DMEA Form 9

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE

DMEA NO. 4592

Application (~~Denied~~
(Withdrawn ✓
(After disposition, delete items not applicable)

Contract (Terminated - not Certified
(Cancelled
(Terminated - Certified
(Royalty Agreement

This is the official contract file containing all official records of the project. The records contained in the files are checked and are arranged in this order:

Left Side

Interim Royalty Audits
Reports of Royalty Review
Certification of Discovery
Certificate of Audit (Final)
Interim Audit(s)
Report of Review
Termination Notice or Agreement
Recision Notice
Assignment of Contract
Contract Amendments (latest on top)
Contract with all exhibits and annexes
Owner's Consent to Lien
Subordination Agreement
X Leases and assignments of leases
X Application and attachments
(3) Envelope for maps

Right Side

Project summary
Work completed analysis
All other material is filed in chronological order with correspondence including the following reports as checked:

Final Field Team Report (Tab)
Operator's Final Report
(2R) Interim Reports
(2R) Operator's monthly reports and all attachments (latest on top)
✓ On-site Exam Report(s) (Tab)
(4) Settlement Sheets

When the volume of records is expected to warrant additional folders, or when convenience of reference warrants separate folders for certain records, they should be set up in this order:

Left Side

Folder No. 2: (In chron. order) Interim Summary Reports by W. O. Engineers

Right Side

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

Folder No. 3: Maps (Use pocket folder or envelope. Fold maps with title block out and show reference to related document or correspondence.)

Folder No. 4: Settlement Sheets

Folder No. 5: Drill Logs

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

January 4, 1957

Mayflower Mining Company
P. O. Box 528
Ouray, Colorado

Subject: DMEA-4592

Gentlemen

Your application for exploration assistance, dated November 26, 1956 submitted to our office at Denver, has been assigned Docket Number DMEA-4592 and referred to the Base Metals Division in the Washington office. Kindly identify all future correspondence relating to your application by this Docket Number.

Sincerely yours,

(Sgd) Allen S. Dakan

Allen S. Dakan, Director
Operations Control and
Statistics Division

Copy to:

Region III. Denver, Colorado

Code 500

6416

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

OFFICIAL FILE COPY
DMEA
RECEIVED JAN 4 1957

DATE	INITIALS	CODE
1/4/57	J.W.A.	500

224 New Custmhouse
Denver 2, Colorado

January 2, 1957

Memorandum

To: Secretary to the Operating Committee

From: DMEA Field Team, Region III

Subject: Application for DMEA Aid (lead-zinc-copper) Mayflower Mining Company (White Chief, et al claims) Ouray County, Colorado

Enclosed are the original and two copies of the subject application in the amount of $96,500.00. One copy of the application is being retained in our file.

Some diamond drilling is contemplated by the Applicant, but no bids for this work have been submitted.

DMEA Field Team, Region III

By W. M. Traver
Executive Officer

Enclosures

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved.
Budget Bureau No. 42-R1038

RECEIVED JAN 4 1957 D.M.E.A.

APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

Not to be filled in by applicant

Docket No. 4592
Metal or Mineral Lead-Zinc-Copper
Date Received 1/4/57
Estimated Cost $96,500
Participation (Government %)

DMEA
DEPARTMENT OF THE INTERIOR
DEC 31 1956
REGION III
DENVER, COLORADO

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: _____

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers.

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract _____

(*b*) State any mine name by which the property is known.

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise _____

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

(*e*) If you own the land, describe any liens or encumbrances on it _____

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice.

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes.

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

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore .....

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc.

(*c*) The work will start within ..... days and be completed within ..... months from the date of an exploration project contract.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project:

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.).

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

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

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be.

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project.

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project.

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes.

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above.

NOTE.—No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes), or any other indirect costs, or work performed or costs incurred before the date of the contract, should be included in the estimate of costs.

7. (*a*) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)?

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

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

Explain in detail on acompanying paper.

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief.

Dated 26 Nov., 1956

Bernard Emmons
(Applicant)

By President Mayflower Mining Co.

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

U. S. GOVERNMENT PRINTING OFFICE 16—66551-1

APPROVED
DEC 4 1957

APPLICATION FOR A MINERALS-EXPLORATION LOAN FROM

THE DEFENSE MINERALS EXPLORATION ADMINISTRATION

(The numbers and letters used below correspond with the numbers and letters used in the accompanying set of instructions).

1. (a) The full name of the applicant is the Mayflower Mining Company. The mailing address is P. O. Box 528, Ouray, Colorado.

(b) The Mayflower Mining Company is a corporation organized under the laws of the State of Colorado, filed under the date, July, 1955.

(c) Following are the names and addresses of the officials of the company:

President: B. J. Esunas, 721 Adolphus Tower, Dallas, Texas

Vice President: C. G. Anderson, 1803-8th Avenue, Fort Worth, Texas

Secretary: Mark Witty, Boyle and Witty, Attorneys, Salida, Colorado

Treasurer: Samuel G. Colt, Jr., 73 North Street, Pittsfield, Massachusetts

Ass't. Treasurer: Doris Clark, Ouray, Colorado

Member of Board: Zenas Colt, P. O. Box 624, Pittsfield, Massachusetts

The telephone number at the office of the company in Ouray, Colorado is DAvis 5-4401.

2.

3. (a to d) The land on which this application is being made is held by the Mayflower Mining Company under the terms of a document dated July 18, 1956, a certified copy of which marked "Exhibit 1" is attached. The document transfers a lease on certain properties in Ouray County, Colorado from Zenas Crane Colt, Carl G. Anderson, Bernard Esunas and Scott Lackland to the Mayflower Mining Company. A second document, dated June 30, 1955, a certified copy of which is attached as "Exhibit 2" is a lease bearing a 10% royalty and an option to purchase the land within ten years for $100,000. The lessors are J. R. Sonza, Kathleen Hoskin and Carl G. Anderson and the lessees are Zenas Crane Colt, Carl G. Anderson, Bernard Esunas and Scott Lackland.

The group of claims is known as the Greyhound Mine. Ten unpatented claims are included in the lease of which 5 are pertinent to this application. (Refer to attached claim-map marked "Exhibit 3). They are:

		Book	Page
The Gold Key - 300 ft x 1500 ft		93	449
The Silver Key - 600 ft x 1500 ft		93	450
	Amended	79	411
The Big Bee - 600 ft x 1500 ft		93	449
	Amended	79	411
The White Chief - 600 ft x 1500		93	473
The White Chief No. 2 - 600 ft x 1500 ft		93	553

All the claims are contiguous and are located in Sections 25, 35 and 36, Township 43 North, Range 8 West, Red Mountain Mining District, Ouray County, Colorado. The only encumbrances on the land are the royalty of 10% due the owners on the net mill or smelter returns and the option to purchase within ten years for a price of $100,000.00.

4. Physical Description: (a to c)

Three tunnels were driven on the Greyhound vein within the confines of the 5 claims included in the application during the years 1905 to 1921. All these tunnels are now caved and no maps of them are in existence at present. The last operator, a Mr. Campbell, states that the lower tunnel on the Silver Key Claim is 660 feet long and that some lead-zinc ore was removed from it. Chunks of lead-zinc ore may still be recovered from the dumps of all three tunnels.

An attempt was made to re-open the 2 lower tunnels on the Silver Key claim. Such work proved to be slow, costly and unsatisfactory and in August, 1956, a new adit was started about 40 feet northeast of the portal of the old lower tunnel and was driven for a distance of 325 feet approximately parallel to the vein, in a N. 45° W. direction. At that point, the course of the tunnel was altered to a westerly direction and the vein was cut in about 100 feet. (Refer to the claim map - "Exhibit 3" for the relative locations of the various tunnels and to "Exhibit 4" for details on the new tunnel).

The vein, at the point of intersection, is 9 feet wide, containing a core of quartz, bearing sparse sulphides of lead, zinc, copper and iron, 6 feet wide. Unmineralized seams of gouge on either wall, each 1.5 feet wide gives the structure its full width of 9 feet. The strike of the vein is N. 70° W. and the dip is 60° to the S.W. Two samples cut across the core of quartz assayed as follows:

Sample Marking	Au. (oz)	Ag. (oz.)	Cu. %	Pb %	Zn. %
N. W. Side	0.01	0.6	0.05	0.7	0.9
S. E. Side	Trace	0.2	0.10	0.9	0.7

Movement on the vein after it was formed has crushed it into fragments ranging in size from minute particles to chunks of quartz several feet in diameter. Although the vein is, accordingly, not well consolidated, it is not so "loose" as to preclude mining. Some of the sulphides are disseminated through the quartz but some occur as nearly solid veinlets and small masses in the quartz. These occurrences of sulphides are too small and too irregularly spaced in the vein to raise the material to ore-grade.

The Idarado Vein is parallel to the Greyhound about 1-1/2 miles to the southwest. The Barstow, another highly productive vein, is a parallel 1 mile to the southwest. The Mountain Lion, from which there has been some production with limited development, is 1/2 mile to the southwest. Toward the northwest, the Greyhound vein will intersect the Camp Bird vein on its eastern end, on or in the vicinity of the Gold Key Claim.

In view of the large size of the structure, the presence of some ore-minerals and its location in the most highly mineralized portion of the San Juan mining area, it is believed that further exploration of the vein is not only justified but might even be considered imperative.

d. The tunnel is at an elevation of 11,600 feet above sea-level. It is accessible by a road constructed during the summer of 1956 which separates from paved highway 550 near the southern end of Ironton Park and ascends the mountain

to the property in a series of switchbacks as indicated on the map. The length of the road is about 3 miles. An old road branches from Highway 550 at the Idarado camp-site, passes the Barstow Mine and reaches the Greyhound about 4 miles from the Idarado mine.

A small mill known as the Silver Shield, located 1 mile north of Ouray and about 16 miles from the mine, will mill ore for $10.00 per crude ton. The alternative would be to ship the ore to the custom milling plant of U. S. Smelting and Refining at Midvale, Utah or to the Resurrection mill at Leadville. In either instance, the freight charge would run about $14.00 per ton which would create a demand for ore of better grade than we expect to find on the Greyhound vein. It is apparent that any ore found in the course of the exploratory work will have to be stock piled until a sufficient tonnage of ore is blocked out to justify the construction of a mill.

After the mill is constructed, the markets for gold-silver-lead-copper concentrates will be the Midvale plant of U. S. Smelting and Refining or the Leadville plant of American Smelting and Refining. Zinc concentrates would be consigned to the Amarillo plant of American Smelting and Refining.

Supplies and dwellings for the personnel working at the mine are readily available at Ouray about 15 miles from the mine.

(e.) Manpower is available at Ouray. The miners in this area are capable but they work with reluctance except on contracts which will allow them to make $20.00 to $30.00 per day for a reasonable expenditure of energy.

The availability of water is not a problem at present. Should a mill be required at a later date, water can be obtained from Red Mountain Creek.

All the equipment now used at the mine is powered by diesel motors.

A power line parallels Highway 550 and the entire operation can be electrified later, should the proposed exploratory work justify it.

5. (a) Although small amounts of gold, silver and copper are expected in the vein, the most abundant metals will be lead and zinc. The lead will occur as galena, the zinc as sphalerite, the copper as chalcopyrite and the silver, associated with copper, as freibergite. The zone of oxidation, if present, is so thin as to be negligible.

(b) As the vein is so soft that timbers would be required to hold it, it is proposed to drift in its footwall, toward the northwest, keeping the gouge seam on the footwall of the vein in sight in the upper left corner of the drift. It is proposed, further, that this drift be continued for 1,000 feet. Samples will be taken at 5-foot intervals by means of long holes drilled across the vein and the cuttings will be sent to Durango, Colorado for assay.

At points where the presence of ore is established by the sampling procedure, it is proposed to drive raises on the vein to the upper limits of the ore-lens or to a height of 200 feet. It is considered probable that 2 such raises will be required.

It is further proposed to drill 2 holes into the floor of the tunnel designed to cut the vein at 400 to 500 feet greater depth. This will entail driving 2 cross-cuts into the hanging wall of the vein for distances of 50 feet, each, in order to make suitable drill stations.

To summarize, the following work is proposed:

Drifting in the footwall of the vein	1,000 feet
Raising on ore-bodies	400 feet
Cross-cutting to drill stations	120 feet
	1,520 feet

In addition, there will be 1,000 feet of diamond drill hole. (Refer to Exhibit 4)

(c) The work is under way at present and will be continued as long as the snow conditions will allow access to the mine. It is believed that, by

working the D-8 dozer for 16 hours a day during storms, it would be possible to operate throughout the winter. Should the winter become too severe to permit continued work, the operation can be resumed May 1, 1957. It is believed that the work can be accomplished in 7 or 8 months of operating time. Depending upon the weather, the work will be concluded by November 15, 1957 or during the summer of 1958.

(d) Bernard Esunas and Carl Anderson are geologists widely experienced in petroleum exploration. Samuel and Zenas Colt are engaged in business in Pittsfield, Massachusetts. E. V. Reinhardt will supervise the work. Reinhardt is a graduate geologist, worked as a miner in the Coer d'Alenes, leased and supervised small mining operations in Cripple Creek for 8 years, was a shifter and foreman at Cerro de Pasco for 6 years, was a supervising engineer for the mining section of the Reconstruction Finance Corporation in Denver for 5 years, worked as a geologist for New York and Honduras Rosario Mining Company for 1 year, taught at the Colorado School of Mines for 1 year, acted as engineer for the U. S. Geological Survey in their search for uranium for 2-1/2 years, was appointed chief geologist and later staff geologist for the Atomic Energy Commission for 2-1/2 years, was chief geologist of the uranium branch of the Hunt Oil Company for 1 year, has had his own consulting business for 2 years. Reinhardt will be present at Ouray from 2 to 4 days a week as circumstances dictate.

