 3-a. Letter of refusal from this Bank enclosed and marked Exhibit (1-(a)).

Contact with The Citizens State Bank of Ouray, Colorado. On October 2, 1965, in personal interview with the President of the bank, the geologist, Mr. T. R. Moxness made application for a loan of $225,000.00 to be used for retimbering and opening of Hurley Tunnel and development of mine, as indicated on map marked Exhibit 3-(a). Letter of refusal from this bank enclosed and marked Exhibit 1-(a).

(b) Silver Bay Mines, Incorporated, a Utah Corporation. Office at 1117 East 7th Place, Mesa, Arizona 85201. Sole owners.

(c) The Company's share of the cost of exploration work is to be furnished by levy of assessments against stock of the Corporation owned by stockholders.

2. Applicants Rights in Land:

(a) Silver Bay Mines, Incorporated, are the sole owners of the claims listed in (b). No liens or encumberances on this property. The portal and approximately the first 400 feet of Hurley Tunnel are located on Silver Ledge Claim U. S. Survey # 15061A and Orleans Mill Site U.S. Survey # 15061B. These claims are shown on map marked exhibit 5-(a) are indicated as (Re-2-(a)) and are shaded in green color. These are owned by Paul H. Rhuter, 810 Moline St., Aurora, Colorado, and Ross McCausland, P. O. Box 997, Durango, Colorado, a partnership. Copy of lease of these claims and right to use the portion of Hurley Tunnel on these claims is enclosed and marked (a-2).

(3-a)

(b) Legal Description: Both the Patented Claims and the Unpatented Claims listed below are owned by Silver Bay Mines, Inc., and are located in Sections 22, 27 and 28 of Township 42N., Range 7 West.

Patented Claims	U. S. Survey Number
Big Indian	14325
Blackhawk	14325
Confidence	14325
Jo Pi	14325
Murton	14325
Mountain Boy	15061-A
Mountain Boy Extension	15061-A

THE FIRST NATIONAL BANK DURANGO, COLORADO

MAHLON T. WHITE

September 10, 1965

Silver Bay Mines, Inc.
P. O. Box 395
Silverton, Colorado

Gentlemen:

Thank you for your recent application for a loan in the amount of $250,000.00. We regret that we are unable to make this loan at this time.

Should we be able to be of service to you at some future date, please feel free to call on us.

Sincerely,

Mahlon T. White

Mahlon T. White
Vice President

MTW:ma

Exhibit (1-a)

THE CITIZENS STATE BANK

OF OURAY

OURAY · COLORADO

Oct. 5, 1965

+90 days

Mr. C. V. Lilenquist, Sec. Treas.
Silver Bay Mines, Inc.
1117 East 7th Place
Mesa, Arizona 85201

Dear Mr. Lilenquist:

In regard to your application for a loan for mining development, in the amount of $225,000.00, will say that this amount is clear over our limit, and then, we do not loan on exploration mining work.

N 6

I am sorry that we would not be able to even take this up with the Board of Directors.

Yours very truly,

Harry A. Lowe

Harry A. Lowe
President

HAL:m

Exhibit (1-a)

2. (b) (continued)

Patented Claims	U. S. Survey Number
Blue Bird	15061-A
Camilla	15061-A
Claire March	15061-A
Klondyke #2	15061-A
Louesia	15061-A
Newton	15061-A
Natalie	15061-A
Thomas Jefferson	15504
Hopeful	15504
Invinsible	15504
Occidental	15504
U. S. Grant	15504
Immatchock	18849
Tip Top	18849

	Unpatented Claims	Book	Page	
×	Silver Bay	172	214	Not on map.
	Silver Bay #1	172	367	
	Silver Bay #2	172	215	
	Big Indian #1	172	241	
	Big Indian #2	172	242	
	Big Indian Extension	172	217	
	Silver Bay #3	142	239	
	Silver Bay #4	142	238	
	Blackhawk Extension	142	238	

The foregoing names are the only names in which we know these claims.

We do not have any land which should not be subject to Government royalty and liens.

(c) As stated in 2(a) above, the portal of the Hurley Tunnel is situated on Silver Ledge Claim, U. S. Survey #15061A. This and the Orleans Millsite, U. S. Survey #15061B do not belong to the Company. A copy of contract agreement giving us the right to use this portal and the part of the tunnel situated on the Silver Ledge Claim is attached hereto. This contract also gives us the right to use the Orleans Millsite for any purposes necessary, including the dumping of muck that may be taken out of the Hurley Tunnel as we develop it. As noted, we are also given the right to put up necessary buildings and stand or store machinery.

O.K. MME Form 52 is also attached as required in the instructions on MME Form 40. 4 copies of Form 52 attached to other copy of loan application

3. Physical Description:

(a) The claims owned by the Corporation are situated on two separate mountains approximately 2500 feet apart which run parallel to each other in an easterly direction and head in the area of the junction of the Toltec and Bonita Faults. The claims in the northern mountain are known as the Blackhawk Mine and the claims in the southern mountain are known as the Natalie-Occidental Group. The Hurley Tunnel has been driven in this latter group.

3. (a) (continued)
See map marked exhibit (3-a). These claims were located between the years 1892 to 1906. The Hurley Tunnel, as it now stands, was driven between 1898 and 1906. The first (or old drift) of the Blackhawk Tunnel was driven about the same time, for approximately 500 feet. The Hurley Tunnel is indicated by a red line and the Blackhawk Tunnels are indicated by yellow marked lines on the map marked exhibit (3-A-a). No work has been done to explore or develop the Natalie-Occidental Group since 1906. The Hurley Tunnel is inaccessible due to rotted timbering and caving and it is considered probable that other timbering in the Tunnel has also decayed and much caving will be encountered. 3-a

During the past 16 years, considerable work has been done in the Blackhawk Mine. The old drift running north has been extended to approximately 1200 feet. Another drift paralleling the Big Indian Vein has been driven approximately 3000 feet. At about 2000 feet in this drift, a raise was driven in 1964 and 1965 up about 100 feet which intersected a vein of ore running parallel with the tunnel. This raise was timbered and a cross cut started on each side of the raise. This vein is about 4 or 5 feet wide and contains gold, silver, lead and zinc. Assay certificates are enclosed which shows values in all these metals of about $40.00 to $60.00 per ton. Assay certificates are marked Exhibit (3-c-2) and are indicated on Map Exhibit (3-a). Approximately 100 tons of ore was hauled out from this raise in 1965 and put in dump outside the portal. No other mining was done in 1965 due to bad air and need for installing better and larger ventillation system. This raise is indicated on Map (3-a) and marked Exhibit Re-3-c and is shaded blue.

1 ton/ft

Principal values in zinc & lead

Data of file in the County Court House in Silverton, Colorado, such as old newspaper articles and other old reports indicate the Hurley Tunnel was driven to contact gold and silver ores expected to be found in the junction zone of the Toltec and Bonita Faults. Old miners still living around Silverton who worked in the Hurley Tunnel state several large veins of ore were cut. These range in width from 5 feet to 8 feet. Our present geologist, Mr. T. R. Moxness of Silverton, Colorado, has read this data and talked with some of these old miners.

The following is taken from report of our present geologist, Mr. T. R. Moxness of Silverton, Colorado, regarding this years' working at the Blackhawk Mine. "During the past six months (June through October) exploration was done by the company (Silver Bay Mines, Inc.) in the Blackhawk Mine. This mine was operated through an East-West cross-cut Tunnel which interesected three (3) North-South striking fissures. Exploration work was done on a North-South striking fissure which had been intersected by earlier operations. This fissure lies 725 feet to the East of the portal of the tunnel and a drift to the North was made for a distance of 75 feet. Ore was encountered along this drift, varying in width from 18 inches to 2 feet, having a value of $50.00 per ton. The ore minerals in this fissure contain silver, lead, zinc, copper and gold. (Copies of 3 assay reports, marked Exhibit (3-c-1) are furnished with assay exhibits.) (Indicated on map marked Exhibit (3-a) and shaded orange color.) The portal elevation at the Blackhawk Mine is 11,500 feet and the outcrop of the fissure referred to is at an elevation of 12,000 feet indicating 500 feet of backs above

1 - zinc
2 - Lead
3 - silver

red on map

3. (a) (continued)
the intersection of the fissure in the tunnel. The first fissures encountered by earlier operations and which occurs 125 feet east of the tunnel portal was mined by drifting northerly and southerly and stopped out. The Company explored for a few feet below the intersection and encountered ore in the fissure on its down dip. This ore has a value of $60.00 per ton and a width of 3 feet. (Assay certificate shown in Exhibit marked (3-c-4). Indications are that the fissure will be ore producing at depth.

mainly zinc lead one sample chiefly silver values.

"The "Blackhawk Portal" is 492 feet higher in elevation than the "Hurley Tunnel" Portal and lies approximately 3000 feet to the northeast from the "Hurley". The Company hopes to continue exploration in the Blackhawk Mine in the Spring." Reference to the above descriptions are shown on map of Exhibit (3-a) and Burbank map marked Exhibit (3-A-a).

(b) Owner and operator of above described operations.

(c) Some ore has been mined and shipped from the Blackhawk Mine. About 75 feet from the portal some stope mining was done about 10 years ago and approximately 200 tons of ore was shipped to mill in Silverton, Colorado. This ore ran in value at that time when the price of metals was lower, about $40.00 per ton. No assay certificate of this ore is available. Some mining has been done during 1965 and ore taken out in three places. Some ore was taken out of the raise, described in (3-a) above and indicated on map Exhibit (3-a) and shaded in blue. Approximately 100 tons of ore was taken out of this raise and put in ore dump outside the portal. Assays were taken of this ore and Assay Certificates marked (3-c-2) are with assay exhibits. These assays show a good value in gold and silver. Some mining was done in drift 725 feet from portal and approximately 150 tons of ore was mined and placed in dump outside portal. This drift indicated on map marked Exhibit (3-a) and marked as (3-c-1) and shaded in orange. Assays were made of this ore and Assay Certificates are marked (3-c-1). Approximately 250 tons of ore was taken out of the stope 75 feet from portal. This ore showed values of $60.00 per ton. Assay Certificate marked (3-c-4) with assay exhibits. No ore was shipped to smelter, consequently there is no settlement sheets.

zinc lead silver

?

