DMA Form #1

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMA Docket No. 3272

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1 cy each to USBM, USGS, & Reg.

Routing Slip

To:	700	Date	3/9/54
To:	Oper Com	Date	3-24-54
To:	Oper Com	Date	10-20-54
To:	Oper Com	Date	1-18-55
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UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

224 New Customhouse
Denver 2, Colorado

February 9, 1955

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3272 (Uranium), United Mining and Leasing Corporation, Two Sisters Group, Gilpin County, Colorado

Reference is made to matter discussed in your letter of January 19, 1955 and teletype of February 8, 1955.

C. R. McKay was contacted by telephone as you suggested and we were informed that they had replied to the Administrator's letter of January 19, 1955 which they had received instead of being sent to this office as indicated in your letter of January 19. They further advised that they would forward additional information to the Administrator within the very near future.

Please advise if further action by this office is desired.

W. M. Traver

W. M. Traver

2/14/55 gla

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

224 New Customhouse
Denver 2, Colorado

February 9, 1955

Memorandum

To: Chairman, Operating Committee, DMEA

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Please advise if further action by this office is desired.

W. M. Traver

W. M. Traver

No action until United Mining and Leasing Corp. letter and data is recd.

Michael Ching

Surname 700

Ching
Ellis
Selfridge
Johnson
Mottendorf

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

FEB 8 1955 DEPARTMENT OF THE INTERIOR

DMEA

14X4401(01) Revolving Fund,
Defense Production Act (Interior)
(Allocated Working Fund to the Office of
the Secretary)

TELETYPE

W. H. BRAVER
EXECUTIVE OFFICER
REGION III
224 NEW CUSTOMHOUSE BLDG
DENVER 2 COLORADO

RELATE FEBRUARY 1 UNITED MINING AND LEASING CORPORATION

DOCKET 3272 POSSIBILITY ORIGINAL OF ADMINISTRATORS LETTER INADVERTENTLY

MAILED DIRECTLY TO APPLICANT SUGGEST YOU PHONE CENTRAL CITY 2046 FOR

CONFIRMATION AND INFORMATION ON APPLICANTS INTENT REGARDING OUR REQUIREMENTS.

George C. Selfridge

George C. Selfridge, Chairman (HB)
Operating Committee

MChing:am
2-7-55
cc to: Admr. Reading File
Operating Committee
Docket
Messrs. J. E. Crawford, Rm. 3641
T. H. Kiilsgaard, Rm. 5224
J. O. Hosted, Rm. 3210, GSA
Code 700
Mr. Ching

Confirmation to Region III

SENT
FEB 8 1955
Clerical Service Section

R.C.B.

Mr. Selfridge
2-7-55
12:56 PM

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB - 2 1955

BUR MINES DN 235 2-1-55 10-47 AM

CHAIRMAN, OPERATING COMMITTEE, DMEA

RE DOCKET DMEA 3272, UNITED MINING AND LEASING CORPORATION, SECOND PARAGRAPH YOUR LETTER JANUARY 19,1955. ORIGINAL OF ADMINISTRATOR S LETTER WAS NOT RECEIVED WITH THE TWO COPIES. IT APPEARS THAT ADMINISTRATOR S LETTER SHOULD BE FORWARDED TO THE APPLICANT IF CONDITIONS OUTLINED MUST BE MET, REGARDLESS OF THE MERITS OF THE PROJECT. PLEASE TELETYPE ADVICE AS TO ACTION DESIRED.

W M TRAVER

Mr. Cole.

FEB 1 1 15 PM '55

BUREAU OF MINES
MAIL ROOM
WASHINGTON D.C.

Surname copy

700

Ching
Ellis
Johnson
Hedges
Newcomb
Selfridge

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

JAN 19 1955

Mr. C. R. McKay, General Manager
United Mining and Leasing Corporation
Box 246
Central City, Colorado

Re: Docket No. DMEA-3272 (Uranium)
Two Sisters Group
Gilpin County, Colorado

Dear Mr. McKay:

Reference is made to your letter of January 1, 1955, regarding reinstatement of the subject application.