He will be assisted by Lester and Jack Clark, experienced and capable miners of Ouray. They will alternate supervising the day and night shifts.

6. Estimate of Cost.

(a) The contract cost for labor in drifts, cross-cuts and raises in the San Juan area is $12.00 per foot; for diamond drilling, $8.00.

(b) The 2 foremen will receive $700.00 per month, each.

Dozer operator	$2.50 per hour
Top man	2.00 per hour
Superintendent (2-4 days a week)	$700.00 per month
Engineer, 2 days a month at $75.00 -	$150.00 per month.

It is expected that each shift will advance 100 feet a month. Therefore, the cost of labor, including supervision per month will be. (Basis of 25 working days per month)

1 Dozer operator	$1,000.00	
2 Foremen	1,400.00	
1 Superintendent	700.00	
2 Top men	800.00	
1 Engineer	150.00	$3,050.00

$3,050.00 divided by 200 = $15.25 per foot for labor, supervision and engineering.

(c) Supplies:

1. Powder purchased in 5-ton lots-per hundred - $20.95. About 70 pounds will be required for 5 feet of advance and will cost $2.95 per foot of advance.

2. Fuse at $.04 per foot - Use 126 feet for each 5 foot round at a cost of $5.04 or $1.00 per foot.

3. Caps at $.025 apiece. Eighteen holes or $0.45 per round or $.09 per foot.

4. 20# rail at $260.00 per ton. A ton of 20# rail is 100 yards = 300 feet = 150 feet of track costing $1.73 per foot.

5. Ties, spikes, fishplates, bolts, aggregating about $0.30 per foot.

6. Air-line (2") $0.51 per foot

7. Water-line (1") $0.24 per foot

8. Vent line (8") $0.73 per foot

9. Diesel fuel for compressor, dozer and generator at $.18 per gallon (Used in dozer (70 gallons), compressor (70 gallons) and generator (10 gallons) for 5 feet of advance in drift) $5.40 per foot.

10. Oil, grease, gasoline $0.25 per foot.

11. Should the vein veer sharply to the right, an occasional set of timber may be required - An allowance is made for this of

$2.00 per foot.

Recapitulation

Powder	$2.95
Fuse	1.00
Caps	.09
Rail	1.73
Ties, etc.	.30
Air line	.51
Water line	.24
Vent line	.73
Diesel fuel	5.40
Oil, grease, etc.	.25
Timber	2.00
Perfoot for supplies -	$ 15.20

(d) All equipment necessary is owned by the applicant. He will rent this on a basis of amortizing the equipment over a reasonable period of time, obtaining 6% interest on the investment and receiving an adequate allowance for maintenance.

1. 1 - D-7 caterpillar tractor. Original cost $22,400 to be amortized in 10,000 hours or at the rate of $2.24 per hour plus $0.16 per hour in interest plus $1.00 per hour in upkeep, totaling $3.40 per hour, or $27.20 per shift or $5.44 per foot of advance.

2. 1 - 600 cu. ft. compressor. Original cost - $17,000 to be amortized in 1,500 working days or at the rate of $11.33 per day plus 6% interest, ($0.67) plus $5.00 per day upkeep equals $17.00 per day or $1.70 per foot of advance.

3. 1 - Generator - Original cost was $3,800.00 to be depreciated in 1,000 working days or at $3.80 per day plus interest at 6% ($0.29) plus upkeep at $2.00 per day equals $6.09 per day or $0.61 per foot of advance.

4. 1 - Electric fan - (8 inch) - Original cost $675.00 + 500 feet of ventline at 73¢ per foot or $1,040.00 to be amortized in 1,000 working days or

at the rate of $1.04 per day plus 6% interest, plus upkeep of $0.50 equals $1.60 per day or $0.16 per foot.

5. 500 feet of track and pipe already installed in the tunnel has cost about $2,000.00 and can be amortized at the rate of $0.20 per foot of advance.

6. 2 - Cleveland jackhamers, hoses and mounts valued at $800.00 each to be amortized in 600 working days or at the rate of $2.67 per day plus interest of $0.16 plus upkeep of $1.00 per machine or $2.00 equals $4.83 per day or $0.48 per foot of advance.

7. 1 - 3-1/2 ft. x 8 ft. receiver at $0.10 per foot of advance.

8. 1 - Jeep 1/2 ton pickup truck and 2 small universals purchased for about $7,000.00, to be amortized in 1,000 working days or at $7.00 per day plus interest ($0.42) plus upkeep ($5.00) plus gasoline and oil($3.00) = $15.42 or $1.54 per foot of advance.

Recapitulation of Rentals

Dozer per foot	$5.44
Compressor per foot	1.70
Generator	0.61
Fan	0.16
Track & Pipe now installed	0.20
Drills	0.48
Receiver	0.10
Vehicles	1.54
4 - Mine Cars	0.10
Total per foot	$ 10.33

(e) None required.

(f) None required.

(g) Accounting - $300.00 per month or at $1.50 per foot.

(h) Contingencies for breakdowns and bad weather - $1.00 per foot.

(i) Assays - One sample every 5 feet at $6.50 per sample - Per ft. $1.30

Recapitulation of all Costs per foot.

Contract	$12.00
Labor, supervision and engineering	15.25 ?
Supplies	15.20 ?
Rental of equipment	10.33 ?
Accounting	1.50
Contingencies	1.00 ?
Assaying	1.30
	$56.58

$56.58 x 1,520 (feet) =	$ 86,001.60	
Diamond drilling 1,000 feet =	8,000.00	$94,001.60 or in

round numbers, $94,000.00.

7. (a) We are prepared to furnish 1/2 of this amount or $47,000.00

(b) We propose to pay $10.33 per foot or $15,701.60 with the rental of equipment. The remainder or $31,298.40 will be paid in cash.

See supplement on following page

Supplement

In preparing the figures on costs, no allowance was made for drill steel and bits. It is estimated that these items will add $0.30 per foot to the cost of drifting and raising.

Under the heading - "Rental of Equipment", two items in constant use, owned by the Mayflower Mining Company, were not included. They are an Eimco Mucking Machine, and a Universal Trammaire.

The mucking machine cost $3800.00, and can be amortized in 1,000 shifts, or at the rate of $3.80 per shift. Interest at 6% brings this amount to $4.03, and upkeep at $0.97, to $5.00, or $1.00 per foot.

The Trammaire cost $2000.00, and can be amortized in 2000 shifts, or at the rate of $1.00 per shift, plus 6% interest, plus $0.50 upkeep, equals $1.56 per shift, or $0.31 per foot.

The costs as listed on the preceding page will, therefore, rise as follows:

Supplies - from $15.20 to	$15.50
Rental of equipment - from $10.33 to	$11.64
Total from $56.58 to	$58.19
$58.19 x 1,520 (feet) =	$88,448.80
Diamond drilling - 1,000 feet	8,000.00
	$96,448.80 or

in round numbers - $96,500.00

7. (a) We are prepared to furnish 1/2 of this amount, or $48,250.00.

(b) We propose to pay $11.64 per foot, or $17,792.80, with rental of equipment. The remainder of $30,457.20 will be paid in cash.

See supplement on following page.

(EXHIBIT 1)

C O P Y

1957 U.M.E.A.

ASSIGNMENT.

For Value Received, We hereby assign all of our right, title, and interest to the MAYFLOWER MINING COMPANY, INC., a Colorado corporation, in and to that certain Mining Lease and Option dated the 30th day of June, A. D. 1955 wherein J. R. Sonza, Kathleen Hoskin, and Carl G. Anderson are Lessors, and Zenas Crane Colt, Carl G. Anderson, Bernard Esunas, and Scott Lackland, are Lessees, covering the Greyhound Group of mining claims located in the Red Mountain Mining District, Ouray County, Colorado, and more particularly described as follows, to-wit:

NAME OF CLAIM		BOOK	PAGE
Big Bee		93	449
	Amended in	79	411
Little Bee		93	450
Gold Key		93	449
Silver Key		93	450
	Amended in	79	411
White Chief #1		93	473
White Chief #2		93	553
White Chief #3		123	29
Shamrock		93	633
Blue Bird #1		123	43
Blue Bird #2		123	44

Dated at Salida, Colorado, this 18th day of June, A.D. 1956.

(signed) Zenas Crane Colt
(signed) Bernard Esunas
(signed) Carl G. Anderson

STATE OF Massachusetts)
) SS:
COUNTY OF Berkshire)

I, a Notary Public in and for said County, in the State aforesaid, do hereby certify that ZENAS CRANE COLT, personally known to me as the person whose name is subscribed to the foregoing Assignment, appeared before me this day in person and acknowledged that he signed, sealed and delivered the said instrument of writing as his free and voluntary act, for the uses and purposes therein set forth.

Given under my hand and notarial seal this 18th day of June, A.D. 1956.

(SEAL)

My Commission expires February 10, 1962

(signed) Ardath C. Smart
Notary Public

STATE OF COLORADO)
) SS:
COUNTY OF CHAFFEE)

I, a Notary Public in and for said County, in the State aforesaid, do hereby certify that CARL G. ANDERSON, personally known to me as the person whose name is subscribed to the foregoing Assignment, appeared before me this day in person and acknowledged that he signed, sealed and delivered the said instrument of writing as his free and voluntary act, for the uses and purposes therein set forth.

Given under my hand and notarial seal this 28th day of June, A.D. 1956.

My Commission expires August 3, A.D. 1957.

(SEAL)

(signed) Mary Denny Olguin
Notary Public

C O P Y

(EXHIBIT 1)

C O P Y

STATE OF COLORADO)
) SS:
COUNTY OF CHAFFEE)

I, a Notary Public in and for said County, in the State aforesaid, do hereby certify that BERNARD ESUNAS, personally known to me as the person whose name is subscribed to the foregoing Assignment, appeared before me this day in person and acknowledged that he signed, sealed and delivered the said instrument of writing as his free and voluntary act, for the uses and purposes therein set forth.

Given under my hand and notarial seal this 28th day of June, A. D. 1956.

My Commission expires August 3, A. D. 1957.

(SEAL)

(signed) Mary Denny Olguin
Notary Public

STATE OF COLORADO)
) SS:
COUNTY OF MESA)

I, a Notary Public in and for said County, in the State aforesaid, do hereby certify that this is an exact and true copy of the foregoing assignment.

Given under my hand and notarial seal this 10th day of Nov, A.D., 1956.

My Commission expires March 14, 1959

Grace M. Welch
Notary Public

C O P Y (EXHIBIT 2)

RECEIVED JAN 4 1957 D.M.E.A.

MINING LEASE AND OPTION

This Lease and Option agreement made and entered into this 30th day of June, A. D. 1955 by and between J. R. SONZA, KATHLEEN HOSKIN, and CARL G. ANDERSON, hereinafter called the Lessors, and ZENAS CRANE COLT, CARL G. ANDERSON, BERNARD ESUNAS, and SCOTT LACKLAND, hereinafter called the Lessees, WITNESSETH:

That Whereas, The Lessors are the owners of certain mining property commonly styled the Greyhound Group located in the Red Mountain Mining District, Ouray County, Colorado, and consisting of ten (10) separate lode claims, more particularly described in the location certificates filed of record in the County Clerk and Recorder's office in Ouray, Ouray County, Colorado, as follows, to-wit:

NAME OF MINING CLAIM		BOOK	PAGE
1. Big Bee		93	449
	Amended in	79	411
2. Little Bee		93	450
3. Gold Key		93	449
4. Silver Key		93	450
	Amended in	79	411
5. White Chief #1		93	473
6. White Chief #2		93	553
7. White Chief #3		123	29
8. Shamrock		93	633
9. Blue Bird #1		123	43
10. Blue Bird #2		123	44

Now, Therefore, for and in consideration of the rents, covenants and agreements hereinafter expressed to be paid, kept and performed by the said Lessees, the Lessors have leased, let and demised, and by these presents do lease, let and demise the above described property.

To Have and To Hold the same unto the Lessees for the purpose of mining, removing, and selling ore therefrom for a period of ten (10) years beginning at noon on the day and date hereof, and expiring at noon on the 30th day of June, A.D. 1965, unless sooner terminated or forfeited in accordance with the terms hereof. At the expiration of the term of this Lease, the Lessees shall have the option of renewing this Lease for a like period of ten (10) years provided that all the covenants and agreements set forth have been satisfactorily performed.

In consideration of such demise and of the covenants mutually to be performed, the Lessors and Lessees hereby covenant and agree with each other as follows, to-wit:

C O P Y (EXHIBIT 2)

1. The Lessees shall have the right and privilege to enter upon said premises, or any part thereof, and mine, extract, remove, and market any and all ore of whatever kind or character found upon said premises, and shall pay and render to the Lessors, equally, their legal representatives or assigns, a royalty of ten (10%) per cent of net smelter or mill value of ore extracted or removed from the demised premises during the term of this Lease after costs of extracting, hauling, milling, and/or taxes on ore mined and shipped have been paid by the Lessees out of the proceeds, said payment to be made directly by the mill or smelter to the Lessees, one-third of said ten (10%) per cent royalty to be paid to Albert Hoskin and/or Kathleen Hoskin, one-third of said ten (10%) percent royalty to be paid to J. R. Sonza and/or Elsie Sonza, and one-third of said ten (10%) percent royalty to be paid to Carl G. Anderson in trust for Zenas Crane Colt, Bernard Esunas, Scott Lackland, and Carl G. Anderson at the Citizens State Bank of Ouray, Colorado.