Trace - 0.05 oz Au
0.3 - 6.5 oz Ag

Reef

zinc lead silver

1 sample 28.7 oz Ag

1 sample 8 oz Ag.

(d) No measured ore reserves.

(e) The Blackhawk Mine portal is accessible from Gladstone via about 2 miles of road suitable for four-wheel drive vehicles or trucks. The location of the portal is shown on the Ironton, Colorado, quadrangle map (scale 1/24,000), and is at an elevation of 11,600 feet. Silverton, Colorado, the nearest shipping point is about 7 miles from Gladstone via improved gravel road. (See description under (3-a) which further describes the property and the Blackhawk Mine and Hurley Tunnel.) (Burbanks map (3-A-a) Authentic information on the geology, mineralization and other features are contained in the reports of Dr. W.S. Burbank of the Geologic Survey; Dr. R.C. Vickers of Denver, Colorado; Herbert Inouye, a geologist from Denver, Colorado, which are furnished under Exhibits (3-g). These reports describe quite fully the mineralization in the junction area of the Toltec and Bonita Faults.

3. (e) (continued)
A map prepared by Dr. Burbank, marked Exhibit (3-A-a), of the major fault zones is also found on page 292 of his booklet entitled "The Sunnyside, Ross Basin, and Bonita Fault Systems and Their Associated Ore Deposits, San Juan County, Colorado" enclosed and marked as Exhibit (3-g). Location of portals of the Blackhawk and Hurley Tunnel Mines are marked on Dr. Burbank's map marked Exhibit (3-A-a).

The Hurley Tunnel site is located in Section 27, T. 42N., R. 7W., County of San Juan, State of Colorado. The tunnel is situated approximately one mile and a half from the town of Gladstone, (shown on Dr. Burbank's map mentioned above) and accessible over a gravel road. The following is taken from report of our present geologist, T. R. Moxness, as follows: "The general geology of the area is as follows: Andesitic teriary volcanic flow rocks are transected by a system of northwesterly (10°N 15°W) striking fissures having a dip of 70° to 75° westerly. These fissures have been intersected by a system of fissures striking easterly and westerly, (N 70° - 80°E) and dipping 70° - 75° southerly. Localization of ore-shoots seem to be at intersections of these two systems of fissures, and the ore deposition has favored the northwesterly (N 10° 15°W) striking fissures at and between intersections.

"Two strong faults, the Bonita Fault striking northwesterly and the Toltec Fault striking northeasterly, intersect to the northeast of the property concerned. This area indicates a structural zone favorable for ore deposition as fissure vein deposits.

"The ore minerals mined in the immediate area, including the Blackhawk Mine and the Occidental Mine are argentiferous galena, sphalerite, auriferous chalcopyrite and pyrite. Some tetrahedrite was found in the Occidental Mine included in this property." (The Occidental Mine is an old workings on the eastern side of the mountain of the Natalie-Occidental Group. It has not been worked or surveyed by our Company because the Hurley Tunnel runs along these claims at a much lower level.)

(f) "The reasons for the Company's belief that ore will be found on its' property are based on the favorable structural geology in the area. The proximity of the Bonita and Toltec faults, and the parallel fissures developed adjacent to these faults, indicate very favorable control structures for ascending primary mineralization. No exploration work has been done in the vicinity of intersections of North-South fissures with the East-West fault surface of the Toltec Fault." (From report of T. R. Moxness.) No sampling has been done of the surface of the Hurley Tunnel Site.

Considerable study of the surfact formation in the upper elevation in the area of the junction of the two faults has been made and much time has been spent by the geologists in studying the outcroppings and other surface indications. All these men have stated that the indications for large bodies of highly mineralized rich ores are very plain and positive. (See Dr. Burbank's report as Exhibit (3-g).)

3. (f) (continued)
Further favorable indications are found in the fact that two other mines adjacent to our mine have been heavy producers of good ore. These are the Gold King and Lead Carbonate Mines. (Shown on Dr. Burbank's map.) The Gold King Mine has been a heavy producer of gold. The Lead Carbonate mine has been a producer of gold, silver, lead and zinc. Geologists state that the mineralization found in these mines came through fissures from the Bonita Fault. The tunnel work done in the Blackhawk mine has afforded geologists an opportunity to make careful study of the fissures and veins cut by these tunnels. Also the mining operations, including the raise and cross cuts driven, give us additional reasons for expecting to find ore in the Hurley Tunnel of the Natalie-Occidental group of claims. (See (3-a) for description of these workings.)

(g) Geology reports from the following geologists are included herewith and are marked Exhibits (3-g): (Maps are shown under "Maps Exhibits".)

Dr. W. S. Burbank of U.S. Geological Survey, Washington, D.C. His booklet "COLORADO SCIENTIFIC SOCIETY PROCEEDINGS, VOLUME 15, No. 7, with Map of "The Sunnyside, Ross Basin and Bonita fault systems" appears on page 292 of this booklet, enclosed herewith. *His report appearing on pages 273, 274, 275, 276 of book "MINERAL RESOURCES OF COLORADO-FIRST SEQUEL" quoted below.

Dr. R. C. Vickers, Consulting Mining Geologist, 1801 Tabor St. Denver, Colorado, from his booklet "Blackhawk Exploration Project, Eureka Mining District, San Juan County, Colorado" which was prepared for our Company. Booklet attached and marked Exhibit (3-g). Assay report of samples taken by him in the Blackhawk tunnel are found on page 4 of his booklet and place where samples were taken are shown on map (3-a) and are marked Exhibit (3-g-2). Quotations from his booklet are quoted below and are indicated by (⊠).

Herbert Inouye, Geologist, 3080 South Yates, Denver, Colorado. Quotations from his report to our Company is quoted below and indicated by (#).

* From Dr. W. S. Burbank's report indicated above we quote:

"The Sunnyside, Ross Basin and Bonita fault systems lie in the northeastern part of the Silverton volcanic area and form part of the northeastern border zone of the Silverton caldera.

"The Ross Basin fault at the head of Cement Creek trends southeast, dips steeply southward, and has an overall displacement of combined tilting of the beds and faulting, which amounts locally to as much as 2000 feet.

"The Sunnyside fault, dipping steeply southeastward, begins essentially at its junction with the Ross Basin fault northeast of Lake Emma and extends northeastward across the northern part of Treasure Mountain to the Animas Valley. At Treasure Mountain one branch of the fault forms the strong Cinnamon fault which continues east-northeasterly into Hinsdale County. The displacement of the Sunnyside fault is estimated at 1500 feet

3. (g) (*continued)
at its western end, and about 800 to 1,000 feet at Treasure Mountain. Most of the ore bodies of the Sunnysice Mine occur along the legs of the two faults and in their fractured common footwall not far from their intersection.

"Viewed on a map, The Ross Basin and Sunnyside fault form the rough outline of the front part of a boot tilted back on its heel. The Ross Basin fault which comes down from Ross Basin in a southeasterly direction to Lake Emma forms the instep, and the Sunnyside fault which trends northeastward from Lake Emma forms the front of the leg part of the boot. The backline of the boot leg is formed by the Toltec fault which starts near Emery Peak and trends northeasterly across the northern part of Eureka Mountain to Picayune Gulch. Finally, the sole line, or bottom of the boot, is represented by the Bonita fault which trends northwesterly from its junction with the Toltec fault at Emery Peak to Ross Basin where it joins the Ross Basin fault.

"The center area of the boot is a structural trough or graben 1 1/2 to 2 miles wide and 8 to 10 miles long which projects northeastward from the down-faulted central block of the Silverton caldera. The most productive ore deposits of the area lie near some of the junctions of the main faults which found the bootshaped graben, or in transverse fissures contiguous to the faults.

"All the faults dip steeply toward the center of the graben, while the surrounding volcanic formations are tilted away from it on all sides. These attitudes indicate alternate periods of tension and compression, with the central block subsiding during periods of tensional distress, and tending to squeeze out during compressional periods with consequential upward tilting of the volcanic formations. This action is believed to be mainly responsible for localization of the better ore bodies in transverse fissures within a belt 1,000 to 1,500 feet wide along the southwest border of the Bonita fault. A somewhat similiar dilation of the veins is noticeable in the footwall of the Ross Basin fault.

"The Bonita and Toltec faults possess a common hanging wall at their intersection and in this they differ from the common footwall of the Ross Basin-Sunnyside faults intersection. Also, an intrusive rhyolite body is present in the Bonita-Toltec intersection, and these differences could have influenced the localization of the ore shoots. One of the strong east-southeast trending veins of the area joins the Bonita-Toltec junction just to the west of Emery Peak and it is possible that this vein could be strongly mineralized at depth. The ground beneath the Peak is relatively remote from present (1951) workings.

"The Bonita fult and the Ross Basin fault join near the head of Cement Creek in a net work of faults and fissures. The branches and offsets of the faults form a broken block of highly mineralized but not very productive ground which occurs in a relatively narrow wedge between the main faults.

"The footwall belt of the Ross Basin fault contains a number of productive veins that join the fault at nearly right angles. A few thousand feet from the fault, many of these veins take a sharp turn eastward at their intersection with a system of strong east-trending, steep dipping fissures and minor faults which are downthrown toward the south, the same as the Ross Basin fault.

3. (g) (*continued)
"The general relations of the more productive ore bodies to the several fault systems and the lack of systematic exploration in some parts of the fault systems and continguous belts of mineralized ground indicate that the productive potentialities of the area are not exhausted. The more favorable ground includes the footwall belt of the Bonita fault, and probably some ground contiguous to the junction of the Sunnyside-Ross Basin faults at greater depths or in the hanging walls and footwalls of the major faults that have not already been thoroughly prospected.