As stated in my letter of October 21, the land to be included in the proposed project was inadequate for the purposes of the contract and did not sufficiently protect the Government's interest. For the purpose of even a greatly modified program it would be necessary to include, as a minimum requirement, all of the following lode claims: Two Sisters, Claire Marie, Pacific, Maggie M, Harkaway, R. H. D., Easton, Ravenswood, and Carrell.

We would also require seven copies of an Owner's Consent to Lien from each owner, co-owner, or lessor of any of these claims. Sample copies of the form required are enclosed. Additional copies will be forwarded to you upon request.

In connection with the Mining Lease dated March 2, 1954, which covers the eastern portions of the Two Sisters, Pacific, and Claire Marie claims, we find Article 13A unacceptable for the purposes of the proposed project.

We have a further objection to the leases covering the west half of the Two Sisters claim, which involve a royalty payment of 5 to 45 percent to the original lessor, and an additional royalty payment to the sub-lessor of 50 percent of the remaining proceeds. Such an arrangement is unduly unfavorable to the concern with which we propose to consider a contract.

The elimination of above impediments to an orderly processing of your application would permit us to appraise your proposed project from a purely geological and engineering standpoint.

R.C.S.

We understand that the United Mining and Leasing Corporation has been doing work at the Carroll mine on its own account and that the Central City Uranium Company, an affiliate, has carried on operations at the Claire Marie shaft. Since the DMEA Field Team inspected these properties last August you have, no doubt, completed a considerable amount of work at these two properties. To enable us to more thoroughly appraise your proposed project, it is requested that you give us a detailed report on the operations and results to date at the Carroll and Claire Marie mines. Such a report should be supported by settlement sheets covering any ore shipments, and pertinent assay certificates.

If you are in a position to satisfy the above-mentioned requirements and can meet our objections to your leasing arrangements, please forward the necessary supporting documents such as leases, Owners' Consents to Lien, settlement data, etc., to this office and we shall continue to process your application for an exploration project.

Sincerely yours,

C. O. Mittendorf

Administrator

Enclosures 2

MChing/gla
1-14-55
cc to: Admr.'s Reading File
Docket
Messrs. J. E. Crawford, Rm. 3641
T. H. Kiilsgaard, Rm. 5224
J. O. Hosted, Rm. 3210, GSA
Code 700
Mr. Ching
DMEA Field Team, Region III (2)

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

Ching
Ellis
Selfridge
Johnson
Whitenday

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

JAN 19 1955

Re: Docket No. DMEA-3272 (Uranium)
United Mining & Leasing Corporation
Two Sisters Group
Gilpin County, Colorado

Dear Mr. Traver:

Attached are two copies of a letter dated January 1, 1955, from the Applicant, requesting reinstatement of the subject application, and the original and two copies of the Administrator's reply.

If the Field Team is still in favor of a project from an engineering and geological standpoint and believes that a contract is in order upon satisfaction, by the Applicant, of the various requirements listed in the Administrator's letter, please forward the original of such letter to the Applicant and advise us of your action.

If, because of recent developments, the Field Team does not favor a project under any circumstances, please return the above-mentioned letter to this office together with your recommendations.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (JHB)

Enclosures

APPROVED:

J. H. Hedges (JHB)
Member, Bureau of Mines

E. L. Newcomb
Member, Geological Survey (JHB)

MChing/gla
1-17-55
cc to: Admr.'s Reading File
Operating Committee
Docket
Messrs. J. E. Crawford, Rm. 3641
T. H. Kiilsgaard, Rm. 5224
J. O. Hosted, Rm. 3210, GSA
Code 700
Mr. Ching
DMEA Field Team, Region III

A.C.G.

1/7/55 gla

United Mining & Leasing Corporation

Mining Uranium, Gold, Silver, Lead and Zinc

Operating in Central City, Colorado

Often referred to as "The Richest Square Mile on Earth"

Central City, Colorado

Box 246
Phone 2046

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN - 7 1955

1 January 1954

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

RE: Docket No. DMEA-3272
Uranium Two Sisters Group
Gilpin County, Colorado

Dear Sir:

In reference to your correspondence of the Twenty-First of October there was not sufficient ground to warrant the exploration work we had requested, therefore we have approached the owners of land which we have leased, and have secured their permission to include additional ground in the contract. The additional ground would more than quadruple the original acreage applied for and at the same time be contiguous in annexing claims.