2. The Lessees agree to enter upon said premises on or before April 1, 1956 and work the same, and agree to do a sufficient amount of work each year during the life of the within Lease to protect said claims by the performance of annual labor thereon, and agree further to do a minimum of 500 man hours work yearly after the date of April 1, 1956.

3. It is further agreed by and between the parties hereto that in the event that the minimum requirement of 500 man hours of work is not done, that the Lessees will deposit in the Citizens State Bank of Ouray, Colorado the sum of Twenty-five Hundred ($2,500.00) Dollars each and every year that said 500 man hours of work is not done by them, and then and in that event, the Lessors and owners of said lode claims may use the Twenty-five Hundred ($2,500.00) Dollars on deposit to their account to do the work upon the Lode claims hereinabove described, and this to be in lieu of the actual work required to be done by the Lessees.

4. The Lessees agree to work the lode claims above described in a manner necessary to good and economical mining, repairing all timbering when necessary and observing all safety requirements and all laws of the State of Colorado and of the United States, and the regulations of the State Mine Inspector while operating said premises under the within Lease and Option, and further agree to assume all responsibility for all accidents and to carry necessary Workmen's Compensation for themselves, their employees and agents.

5. The Lessors hereby specifically authorize and permit the Lessees herein named to sublet the premises or assign this Lease.

C O P Y (EXHIBIT 2)

6. The Lessees further agree to allow the Lessors, their agents or attorneys, to enter and inspect any and all parts of said premises, make surveys thereof, take samples therefrom, and render to them all the assistance in their power in so doing at anytime during the term of this Lease, and further covenant and agree to occupy and hold all side veins, spurs, feeders, cross-lodes, parallel lodes, or mineral deposits of any kind which may be discovered by the Lessees, or by persons working under them in any manner by working within or from the aforesaid premises, as the property of the Lessors and as part of the premises demised, and to not allow any person not in privity with the parties hereto to take or hold possession of said premises, or any part thereof, under any pretense whatever, and to pay in due season all taxes and assessments levied against said demised premises on account of the production of ore under this Lease.

7. The Lessors agree that the Lessees may have the right to establish upon the claims hereinabove described, mills, offices, shops, and living quarters, together with the right to drive a new tunnel and to build necessary roads on this group of claims, and the Lessors further agree that in the event this Lease is terminated, that the Lessees are to have a period of sixty (60) days within which to remove any and all equipment belonging to them.

8. The Lessees further covenant and agree that in case they fail in any respect to keep and fulfill any one or more of the covenants and agreements herein expressed or implied, then and in that event it shall be lawful for the Lessors, their agents or attorneys, to declare said term ended and with or without process of law to enter upon and take possession of said premises, and in such case and also at the expiration of this Lease by limitation, the Lessees agree to surrender, yield and deliver to the Lessors quiet and peaceable possession of said premises, in good condition, and that time shall be of the essence hereof, and that all the covenants and agreements herein contained shall extend to and be binding upon the heirs, executors, administrators, successors, and lawful assigns of the respective parties hereto.

OPTION

And in consideration of the Lessees having fully complied with all of the terms and provisions hereof, the Lessees are hereby given the right to purchase said mining claims hereinabove described for the sum of One Hundred Thousand ($100,000.00) Dollars, being Ten Thousand ($10,000.00) Dollars for each and every

C O P Y (EXHIBIT 2)

lode claim, and may purchase said above described claims at anytime that this Lease remains in full force and effect, and upon the payment of the consideration above named, the Lessors will make, execute, acknowledge, and deliver to the Lessees, or their assigns, a good and sufficient mining deed conveying the said property to the Lessees, or their assigns, free and clear of all encumbrances as shown by abstracts of title therefor.

In the event that this Lease be forfeited, surrendered, or terminated for any cause, the right to purchase shall thereafter cease.

It is further mutually understood and agreed that the Lessees, or their assigns, shall perform the necessary annual labor in compliance with the mining law to validate said claims as long as said Lease and Option is in effect, or pay the consideration hereinabove mentioned, provided further, that the Lessees may surrender and terminate the within Lease and Option Agreement by giving the Lessors ninety (90) days written notice of their intention so to do, and in the event of such surrender, the Lessees shall be released from further obligation under the terms of said Lease and Option agreement.

IN WITNESS WHEREOF, The parties hereto have executed these presents the day and year herein first above written.

/s/ J. R. Sonza Julius Sonza

KATHLEEN HOSKIN

By /s/ Julius Sonza
Attorney-in-Fact.

/s/ Carl G. Anderson
Lessors.

/s/ Zenas Crane Colt

/s/ Carl G. Anderson

/s/ Bernard Esunas

/s/ Scott Lackland
Lessees.

STATE OF COLORADO)
) SS:
COUNTY OF MESA)

I, a Notary Public in and for said County, in the State aforesaid, do hereby certify that this is an exact and true copy of the foregoing Mining Lease and Option.

Given under my hand and notarial seal this 10th day of Nov, A.D., 1956.
My Commission expires Mar 14, 1959

Grace M. Welch
Notary Public

C O P Y (EXHIBIT 2)

AMENDMENT TO LEASE AND OPTION

The Lease and Option dated June 30, A. D. 1955, between J. R. SONZA, KATHLEEN HOSKIN and CARL G. ANDERSON, Lessors, and ZENAS CRANE COLT, CARL G. ANDERSON, BERNARD ESUNAS and SCOTT LACKLAND, Lessees, is hereby amended by adding thereto the following paragraph:

Lessees agree at all times during the term of this lease to keep notices constantly and conspicuously posted, setting forth the fact that the premises are being leased to and operated by the Lessees and that the interest of the Lessors therein shall not be subjected to liens for services or labor rendered, or materials or supplies furnished or used on or in connection with the premises or mining operations of the Lessees thereon or therein. The notice shall have the following form, to-wit:

"NOTICE TO ALL EMPLOYEES ON THE PROPERTY
AND TO ALL OTHERS WHOM IT MAY CONCERN:

NOTICE IS HEREBY GIVEN TO ALL PARTIES PERFORMING LABOR OR FURNISHING SKILL, MATERIALS, MACHINERY OR OTHER FIXTURES OR SUPPLIES OF ANY KIND, IN, TO, OR ON ANY MINE OR MILL UPON THIS PROPERTY, OR IN, TO, OR ON SAID PROPERTY, OR ANY PART THEREOF, THAT THE UNDERSIGNED, THE OWNERS OF SAID PROPERTY, ARE NOT AND WILL NOT BE RESPONSIBLE FOR ANY LABOR PERFORMED OR SKILL, MATERIALS, MACHINERY, FIXTURES, OR SUPPLIES OF ANY KIND FURNISHED IN, TO OR UPON SAID PROPERTY OR ANY PART THEREOF, NOR SHALL THE INTEREST OF SAID OWNER BE SUBJECT TO ANY LIEN FOR SAME. ALL PERSONS ARE HEREBY NOTIFIED THAT THE PROPERTY AFORESAID IS BEING OPERATED BY ZENAS CRANE COLT, CARL G. ANDERSON, BERNARD ESUNAS AND SCOTT LACKLAND, TO WHOM ALL PERSONS MUST LOOK FOR PAYMENT.

J. R. SONZA
KATHLEEN HOSKIN
CARL G. ANDERSON, OWNERS"

IN WITNESS WHEREOF, The parties hereto have executed these presents this 30th day of June, 1955.

/s/ J. R. Sonza Julius Sonza

KATHLEEN HOSKIN
By /s/ Julius Sonza

/s/ Carl G. Anderson
Lessors

/s/ Zenas Crane Colt
/s/ Carl G. Anderson
/s/ Bernard Esunas
/s/ Scott Lackland
Lessees

STATE OF COLORADO)
) SS:
COUNTY OF MESA)

I, a Notary Public in and for said County, in the State aforesaid, do hereby certify that this is an exact and true copy of the foregoing Amendment to Lease and Option.

Given under my hand and notarial seal this 10th day of Nov, A.D., 1956.

My Commission expires Mar 14, 1959

Grace M. Welch
Notary Public

OFFICIAL FILE COPY

Date	Surname	Code
10/2	[illegible]	500
10/4	[illegible]	130
	Lamb	
	Williams	
	Johnson	110
"	Mittendorf	100
		225

OCT 4 1957

Mr. B. J. Esunas, President
Mayflower Mining Company
721 Adolphus Tower
Dallas, Texas

Re: Docket No. DMEA-4592 (Lead-Zinc-Copper)
Mayflower Mining Company
White Chief, et al Claims
Ouray County, Colorado

Dear Mr. Esunas:

Reference is made to the letter to you, dated August 14, 1957, from Mr. E. N. Harshman, Acting Executive Officer, DMEA Field Team, Region III, 224 New Customhouse Building, Denver 2, Colorado, in which he requested additional information concerning the subject application for exploration assistance. On May 27, Mr. Harshman wrote to Mr. Keith Johnson, Superintendent, Mayflower Mining Company, requesting information regarding the plans of the Applicant concerning the application. To date Mr. Harshman has had no reply to either of these letters.

As we have held this application in abeyance for a considerable length of time and have not received any further word from you, we are considering your application as having been withdrawn and are placing it in our inactive files.

We regret the necessity of taking such action; however, it is taken without prejudice to your proposed project. If at some future time you desire to reopen this case, you may do so by filing a new application, referring to the subject DMEA docket number and furnishing the information previously requested, together with any other information you think might be helpful.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

JWAlt/erl0/3/57
Copy to:
Docket
Admr R File
Op. Committee
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Region III (2)

8623

A 7

OFFICIAL FILE COPY

Date	Surname	Code
	WW	

October 2, 1957

Memorandum

To: Director, Division of Operation Control and Statistics

From: Director, Division of Base Metals

Subject: Withdrawal of Application, Docket No. DMEA-4592, Mayflower Mining Company, White Chief, et al Claims, Ouray County, Colorado, Lead-Zinc-Copper.

Will you please withdraw the cited application. This is being done because the Applicant has failed to supply information requested by the Field Team. The Field Team wrote to the Company on May 27 and again on August 14, 1957, requesting information. The Company did not reply to either of these letters.

As considerable time has elapsed since the Field Team requested the information, the application should be withdrawn and we have written to the Company informing them of this action.

J. W. Alt

For W. R. Griswold

JWAlt/er
Copy to:
Docket
Admr R File
Chron

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 New Customhouse
Denver 2, Colorado

OFFICIAL FILE COPY
DMEA
RECEIVED SEP 16 1957

DATE	INIT.	COPY
9-16	C	220
9/16	Jwa	500

September 12, 1957 9/19

Memorandum

To: Chairman, Operating Committee, DMEA

From: Acting Executive Officer, DMEA Field ~~Team, Region III~~

Subject: DMEA Docket 4592 (Lead-Zinc-Copper) Mayflower Mining Company (White Chief, et al claims) Ouray County, Colorado

As requested in the Acting Chairman's letter of August 7, 1957, we requested that the applicant furnish certain data necessary for continued processing of his application or that if he was no longer interested in DMEA assistance he withdraw his application. A copy of our letter, dated August 14, 1957, was forwarded for your files.

We have received no answer to our letter of August 14, 1957, addressed to the President of the Mayflower Mining Company nor to our letter of May 27, 1957, addressed to Mr. Keith Johnson, Superintendent for the Mayflower Mining Company at Ouray, Colorado.

Our letter to you, dated May 28, 1957, discusses the conflicting claim names and the reported loss of the Gold Key Claim. In that letter we conclude that the loss of the Gold Key Claim is "so detrimental to the success of the project that we now recommend that the project be denied".

Since our efforts to ascertain the status of the Gold Key Claim have been unsuccessful, we must assume that the Mayflower Mining Company does not have the right to explore the claim. Based on this assumption our prior recommendation to deny the application is reaffirmed.

E. N. Harshman

E. N. Harshman

224 New Customhouse
Denver 2, Colorado

August 14, 1957

8/16 Q 220
8/16 Jura 500

Mr. B. J. Esunas, President
Mayflower Mining Company
721 Adolphus Tower
Dallas, Texas

Re: Docket No. DMEA-4592 (Lead-Zinc-Copper)
Mayflower Mining Company (White Chief, et al claims) Ouray County, Colorado

Dear Mr. Esunas:

With respect to your request for exploration assistance at the Mayflower Mine, we have unsuccessfully attempted to get certain information necessary for continued processing of the application.

On May 10, 1957, we contacted Mr. E. V. Reinhardt, your consulting geologist, and on May 13, 1957, we contacted Mr. Keith Johnson, your mine superintendent, in an attempt to determine the correct name of one of your claims - White Chief or White Chief No. 1. Both gentlemen informed us that the Mayflower Mining Company had just ascertained that they did not have mining rights to the Gold Key claim and that this loss was considered critical to the success of the exploration venture proposed in your application. Mr. Johnson stated that he would confirm the loss of the claim by subsequent letter and that he would request withdrawal of the application for exploration assistance. This letter was not received.

On May 27, 1957, we wrote Mr. Johnson with respect to the loss of the claim and the Company's wishes in the matter. A copy of our letter to Mr. Johnson is attached. To date we have received no reply.