"If the Gold King and Leas Carbonate ore shoots can be considered representative of structural localization of shoots close to the footwall of the Bonita fault zone, they afford clues to the most effective exploration of the Bonita fault belt as a whole. As the Bonita fault lies high on the upper slopes of the 13,000 foot ridge between Bonita and Emery peaks, the footwall of the fault zone has been approached at depth in only one place, the heading of the American tunnel of the Gold King Mine. This tunnel was never connected with the mine workings which are more than 800 feet above and therefore little information is available as to possible vertical changes in the character of fissuring and mineralization with depth. Several other transverse veins along the length of the fault belt bear relations to the fault similiar to those of the Gold King and Lead Carbonate vein systems. Further studies of the potentialities of these veins as well as the west dipping cross veins of this belt appear worthy of particular consideration in long range development of the area. The possibility that some shoots may tend to shorten at higher altitudes may be an important consideration. It is evident that the potential importance of some shoots of ore cropping out at high altitudes may be difficult to evaluate. While all these features are relatively favorable to the existence of undeveloped potentialities, there is a possibility of unfavorable rock characteristics and other changes at depth which cannot be entirely evaluated from surface studies.

"Further exploration and development of known, and potentially productive, ground near the Ross Basin-Sunnyside junction is justified by past production. The exploration of ground at depth outward from this productive center is a logical way to expand the area of development along and near the Sunnyside and the Ross Basin fault systems and their contiguous veins. The footwall area of the Ross Basin fault and the footwall and hanging wall of the Sunnyside fault include examples of shallow ore shoots that may have counterparts at greater depths.

"Gold was introduced mostly during the late stages of mineralization. It seems, therefore, that the ore forming solutions have a common source beneath the downfaulted keystone blocks and rose along active belts of fissuring chiefly in the main faults and their footwalls. Nearer the surface the solutions also became dispersed into subsidiary fissures formed and kept open by the wedging and dilating action of the keystone blocks. Concentrations of gold which may locally enhance the value of base-metal ore appear likely to be found in much more restricted parts of the vein systems which have been dilated by late stage settling of fault blocks. Vein intersections and transverse fissures in the immediate footwalls of major faults are among the more favorable places. In other situations, transverse hanging-wall fissures may have provided channels through which the gold bearing solutions could have leaked more readily than through the highly compressed walls of major fault systems." (See Burbank's map (3-A-a) in map Exhibits.)

3. (g) (continued)
(⊠) From report of Dr. R.C. Vickers indicated above, we quote:
"The Blackhawk exploration project was started in 1954 with the purpose of exploring the area of junction of the Bonita and Toltec faults. From that date until the present time, about 1,800 feet of adit-driving have been completed. Although small quantities of lead and zinc minerals were found along the several narrow veins intersected by the workings, the most significant lead, zinc and copper minerals were found near the end of the present workings, where the adit intersected a relatively wide mineralized vein. (This adit has now - 1965 - been driven a distance of approximately 3,000 feet.) Geologic mapping of the underground workings and the surface showed that this vein (referred to as the Toltec Vein) outcropped about 1,000 feet above the mine workings and contained ore-grade lead and zinc minerals at the surface.

"The Black Hawk mine portal is accessible from Gladstone via about 2 miles of road suitable for four-wheel drive vehicles or trucks. The location of the portal is shown on the Ironton, Colorado, quadrangle map (scale 1/24,000) and is at an elevation of 11,600 feet. Silverton, Colorado, the nearest shipping and supply point is about 8 miles from Gladstone via improved gravel road.

"Exploration of the area of junction of the Bonita and Toltec faults was first recommended by W.S. Burbank of the Geological Survey in his report, "The Sunnyside, Ross Basin, and Bonita Fault Systems and Their Associated Ore Deposits, San Juan County, Colorado", in Colorado Scientific Society Proceedings, Vol. 15, No. 7, 1951." The exploration proposed in this report lies at or in the immediate vicinity of the junction of the Toltec and Bonita faults. Both of these major faults contain ore shoots. The footwall zone of Bonita fault has produced about $10,000,000 worth of ore within a distance of one mile from the proposed exploration.

"The following conclusions are taken directly from Burbank's report: 'The most productive ore deposits of the area lie near some of the junctions of the main faults bounding this boot-shaped termination or in transverse fissures contiguous to the wall of the bounding faults. It is concluded that the possibilities of important new discoveries are not exhausted, and that the southwestern part of the graben (vicinity of the junction of the Bonita and Toltec faults, author) and nearby structural features lying at the edge of the main down-faulted block constitute the most favorable ground for deep exploration and development. "Both from the statistics of past production and from the surface expression of faulting and mineralization, the most favorable areas for major development lie near the several major faults and their junctions at the foot end of the graben.' As shown on the map accompanying this report (Vickers maps marked Exhibit (3-a and 3-g-b)), the area of junction of the Bonita and Toltec fault zones is in the immediate vicinity of the end of the present underground workings. A wide mineralized fissure, called the Toltec vein because of its structural position in the footwall zone of the Toltec fault, was intersected and consisted of quartz, fluorite, a few carbonates, and concentrations and disseminations of lead, zinc and copper minerals. (Some gold and silver also encountered). The base metal sulfides, Galena, Sphalerite, and chalcopyrite, were present in narrow veins along both the footwall and hanging wall, and as fillings in brecciated rock. Analysis of samples taken from the 20-foot-wide fissure are given below:

3. (g) ((a) continued)

Sample No.	Oz/ton Gold	Oz/ton Silver	Percent Lead	Percent Zinc	Remarks
P-1	0.04	3.0	4.4	7.4	Hanging wall veinlet
P-2	trace	0.3	0.2	0.3	3' channel, vein
P-5	trace	0.7	0.2	0.9	2' channel, vein
5	0.04	2.4	6.8	14.7	Selected sample, Mineralized breccia
4	0.01	1.1	1.8	5.7	6" channel, vein

"During the summer of 1960, the drift was continued about 130 feet to the right to intersect the vein again. This work showed that the vein had narrowed to about 4 feet in width but was more mineralized. Samples taken from near or at the end of the adit of vein material were assayed with the following results:

Sample No.	Oz/ton Gold	Oz/ton Silver	Percent Lead	Percent Zinc	Percent Copper	Remarks
3	0.24	18.3	2.0	12.2	n. d.	Selected samp.
5	0.09	1.6	0.5	3.0	0.4	Hanging wall veinlet
7	0.06	6.5	7.8	11.0	n. d.	Sample from back
2	0.20	10.6	1.6	10.1	n. d.	Sample from brest

(See Assay certificates marked Exhibit Vickers (3-g-2) with assay exhibits.)

"At the surface along the outcrop of the Toltec vein (near elevation point 12,619,) many boulders of vein material were found that contained visible galena and sphalerite. The larger boulders measured as much as two feet in diameter. Analysis from one of the samples gave the following results:

Sample No.	Oz/ton Gold	Oz/ton Silver	Percent Lead	Percent Zinc
P-11	0.01	0.8	3.5	13.8

"Further underground exploration is believed warranted because of the following considerations:

1. The area of exploration is within an area of known mineralization where several large deposits of base metal sulfides have been found.
2. The area of exploration, near the junction of the Bonita and Toltec faults, is believed to be especially favorable for the occurrence of large deposits.
3. Known ore bodies in the area are known to lengthen with increasing depth from the surface.
4. The presence of ore grade gold, silver, lead, zinc mineralization in the Toltec vein at the surface and the presence of these minerals in the Toltec vein where exposed in the underground workings suggest that this vein should be productive where it is intersected by other cross structures.
5. Cross-structures, believed to be favorable for the localization of ore shoots, are known to be present within 800 feet of the end of the present workings.

"There are at least three areas that are believed to be favorable for the occurrence of (gold, silver) lead-zinc-copper ore shoots along the Toltec vein and associated structures. One favorable area is at the junction of

3. (g) ((⊠) continued)
the steeply-dipping Toltec vein with the flatter-dipping Big Indian fault. About 200 feet of drifting would be required to reach this area from a point near the end of the present workings. Almost identical structures have been responsible for the localization of very significant deposits in the area immediately to the north of the mapped area. Burbank, page 297 states, 'It is to be noted also that the main ore shoots of the Gold King have a tendency to lengthen downward to a depth of at least 700 feet. This lengthening is conceivable due in part to the structural influence of numerous flat west-dipping veins in the footwall of the Bonita fault. These may have acted as baffles or channels to deflect the ore solutions eastward and back against the footwall of the fault as they ascended.' It should also be noted that the width of the Toltec vein increases towards the intersection of the vein with the Big Indian fault. Also several small ore bodies are localized at the intersection of the Big Indian fault with northeast and northwest trending fissures. The second area favorable for the occurrence of (gold, silver) lead-zinc-copper ore would be along the Toltec vein to the east where the vein would be intersected by the Bonita fault zone and the Bonita fault. Drifting along the Toltec vein should continue at least until a point is reached slightly east of the junction of the Bonita fault with the Toltec vein. This part of the exploration would require about 800 feet of drifting.

"A third favorable area for ore deposition would be at the junction of the Toltec fault with the mineralized Bonita fault footwall zone."

Indian Geol. student Colo. School Mines

(#) Herbert Inouye - Geologist report:

A report prepared by this geologist, titled "A Progress Report On BlackHawk Mine" is enclosed and is marked Exhibit (3-g-B).

Return of geologic reports and maps are not necessary.

4. (a) During the winter months there is too much snow in the mine area to enable an OME representative to make a careful examination of the mine and surrounding area. It will be sometime in May of next year before the snow is sufficiently melted to make the examination. Our mining operations are closed down for the winter. No company representative is in Silverton during this winter season. If any correspondence is desired or any personal interview is needed during this winter season, contact:

C. V. Liljenquist - Secretary-manager, Silver Bay Mines, Inc.
1117 East 7th Place, Mesa, Arizona 85201, phone 964-2746.

or

Ray A. Bennett - Superintendant
211 C.A. Johnson Bldg., Denver 2, Colorado
phone office 825-9167
phone residence 477-9389

After April of next year both these officials can be reached by addressing them at Silverton, Colorado c/o Grand Imperial Hotel - Phone 387-5527.

The property is reached by going to Silverton, Colorado, which

4. (a) (continued)
is the County Seat of San Juan County and then taking highway 10 up Cement Creek to Gladstone. The Blackhawk mine portal is accessible from Gladstone via about 2 miles of road suitable for four-wheel drive vehicles or trucks. The Hurley tunnel is reached by taking a road up the south fork of Cement Creek about 1 1/2 miles. There is a good improved road and the grade is not very steep as it follows the level of the creek. The area above these tunnels is rugged and steep and can only be traveled on foot. The mine workings consist of two tunnels i.e. the Blackhawk and Hurley tunnels. The Blackhawk mine has been consistantly worked for several years, see (3-c) but the Hurley tunnel and mine has not been opened. See (3-f).