Will you kindly advise what steps we shall take in furthering our application for the above loan.

Yours very truly,

R. McGray
General Manager
United Mining & Leasing Corporation

Surname 700

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

Ching
Ellis
Hedges
Kittesgard
Selfridge
Jefferson

OCT 21 1954

United Mining & Leasing Corporation
Box 246
Central City, Colorado

Re: Docket No. DMEA-3272 (Uranium)
Two Sisters Group
Gilpin County, Colorado

Gentlemen:

Your application for aid in an exploration project and other data available to us in Washington concerning your subject property have been reviewed.

In view of the considerable amount of shaft and level rehabilitation required, we find that the land to be included in the proposed project is inadequate for the purposes of the contract and does not sufficiently protect the Government's interest.

We regret to advise you, under these circumstances, that we cannot give favorable consideration to your proposed exploration project.

Sincerely yours,

C. O. Mittendorf

Administrator

MChing:am
10-18-54
cc to: Admr. Reading File
Operating Committee
Docket
Messrs. J. E. Crawford, Rm. 3641
A. P. Butler, Jr. Rm. 5224
J. O. Hosted, Rm. 3210, GSA
DMEA Field Team, Region IV (2)
Code 700
Mr. Ching

R.C.S.

10/12/54 gla

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

OCT 11 1954

October 11, 1954

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee, Room 4640

From: John E. Crawford, Bureau of Mines Member
Uranium Commodity Committee

Subject: DMEA Docket 3272 (Uranium) United Mining and Leasing Corp. (Two Sisters Group), Gilpin County, Colorado

I have reviewed the geologic and engineering reports of the field teams and attached memoranda concerning the subject docket. Mr. Joseph O. Hosted, representative of the Atomic Energy Commission in Washington, has also reviewed the information.

We agree that the application be denied because of the irregular legal and financial concepts adopted by the applicants. This decision is in agreement with that of the Field Team.

The report is being forwarded to the Chief, Minerals Division, in accord with the routing slip attached thereto.

John E. Crawford

John E. Crawford

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

October 11, 1954

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John E. Crawford

10/4/54 gla

STANDARD FORM NO. 64

Office Memorandum • UNITED STATES GOVERNMENT

TO : E. Wm. Ellis, DMEA Member, Uranium Commodity Committee

DATE: October 1, 1954

FROM : Arthur P. Butler, Jr., USGS Member, Uranium Commodity Committee

SUBJECT: Report of examination, Docket DMEA 3272 (Uranium), United Mining and Leasing Corporation, Two Sisters Group, Gilpin County, Colorado

The Field Team report concerning exploration on the property identified above has been reviewed. Geologic and engineering data presented in the report substantiates the conclusions and recommendations of the Field Team examiners that a modified, three stage exploration program is justified. However, the Field Team concludes that the unfavorable lease terms, lack of protection of the Government's interest through withdrawal of some ground originally included in the application, and possible claim conflicts in regard to this property, make it inadvisable for the Government to participate in this project.

I believe, therefore, that if the application is denied it should be entirely without prejudice to its geologic merit or engineering feasibility, so that it could be favorably reconsidered if readjustment of the applicant's lease, royalty, and other business arrangements were made. If possible, I believe that the applicant should be informed that the denial is made for legal and business reasons and not for geologic and engineering reasons.

Arthur P. Butler, Jr.

Copy to: E. Wm. Ellis (2)

Property of the
Jones Library Inc.
Amherst, Mass.
OCT 4 1954

E. Wm. Ellis, DMEA Member, Uranium Commodity Committee

October 1, 1954

Arthur P. Butler, Jr., USGS Member, Uranium Commodity Committee

Report of examination, Docket DMEA 3272 (Uranium), United Mining and Leasing Corporation, Two Sisters Group, Gilpin County, Colorado

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Copy to: E. Wm. Ellis (C)

E. Wm. Ellis, DMEA Member, Uranium Commodity Committee

October 1, 1954

RECEIVED

OCT 4 1954

Arthur P. Butler, Jr., USGS Member, Uranium Commodity Committee

Report of examination, Docket DMEA 3272 (Uranium), United Mining and Leasing Corporation, Two Sisters Group, Gilpin County, Colorado

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Copy to: E. Wm. Ellis (2)

9/30/54 gla

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

224 New Customhouse
Denver 2, Colorado

September 21, 1954

Memorandum

To: Secretary to the Operating Committee, DMEA

From: DMEA Field Team, Region IV

Subject: Docket DMEA 3272 (Uranium), United Mining and Leasing Corporation (Two Sisters Group), Gilpin County, Colorado.