Our Washington office has requested that we determine your intent regarding this application. Should you wish us to continue processing it, will you please give us the status of your mining rights on the Gold Key claim and the correct name of the White Chief (White Chief No. 1) claim. If you do not plan to proceed with the proposed exploration program, please notify us that you wish to withdraw the application so that it may be placed in the inactive files. Your early reply will be appreciated.

Very truly yours,

Original signed by
E. N. HARSHMAN

E. N. Harshman,
Acting Executive Officer,
DMEA Field Team, Region III

ENH:bh
Enc.
cc-Chairman, Op. Comm.(2)
Harshman
DMEA-4592
Chron.

Form 7
56)

OFFICIAL FILE COPY

Date	Surname	Code
8/6	[illegible]	500
8/6	[illegible]	500
8/7	Martin	130
"	Johnson	110
"	[illegible]	100
8/7	P.K	220
		500

AUG - 7 1957

Mr. W. E. King, Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-4592 (Lead-Zinc-Copper)
Mayflower Mining Company
White Chief, et al claims
Ouray County, Colorado

Dear Mr. King:

Will you please advise us regarding the status of the cited application. The last correspondence in our docket with this company is a copy of a letter from Mr. B. W. Marshman, Acting Executive Officer, dated May 27, 1957, to Mr. Keith Johnson, Superintendent, Mayflower Mining Company. In the third paragraph it is stated:

> "You further advised that you would immediately forward a letter to this office restating the situation and requesting that the Application docketed DMEA No. 4592 be withdrawn."

At your earliest convenience, we would appreciate your writing again to the Applicant requesting its intent regarding this application. We have held this application in abeyance thinking that you would have received a reply to Mr. Marshman's letter. The Applicant surely has had sufficient time to reply to this letter and if you do not hear from it within a reasonable time, we would appreciate receiving your comments and recommendations.

Sincerely yours,

W. S. Martin
ACTING Chairman, Operating Committee (JB)

APPROVED:

P. F. Yopes (JB)
Member, Bureau of Mines

Thor H. Kiilsgaard (JB)
Member, Geological Survey

JWAlt/bjm (8/6/57)
Copy to: Docket
Admr. R. File
Op. Committee
Mr. Bishop
Mr. Kiilsgaard
Chron.

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 New Customhouse
Denver 2, Colorado

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 31 1957

DATE	INITIALS	CODE
5/31	C	220
5/31	JWa	500

AIR MAIL

May 28, 1957

Memorandum

To: Chairman, Operating Committee, DMEA

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-4592 (Lead-Zinc-Copper) Mayflower Mining Company (Greyhound mine) Ouray County, Colorado

Please refer to our teletype to you, dated May 13, 1957, and our letter to Mr. Keith Johnson, dated May 27, 1957, copies of which were furnished you.

On May 10, 1957, in an attempt to clear up a discrepancy in the claim names, (White Chief vs. White Chief No. 1), a telephone conversation was held with E. V. Reinhardt, consultant for the Applicant. At that time, it was ascertained that the Mayflower Mining Company did not have control of the Gold Key claim and that the drift on the vein had been extended to within 300 feet of the west end line of the Silver Key claim without finding any ore grade material.

On May 13, 1957, the loss of the Gold Key claim was discussed by phone with Mr. Keith Johnson, mine superintendent for the Applicant. At that time, he confirmed the fact that the Mayflower Mining Company had lost control of the claim and that the drift on the Mayflower vein was approaching the west end line of the property controlled by the company. Nothing significant had been found by drifting to that time.

We consider the loss of the Gold Key claims to be so detrimental to the success of the project that we now recommend that the project be denied.

In the phone conversation of May 13, 1957, Mr. Johnson stated that he would withdraw the application for reasons stated above. To date we have had no word from him, and our letter of May 27, 1957 is an attempt to ascertain what action is to be taken by Mr. Johnson.

You may wish to confirm the loss of the Gold Key claim with the Applicant since the correspondence in our files does not indicate that Mr. Johnson or Mr. Reinhardt have authority to act for the Applicant.

E. N. Harshman

E. N. Harshman

OFFICIAL FILE COPY
D.M.E.A.
RECEIVED MAY 29 1957

DATE	INITIALS	CODE
5/24	C	220
5/29	ALB	500

224 New Customhouse
Denver 2, Colorado

May 27, 1957

CERTIFIED MAIL

Mr. Keith Johnson, Superintendent
Mayflower Mining Company
P. O. Box 528
Ouray, Colorado

Re: Docket No. DMEA 4592 (Lead-Zinc-Copper)
Mayflower Mining Company
(Greyhound mine)
Ouray County, Colorado

Dear Mr. Johnson:

In your telephone conversation with Mr. Townsend, of this office, on May 13, 1957, you indicated that the Mayflower Mining Company did not have mining rights to the Gold Key claim, which occupies an important position in your Company's Application docketed DMEA No. 4592.

You also advised that the drift proposed in the Application had already been extended practically to the property boundary and that, under the circumstances, you doubted that the DMEA would give favorable consideration to the Application.

You further advised that you would immediately forward a letter to this office restating the situation and requesting that the Application docketed DMEA No. 4592 be withdrawn.

As considerable time has elapsed and we have not received the promised letter, we will appreciate advice by return mail as to your Company's desires in the matter.

Very truly yours,

Original signed by
E. N. HARSHMAN

E. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III

JWT:prl

cc: Chmn.Op.Comm.-2
Harshman
Konselman
Docket
Chron.

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 14 1957

DATE	INITIALS	CODE
5/14	C	220
5/14	Jua	500

5/16

DN 235 BUR MINES 5-13-57 8-57

CHAIRMAN OPEAXX OPERATING COMMITTEE

RE DOCKET 4592, MAYFLOWER MINNXX MINIMXX MINING COMPANY, OUR AIR MAIL LETTER OF MAY 19, 1957. APPLICANT S SUPRXXSUPERINTENDENT, KEITH JOHNSON ADVISED THIS OFFICE BY TELEPHONE TODAY THAT DRITXX DRIFT HAS BEEN EXTENDED ABOUT 350 FEET AND NOTHING FOUND, ALSO THAT RIGHTS TO GOLD KEY CLAIM NOT VESTED WITH APPLICANT AND THAT HE WILL FORWARD IMMEDIATELY LETTER REQUESTING WITHDRAWAL OF APPLICATION.

J W TOWNSEND ALTERNATE ACTING EXECUTIVE OFFICE

MIN PLS CK

DAT XX DATE IN SECOND LINE SHOULD BE MAY 10, 1957

Mr. Kenner, Colo.

MAY 13 1 30 PM '57
BUREAU OF MINES
MAIL ROOM
WASHINGTON, D.C.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

224 New Customhouse
Denver 2, Colorado

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 13 1957

DATE	INITIALS	CODE
5/13	C	220
5/13	Jure	500

May 10, 1957 5/16

VIA AIR MAIL

Memorandum

To: Chairman, Operating Committee, DMEA

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 4592 (Lead-Zinc-Copper), Mayflower Mining Company (Greyhound mine), Ouray County, Colorado

There follows information requested by Mr. J. W. Alt in a telephone conversation to this office today:

1. Sample analysis at $6.50 each should include lead, zinc, copper, gold, and silver.

2. Core boxes required - 90 at $1.00 each.

3. Relative to the cost of timbering, at $9.89 per foot, the estimate of costs is detailed in the Field Team report and is deemed to be reasonable even though higher than maximum costs heretofore used, which are considered to be much lower than the actual cost involved.

4. Relative to allowance for supervisory and technical service, $2.00 a foot for drifting and 30 cents a foot for drilling, is considered reasonable provided it is all-inclusive. If the supervisory foreman-miner is to be provided for separately, we believe $1.00 per foot on drifting and 20 cents a foot on drilling is adequate to cover technical service.

5. Relative to crosscutting for drill stations under Stage III, recitation should provide two 70-foot crosscuts, including preparation of a drill station in each crosscut.

6. Relative to the White Chief claim, complications have developed and it appears that the Mining Lease and Option and the Assignment may have to be amended, as Ouray County Records indicate the claim to be the White Chief and not the White Chief No.1, as included in the Mining Lease and Option and Assignment thereof. Definite information will be provided as soon as available.

7. A larger claim map, "Figure No. 2 A," is being prepared as requested and will be forwarded as soon as available.

We trust that the foregoing information will satisfy needs to the extent that complete information is provided.

E. N. Harshman

E. N. Harshman

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code

May 10, 1957

Memorandum for the Files

From: J. W. Alt, Base Metals Division

Subject: Phone conversation about Docket No. DMEA-4592, Mayflower Mining Company, Inc., White Chief et al claims, Ouray County, Colorado, Lead-Zinc-Copper.

On this date I phoned E.N. Harshman, Acting Executive Officer, DMEA Field Team, Region III. Mr. Harshman was not in the office so I spoke to J. W. Townsend. I told him that we would need additional information in order to prepare a contract for the cited application.

The number of samples are given but it is not stipulated what they are to be assayed for at $6.50/each. I told him that this cost is high and we should know what these samples are to be assayed for.

I suggested that there should be an allowance for core boxes and that we would need to know the number of core boxes required and the cost per box.

By Mr. Harshman's memorandum of March 29, he recommends technical services at $200.00/month. I suggested that this item be added on to the unit cost for drifting, crosscutting, and diamond drilling. By doing this we could use the short form contract. To the cost of drifting and crosscutting we would allow $2.00/foot and for diamond drilling 30 cents would be allowed for technical services. Mr. Townsend agreed to this and thought it would be better if the contract was on the short form rather than the way it was set up by the Field Team.

I told him that the cost of $9.89/ft. for timbering was too high. Mr. Townsend said that he would look into this.

The purpose of the 140 feet of crosscutting in Stage III of the Field Team report is not clear and I asked Mr. Townsend if this work was for the purpose of crosscutting for the location of the two diamond drill stations. He will ascertain the purpose of the crosscutting.

I asked him, if Consents to Lien and Subordination Agreements had been obtained. He stated that they have not obtained them and requested that they be prepared here and sent to them if a contract is approved.

On the property map submitted by the Field Team, it shows the White Chief claim. I asked Mr. Townsend if this should be White Chief No. 1 claim. Also, that the map is really too small and does not show where the proposed work is to be done. Mr. Townsend said that he would supply copies of a larger map and also shew the proposed work.

Mr. Townsend said that he would give these requests his immediate attention and would prepare a memorandum which would be airmailed to us.

J. W. Alt

J. W. Alt

JWAlt/er
Copy to: Docket
Chron.

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DATE	INITIALS	CODE
4/12	C	220
4/12	Jwa	500

4/19

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

April 11, 1957

Re: DMEA 4592; Pb-Zn-Cu;
Mayflower Mining Co., Inc.
Greyhound Mine
Ouray County, Colorado

~~Memorandum~~

To: W. R. Griswold, DMEA

From: O. M. Bishop, Branch of Base Metals

Subject: Review of Examination and Field Team Report dated March 29, 1957, received April 8, 1957.

The applicant proposes exploration of the Greyhound vein, one of a number of west-northwesterly veins in a fractured, downwarped area of the San Juan Mountains about 2,000 feet distant and on trend from the feathered east end of the Camp Bird vein.

The Greyhound vein which is 7 to 9 feet wide, consists a quartz-filled fault known for a strike length of 1,000 feet. Development by adits between 1905 and 1921 is now inaccessible. An adit now being driven exposes about 300 feet of the vein which contains zinc-lead-copper sulfides and small quantities of silver and gold. A 60-foot length of the adit showed an average grade of 0.9 percent lead, 1.1 percent zinc, and 0.1 percent copper with 0.6 ounces of silver and trace of gold. Although such a base metal content does not constitute ore, the strength and size of the structure, and the extensive mineralization in combination with a possible tie-in with the Camp Bird makes exploration fairly attractive, although it must be remembered that the Camp Bird was chiefly valuable for its precious metal content.

The applicant proposes 1,000 feet of drifting on the vein with subsequent raises on ore shoots that may be encountered; two 60-foot hangingwall crosscuts with a 400 to 500-foot diamond drill hole from each to test the vein at depth. Estimated cost of this program is $96,500.

The examining team notes that the applicants cost proposal of $58.19 per foot of drift and $8.00 per foot of core drilling appears excessive. They recommend a three stage program modified to eliminate the raises and to replace the two drill holes to cut the vein 400 feet or so below the level with 6 designed to cut the vein at 100 feet below the level.

I concur with the field examiners and field team in the three-stage $45,052 exploration program recommended.

O. M. Bishop

O. M. Bishop

cc: Division of Minerals
Mr. Kiilsgaard
Mr. Lamb
Mr. Bishop
Files

IN REPLY REFER TO:

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

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DMEA
RECEIVED APR 8 1957

DATE	INITIALS	CODE
4/8	C	220
4/8	JWA	500

April 5, 1957
Re: DMEA 4592
Mayflower Mining Co.
Greyhound Mine
Ouray County, Colorado
Applicant's Estimate $96,500.00
Recommended Estimate $45,052.06
Lead, zinc, copper

Memorandum

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

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of Field Team Report

The applicant requested assistance in exploring a 7-9 foot vein by drifting, raising, and diamond drilling.