(b) The shipping and supply point is Silverton, Colorado, which is on the branch line of the Denver & Rio Grande Railroad narrow gauge line and on U.S. Highway #550. It is approximately 8 miles from Silverton over highway 10 to Gladstone and about 2 miles from Gladstone to the Blackhawk portal and about 1 1/2 miles from Gladstone to the portal of the Hurley tunnel. The wide gauge Railroad shipping point is Ridgway, Colorado, about 35 miles from Silverton.

5. (a) This application to OME is to obtain help by a loan to repair and extend the Hurley Tunnel and to explore and develop the mineralized zone in the area of the junction of the Toltec and Bonita faults.

From the geologic reports by Dr. W.S. Burbank, R.C. Vickers and Herbert Inouye furnished under (3-g) great stress is placed on the need to explore this area. Dr. Burbank states: "One of the strong east-southeast trending veins of the area joins the Bonita-Toltec junction just to the west of Emery Peak and it is possible that this vein could be strongly mineralized at depth. The ground beneath the peak is relatively remote from present (1951) workings." Also, "Judging from past production and from surface expression of faulting and mineralization, the most favorable areas for major development like near the various faults and junctions at the boot of the graben." Also, "Ores at the Sunnyside-Ross Basin fault junction probably extend to a depth of 10,000 feet or more.---The general relations of the more productive ore bodies of the several fault systems and the lack of systematic exploration in some parts of the fault systems and continguous elts of mineralized ground indicate that the productive potentialities of the area are not exhausted."

Another quote from Dr. Burbank, "As the Bonita fault lies high on the upper slopes of the 13,000 foot ridge between Bonita and Emery Peaks, the footwall of fault zone has been approached at depth in only one place, the heading of the American tunnel of the Gold King mine. Further studies of the potentialities of these veins as well as the west-dipping cross veins of this belt appear worthy of particular consideration in long range development of the area."

We quote from Dr. Vickers report under Exhibit (3-g): "In addition to the base metals and silver, significant amounts of gold were found in some of the Gold King and Lead Carbonate ores. Concentrations of gold should also be present with the

5. (a) (continued)
base metals found near the junction of the Bonita and Toltec faults, ---the Bonita-Toltec junction and associated structures may be locally enriched with gold. There is a general increase in gold content of ores as the Bonita fault is approached from the west." Also, "ALL EXISTING AVAILABLE GEOLOGIC INFORMATION should be properly interpreted in order that the most favorable areas WITHIN the Bonita-Toltec junction can be adequately explored. For example, if 2,000 feet of exploratory adit were driven within the favorable area, considerably less than one percent of the favorable ground would be adequately explored."

In view of the fact that the assay samples taken in the Blackhawk tunnel show considerable gold and silver, it is assumed from the above quotations that significant amounts of these two metals will be found in the explorations through the Hurley tunnel.

Under (3-a) a brief description of the physical features of the mine is made. Explanation is given and reference to maps made showing the position and course of both the Blackhawk and Hurley tunnels and the proposed cross cuts from the Hurley tunnel. Both of these tunnels are headed towards the zone of the junction of the Bonita and Toltec faults. Most of the material in 3. has to do with the underground workings of the Blackhawk tunnel for the reason that this is the only underground workings in which geologic studies of this area could be made underground. Likewise, this is the only place where assays of underground veins and fissures could be made. There is approximately 4,200 feet of tunnel in the Blackhawk mine. From surveys made of the surface geology of the area above both these tunnels by several of the best geologists available, we can state that the ground features and mineralization should be comparable in both tunnels.

No geologic studies have been made of the strata in the Hurley tunnel because it is inaccessible. The portal is caved in because of rotted timbering. It is assumed that similiar conditions of rotted timber and caving will be found inside the tunnel.

The large map marked Exhibit (5-a) also Burbank's map Exhibit (3-A-a) shows the location, position and direction of both tunnels and the proposed cross cuts. On this map, the course of the Hurley tunnel and its length is shown. There is geologic evidence that some of the important veins cut in the Blackhawk tunnel trend to the Hurley and should be intersected by it.

Because the Hurley tunnel is approximately 500 to 600 feet lower in elevation, it is the logical adit to mine the ores from both mines and better quality of ore should be found at this lower depth. The portal of this tunnel is on the bank of the south fork of Cement Creek and is only 200 to 300 feet higher elevation than Gladstone, therefore, a year round operation can be had without trouble from excessive snow. Because of the rugged, high elevation at junction of Bonita and Toltec faults, the only way the ores can be reached and hauled is through a tunnel at lower level.

The funds asked for in this loan will be used solely to develop

5. (a) (continued)
the Hurley tunnel and explore the mineralized zone in the junction area of the two faults. If some diamond core drilling is deemed necessary later it will be discussed at a later date and under a separate program.

The proposed work to be done under this OME program will be to clean out, re-timber and repair the portal of the Hurley tunnel then to re-timber, and clean out any caving inside the tunnel and put it in shape for tracts, etc., so it can be used as a haulage way. The following is a quote from our present geologist, Mr. T. R. Moxness: "1-To open Hurley tunnel portal and lay 24" gage 30# track for an estimated distance of 3,500 feet in the tunnel. 2-At a point approximately 3,500 feet in the tunnel, a projected north-south fissure should be intersected. At this point, we want to commence a 6'x7' drift to the north and following this fissure for an estimated distance of 1,600 feet through it's intersection with the Toltec fault surface, it being theoretically presumed that there is a localization of ore deposition on the footwall side of the Toltec fault on the north-south fissures in the area of intersection. 3-From this point, our proposed exploration work will be to drift along the footwall side of the Toltec fault southwesterly, for an estimated distance of 2,400 feet to the area in which the Bonita fault and Toltec fault intersect. It is expected, in making this drift, that any north-south fissures developed in the area will be cross-cut in this drift and could be explored to the north by mutual agreement. 24" gage, 30 pound rail will be laid in the above proposed drifts. 4-On the surface, immediately west of the Bonita fault surface, and in the area of its' intersection with the Toltec fault, talus obscures much of the surface definition, but there are sufficient parallel north-south vein exposures to substantiate the structural pattern on which our exploration program is based. In our opinion, the inaccessibility of the surface in this area, and the need to gain depth in the mineralized zone, justifies the utilization of the Hurley tunnel as a means of attack for this exploration program."

3500' of rehabilitation

northeasterly !

Ventilation and compressed air lines will have to be installed in the tunnel.

The proposed extension of the Hurley tunnel and the proposed drifts are indicated by red broken lines on the map marked Exhibit (5-a). In repairing and opening the portal of the Hurley tunnel an opening at least 6 feet by 7 feet will be made.

(b) It will not be necessary to build an access road as there is a good road already built to this portal from the town of Gladstone. (Road is indicated on map Exhibit (3-A-a.)

(c) Because of the heavy snows through the winter, it will not be possible to commence work on this contract until April of 1966. Through next summer preparations will be made to allow future winter operations. It is our desire to start as early next year as possible. The only work we can do for some time will be to repair and extend the Hurley tunnel. Crews of sufficient size will be employed to rush the work as fast as possible. More than one shift a day will be made. It is estimated to take about

@ 700/mo Approx. 6 months.

5. (c) (continued)
two months to make the repair to the tunnel and then work will begin on the extension of the tunnel. We expect to be able to drive approximately 600 to 800 feet a month. The work in driving cross cuts will not interfere with the tunnel work.

6. Experience of Applicant:

Silver Bay Mines, Inc., has been conducting underground exploartion work on the Blackhawk project and in other mining properties for the past 17 years. The officers and directors of the company are thoroughly familiar with the management and operation of mining operations. Several of the best geologists available have been employed to supervise the work. For the work to be done under this contract, Mr. Ray A. Bennett, 211 C.A. Johnson Bldg., Denver 2, Colorado, with many years of mining experience will be employed as superintendant and Dr. V.C. Vickers, of Denver, Colorado, as consulting geologist and T.R. Moxness of Silverton, Colorado, as supervising geologist, and William G. Sandell of Silverton, Colorado, a registered professional engineer will supervise the engineering.

County surveyor

7. Estimate of Costs:

(a) Independent Contracts.

1. Bulldozer to remove overburden, level off and repair road, (see letter of bid attached) (this is the only contracting firm in Silverton) $11,000.00

2. Powerline from Gladstone. Contract by Power Company. (Until power line is completed it will be necessary to use a hired diesel driven compressor) 6,000.00
Cost of rented compressor @$700.00 per mo. for 6 mos. 4,200.00

1600 ONW
2400 ONE
4000

3. Drifting contracts. 4000 feet 6'x7' @$13.50 per foot approximately 54,000.00
(contracts for this work are made to individual miners on a month to month basis. This is the going rate for such work.)

How about track for the 4000' of new work?