Enclosed are three copies of the report of examination on the subject docket. A copy has been forwarded to Mr. A. P. Butler, TEPCO, Building 21, Denver Federal Center.

An application was submitted for exploration assistance estimated to cost $136,189.49. The examining team recommends a revised project consisting of rehabilitation drifting, crosscutting and diamond drilling at an estimated cost of $30,742.46, but subject to consideration of the unfavorable lease agreements.

The east half of the Two Sisters lode is owned by Van R. and Claude R. McKay and leased to the United Mining and Leasing Corporation, with a clause which provides that, unless the McKays retain their respective positions with the corporation, the lease becomes null and void, except in case of death or voluntary resignation.

The west half of the Two Sisters lode is owned by Joseph F. Pughes and is under lease to the Central City Uranium Company for a period ending May 1, 1959. This lease specifies a royalty of 5 to 45 percent of the net return on uranium ores. The sublease to the applicant provides for an additional royalty to Central City Uranium Company of 50 percent after royalty to the owner is deducted. Thus, the applicants' share in the proceeds of any ore which might be mined from the west half of the Two Sisters Claim is less than half.

The entire lease and royalty arrangement is unfavorable to the stockholders of the applicant corporation and could seriously interfere with economic mining operations on possible ore bodies of low or moderate grade.

Reviewed by
DMEA OPERATING COMMITTEE
10-4-54
(date)

By letter dated June 11, 1954, the applicant withdrew the Claire Marie, Pacific, and Maggie Lodes from the original application. Possible claim conflicts make questionable the advisability of Government participation in shaft and level rehabilitation work so close to ground which is not subordinated to the government, but is held by an affiliated company of the applicant. The estimated cost of the rehabilitation work is $14,577.81. The Government's interest in any ore found in the Claire Marie vein as a result of the proposed rehabilitation of the Two Sisters shaft is limited to the south side line of the Two Sisters Claim.

A letter from Clyde B. Neill, one of the stockholders in the applicant corporation, was forwarded to you September 7, 1954.

We recommend denial of the application, because the Government would have insufficient protection of its interest in any ore which might be found as a result of the proposed work.

W. H. King

W. H. King

A. H. Koschmann

A. H. Koschmann

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

DEPARTMENT OF THE INTERIOR
Bureau of Mines Administration
RECEIVED
SEP 30 1954

Mining Division
Region IV

September 21, 1954

Memorandum

To: DMEA Field Team, Region IV

From: Chief, Mining Division, Region IV

Subject: Report of Examination, Docket DMEA 3272 (Uranium), United Mining and Leasing Corporation, Two Sisters Group, Gilpin County, Colorado.

Enclosed are ten copies of the engineering report of examination on the subject docket.

The applicant requested $136,189.49 to rehabilitate the Two Sisters Mine, sink the Carroll shaft 200 feet, drift 600 feet on the Carroll vein, and diamond drill 325 feet in the Carroll Mine.

A revised program at an estimated cost of $30,742.76 based on engineering and geologic factors is recommended by the engineer examiner, subject to the consideration of the unfavorable lease and royalty terms, as well as insufficient protection of the Government's interest in any ore which might be found as a result of the rehabilitation and exploration work.

We recommend denial of the application because of the insufficient protection of the Government's interest in any ore which might be found as a result of the proposed work.

W. H. King

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
10-4-54
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 30 1954

Building 20, Room 137
Denver Federal Center
Denver 2, Colorado
September 10, 1954

Memorandum

To: Executive Officer, DMEA Field Team, Region IV

From: Chief, Mineral Resources Branch, Mining Division, Region IV

Subject: DMEA 3272 (Uranium) United Mining and Leasing Corporation (Two Sisters group), Gilpin County, Colo.