The vein has had considerable work done upon it since 1905 and may have produced some ore, but in general the results of the old work appear to have been unfavorable, as have the results of the 300 feet of work, in the vein, done by the applicant. Some sulfides of zinc, lead and copper have been found and a sample taken by the examiners assayed:-

Width Sampled	Pb %	Zn %	Cu %	Au Oz.	Ag Oz.
2'	1.85	10.5	0.20	0.005	0.80

The strength and character of the vein, the general environment and proximity to large mines prompt the examiners to recommend a limited amount of work consisting of:-

	Estimated Cost
Stage I	
500 feet drifting with possible timbering	$17,624.63
Stage II	
Same as Stage I	17,624.63
Stage III	
Crosscutting 140 feet	
Drill stations 2	
Diamond drilling 900 feet	9,802.80
Total	$45,052.06

I concur with the recommendations of the examiners and the Field Team.

N. E. Nelson

N. E. Nelson

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

224 New Customhouse
Denver 2, Colorado

March 29, 1957

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DATE	INITIALS	CODE
4/1	C	220
		130
4/8	C	220
4/9	Jwa	500

Memorandum

To: Secretary to the Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: Joint Report of Examination, Docket DMEA 4592 (Lead-Zinc-Copper) Mayflower Mining Company, Inc. (White Chief, et al. claims) Ouray County, Colorado

Enclosed are the original and three copies of a Joint Report of Examination by E. W. Buel, USBM, and D. H. Richter, USGS, on the subject property.

The field examiners conclude that the chances are good for making a discovery as a result of the work proposed by the applicant; therefore, recommend Government participation. The Field Team concur in this recommendation.

If a contract is to be awarded, we believe that the costs proposed by the field examiners for technical services are inadequate. As reported, the total estimated cost for these services would amount to $450. Prorated to the estimated length of time to complete the project, this amounts to $32.14 per month. We favor a figure of approximately $200 per month for technical services.

Also enclosed are nine extra copies of Figure 2 and nine extra copies of Figure 3 of the subject report which will be of assistance in the preparation of the contract.

E. N. Harshman

By E. N. Harshman
Acting Executive Officer

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
4-5-57
(date)

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

DMEA
DEPARTMENT OF THE INTERIOR
MAR 27 1957
REGION III
DENVER, COLORADO

TRANSMITTED
MAR 29 1957

OFFICIAL FILE
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RECEIVED APR 1 1957

DATE	INITIALS	CODE
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March 27, 1957

Memorandum

To: Acting Executive Officer, DMEA Field Team, Region III

From: John F. Shaw
E. N. Harshman

Subject: DMEA Docket 4592 (Lead-zinc-copper), Mayflower Mining Company, Inc. (White Chief, et al. claims), Ouray County, Colorado

Enclosed are the original and eight copies of a joint examination report by D. H. Richter, U. S. Geological Survey, and E. W. Buel, U. S. Bureau of Mines, covering their appraisal of the subject application for exploration assistance. The property was examined on February 12, 1957, in company with representatives of the applicant company.

The property is in a highly fractured and mineralized area of the San Juan Mountains. The Greyhound vein occupies a prominent fracture and consists of 7 to 9 feet of quartz with base metal sulfides.

The examiners conclude that exploration on the vein may result in a significant discovery of lead-zinc-copper ore and they recommend a three-stage program of drifting and drilling estimated to cost $45,052.06, Government participation 50 percent or $22,526.03.

We concur with the conclusions and recommendations.

John F. Shaw
Supervising Mining Engineer

E. N. Harshman
Member, Field Team

Enclosures (9)
ENHarshman:mp

Reviewed by
DMEA OPERATING COMMITTEE
4-5-57
(date)

FOR UNITED STATES GOVERNMENT USE ONLY

DMEA
DEPARTMENT OF THE INTERIOR
MAR 27 1957
REGION III
DENVER, COLORADO

TRANSMITTED

MAR 29 1957

ON-SITE Report

UNITED STATES
DEPARTMENT OF THE INTERIOR
FRED A. SEATON, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

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RECEIVED APR 1 1957

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DMEA 4592

Mayflower Mining Company, Inc.

Greyhound mine

Ouray County, Colorado

Lead-Zinc-Copper

Joint Engineering and Geologic Report

Reviewed by
DMEA OPERATING COMMITTEE
4-5-57
(date)

by

D. H. Richter
Geological Survey

E. W. Buel
Bureau of Mines

March 25, 1957

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ILLUSTRATIONS

Figure	Follows page
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2. Claim map, Greyhound mine, Mayflower Mining Company, Inc., Ouray County, Colorado - DMEA Docket 4592	19
3. Geologic map of the Greyhound mine, Mayflower Mining Company, Ouray County, Colorado. DMEA 4592	19

DMEA 4592

MAYFLOWER MINING COMPANY, INC.
GREYHOUND MINE
OURAY COUNTY, COLORADO

INTRODUCTION AND SUMMARY

Mayflower Mining Company, Inc., applied on January 4, 1957, for Defense Minerals Exploration Administration assistance to explore for lead, zinc, and copper in the Greyhound mine, Ouray County, Colorado. Their proposed exploration program is estimated to cost $96,500.

The mine was examined on February 12, 1957, by Donald Richter, Geological Survey, and Edward W. Buel, Bureau of Mines. Representatives of the applicant present during the examination were Messrs. Lester and Jack Clark, and E. V. Reinhardt, geologist.

The Greyhound mine is in a structurally downwarped highly fractured area in the rugged San Juan mountains of southwestern Colorado. Fractures in the downwarped area are occupied by a large number of northwesterly-trending dikes, fissures, and veins, and a lesser number having a west-northwesterly trend. The Greyhound vein, a member of the latter set, is a strong 7- to 9-foot quartz-filled fault with a known length of approximately 1,000 feet containing minor amounts of base-metal sulfides. The Greyhound vein is about 2,000 feet from the eastern end of the Camp Bird vein, to which it is probably genetically related.

The vein, where presently exposed, does not contain ore grade material; however, on the basis of favorable geologic criteria the examiners believe that a modified exploration program may disclose significant quantities of base-metal ore. A three-stage program, to cost an estimated $45,052.06, is recommended.

LOCATION AND ACCESSIBILITY

The property is in secs. 25, 35, and 36, T. 43 N., R. 8 W., N.M.P.M., Red Mountain-Telluride-Sneffels mining district, Ouray County, Colorado (fig. 1). The mine workings are at the head of McIntyre Gulch, less than 2 miles southeast of the Camp Bird mine camp and about 1 mile northwest of the Idarado mine camp.

The property is readily accessible from either Ouray or Silverton, Colorado, which are small mining towns, 24 miles apart, on U. S. Highway 550. It lies approximately half-way between those towns.

To reach it, one turns off the paved highway at a point near the Idarado mine campsite, then travels for about 3 miles over an unimproved road leading up Commodore (?) Gulch. The road passes the Barstow mine, then steeply ascends the mountain over numerous switchbacks to reach the property.

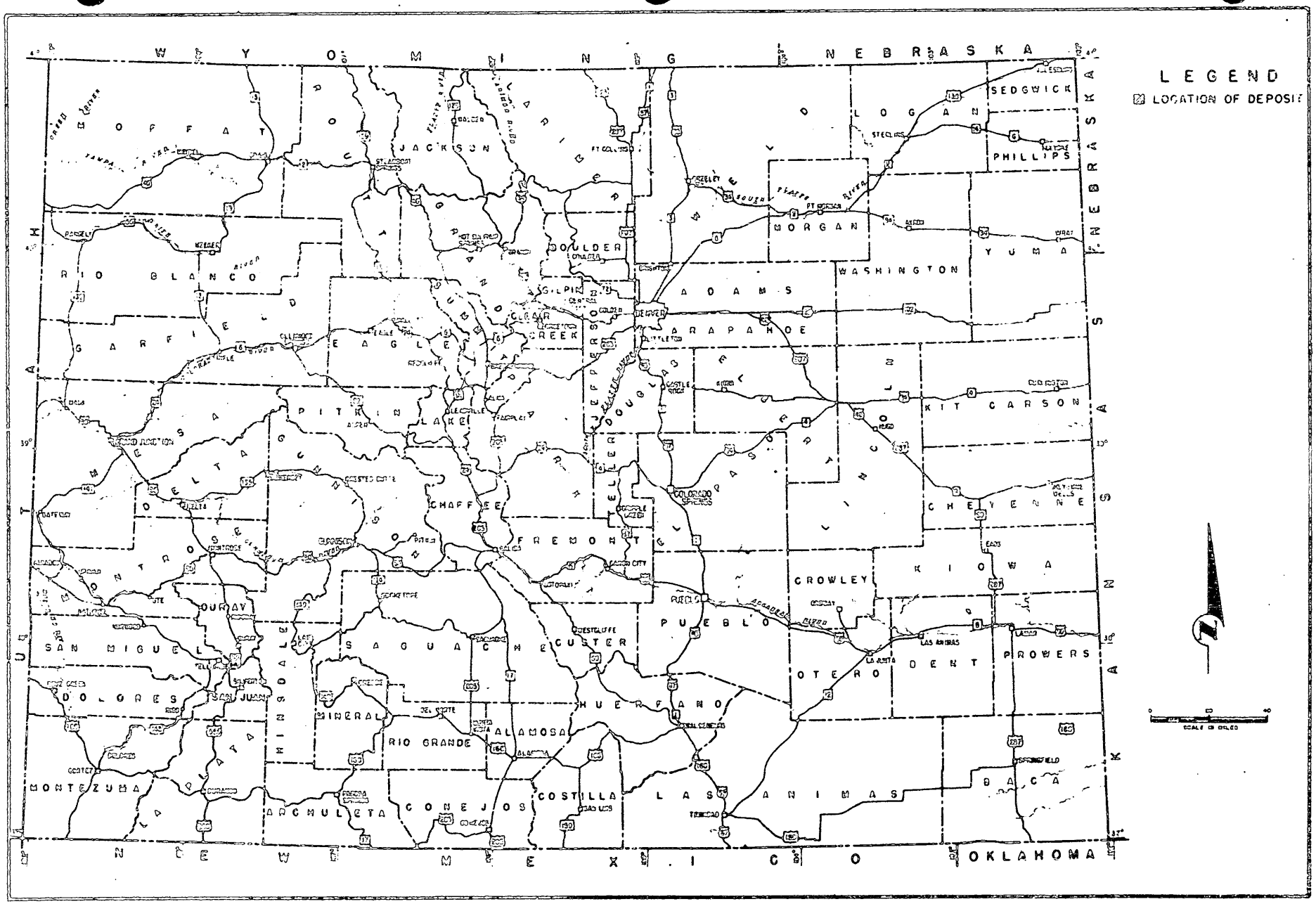

Figure 1 - Location map of Greyhound Mine, Mayflower Mining Company, Inc., Ouray County, Colo., EMEA 4592

GEOGRAPHY

The property is in the rugged San Juan Mountains, which are noted for their Alpine topography. The general area in which the property lies is drained by north-flowing Red Mountain Creek and numerous ephemeral streams that occupy deep gulches.

Fir and spruce, suitable for ordinary mine timber, are abundant below an altitude of 11,500 feet, but many of the operators purchase timber from local sawmills.

The climate in the area is rigorous. The winters are long and severe with heavy snowfalls, and temperatures ranging from 20° to 30° below zero are not uncommon. Summers are relatively short and cool with thundershowers occurring almost daily. Snowslides are common in the area and frequently close the highway between Ouray and Silverton for several days at a time. Due to the heavy snowfalls, many mining companies cease operating during the late fall, winter, and early spring months. The applicant, however, has continued to operate throughout the present winter by using a bulldozer for snow removal.

Sufficient water for mining needs was present in the mine workings at the time of the examination. It is not known whether water would have to be obtained from other sources during the drier months.

A power line passes within 3 or 4 miles of the property's principal workings, but all current power needs are supplied by portable units.

A narrow-gauge railroad serves Silverton, and a standard-gauge railroad (Denver and Rio Grande Western) serves Ridgeway, 8 miles north of Ouray.

Custom milling facilities are available near Ouray.

PROPERTY

The property concerned in the application consists of the following group of five contiguous unpatented lode claims, collectively known as the Greyhound mine (fig. 2). The location notices are recorded at the Ouray County Courthouse.

Claim	Book	Page	Remarks
Gold Key	93	449	
Silver Key	93	450	
	79	411	Amended
Big Bee	93	449	
	79	411	Amended
White Chief No. 1	93	473	
White Chief No. 2	93	553	

Five other unpatented claims are included in the mining lease mentioned below, but are not contiguous with the above claims nor do they overlie ground for which exploration aid is requested.

A check of the Ouray County courthouse records shows the owners of the claims to be as follows:

Claim	Owner	Degree of interest
Big Bee	(F. L. Ash	1/2
	(R. H. Downer	3/16
	(M. H. Downer	3/16
	(G. W. Hibbs	1/8
Gold Key	do.	do.
Silver Key	do.	do.
White Chief No. 1	(F. L. Ash	--
	(J. Donald	--
	(J. H. Campbell	--
White Chief No. 2	(F. L. Ash	--
	(J. Donald	--
	(J. H. Campbell	--

Note: The current owners cannot be determined without a title search.

Although the owners of record are as shown above, a mining lease and option was granted on June 30, 1955, by J. R. Sonza, Kathleen Hoskin, and Carl G. Anderson, as lessors to Zenas Crane Colt, Carl G. Anderson, Bernard Esunas, and Scott Lackland as lessees. On June 18, 1956, the lessors assigned their rights to the property to Mayflower Mining Company, Inc., P. O. Box 528, Ouray, Colorado. (It is noted that the subject application is made by Mayflower Mining Company.) These rights include a mining lease from June 18, 1955, to June 18, 1965, with an option to buy for $100,000. Production royalties are stipulated under the terms of the lease at 10 percent.