4. Track for tunnel (3500 feet of existing tunnel) 9,497.00

Rail	$4,335.00	
Ties	437.00	
Spikes	150.00	
Bolts	75.00	
	$4,997.00	mgr
Labor	4,500.00	
	$9,497.00	

5. Timbering (estimage 400 feet) (Not contract) @ $10.00 per foot 4,000.00
88,697.00

(b) Personal Services
1. Management $20,000.00 ?
2. Supervision 20,000.00

7. (b) (continued)

3. Maintenance	10,000.00	
4. Geology & Engineering	10,000.00	
	60,000.00	60,000.00

(c) Operating Materials & Supplies ($31,999.80)

1. Explosives, Caps & Fuse	13,000.00
2. Taper bits (400 @$4.00 each)	1,600.00
3. Drill steel (50 pieces)	649.80
4. Power, $500.00 per mo. 22 mos.	11,000.00
5. Miscellaneous--Hand tools, jacks, bolts, come-alongs, pipe & fittings, grease & equipment, motor belts, welding supplies, steel & lumber	5,000.00
6. Fuel for oil heat, stoves, tanks, pump	750.00

(d) Operating Equipment ($48,200.00)

1. Electric Compressor (new)	10,000.00
2. Welder & Charger (rectifier) used	800.00
3. Pickup, 4x4 (used)	1,800.00
4. Miners lights & chargers	650.00
5. Air & water hose	500.00
6. Two electric locomotives	9,000.00
7. Mucking machine	2,500.00
8. Water pump	500.00
9. Eight ore cars (used)@$250.00	2,000.00
10. Electric fan (for ventilation)	1,000.00
11. Two drill machines	1,600.00
12. One Stoper	800.00
13. Receiver tanks	900.00
14. Rail, ties, spikes, bolts	6,800.00
15. Air line pipe	4,550.00
16. Vent line pipe	2,600.00
17. Pressure & water pipe	600.00
18. 1/2 ton pickup (new)	1,600.00

(e) None

(f) New Buildings, Fixtures, Installations ($12,100.00)

1. Building - Butler all steel 60'x40' for shop, office & warehouse. Office partioned & insultated. Contracted by Butler representative	7,000.00
2. Snow sheds 8'x150' with switches	3,600.00
3. Electrical wiring for buildings & equipment	1,500.00

(g) Miscellaneous ($9,000.00)

1. Assaying	3,000.00
2. Accounting & Office Supplies	3,000.00
3. Equipment Repairs	3,000.00

The Estimated cost of the project is $249,996.80

MME Form 52
Jan. 1959

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

FOR GOVERNMENT USE ONLY
Operator
Docket No. OME –
Contract No. 14-23-090 –
Contract Date

LIEN AND SUBORDINATION AGREEMENTS[1]

To the United States of America:

That certain land in the County of San Juan, State of Colorado,

described as follows:[2] Orleans Mill Site, U.S. Survey No. 15061; Silver Ledge Lode Mining Claim ~~N~~, U.S. Survey No. 15061; Silver Ledge Claim Extension, U.S. Survey No. 15061.

hereinafter called the "land", is the subject of a proposed exploration contract, hereinafter called the "Contract", between the United States of America, hereinafter called the "Government" and

Silver Bay Mines, Incorporated[3]

hereinafter called the "Operator". In consideration for and as an inducement to the Government executing the Contract, the undersigned:

1. (a) Being the owner of an interest in the land, hereby grants to the Government a lien upon all of his right, title, and interest in the land and upon any production of minerals therefrom to secure the payment to the Government of the royalty on production provided for by the Contract, and agrees if the Operator's interest should be surrendered or terminated at any time prior to the expiration of the rights of the United States under said Contract to pay royalty to the Government according to the terms of said Contract; or

(b) Being the holder of a claim, lien, or encumbrance against the land, hereby subordinates his claim, lien, or encumbrance in or against the land and in any production therefrom to the rights of the Government under the Contract with respect to royalty on production and liens to secure same.[4]

2. Undertakes and agrees that property in which the Government may acquire an interest or equity under the Contract may be dismantled, severed from the land, and removed as may be provided in the Contract; and the Government's interest and equity in such property shall be prior and superior to any adverse right or claim of the undersigned.

3. Represents and undertakes that there is no claim, lien, or encumbrance upon the undersigned's right, title, claim, or interest in or against the land other than the following: (If "none" insert the word "none". Do not leave blank.)

None

1/ Production from the land is not required, and in the absence of production there is no obligation to pay royalty to the Government.

2/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease /or contract, deed, or other document/ dated _____, and recorded in Book_____, Page____, official records of said county". If (b) is used, the book and page of recordation must be inserted above. If the space provided is insufficient, use an Annex and refer to the Annex in the space.

3/ Insert name exactly as it appears in the Application MME Form 40.

4/ Subparagraph 1(a) does not apply to the holder of a claim, lien, or encumbrance.

4. Undertakes and agrees (a) neither to commit any act nor assert any claim in conflict with the provisions of this Agreement; and (b) to give advance notice of the Government's rights under this agreement to any subsequent transferee, mortgagee, encumbrancer, or lessee of any of the undersigned's right, title, claim, or interest in or against the land or any production therefrom, furnishing the Government with two true copies of such notice; and

5. Consents to all amendments (including an agreement of termination) and assignments of the Contract without notice thereof, and undertakes and agrees that this agreement shall extend and apply thereto.

6. Added provisions None (State "None" or "See Annex No. ____".)

Dated this 17th day of January, 1966.

Silver Bay Mines, Incorporated (Seal)	1117 East 7th Place (Street) Mesa, Arizona 85201 (City & State)	
C. V. Liljenquist Secretary (Seal)	1117 East 7th Place (Street) Mesa, Arizona 85201 (City & State)	
W. E. Liljenquist (Seal)	1431 East 1st Street (Street) Mesa, Arizona 85201 (City & State)	
_____ (Seal)	_____ (Street) _____ (City & State)	
_____ (Seal)	_____ (Street) _____ (City & State)	
_____ (Seal)	_____ (Street) _____ (City & State)	

I, C.V. Liljenquist (Name), certify that I am the Secretary (Title—Secretary, etc.) of the corporation named herein; that W.E. Liljenquist (Name), who signed this agreement was then Vice Pres. (Title—Pres., Vice-Pres., etc.) of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.

C. V. Liljenquist
(Corporate Seal)

MME Form 52
Jan. 1959

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

FOR GOVERNMENT USE ONLY
Operator
Docket No. OME –
Contract No. 14-23-090 –
Contract Date

LIEN AND SUBORDINATION AGREEMENTS 1/

To the United States of America:

That certain land in the County of San Juan, State of Colorado,

described as follows: 2/ Orleans Mill Site, U.S. Survey No. 15061; Silver Ledge Lode Mining Claim, U.S. Survey No. 15061; Silver Ledge Claim Extension, U.S. Survey No. 15061.

hereinafter called the "land", is the subject of a proposed exploration contract, hereinafter called the "Contract", between the United States of America, hereinafter called the "Government" and

Silver Bay Mines, In corporated 3/

hereinafter called the "Operator". In consideration for and as an inducement to the Government executing the Contract, the undersigned:

1. (a) Being the owner of an interest in the land, hereby grants to the Government a lien upon all of his right, title, and interest in the land and upon any production of minerals therefrom to secure the payment to the Government of the royalty on production provided for by the Contract, and agrees if the Operator's interest should be surrendered or terminated at any time prior to the expiration of the rights of the United States under said Contract to pay royalty to the Government according to the terms of said Contract; or

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2. Undertakes and agrees that property in which the Government may acquire an interest or equity under the Contract may be dismantled, severed from the land, and removed as may be provided in the Contract; and the Government's interest and equity in such property shall be prior and superior to any adverse right or claim of the undersigned.

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None

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Exhibit 2 (C)

3/ Insert name exactly as it appears in the Application MME Form 40.

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4. Undertakes and agrees (a) neither to commit any act nor assert any claim in conflict with the provisions of this Agreement; and (b) to give advance notice of the Government's rights under this agreement to any subsequent transferee, mortgagee, encumbrancer, or lessee of any of the undersigned's right, title, claim, or interest in or against the land or any production therefrom, furnishing the Government with two true copies of such notice; and

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6. Added provisions None (State "None" or "See Annex No. ____".)

Dated this 17th day of January, 1966.

Silver Bay Mines, Inc. (Seal)	1117 East 7th Place Mesa, Arizona 85201	(Street) (City & State)
C. V. Liljenquist Secretary (Seal)	1117 East 7th Place Mesa, Arizona 85201	(Street) (City & State)
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(Seal)		(Street) (City & State)
(Seal)		(Street) (City & State)
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C. V. Liljenquist
(Corporate Seal)

MME Form 52
Jan. 1959

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

FOR GOVERNMENT USE ONLY
Operator
Docket No. OME –
Contract No. 14-23-090 –
Contract Date

LIEN AND SUBORDINATION AGREEMENTS[1]

To the United States of America:

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Silver Bay Mines, Incorporated [3]

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C.V. Liljenquist (Corporate Seal)

MME Form 52
Jan. 1959

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

FOR GOVERNMENT USE ONLY
Operator
Docket No. OME –
Contract No. 14-23-090 –
Contract Date

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C. V. Liljenquist
(Corporate Seal)

MME Form 52
Jan. 1959

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

FOR GOVERNMENT USE ONLY
Operator
Docket No. OME –
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Contract Date

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C.V. Liljenquist

(Corporate Seal)

MME Form 7
(2/63)

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APR 19 1968

Mr. C. V. Liljenquist
Secretary
Silver Bay Mines, Incorporated
1117 East 7th Place
Mesa, Arizona 85201

Re: OME-6535 (Gold-Silver)
Silver Bay Mines, Incorporated
Hurley Tunnel Mine
San Juan County, Colorado

Dear Mr. Liljenquist:

This is in reply to your letter of April 12, 1968, requesting return of material submitted with the application.

We are returning to you as much of the material submitted with your application as the general instructions will permit. We will retain the copy of the application because this is the Government's permanent record of your application.

Enclosures include the following material:

1. Mining Lease and Option - Ruhter and Silver Bay Mines, Inc.

2. Economic Appraisal of the Silver Bay Exploration Project by Dr. R. C. Vickers, August 1960.

3. Application for Financial Assistance in Minerals Exploration, Black Hawk Exploration Project by Dr. R. C. Vickers, October 1960.

4. A Progress Report on Black Hawk Mine for 1959 by Herbert H. Inouye.

5. The Sunnyside, Ross Basin, and Bonita Fault Systems and Their Associated Ore Deposits, San Juan County, Colorado, by W. S. Burbank, 1951, Colorado Scientific Society Proceedings Vol. 15, No. 7.

6. Sixteen Certificates of Assay.

7. One sheet of assay data.

8. Maps

a - Geologic map of area of Black Hawk Exploration Project.

b - Map showing geology and structure, Silver Bay Project.

c - Structural map, Eureka Mining District.

d - 2 Claim maps showing proposed work.

Sincerely yours,

GEOLOGICAL SURVEY

Frank E. Johnson
Chief, Office of
Minerals Exploration

Enclosures

cc: Director's Reading File
Division File
Economic Geology File
OME File
OME Reading File
Mr. Kirkemo

HKirkemo/bsl 4/19/68

MINE OFFICE
POST OFFICE BOX 395
SILVERTON, COLORADO 81433

MESA
TELEPHONE
964-2746

Silver Bay Mines, Inc.