Enclosed are the original and ten copies of a "Summary, Conclusions, and Recommendations" by D. R. MacLaren, Geological Survey, and M. H. Salsbury, Bureau of Mines, and of Salsbury's engineering report on the above loan application.

Salsbury concludes the exploration program, as modified by the examining team, has merit because of the possibility of discovering uranium reserves in an area unprospected for that mineral, but he is luke warm toward a project because of ownership complications and lease and royalty provisions. Subject to all the objections outlined in his report, he recommends, if the Region IV Field Team approves, a unit-cost contract consisting of a maximum rehabilitation of 350 feet of the Two Sisters shaft, 500 feet of level workings with 500 feet of drifting and/or crosscutting, and 150 feet of diamond drilling at an estimated cost of $30,742.46.

The project has the approval of the Mineral Deposits Branch of the Geological Survey who are participating financially in some exploration phases at the property and also of the Atomic Energy Commission, Denver Exploration Branch, geologists as they are interested in the area as new and having a possible reserve potential.

I would be inclined to recommend disapproval of a contract in this instance on the basis of the possible claim conflicts, adverse lease terms, and complicated financial structure of interlocking corporations conceived by the applicants. In addition, I take the same position regarding this rehabilitation proposal as that of the Field Team on DMEA 2617, U. S. Tungsten, Inc., with respect to the Complex mine. If the applicant will rehabilitate the Two Sisters shaft and mine workings so field examiners can map and sample the veins, an exploration loan might be considered.

Reviewed by
DMEA OPERATING COMMITTEE
10-4-54
(date)

In the event a contract is approved by the Field Team, I would suggest not splitting pennies on the costs, but preparing a short-form contract as follows:

Phase I	
350 feet of shaft rehabilitation at $23.00 per foot	$ 8,050.00
500 feet of level rehabilitation at $13.00 per foot	6,500.00
Phase II	
500 feet of drifting or crosscutting at $31.60 per foot	15,800.00
Phase III	
150 feet of diamond drilling at $2.50 per foot	375.00
Total cost (overall)	$30,725.00
Government participation 75 percent	$23,044.75

The brochure and all other material submitted by you with various memorandums concerning the application are also enclosed.

W. M. Traver

W. M. Traver

enclosure

WMT/kp

cc /10
DMRA 3272
Chron

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Defense Minerals Exploration Administration
Denver Federal Center
Denver 2, Colorado

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 30 1954

August 27, 1954

Memorandum

To: DMEA Field Team, Region IV

From: A. H. Koschmann

Subject: DMEA Docket 3272, United Mining and Leasing Corporation, Gilpin County, Colorado

Enclosed are 11 copies of a geologic report by D. R. MacLaren of the U. S. Geological Survey covering the above docket.

It has been concluded that some exploration is warranted and might result in a significant discovery, however the limited information available does not justify the extensive program proposed in the application. Mr. Van McKay of the applicant corporation has agreed to a modified program whereby the United Mining and Leasing Corporation would carry on at the Carroll mine "on their own."

A. H. Koschmann

A. H. Koschmann
Supervising Geologist
Colorado-Wyoming

Enclosures (11)

Reviewed by
DMEA OPERATING COMMITTEE
10-4-54
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

DMEA 3272, Two Sisters Group

United Mining and Leasing Corporation

Gilpin County, Colo.

Uranium

D. R. MacLaren, Geologist
Geological Survey

M. H. Salsbury, Mining Engineer
Bureau of Mines

September 1, 1954

Reviewed by
DMEA OPERATING COMMITTEE

10-4-54
(date)

RECEIVED
SEP 30 1954

DMEA 3272

TWO SISTERS GROUP
UNITED MINING AND LEASING CORPORATION
GILPIN COUNTY, COLO.

Summary, Conclusions, and Recommendations

By D. R. MacLaren
Geologist
Geological Survey

M. H. Salsbury
Mining Engineer
Bureau of Mines

DMEA 3272

TWO SISTERS GROUP
UNITED MINING AND LEASING CORPORATION
GILPIN COUNTY, COLO.