HISTORY AND PRODUCTION

Ore deposits were first discovered in the Red Mountain mining district in 1881. Within a few years after the initial discovery, the area was swarming with prospectors. Several mines, namely, the Yankee Girl and the Guston, produced at least $6,000,000 worth of ore. A railroad was built into the district in 1888 to serve the thriving area. Between 1890 and 1905, however, the low price of silver and the low grade of the ores at depth, accompanied by higher mining costs, compelled practically all of the mines to be shut down. At the present time, the only major producers operating in the Red Mountain-Telluride-Sneffels district are the Idarado Mining Company, and Camp Bird, Ltd.

Information on the history and production of the Greyhound mines is very sketchy. It is known that some exploratory drifting on the Greyhound vein was conducted from 1905 to 1921. Courthouse records, however, list the filing on the Big Bee, Gold Key, and Silver Key claims on September 29, 1922, and the White Chief No. 1 and White Chief No. 2 on December 21, 1923, and June 9, 1926, respectively. Mr. Reinhardt, the applicant's geologist, stated that possibly 200 tons of ore had been produced from the property, but this could not be confirmed. The applicant states in his application that a former operator, a Mr. Campbell, reported that some lead-zinc ore was removed from a lower tunnel on the Silver Key claim.

DEVELOPMENT

The applicant reports that three tunnels were driven on the Greyhound vein, which is on the five claims included in the application. These tunnels, driven during the period 1905 to 1921, are now caved and no maps of the tunnels are known to exist. One of the tunnels is reported to be 660 feet long.

The applicant attempted to reopen two tunnels on the Silver Key claim. These attempts were abandoned because of the time and costs involved in rehabilitating the old workings.

The adit now being driven was started about 400 feet from one of the old now-caved tunnels and had been driven approximately 750 feet at the time of the DMEA examination. Although some of the initial drifting in this adit was in very heavy ground and required timbering (fig. 3), the workings, for the last 100 feet, are in good ground which stands unsupported. The applicant is currently advancing the drift at a maximum rate of 10 feet per 8-hour shift.

Ventilation and drainage appeared to be good at the time of the inspection.

Surface improvements consist of a newly constructed compressor house, a workshop, a change-house, and a snowshed.

GEOLOGY

The Greyhound mine is in the Red Mountain-Telluride-Sneffels mining district, in the western San Juan Mountains of southwestern Colorado. This area, which has been described in fair detail by Burbank 1/ lies within the so-called Sneffels downwarp, a large northwest-trending structure that extends from the ring faults on the northwest side of the Silverton caldera to the Stony Mountain stock north of Telluride.

The downwarp, which is interpreted by Burbank to represent the initial stage in the formation of a graben, contains a large northwest-trending swarm of dikes, fissures, and veins. The majority of the dike- and vein-filled fissures strike approximately N. 45° W. and usually dip steeply away from the center or axis of sagging. Exceptions to this are a few younger mineralized fissures (such as the well known Camp Bird vein) that trend more westerly (N. 60° to 75° W.) and, in general, dip south. All the fracturing in the area is attributed to the release of tensional strains, probably in several stages, during the formation of the Sneffels downwarp. Movement along the N. 45° W. fissures was principally vertical, whereas movement along the transecting fissures was predominantly horizontal. This difference in relative movement along the fissure has had a profound influence on the localization of the ore deposits, viz., horizontal ore shoots on the former,

---

1/ Burbank, W. S., Structural control of ore deposition in the Red Mountain, Sneffels, and Telluride Districts of the San Juan Mountains, Colorado: Colo. Sci. Soc., v. 14, no. 5, 1941.

and steeply plunging ore shoots on the latter. Minerals in the various deposits in the area consist chiefly of simple and complex base-metal sulfides, pyrite, and quartz; some high-grade silver and gold ores also are present.

The consolidated rocks in the downwarped area consist of a series of essentially flat-lying Tertiary volcanic rocks. Those exposed, from older to younger, are: (1) the San Juan tuff, primarily an andesitic tuff breccia, (2) pyroxene andesite flows and breccias, (3) hornblende latite flows and tuffs, and (4) Treasure Mountain quartz latite-rhyolite flows and tuffs. Units 2 and 3 are collectively referred to as the Silverton volcanic series, and unit 4 is referred to as a part of the Potosi volcanic series. The thick and competent San Juan tuff is probably, by far, the most favorable host rock in the area. Higher in the section the rocks are regarded as less favorable for ore deposits and, in fact, the uppermost Treasure Mountain acidic flows are generally devoid of economic sulfide mineralization.

The Greyhound vein, as shown by Burbank on the map accompanying his report on the region, is a fault of considerable magnitude with a length of at least 1,000 feet. The structure has an average strike of approximately N. 65° W., and is essentially on trend with the feathered eastern end of the Camp Bird vein, which is less than 2,000 feet away.

In the Mayflower Mining Company's adit, the Greyhound vein has now been exposed intermittently over a length of 300 feet (fig. 3). Throughout the length of the adit the vein ranges from 7 to 9 feet in

width, strikes approximately N. 75° W., and at the face dips 66° SW. The vein apparently occupies a very strong fault that has undergone at least two periods of structural adjustment. Intensely brecciated areas, filled with later ore and gangue minerals, and clay gouge zones exhibiting slickensided vein material are manifestations of known pre- and post-mineral movements along the fault.

The wide vein-filling consists primarily of parallel bands of quartz (up to 1 foot thick), with minor quartz-filled breccia zones, long discontinuous clay gouge zones, and thin bands of sulfide minerals. In some areas--probably where quartz has replaced early fine-grained fault debris--the vein has an uniform sugary texture usually containing scattered areas of relatively high sulfide concentration. Pyrite, galena, sphalerite, and chalcopyrite were the only sulfide minerals observed during the examination. The average grade of one 60-foot section of the vein is: Pb - 0.9 percent, Zn - 1.1 percent, Cu - 0.1 percent, and Ag - 0.6 oz., or about 2 percent combined sulfides (fig. 2). A 2-foot vertical chip-sample (EB-30) taken by the examiners, near the face of the adit assayed 1.85 percent Pb, 10.5 percent Zn, 0.20 percent Cu, 0.005 oz/ton Au, and 0.80 oz/ton Ag.

The hanging wall and footwall of the Greyhound vein is a dark greenish-gray andesite belonging to either the uppermost San Juan tuffs or the overlying pyroxene andesite flows. The portal of the adit is at an altitude of 11,640 feet, in a large talus-covered area at the head of McIntyre Gulch, and consequently there are no surface exposures of either the vein or immediate host rock.

Although the vein at the present time does not carry ore-grade material, its size and apparent strength, combined with a probable genetic relation to the rich Camp Bird vein appear to warrant a limited exploration project. A carefully staged program, such as that proposed by the applicant and slightly modified by the examiners may disclose significant quantities of base-metal ore along the Greyhound vein.

APPLICANT'S EXPLORATION PROPOSAL

The applicant originally proposed to do 1,000 feet of drifting along the footwall of the Greyhound vein, keeping a small part of the vein within the drift, and a detailed sampling program to consist of long holes drilled through the vein at 5-foot intervals along the drift. Subsequent work by the applicant, however, shows the vein to be relatively firm and, therefore, the drift will be kept directly on the structure, eliminating the need of the long-hole sampling program.

Should an ore lens be found along the drift, the applicant proposes to drive raises on the ore to the upper limits of the ore-lens, or to a height of 200 feet. He anticipates that two such raises will be required.

Additional exploration, planned by the applicant, is to diamond-drill two holes designed to intersect the vein at depths of from 400 to 500 feet. The drilling would require driving two 60-foot crosscuts 1/

1/ The applicant gives a figure of 50 feet in his application. This is not in accord with his summarized total nor in his cost-estimate figures which are based upon a figure of 60 feet.

into the hanging wall in order to establish drill stations. The total amount of drilling would be 1,000 feet.

The estimated cost of the applicant's proposed exploration program is $96,500.

RECOMMENDED EXPLORATION PROGRAM

In reviewing the applicant's proposed exploration program and estimated costs, it became obvious that the program and costs had to be modified before they would be acceptable for an exploration contract with the Government. Of particular note is the applicant's extremely high unit costs, which undoubtedly result from the inclusion of unnecessary overhead costs in the estimates. The applicant's cost estimates are as follows: $58.19/ft. for drifting and $8.00/ft. for diamond drilling.

The applicant's proposed raising probably would be in the nature of development work and therefore is not recommended. The applicant proposes to explore the vein at depths of 400 to 500 feet below the present working. This appears to be too great a depth for initial exploration on this particular deposit. The amount of proposed crosscutting is inadequate to establish drill stations. To effectively diamond-drill a vein dipping 60°, and to intersect it at depths of 400 to 500 feet, crosscuts approximately 4 to 5 times the length of those proposed by the applicant would be required.

The examining team believes that the property can be best explored by the three-stage program outlined below.

Stage I shall consist of 500 feet of drifting along the Greyhound vein. Wherever practical, drifting should be on the vein; however, should the ground prove heavy, it should be permissible to drift in the footwall as proposed in the applicant's original program. The size of the drift shall be 7 by 6 feet in the clear. Drifting, under the DMEA program, shall begin at the point reached by the applicant on the date the project work commences. It is anticipated that some timbering will be required in the drift, and a maximum of 100 feet of timbering should be sufficient for Stage I work. It is recommended also that the applicant cut channel samples across the vein at 10-foot intervals.

The amount of work performed under Stage II shall be the same as under Stage I. No work under Stage II, however, will be allowed without prior approval by the Government.

Contingent upon the results of Stages I and II, and with prior approval by the Government, Stage III shall consist of a maximum of 140 feet of crosscutting, cutting two drill stations, and 900 feet of drilling. From each drill station, three diamond-drill holes (AX or larger) shall be core drilled to intersect the Greyhound vein at a vertical depth of 100 feet. Total length of drilling at each drill station is estimated at 450 feet. The locations of the crosscuts, drill stations, and diamond-drill holes shall have prior Government approval. All holes shall be drilled at least 5 feet, but no more than 10 feet, beyond the Greyhound vein. The core across the vein or any other mineralized zone should be split and sampled.

The allotted time and total cost of the recommended exploration program is given as follows:

Stage I	5-1/2 months	$17,624.63
Stage II	5-1/2 months	17,624.63
Stage III	3 months	9,802.80
Totals	14 months	$45,052.06

Government participation at 50 percent $22,526.03.

COST ESTIMATES

Recommended exploration costs are estimated as follows:

Stage I

Fixed unit costs

A. 500 feet of drifting - cost estimates are based upon the following: untimbered drift 6 by 7, 5-foot advance/shift, 22 shifts/month, completion time 5 months (additional time to allow for short shutdown periods because of weather, repairs, etc.)

Labor and supervision	Estimated cost
1 foreman-miner @ $450/mo., 5 mos.	$ 2,250.00
3 contract miners @ 12/ft., 500 feet	6,000.00
Payroll insurance, taxes, etc. @ 5%	412.50
Total	$ 8,662.50
Cost per foot	17.33

Operating equipment depreciation

1 - 600 c.f.m. diesel compressor, $17,000 value, $283.33/mo., 5 mos.	1,416.65
1 - diesel-electric generator, $3,800 value, 63.33/mo., 5 mos.	316.65

1 - 8" electric fan, $675 value, 11.25/mo., 5 mos.	$ 56.25
2 - Cleaveland jacklegs, hoses, etc., $1,000 value, $16.67/mo., 5 mos.	83.35
1 - Air receiver (3-1/2' x 8'), $600 estimated value, $10/mo., 5 mos.	50.00
1 mucking machine, $3,800 estimated value, $63.33/mo., 5 mos.	316.65
1 - air trammer, $1,800 estimated value, $30.00/mo., 5 mos.	150.00
2 - ore cars (rocker type), $800 estimated value, $13.33/mo., 5 mos.	66.65
1 - Jeep pickup, $2,800 estimated value $46.67/mo., 5 mos.	233.35
1 - D-7 bulldozer, $22,400 value, $373.33/mo., 1/2 mo.	186.67
Total	$ 2,876.22
Cost per foot	5.75

Operating materials and supplies

Powder (60%) @ $10.48/50 lb. box 120 boxes x $10.48	$ 1,257.60
Electric caps, @ $17/box of 100, 25 boxes x $17	425.00
Pipe, 2"-airline,@ $0.51/ft., 450 ft. x $0.51	229.50
Pipe, 1"-water line,@ $0.24/ft.,450 ft. x $0.24	108.00
Pipe, 8"-ventilation,@ $0.73/ft.,475 ft.x $0.73	346.75
Miscellaneous pipe fittings, estimated $40 total	40.00
Drill steel & bits, @ $0.50/ft., 500 ft. x 0.50	250.00
Track, 20# rail, @ 1.73/ft., 500 ft. x $1.73	865.00
Ties, spikes, fishplates, bolts, etc. 500 ft. x $1.50	150.00

Fuel, oil, lubrication, etc., @ $1.50/ft. 500 ft. x $1.50	$ 750.00
Miscellaneous (hand tools, repairs, etc.) estimated $200	200.00
Total	$ 4,621.85
Cost per foot	9.24
Total drifting cost	$16,160.57
Unit cost per drift/ft.	32.32

B. 100 feet of timbering - cost estimates are based upon the following: 5-foot center sets, 6 by 7 ft. in the clear, sets completely logged on the top and one-half on the sides, 2 sets/shift, completion time 1/2 month.