1117 EAST 7TH PLACE
MESA, ARIZONA 85201

April 12, 1968

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Mr Frank E. Johnson
Chief, Office of Minerals Exploration
Washington 25, D.C.

Dea

Re: OME-6535 (Gold-Silver)
Silver Bay Mines, Incorporated
Hurley Tunnel Mine
San Juan County, Colorado

Dear Mr Johnson:

During the year 1966 we filed application for a participating loan through OME for funds to open and develop the Hurley Tunnel of our mine as indicated above. Considerable correspondence was had between us and you regarding the approval of the loan as per our application. Due to circumstances that arose we were not able to go ahead with this project as planned and nothing was done with the mine during the year 1967.

We are now making plans to sell our mines to a larger company who will be able to go ahead with the further development of the mine and will have sufficient funds to do the necessary work. For this reason I am writing this to ask if it is possible for you to return the loan application data, maps etc. that were sent to you as we will need some of the information contained in this material to complete the sale. We will greatly appreciate it if you can return this material to me at the address shown above.

Very truly,

C. V. Liljenquist

C.V. Liljenquist- Secretary
Silver Bay Mines, Incorporated

MME Form 7
(2/63)

OFFICIAL FILE COPY

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Mr. C. V. Liljenquist
Secretary
Silver Bay Mines, Incorporated
1117 East 7th Place
Mesa, Arizona 85201

Re: OME-6535 (Gold-Silver)
Silver Bay Mines, Incorporated
Hurley Tunnel Mine
San Juan County, Colorado

Dear Mr. Liljenquist:

Thank you for your letter of August 9, 1966, explaining the delay in supplying the additional information necessary to continue the processing of your application.

As it has been several months since you filed your application and you do not expect to be in a position to proceed with it until next year, we have placed your application in a withdrawal status. However, you may reopen it at any time by submitting completed application forms (MME-Form 40) in duplicate and referring to your previous application. Background material, applicable maps, and other data submitted with your prior application need not be included in your new application. Because of the length of time which has elapsed, copies of new bank correspondence, Lien and Subordination Agreements, contractor's bids, etc. will be required.

Changes in the proposed exploration work should be included with appropriate maps showing such work and, in view of rising prices, new detailed cost estimates submitted. Other pertinent information required as mentioned in our letters to you of February 11 and March 10, 1966, also should be furnished.

If you decide to reopen your application, please be assured that it will be given prompt and careful consideration.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's reading file
Division file
Economic Geology file
OME file
OME reading file
OME Region III w/original ltr.

FEJohnson/bih 8/16/66

23263

MINE OFFICE
POST OFFICE BOX 395
SILVERTON, COLORADO 81433

Silver Bay Mines, Inc.

1117 EAST 7TH PLACE
MESA, ARIZONA 85201

MESA
TELEPHONE
964-2746

OFFICIAL
COPY
O. M. E.
RECEIVED
AUG 12 1966

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August 9, 1966

Mr Frank E. Johnson
Chief, Office of Minerald Exploration
Washington 25, D.C.

Re: OME-6535 (Gold-Silver)
Silver Bay Mines, Incorporated
Hurley Tunnel Mine
San Juan County, Colorado

Dear Mr Johnson:

Your letter of July 12th came to my office while I was in Colorado which is the reason for delay in acknowledging.

The reason for our delay in furnishing you the additional information you have requested is due to our desire to make further surveys and get additional geological reports and data that we need in making the decisions as to whether we should concentrate our efforts in exploration from the Blackhawk tunnel or clean out and repair the Hurley tunnel and do the desired exploration work from it as set forth in the above application.

We have had some delay in getting the desired geological work done so as to amend our application and give you the additional information you desire. From work we have been able to do and information we have gathered we are a little more favora-bly inclined to the prospects in the Hurley tunnel, partly because of the much lower altitude at this tunnel. It does not appear, however, that we will be able to definitely decide this matter until later this year. We do not want this application cancelled as we will want to file the amended application with you by the first part of next year. If it is necessary to withdraw the application at this time it will be our desire to reopen it again early next year and then take the necessary steps to have it completed.

Your reply to this letter will be appreciated.

Very sincerely yours,

C.V. Liljenquist

C.V. Liljenquist-Secretary
Silver Bay Mines, Inc.
1117 East 7th Place
Mesa, Arizona 85201

MME Form 7
(2/63)

OFFICIAL FILE COPY

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		110
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August 11, 1966

Memorandum

To: The File

From: Chief, Office of Minerals Exploration

Subject: OME-6535 (Gold-Silver)
Silver Bay Mines, Incorporated
Hurley Tunnel Mine
San Juan County, Colorado

The Applicant has not replied to our letter of July 12, 1966.

Accordingly, the subject docket is referred to the inactive file and considered as having been withdrawn.

Frank E. Johnson

Frank E. Johnson

MMerrithew/mm
cc: Director's Reading File
Division File
Economic Geology File
Docket
OME Reading File
Region III
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MME Form 7
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JUL 12 1966

Silver Bay Mines, Incorporated
1117 East 7th Place
Mesa, Arizona 85201

Re: OME-6535 (Gold-Silver)
Silver Bay Mines, Incorporated
Hurley Tunnel Mine
San Juan County, Colorado

Gentlemen:

We have not heard from you since your letter of May 14, 1966. Will you please advise us when we may expect to receive your amended application.

We cannot hold an application indefinitely. Therefore, if we do not receive your amended application within thirty days from the date of this letter, we shall consider the application as having been withdrawn.

If the application is withdrawn and you wish to reopen this case sometime in the future, you may do so by submitting new application forms (MME Form 40), new bank letters dated within the preceding 90 days, referring to this OME docket number, and furnishing the information previously requested together with any new information that you think might be helpful.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's Reading File
Division File
Economic Geology File
OME Docket
OME Reading File
Region III

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MAY 20 1966

Silver Bay Mines, Incorporated
1117 East 7th Place
Mesa, Arizona 85201

Re: OME-6535 (Gold-Silver)
Silver Bay Mines, Incorporated
Hurley Tunnel Mine
San Juan County, Colorado

Gentlemen:

Thank you for your letter of May 14, 1966, informing us of your plans to extend the Blackhawk tunnel to the junction of the Benita and Toltec fault zone and that you intend to submit an amended application for OME assistance.

We will examine your property after you have submitted the information requested on the application form and after our review of this information shows that the factors involved qualify under the regulations of the program.

We suggest that you review our letters of February 11 and March 18, 1966, wherein we cite specific additional information that should be submitted to complete the application. It is your responsibility to plan and submit an exploration program based on your own choice of site and on sampling and assay data that indicate the proposed target qualifies for the program. The site or sites selected for your samples and the starting point for the proposed exploratory work must be accessible for examination by the Government.

We hope that your examination and sampling of the old workings will confirm previous reports of appreciable silver content in the vein you intend to explore.

This request for additional information should not be construed as a commitment by the Government to grant an exploration contract.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's Reading File
Division File
Economic Geology File
OME Docket
OME Reading
Reg. III w/cy inc. ltr.
Kirkemo

HKirkemo/mm (5/20/66)

23263

MINE OFFICE
POST OFFICE BOX 395
SILVERTON, COLORADO 81433

Silver Bay Mines, Inc.

1117 EAST 7TH PLACE
MESA, ARIZONA 85201

MESA
TELEPHONE
964-2746

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May 14, 1966

Mr Frank E. Johnson
Chief, Office of Minerals Exploration
Washington 25, D.C.

Re: OME 6535 (Gold-Silver)
Silver Bay Mines, Inc.
Hurley Tunnel Mine

Dear Mr Johnson:

The annual stockholders and Board of Directors meetings of Silver Bay Mines, Inc. was held in Denver, Colorado on April 5thand discussion w s had regarding the exploration work as outlined in the above OME application.

Your letter of February 11th was read to the Board and after discussion the decision was made to act on your suggestionsand give consideration to the driving of the Blackhawk tunnel on in to the junction of the Bonita and Toltec fault zone to explore a nd develop the gold and silver ores shown from surface outcroppings and other geologic surveys to exist in this zone.

We will not be able to commence work on this project until after the snow melts which will be in the early part of June. Also before we can start actual work it will be necessary to complete the installation of the 16" metal vent pipe we are now working on. This pipe is now installed for about 600 feet in the tunnel but must be extended for about another 1500 feet. This work will take about 30 days. As soon as this is done it will be our hope to have a Government engineer go over our properties to further determine the most logical means of exploring the junction zone of these two faults. If this can be done, it will give us a much better idea of just how to amend our application for OME assistance. Will you please advise me as to whether you think we could expect an inspection before we finally complete the amended application.

We expect to start our mining operation about the first of June and would like to have your reply as soon as possible so we can make our plans for this years work.

Sincerely yours,

C.V. Liljenquist

C.V. Liljenquist- Secretary
Silver Bay Mines, Inc.
1117 East 7th Place
Mesa, Arizona 85201

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MAY 17 1966

Silver Bay Mines, Incorporated
1117 East 7th Place
Mesa, Arizona 85201

Re: OME-6535 (Gold-Silver)
Silver Bay Mines, Incorporated
Hurley Tunnel Mine
San Juan County, Colorado

Gentlemen:

We have not heard from you since your letter of March 22, 1966. We wish to cooperate with you fully in allowing ample time to furnish the necessary data, but we cannot hold an application indefinitely. Therefore, if we do not receive the requested information within 90 days from the date of this letter, we shall consider the application as having been withdrawn.

If the application is withdrawn and at any time in the future you wish to reopen this case, you may do so by submitting new application forms (OME Form 40), new bank letters dated within the preceding 90 days, referring to this OME docket number, and furnishing the information previously requested together with any new information that you think might be helpful.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's Reading File
Division File
Economic Geology File
OME Docket
Region III
OME Reading File
MMerrithew/mm (5/17/66)

23263

MINE OFFICE
POST OFFICE BOX 395
LVERTON, COLORADO 81433

MESA
TELEPHONE
964-2746

Silver Bay Mines, Inc.