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

By D. R. MacLaren and M. H. Salsbury

The properties of the United Mining and Leasing Corporation in the Eureka-Quartz Valley district of Gilpin County, Colo., were visited by a Region IV Defense Minerals Exploration Administration examining team on May 13 and August 10, 1954. Application was made for Government exploration assistance at an estimated cost of $136,189.49--Government participation 75 percent, or $102,142.12. The proposal called for underground rehabilitation, shaft sinking, and drifting or crosscutting at several levels in two shafts on the property.

After a conference with the applicants, a modified project was agreed upon, eliminating all work through the Carroll shaft which had been opened up with exploration already under way.

The property rights of the applicants consist solely of leases and subleases obtained from four different sets of owners. One set of owners, Claude R. McKay and Van R. McKay, are also officials of the applicant corporation, and hold the original leases on two of the groups of claims which they have subleased to the corporation.

The entire lease and royalty arrangement is involved and rather unfavorable to the applicants. A further complication was the organization of another affiliated company which acquired ground very close to the proposed exploration project of the applicants.

Granite gneiss and granite pegmatite of pre-Cambrian age are cut by bostonite dikes of Tertiary age. The ores are typical of the galena-sphalerite zone that surrounds a central area of pyritic gold veins in the Central City district. A shoot of primary pitchblende and secondary torbernite is found in the workings of the Carroll mine. Secondary torbernite is found at several places on the dump at the Two Sisters shaft and along fissures and replacing some of the wall rock in the workings from the McKay shaft.

From a geologic standpoint, the modified exploration project appears to be justified with a reasonable possibility of finding significant uranium ore as shoots in the Two Sisters and R.H.D. veins or as replacement deposits in the vein walls.

Other considerations, such as unfavorable lease terms, lack of protection of the Government's interest through withdrawal of some ground originally included in the application, and possible claim conflicts, make the advisibility of Government participation in the project doubtful, particularly in the rehabilitation portion of the proposed work. However, subject to these adverse factors, an exploration project with the contract prepared on unit-cost, short form for rehabilitation of a maximum of 350 feet of the Two Sisters shaft and 500 feet of level workings, and to accomplish 500 feet of drifting and/or crosscutting on or to the Two Sisters and R.H.D. veins, together with 150 feet of diamond drilling, is recommended in a three-phased program at an estimated cost of $30,742.46--Government participation 75 percent, or $23,057.07.

Division of
Leasable Minerals
RECEIVED
SEP 30 1954

UNITED MINING AND LEASING CORPORATION

GILPIN COUNTY, COLORADO

DMEA DOCKET 3272

Geologic Report

By D. R. MacLaren
U. S. Geological Survey

UNITED MINING AND LEASING CORPORATION
GILPIN COUNTY, COLORADO

INTRODUCTION

The United Mining and Leasing Corporation of Central City, Colorado, has requested Defense Minerals Exploration Administration assistance to explore for uranium in the Eureka Gulch mining district, one mile northwest of Central City, Gilpin County, Colorado. The applicant proposes to explore three veins, the Carroll vein, the Two Sisters vein, and the RHD vein, as follows:

1. Deepen the Carroll shaft an additional 200 feet, and from the bottom drift east and west a total of 600 feet.

2. Rehabilitate the Two Sisters shaft, said to be 700 feet deep, and 800 feet of existing workings therefrom. From the bottom of the shaft, drift 300 feet east.

3. From the east end of the Two Sisters 700-foot level, crosscut 90 feet to the RHD vein, and drift east and west on the RHD vein a total distance of 300 feet.

4. Diamond drill a total of 775 feet to explore the walls of the Carroll and Two Sisters veins, and to explore the Carroll vein at depth.

The applicant estimates that this program will cost $136,189 (Government's share 75% or $102,141.75.)

The property was examined April 29, 1954, in company of Paul K. Sims of the U. S. Geological Survey and Frank Kuehnel, geologist for the Atomic Energy Commission. The Carroll shaft had been unwatered and was accessible to a depth of 177 feet. The McKay shaft was inaccessible to the 40-foot (bottom) level. No other workings were accessible.