Labor and supervision	Estimated Cost
1 - foreman-miner, @ $450/mo.; 1/8 mo.	$ 56.25
2 - miners, @ $800/mo., 1/2 mo.	400.00
Payroll insurance, taxes, etc. @ 5%	22.81
Total	$ 479.06
Cost per foot	4.79
Operating equipment and supplies	
1 - standard set, 350 b.f. required, timber $70/M.b.f, 20 sets	490.00
Miscellaneous (tools, repairs, fuels, etc.) estimated $20.00	20.00
Total	$ 510.00
Cost per foot	5.10
Total timbering cost	$ 989.06
Unit cost per foot	9.89

Actual Costs

C. Miscellaneous:

Technical services	Estimated Cost
Engineering and/or geology, reports, maps, etc.	$ 150.00
Assaying	
50 - sample assays @ $6.50/each	325.00
	$ 475.00

Summary of Stage I costs

Total drifting cost	$16,160.57	
Unit cost per foot		$32.32
Total timbering costs	989.06	
Unit cost per foot		9.89
Total miscellaneous costs	475.00	
Total	$17,624.63	
Government's share	8,812.32	

Stage II

Same as for Stage I

Total	$17,624.63
Government's share	8,812.32

Stage III

Fixed Unit Costs

A. 140 feet of crosscutting - cost estimates are based upon those costs as computed for drifting under Stage I, except for the completion time which is estimated at 1-1/2 months.

Total crosscutting costs	$ 4,524.80
Unit cost per crosscut/ft.	32.32

B. 2 - drill stations - cost estimates are based upon the enlargement of the crosscuts for a small underground diamond drill. Completion time estimated 2 days.

Estimated cost $50/station	$ 100.00

C. 900 feet of diamond drilling - estimated rate of advance at 25 feet/shift, estimated completion time 1-1/2 months.

900 - feet of AX, or larger, diamond drill holes (subject to revision upon competitive bids) estimated @ $5.50/ft.	4,950.00

Actual costs

D. Miscellaneous

Technical services

Engineering and/or geology, reports, maps, etc.	150.00

Assaying

12 - sample assays @ $6.50/each	78.00
Total	$ 228.00

Summary of Stage III costs

Total crosscutting cost	$4,524.80	
Unit cost per foot		$32.32
Total drill station cost	100.00	
Total diamond drilling cost	4,950.00	
Unit cost per foot		5.50
Miscellaneous costs	228.00	
Total	$ 9,802.80	
Government's share	4,901.40	

Summary of exploration costs

Stage I	$17,624.63
Government's share	8,812.32
Stage II	17,624.63
Government's share	8,812.32
Stage III	9,802.80
Government's share	4,901.40
Totals	$45,052.06
	22,526.03

CONCLUSIONS AND RECOMMENDATIONS

The large size and persistence of the Greyhound structure, the presence of some sulfide mineralization, and a probable genetic relation to the Camp Bird vein, appears to warrant an exploration project.

The relatively low-cost three-stage program recommended by the examiners should adequately explore the structure and may disclose significant deposits of base-metal ore.

It is recommended that the DMEA exploration program outlined above be approved.

DEPARTMENT OF THE INTERIOR

PREPARED FOR DEFENSE MINERALS EXPLORATION ADMINISTRATION

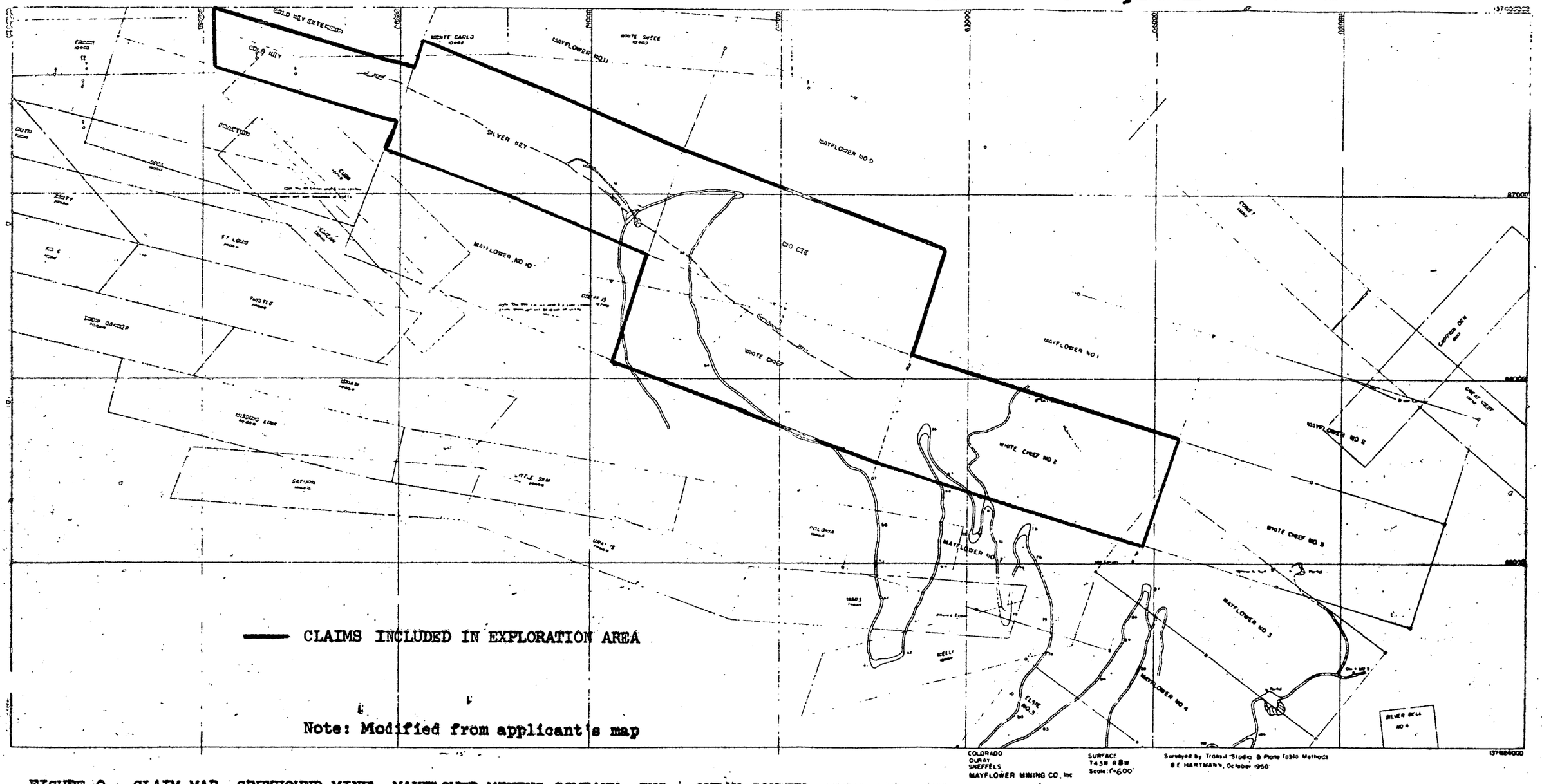

FIGURE 2 - CLAIM MAP, GREYHOUND MINE, MAYFLOWER MINING COMPANY, INC., OURAY COUNTY, COLORADO - DMEA DOCKET 4592

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

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DATE	INITIALS	CODE
1-28	C	220
1-28	J NR	500

224 New Customhouse
Denver 2, Colorado

January 25, 1957

Docket

Memorandum

To: Secretary to the Operating Committee

From: DMEA Field Team, Region III

Subject: Docket DMEA 4592 (lead-zinc-copper) Mayflower Mining Company (White Chief et al claims) Ouray County, Colorado

Attached is a copy of a letter from the subject Applicant's representative, requesting that the application be amended to allow for 1,000 feet of drifting on the vein from the face of the drift on the date the loan is granted.

Will you please attach this requested amendment to your copy of the application.

Copies of the Applicant's letter are being forwarded the field to be placed with the brochures they hold.

DMEA Field Team, Region III

W M Traver

By W. M. Traver
Executive Officer

Enclosures

PHONE
CH 2-3232

IF NO ANSWER
CALL CH 3-1910

ELMER V. REINHARDT
GEOLOGIST
111 DONALDSON ROAD
GRAND JUNCTION, COLORADO

ORIGINAL FILE COPY
DMEA
RECEIVED JAN 28 1957
DMEA

January 21, 1957

DEPARTMENT OF THE INTERIOR
JAN 25 1957
REGION III
DENVER, COLORADO

Mr. W. M. Traver, Executive Officer
D.M.E.A. Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-4592 (Lead-zinc-copper)
Mayflower Mining Company
White Chief, et al claims,
Ouray County, Colorado

Dear Mr. Traver,

This is in confirmation of our conversation in your office on January 21, during which the following points were discussed:

1. The road to the Mayflower or Greyhound mine is open at present and it is the intention of the applicant to keep it open all winter. It will, therefore, be possible for your representatives to examine the property at any time convenient to them.

2. Lester Clark, whose address is included in the application for the loan is the man to notify concerning the date of the examination. I would, also, appreciate being notified and shall be present provided no conflict with other work exists. If I cannot reconcile my work with the date of the examination, you will find Clark to be a capable person.

3. Drifting on the vein has proceeded steadily since the application was made and about 200 feet of the requested 1,000 feet of drifting on the vein has been accomplished. I would, therefore, like to amend the application to allow for 1,000 feet of drifting on the vein from the face of the drift on the date the loan is granted.

4. The post-vein fault, which had crushed the vein so badly that drifting on it would have been very costly, has veered to the southwest of the vein

which is now firm. Drifting can proceed on the vein from the existing face toward the northwest until another post-vein fault coincides with it.

5. At the point where the vein was recently cut northwest of the post-ore fault, it is about 9 feet wide, largely quartz but containing some galena, sphalerite, chalcopyrite and pyrite. It is below ore-grade in copper, lead and zinc. No assays have been run to this date to determine the content of gold and silver. A noticeable increase in the amount of chalcopyrite present over the amount observed where the vein was last seen, 300 feet to the south-east, indicates the possibility that the content of gold may have increased, as gold was associated with chalcopyrite in the Campbird vein with which the Greyhound will junction about 2,000 feet northwest of the present face of the drift. Assays of samples from the vein will be on hand before the examination is made.

Thank you for your prompt attention to this application and for the courtesies you have extended me on various occasions.

Very truly yours,

R. V. (Mike) Reinhardt

cc - Julius Sonza
Zenas Crane Colt
Samuel G. Colt, Jr.
Bernard Esunas

DMEA
DEPARTMENT OF THE INTERIOR
JAN 25 1957
REGION III
DENVER, COLORADO

January 24, 1957

Memorandum

To: W. M. Traver, Executive Officer, DMEA Field Team, Reg. III

From: Superintendent, Denver Experiment Station, Reg. III

Subject: Docket DMEA 4592 (lead-zinc-copper) Mayflower Mining Company (White Chief et al claims) Ouray County, Colo.

The application for Mayflower Mining Company, Docket DMEA 4592 in the amount of $96,500.00 was received in this office on January 24, 1957.

A field examination will be made and suitable report prepared by an engineer from the Denver office.

W. H. King

W. H. King

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DATE	INITIALS	CODE
1-28	220	C
1/28	[illegible]	500

cc: W. M. Traver (2)
E. N. Harshman
J. F. Shaw
Sec. Op. Com (2)

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

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RECEIVED JAN 25 1957

DATE	INITIALS	CODE
1-25	C	220
1/25	JWA	500

224 New Customhouse
Denver 2, Colorado

January 23, 1957

Kta Docket

Memorandum

To: E. N. Harshman (w/copy of brochure)
W. H. King (2) (w/copy of brochure)

From: DMEA Field Team, Region III

Subject: Docket DMEA 4592 (lead-zinc-copper) Mayflower Mining Company (White Chief et al claims) Ouray County, Colorado.

Enclosed is the subject application in the amount of $96,500.00. A field examination and suitable report are requested.

Also enclosed for your information is a copy of a letter from the Chairman of the Operating Committee, dated January 15, 1957, together with memoranda of review of the application by O. M. Bishop and N. E. Nelson.

Should you consider the application favorably, please advise this office at an early date so that we may obtain the required Consent to Lien and Subordination Agreements.

The Applicant's representative was in this office recently and stated that a supplementary letter would be forthcoming, in which he would recommend drifting on the vein instead of in the footwall.

Please return the Engineer's copy of the brochure to this office, together with your Report of Examination.

DMEA Field Team, Region III

Original signed by
W. M. TRAVER

By W. M. Traver
Executive Officer

Enclosures
HMC:ytl
cc
Sec. Op. Comm. (2)
Docket 4592
Ch. Op.

DMEA Form 7
(12-56)

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Date	Surname	Code
1/11/57		500
1/14	Selfridge	130
1/11		110
		100
1-14	C	220
		500

500

JAN 15 1957

Mr. W. M. Traver
Executive Officer
DMEA Field Team, Region III
224 New Customhouse Bldg.
Denver 2, Colorado

Re: Docket No. DMEA-4592 (Lead-Zinc-Copper)
Mayflower Mining Company
White Chief, et al claims
Ouray County, Colorado

Lamb

Dear Mr. Traver:

The cited application is being referred to your office for consideration, a field examination of the property if warranted, and recommendation.