1117 EAST 7TH PLACE
MESA, ARIZONA 85201

March 22, 1966

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Mr Frank E. Johnson
Chief, Office of Minerals Exploration
Washington 25, D.C.

Dear Mr Johnson:

I greatly appreciate receiving your letter of March 10 with reference to OME- 6535, Silver Bay Mines, Inc.

I have gone over the contents of your letter and am glad to receive the comments and suggestions made by you regarding the loan application of above number.

I am leaving within a week to go to Denver, Colorado to attend the Annual Stockholders Meeting of Silver Bay Mines which will be held there on April 5th. I will also attend the meeting of the Board of Directors that will be elected by the stockholders. The matters mentioned in your letter will be presented at both meetings and will be considered very carefully. As soon as decisions are reached in these meetings regarding this loan application I will immediately inform you.

I am sure it will be the desire of the Board of Directors and also the stockholders to act on your suggestions. We are vitally interested in getting the development work underway outlined in the loan application.

Very truly,

C.V. Liljenquist

C.V. Liljenquist- Secretary
Silver Bay Mines, Inc.
1117 East 7th Place
Mesa, Arizona

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Silver Bay Mines, Incorporated
1117 East 7th Place
Mesa, Arizona 85201

Re: OMR-6535 (Gold-Silver)
Silver Bay Mines, Incorporated
Hurley Tunnel Mine
San Juan County, Colorado

Gentlemen:

Thank you for your letter of February 21, 1966, concerning your application for OMR assistance. Facts are not available at present to justify Government participation in your long-range plan to explore possible ore bodies at the junction of the Toltec and Bonita fault zones from the Hurley Tunnel. An on-site examination of geologic structures in the tunnel is impossible because the workings are inaccessible. It is your responsibility to make the workings accessible for examination by our field representative if you propose starting a project on structures within the tunnel. We have stated previously that the cost of extensive rehabilitation cannot be charged to an OMR contract.

There is likewise insufficient evidence to justify driving a new tunnel from the same elevation and location as the Hurley Tunnel.

We restate that zinc and lead constituted the principal values of the ore in veins explored on the BMEA project in the nearby Blackhawk mine. Assays of samples and ore shipments from nearby properties also show that base metals predominate.

You refer to the encouraging value in silver encountered in a raise in the Blackhawk mine some 2,000 feet from the portal, and state that you may not have explored this adequately. Perhaps it would be to your advantage to consider further exploration in this area. If the structure trends to the south or southeast, the total footage into the principal target area at the intersection of the Toltec-Bonita faults would be considerably less than it would be from the Hurley Tunnel. An on-site examination of the vein in this raise would be needed to determine the width, attitude, and mineral content of the vein and to sample it in order to check the earlier sample and assay results. If these data indicate that a significant vein structure is present and that silver is the predominant value, we would be glad to consider an alternate exploration proposal.

23263

With respect to additional information required to complete your application, Item 1(a) of the application form requests submittal of copies of your letters to the banks showing the date, amount, and terms, and the proposed use of funds. All other specific information requested in the application must be submitted.

Some of the items and their costs which are in your application are unnecessary and excessive for an exploration program. The costs for items such as power line installation $6,000), power ($11,000), road repair and overburden removal ($11,000), personal services ($60,000), and buildings ($12,100) represent 40 percent of the total cost of the project. This is an excessive share of the total funds available for actual exploration. If you should submit an alternate program, we would expect these costs to be reduced.

Submittal of the requested information should not be construed as a commitment by the Government to grant an exploration contract.

Sincerely yours,

(Signed) FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc to: Director's Reading File
Division File
Economic Geology File
OME File
OME RegionIII w/cy incoming letter
OME Reading File
Mr. Kirkemo

HKirkemo/gla 3-10-66

MINE OFFICE
POST OFFICE BOX 395
SILVERTON, COLORADO 81433

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Silver Bay Mines, Inc.

1117 EAST 7TH PLACE
MESA, ARIZONA 85201
TELEPHONE 964-2746

February 21, 1966

Mr Frank E. Johnson
Chief, Office of Minerals Exploration
Washington 25, D.C.

~~Dear Sir~~

Re: OME-6535
Silver Bay Mines, Incorporated
Hurley Tunnel Mine
San Juan County, Colorado

Dear Sir:

I have your letter of Feb. 11th. regarding our application for OME assistance for further exploration of the mine. Before doing anything further in this matter, I desire to make some comments regarding points you mention regarding some parts of our application and some situations at the mine that might prevent further consideration of our application. My comments are made regarding matters mentioned in the various paragraphs of your letter as follows:

Second paragraph- It was not the intention in this application to ask for assistance in developing the mine for the exploration of or mining of lead and zinc. Neither was it the intention to ask for assistance to reopen the Hurley Tunnel for mining of these metals. The geologists reports (including Dr Burbanks report) and the maps furnished with the application were intended to stress the need of further exploration of the junction of the Toltec and Bonita fault zone where it has been stated by geologists that the richest deposits of gold and silver are located. The reason for using the Hurley Tunnel is based on the fact that to go through this tunnel would be the cheapest and most practical way of getting into this junction zone because of the steep, rough, mountains above the Hurley Tunnel that make it impossible to get into this zone except by a tunnel driven from lower altitudes. If a new tunnel were to be driven into this zone from any other location closer to the zone it would necessitate expensive roads being built that would be too steep to use for haulage of ore or doing the development work. Furthermore, to attempt to drive another tunnel with the idea of shortening the distance to the junction zone of the two faults would not only require the building of this impractical road but would also make it necessary to drive such a tunnel at a much higher elevation which would lose considerable backs when the ore bodies are encountered. Both the Blackhawk and Hurley tunnels are located at the base of the steep mountain. When the Blackhawk tunnel was driven, the full intention was to get into the area of the junction of these two main faults where we have been assurred by every geologist who has made studies and surveys of this area have assurred us the main source of the gold and silver deposits are expected to be found. The reason the lead and zinc ores have not been mined in the Blackhawk mine in the past is because our only aim has been to get into the gold and silver ore zone. The writer was in company with Dr Burbank when he made the survey of this fault zone and was told by him personally that we should expect to find a great lode of these two metals when we got into this zone.

In material sent with our application were reports and statements from three geologists. Two of these were Dr W.S. Burbank and Dr R.S. Vickers.

Both of these geologists are rated as tops and their opinions are accepted as the best. Comprehensive reports of these geologists were furnished with the narrative material sent with the application. These geologists all made careful and comprehensive studies of the surface outcroppings of the area in question and a few exerpts from their statements are: (From Dr Burbank) on page 7- "This action is believed to be mainly responsible for localization of the better ore bodies in transverse fissures within a belt 1,000 to 1,500 feet wide along the southwest border of the Bonita Fault." Also "The ground beneath the Peak is relatively remote from present (1951) workings." On page 8 the following, " The general relations of the more productive ore bodies to the several fault systems and the lack of systematic exploration in some parts of the fault systems indicate that the productive potentialities of the area are not exhausted." Attention is also called to the last paragraph of page 8. We beg that you refer to the statements and assays reported by Dr Vickers on page 10. In the second paragraph the samples mentioned show a predominance of silver in the ore at this point. If these values are found at this point in the tunnelit is expected that greater values of gold and silver will be encountered in the junction area of the two faults. We beg to remind you also that in the area of all these major faults gold and silver are found along with lead and zinc in most of the ores. I call to your attention the following from Dr Vickers report on page 13. "There is a general increase of gold content of ores as the Bonita fault is approached from the west. Also, all existing available geologic information should be properly interpreted in order that the most favorable areas within the Bonita-Toltec junction can be adequately explored. For example, if 2000 feet of exploratory adit were driven within the favorable area, considerably less than one per cent of the favorable ground would be adequately explored"

We also call to your attention the fact that no attention was given to the various veins of ore, consisting mostly of lead and zinc, cut by the Blackhawk tunnel and therefore no prospecting or development of these veins was made for the reason that the objective in driving this tunnel was to cut the junction area of the two faults. We point out therefore, that the Blackhawk tunnel does not constitute a favorable test of the more valuable ores in this zone. From the work we have done in the Blackhawk tunnel we are convinced that the values of gold and silver increase as we get nearer the fault junction. We were more convinced of this fact when we encountered the vein in the raise about 2000 feet in the tunnel. Samples taken of ore showed very encouraging values of these metals although we feel we did not get far enough into this vein to get a fair sample. As stated in the application, no sampling of any veins was possible in the Hurley tunnel because it is in accessible. Furthermore, no sampling has been made of outcroppings of the higher elevations (except as reported by Dr Vickers) due to the rugged terrain and also to the outcroppings being covered by overburden . However, there are sufficient places where a Government engineer can make a survey to confirm the statements made herein.

Paragraph 3; In as much as no larger veins known to exist in the fault zone were cut by the Blackhawk Tunnel it has been impossible to properly sample or assay these veins. We contend that there is enough showings of silver and gold in the ores tested to substantiate the fact that greater amounts of these two metals will be found as the larger veins nearer the junction are encountered. This can be verified by a careful survey by a Government Geologist. Old workings made around the turn of the century show many holes made in the higher altitudes on some of these larger vein outcroppings where good values in gold and silver were ~~were~~ found. Samples from these cannot be taken until later in the year due to snow.

Paragraph 5: The Hurley Tunnel. Comments made above answering paragraph two of your letter have given the reason why we recommend that the most logical approach to the ore bodies in the fault zone is through the

Hurley Tunnel. We repeat that it is not our thought or intention to open the Hurley Tunnel with the thought of mining the lead, zinc ores expected to be found. Because this tunnel is the most feasible and logical way to get into the richer mineralized zone of the junction of the two faults. There is no other place where a new tunnel could be driven to this zone that would be as feasible as through the Hurley Tunnel. If this fact does not qualify us under the Exploration program then it would be necessary for us to either ask for funds to drive a new tunnel at many times the cost of repairing the Hurley Tunnel or for us to stand the expense of doing this repair work ourselves. It is felt that further negotiation of this matter should be made.

Paragraph 7: In making the application for the OME loan we felt it desirable to keep the material as condensed as possible. No experts were employed to prepare this application and it is quite probable that errors and omissions have been made. We hope, therefore, that after reading this explanation you will be kind enough to set out the other information you will require. Regarding the obtaining of statements from banks, it is our thought that by supplying a letter of rufusal to make a loan by two of the largest banks in the area of our mine that that was all that was required. If this is not so please advise me. The estimate of costs can be adjusted according to the program to be decided upon.