In the event that you should consider the application favorably, the Applicant should be requested to obtain Consent to Lien and Subordination Agreements from the owners of the property. Also, the Applicant should be requested to supply a property map which would show the location of the proposed work.

The Applicant's costs for the proposed work are excessively high and should be carefully reviewed by the Field Team. It should be requested to obtain, if possible, three independent bids for diamond drilling.

Copies of memoranda dated January 7 and January 10, 1957, by N. E. Nelson, Geological Survey, and O. M. Bishop, Bureau of Mines, respectively, relating to the project, are enclosed for your information.

Also, enclosed are two copies of the application for the cited property for the use of the Field Team.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

Enclosures
APPROVED:

Frank D. Lamb
Member, Bureau of Mines

Thor H. Kiilsgaard
Member, Geological Survey

JWAlt/er 1/11/57
Copy to: Docket
Admr R File
Op. Committee
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Chron.
Base Metals

8623

DMEA Form 7
(12-56)

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Date	Surname	Code
1/11/57	[illegible]	500
	[illegible]	500
1/14	[illegible]	130
	[illegible]	110
1/14	[illegible]	100
		225
		500

1/14 Kiilsgaard (130)
1/14 Lamb (130)

JAN 15 1957

Mayflower Mining Company
Post Office Box 528
Ouray, Colorado

Re: Docket No. DMEA-4592 (Lead-Zinc-Copper)
Mayflower Mining Company
White Chief, et al claims
Ouray County, Colorado

Gentlemen:

Your application for Government assistance to explore the cited property has been reviewed by the Base Metals Division of the Defense Minerals Exploration Administration and is being referred to:

Mr. W. M. Traver
Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

If additional information concerning your application is needed, the Field Team will get in touch with you at an early date.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

JWAlt/er 1/11/57
Copy to: Docket
dmr R File
Op. Committee
Base Metals
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Region III (2)
Chron.

8623

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

1/11 J W a 500

January 10, 1957

Re: DMEA 4592; Lead-Zinc-Copper; $96,500
Mayflower Mining Company
Grayhound Mine
Ouray County, Colorado

Memorandum

To: W. R. Griswold, DMEA

From: O. M. Bishop, Branch of Base Metals

Subject: Review of application dated November 6, 1956, transmitted by field January 2, 1957 and received January 4, 1957

The applicant holds a lease on a group of 10 contiguous claims known as the Grayhound Mine in the Red Mountain Mining District. Five of these claims form the area to be included in the exploration contract.

Between 1905 and 1921, 3 tunnels were driven on the Grayhound vein, but all are now caved and no maps are known to exist. Beginning in August 1956, the applicant drove a new adit alongside the existing lower adit. At a point about 425 feet from the portal, the adit was directed so as to cut the Grayhound vein. At that point, the vein is reported to be 9 feet wide and to have a 6-foot quartz sulfide zone, containing 1.6 percent combined lead and zinc, less than 0.1 percent copper and relatively minor amounts of gold and silver.

The applicant believes the vein warrants further exploration, and proposes 1,000 feet of drift on the footwall side of the vein with samples of the vein to be obtained by long-holing at 5-foot intervals. The applicant also proposes up to 400 feet of raising on ore shoots that may be discovered and 1,000 feet of diamond drilling to explore such discoveries below the adit.

Costs are estimated to be $58.19 per foot for drifting, raising and crosscutting and $8.00 per foot for diamond drilling.

I recommend field referral to determine whether the structural and lithologic evidence is such as to warrant the proposed

expenditure. At the time of investigation, it might be pertinent to inquire whether the D-7 caterpillar tractor will be in continuous use. The estimated charge per foot of advance at $5.44 per foot plus diesel fuel exceeds the charge for powder, fuse, caps and rail.

O. M. Bishop.

O. M. Bishop
Commodity Specialist
Branch of Base Metals

Copy to - Division of Minerals
Mr. Kiilsgaard, Rm. 5222
Mr. Lamb, Rm. 3608
Branch of Base Metals
Files

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D M E A
RECEIVED JAN 8 1957
IN REPLY REFER TO:

DATE	INITIALS	CODE
1/9	JWA	500

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

January 7, 1957
Re: DMEA 4592
Mayflower Mining Company
Greyhound Mine
Ouray County, Colorado
$96,500.00 - Lead-zinc-copper

Memorandum

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

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of application

The applicant requests assistance in exploring a 9-foot vein by drifting, raising and diamond drilling.

The vein appears to have been worked upon between 1905 and 1906. Three adits were driven. No useful information concerning the results of the work is given, but it may be safe to infer that the results were unfavorable. However, as shown on a map that accompanies the application, the Greyhound vein is, perhaps, traceable for 3,000 feet, and only a small part has been explored. The applicant has recently done considerable work.

Referral of the application to the Field Team is recommended.

N. E. Nelson

N. E. Nelson

U. S. Government Messenger Envelope

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3. Write clearly.

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Mr. E. H. Ellis Rm. 4449 Statistics Bldg.	RUN STOP		RUN STOP
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U. S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

EXAMINATION REPORT
DMEA 4592

PREPARED FOR
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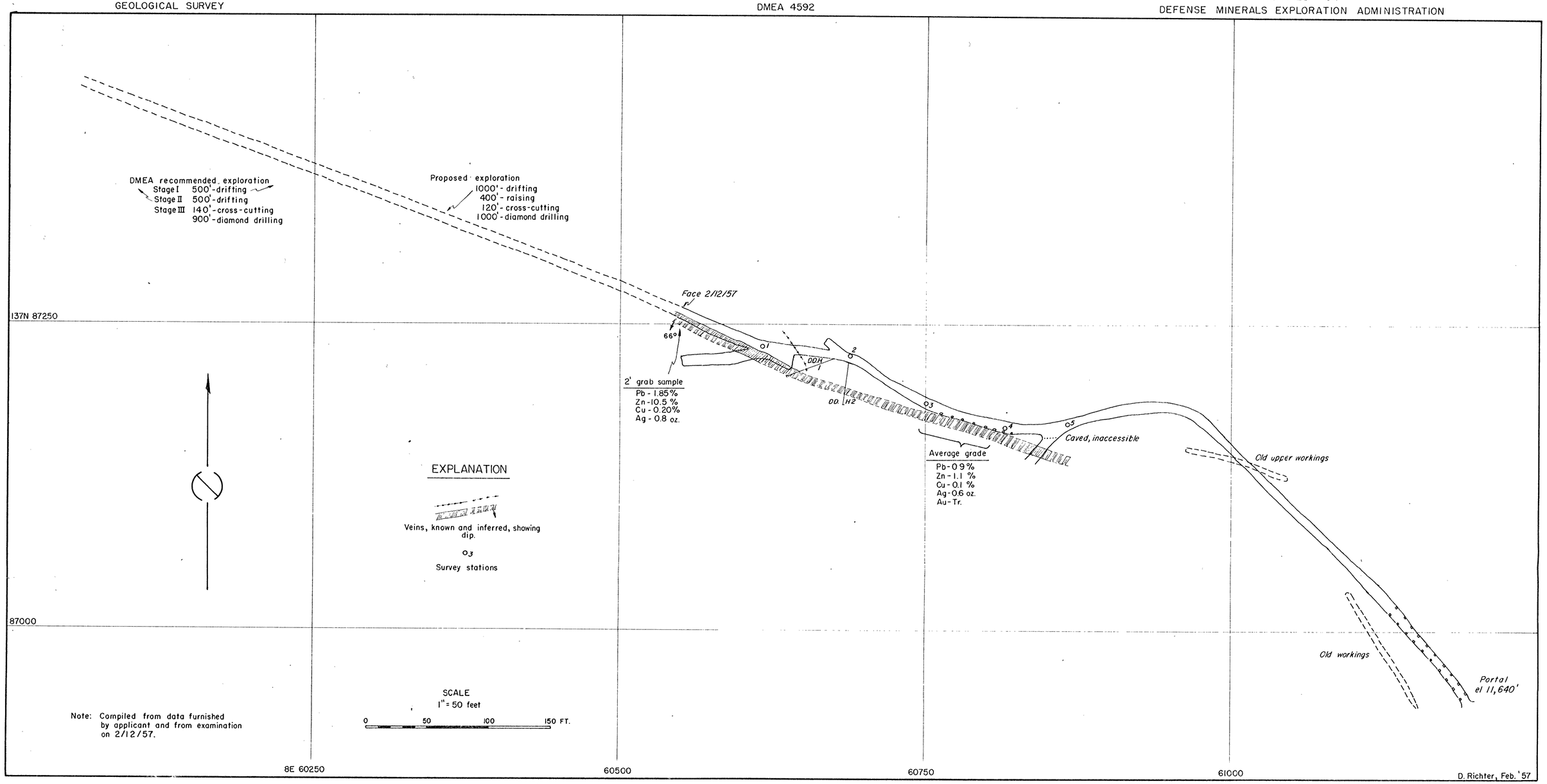
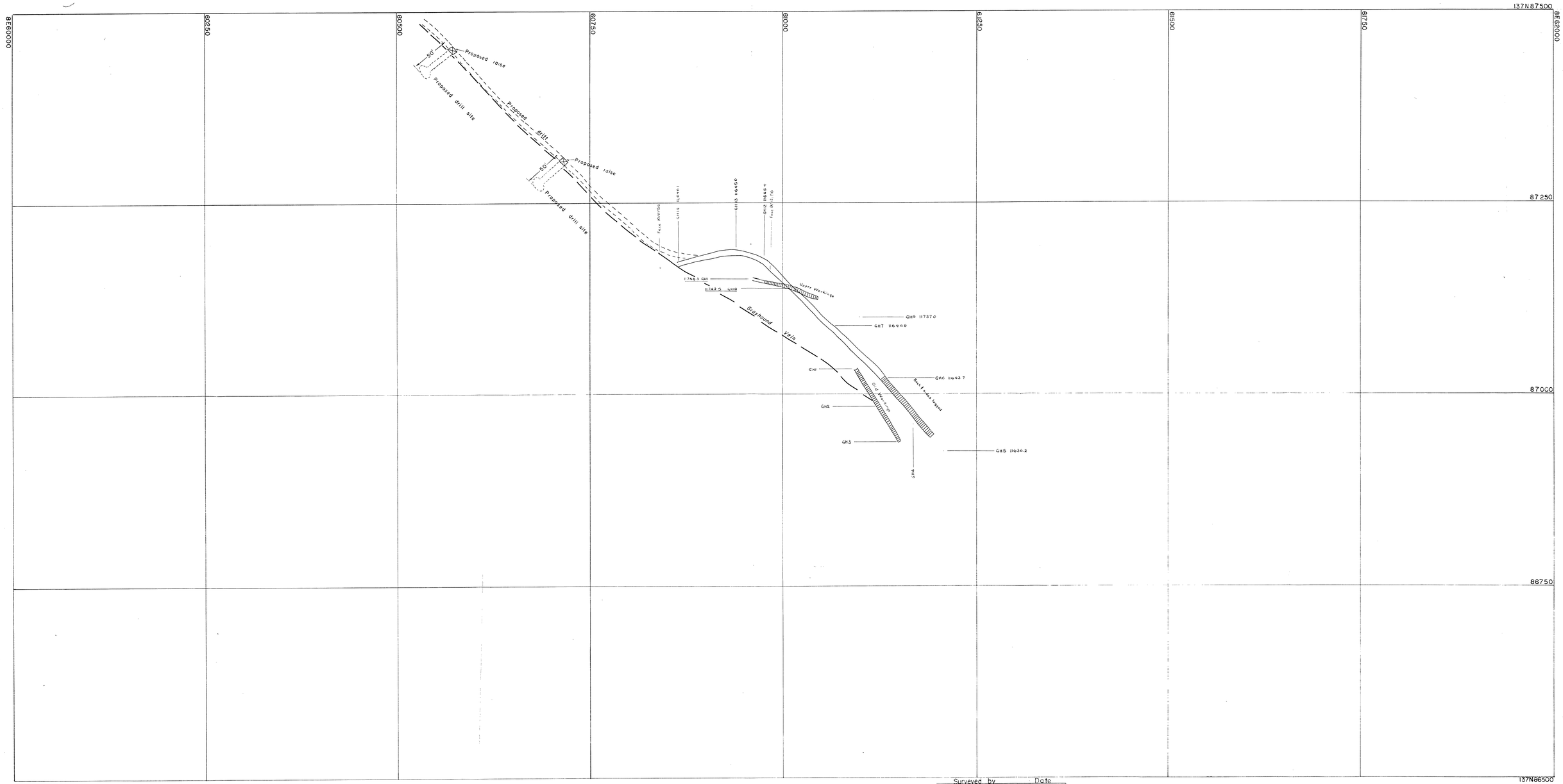


FIGURE 3. GEOLOGIC MAP OF THE GREYHOUND MINE, MAYFLOWER MINING COMPANY, OURAY COUNTY, COLORADO. DMEA 4592.

COLORADO
OURAY
SNEFFELS
MAYFLOWER MINING CO., Inc.

SURFACE
T43N R7W
Scale: 1" = 200'

Surveyed by Transit-Stadia & Plane Table Methods
B E HARTMANN, October 1956



COLORADO
OURAY
SNEFFELS
MAYFLOWER MINING CO., Inc
GRAYHOUND MINE

11,640 Level

Scale: 1"=50'
T 43N R 7W Sec36

Surveyed by	Date
S. E. HARTMANN	9/12/56
" " " "	10/11/56