From the geological information presented, it is our thought that the exploration and development of the area of the junction of the Bonita and Toltec faults is warranted and necessary to open up this large mineral deposit and that this project should come under the Exploration program.

I shall be pleased to hear from you further regarding other things required of us under this application.

Very truly,

C.V. Liljenquist

C.V. Liljenquist- Secretary
Silver Bay Mines, Inc.
1117 East 7th Place
Mesa, Arizona 85201

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FEB 11 1966

Silver Bay Mines, Incorporated
1117 East 7th Place
Mesa, Arizona 85201

Re: GMK-6335 (Gold-Silver)
Silver Bay Mines, Incorporated
Hurley Tunnel Mine
San Juan County, Colorado

Gentlemen:

Your application for financial assistance to explore the Hurley Tunnel mine area has been reviewed, and we offer the following comments.

Our review indicates that the proposal does not qualify for GMK assistance because the principal metals in the vein are zinc and lead, which are not eligible under the program; and the expense of reopening the Hurley Tunnel is not an allowable expense on an GMK contract.

Work completed on the DMEA contract at the nearby Blackhawk mine showed that zinc and lead constitute the principal value of the ore. Our geologic studies in the district support this fact. The few analyses submitted with your application which show silver in excess of the base metals are not representative of the average tenor of vein material found to date at either property. To qualify, eligible metals dollarwise must be the principal metals present, or the deposit should show promise of contributing substantial quantities of eligible metals as major byproducts. The facts available to us at present in this case indicate that neither possibility is likely.

If you expect that predominantly silver-bearing exploration targets are present, you should submit sample and assay data to support this view and related information to substantiate an alternate or new exploration proposal. The sites selected for your samples and the starting point for proposed exploratory work must be accessible for examination by the Government.

23263

The expense of reopening the old Hurley Tunnel cannot be charged to an OME contract. Unlike the DMEA program, the OME program does not permit the Government to share in the costs of extensive preparatory work. The funds allotted to the program are intended mainly for new exploratory work. The Applicant has to assume on his own account the costs of preparing old workings for re-entry and examination.

If you can submit evidence to show that these two problems can be solved satisfactorily, we will be glad to continue processing your application; but if not, you may request to have this application withdrawn from further consideration.

If you decide to continue with this application, you will have to submit additional information to complete it. Careful attention to each item on the back of the application form will show you what is required; note especially what is required to show evidence of efforts to obtain commercial credit and the details required under Item 7, Estimate of Costs.

Submittal of information necessary to qualify your application for further consideration should not be construed as a commitment by the Government to grant an exploration contract.

Sincerely yours,

(signed) FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's Reading File
Division File
Economic Geology File
OME Docket
OME Reading File
Region III
Mr. Kirkemo

HKirkemo/mm (2/11/66)

MME Form 7
(2/63)

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February 11, 1966

FEB 11 1966

Memorandum

To: The File

From: Harold Kirkemo

Subject: OME-6535 (Gold-Silver)
Silver Bay Mines, Incorporated
Hurley Tunnel Mine
San Juan County, Colorado

The Applicant proposes a program costing nearly $250,000 to rehabilitate 3,500 feet of the old Hurley Tunnel which was driven between 1892 and 1906, and to drive 4,000 feet of new drifts to explore for ore in vein and fault structures in the Burns Formation in the Silverton Volcanic Group.

The proposed drifts would extend north and northeast toward the Blackhawk mine which is about a half mile north of the Hurley Tunnel, and where a DMEA project (DMEA-487) to explore the Big Indian vein for lead-zinc ore was conducted with the same applicant company. The original contract was amended twice; a revised contract was amended six times and terminated without having completed the work. A pseudo-certification was issued. Discovery of about 900 tons of indicated ore averaging 3.1 percent lead, 4.5 percent zinc, 0.2 percent copper, and 0.023 ounces gold and 2.3 ounces silver per ton resulted from the project. This material occurs in narrow, lensy stringers in shattered rock. The target vein was not recognized or did not extend from the surface into the Blackhawk mine workings. No production was reported during the period of royalty obligation which expired in 1965. An application from the same company for a second DMEA loan (DMEA-4477) at the Blackhawk mine was denied because of unfavorable results from the first contract and the lack of information to justify the proposed program.

The Burns Formation, a quartz latite formation of middle Tertiary age, underlies the Blackhawk and Hurley Tunnel mine areas. The principal ore values at both properties are in zinc and lead. Minor

amounts of silver are present and gold is sparse. The two properties have common geologic structures and similar types of mineralization.

In memoranda associated with the application for DMEA-487, ore shipped (tonnage not specified) from the Blackhawk mine is reported to range in grade from 4.65 to 7.2 percent zinc, 4.35 to 4.6 percent lead, 0.52 percent copper, about 4 ounces silver, and 0.025 ounces gold per ton. Ore from the Occidental mine, which is between the Blackhawk and the Hurley Tunnel, ranged in grade from 5.5 to 8.35 percent zinc, 2.75 to 3.25 percent lead, 0.6 to 0.95 percent copper, and 2.4 to 4 ounces silver, and 0.015 to 0.025 ounces gold per ton. The assay certificates submitted with the OME application show a few samples with attractive silver values but the Applicant has not persisted with exploration on these veins to determine their extent and does not intend to do so on the proposed program.

Rehabilitation of 3,500 feet of old caved workings in the Hurley Tunnel would require substantial funds which are not allowable on OME contracts.

Some of the estimated costs are excessive; for example, $6,000 for power line installation and $11,000 for power, $11,000 for road repair and overburden removal, $60,000 for personal services, and $12,100 for new buildings, etc., in a location subject to frequent snow slides.

The Applicant should submit evidence that silver-bearing geologic targets are present and outline a program of exploration to test them. Reopening of the Hurley Tunnel will have to be done at his own expense if work is proposed from it. Sample locations and sites for proposed work must be accessible for examination by the Government if an acceptable application is submitted.

Harold Kirkemo

Harold Kirkemo

cc: Director's Reading File
Division File
Economic Geology File
OME Reading File
Kirkemo

HKirkemo/mm (2/11/66)

B. RUSSELL, GA., CHAIRMAN
LEVERETT SALTONSTALL, MASS.
MARGARET CHASE SMITH, MAINE
STROM THURMOND, S.C.
JACK MILLER, IOWA
JOHN G. TOWER, TEX.
ANNON, NEV.
YRD, W. VA.
. YOUNG, OHIO
INOUYE, HAWAII
J. MCINTYRE, N.H.
DANIEL B. BREWSTER, MD.

WILLIAM H. DARDEN, CHIEF OF STAFF
CHARLES B. KIRBOW, CHIEF CLERK

United States Senate

COMMITTEE ON ARMED SERVICES

February 7, 1966

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Mr. Walter Erb
#47 East Sherwood Drive
St. Louis, Missouri 63114

Dear Walter:

The attached letter from the Bureau of Mines, pertaining to the minerals exploration loan application by Silver Bay Mines -- Docket No. OME 6535 -- speaks for itself.

As you see, the Office of Minerals Exploration has been advised of my interest in this as a result of your inquiry. Be assured we will keep you posted on developments, as notified; and meanwhile, if you have questions, let us know.

Sincerely,

Stuart Symington

Stuart Symington

SS/ldh
Encl.

bc: Mr. Frank E. Johnson

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

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RECEIVED
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February 4, 1966

Hon. Stuart Symington
United States Senate
Washington, D.C. 20510

Dear Senator Symington:

Upon receipt of your letter of January 26, regarding Federal assistance in the expansion of mineral production by Silver Bay Mines, Inc., of Silverton, Colorado (brought to the attention of the Bureau of Mines with your letter of September 14 to Acting Director Frank C. Mennott), I reviewed the related correspondence.

In a letter dated January 17, C. V. Liljenquist, Secretary, Silver Bay Mines, Inc., forwarded to me an application for an Office of Minerals Exploration loan. In replying to Mr. Liljenquist I told him that I had forwarded the application to the Office of Minerals Exploration and suggested that his future correspondence in the matter be carried on directly with that agency. I just checked with the OME by telephone and find that the Silver Bay Mines, Inc., application has been received and has been given Docket No. OME 6535, and that normal processing is now under way. A carbon of this letter is being forwarded to Frank E. Johnson, Chief, Office of Minerals Exploration, for his information.

For your convenience, I am enclosing copies of the exchange correspondence between Mr. Liljenquist and myself.

I believe that the matter will be expedited by carrying on correspondence regarding this application directly with the Office of Minerals Exploration, but if I can be of any assistance to you or your constituent, do not hesitate to call on me.

Sincerely yours,

CHARLES W. MERRILL
Chief, Division of Minerals

Enclosures

Copy to: Frank E. Johnson, Chief
Office of Minerals Exploration
Room 4460 Interior Building

GQ-291

February 2, 1966

Silver Bay Mines, Incorporated
1117 East 7th Place
Mesa, Arizona 85201

Subject: OME-6535

Gentlemen:

Your application for exploration assistance, dated January 17, 1966, submitted to Mr. Charles W. Merrill of the Bureau of Mines in Washington, D. C., has been assigned Docket No. OME - 6535.

Please identify all future correspondence relating to your application by this docket number.

Sincerely yours,

Frank E. Johnson
Chief, Office of
Minerals Exploration

Copy to Region III with
all attachments

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

January 25, 1965

Mr. C. V. Liljenquist
Secretary
Silver Bay Mines, Inc.
1117 East 7th Place
Mesa, Arizona 85201

Dear Mr. Liljenquist:

As requested in your letter of January 17, I have forwarded your application for an OME loan in connection with the Silver Bay Mines, Inc. to the Office of Minerals Exploration.

It is suggested that further correspondence with this application be carried on directly with OME.

Sincerely yours,

CHARLES W. MERRILL

CHARLES W. MERRILL
Chief, Division of Minerals

CWMerrill:gll

cc:
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Resources Reading File
Frank E. Johnson, Chief, Office of Minerals Exploration
Division of Minerals

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