In a letter dated June 8, 1954, the Field Team advised the applicant of the necessity of securing control of all ground within the limits of the Claire Marie, Pacific, Maggie M., and Two Sisters lode claims before consideration could be given to the request to diamond drill into the hangingwall of the Carroll vein and to rehabilitate the Two Sisters shaft. The applicant, in a letter dated June 11, 1954, cancelled the request to drill the hangingwall of the Carroll vein, and in another letter dated July 14, 1954, stated that a lease on the balance of the Two Sisters claim could and would be secured.

Another inspection was made August 10, 1954, in company with M. H. Salsbury of the Bureau of Mines and Van McKay of the applicant corporation, to determine what work had been done during the time that negotiations for full claim rights were in progress. Surface installations at the Two Sisters shaft were about two-thirds complete and the shaft had been opened and timbered to a depth of about 40 feet.

Based on an examination of the surface dumps and the accessible workings, it is concluded that exploration might result in a significant discovery, but that the proposed program is excessive in view of the limited information available at present. Therefore a modified program was discussed with the applicant and is satisfactory to him. It is recommended that this modified program, set up in three successive stages, be approved. The estimated cost of the recommended program is given in the Engineer's report.

GEOLOGY

The geology of the Central City district is described in U. S. Geological Survey Professional Paper 223 by Lovering and Goddard (1950).

A broad upright anticline trending northwest exposes a core of pre-Cambrian granite gneiss flanked on both sides by schist of the pre-Cambrian Idaho Springs formation. Both the granite gneiss and the schist are cut by numerous dikes, sills, and irregular masses of pre-Cambrian granite and pegmatite, and dikes of Tertiary bostonite. The earliest fractures, formed during the Laramide revolution, are northwesterly faults of the breccia reef type. Later faults strike northeast to east and contain most of the productive veins. The ores have a distinct zonal arrangement, those in the inner zone containing pyritic gold veins, and, locally, argentite. This zone is bordered by an outer zone of galena-sphalerite veins. The uranium deposits are in the area of transition from pyritic gold veins to galena-sphalerite veins on and about Quartz Hill. They are for the most part small lenses and pods of pitchblende, more or less confined to irregular zones within the veins. The absence of secondary uranium minerals in the Quartz Hill area is attributed to the high acidity of the mine waters.

The Eureka Gulch area is on the northwest flank of the northeast trending anticline, about one mile north of Quartz Hill. It is in the zone of galena-sphalerite veins. The rocks are granite gneiss and granite pegmatite of pre-Cambrian age and bostonite dikes of Tertiary age (figure 2). The Carroll vein strikes N. 55° W. and dips 64° northeast at the Carroll shaft. A line of shallow pits east of the shaft indicates a swing in strike to N. 70° W. and a slight steepening of dip to 68° northeast. Another line of pits between the Carroll and the Claire Marie shafts suggests that the Claire Marie vein joins the Carroll vein near the Carroll shaft and strikes N. 76° E. and dips 64° southeast. East of the Claire Marie shaft mine workings on the Claire Marie vein connect

with those on the Two Sisters vein. West of the Two Sisters shaft the Two Sisters vein strikes due west for about 150 feet, then swings slightly to the northwest and dips 82° south. East of the shaft the vein, locally called the Two Sisters but more probably a continuation of the Clair Marie, strikes N. 82° E. and dips 75° south. About 300 feet east of the Two Sisters shaft the RHD vein strikes N. 80° W. and dips 60° north at the Saint Anthony's shaft and 80° north about 50 feet east of the McKay shaft. The relation of the Two Sisters (Claire Marie ?) vein to the RHD vein is not clear but they probably join a few feet east of the McKay shaft.

At the Carroll mine pitchblende was identified in a highly radioactive area on the dump. Four selected samples taken from this area by Sims assayed .03% U_3O_8, .11% U_3O_8, .73% U_3O_8, and .80% U_3O_8. The Carroll shaft is 230 feet deep and serves short levels at depths of 29, 51, 102, 177, and 230 feet vertically below the shaft collar. At the time of the inspection only the 102- and the 177-foot levels were accessible.

On the 177-foot level two essentially parallel veins called the footwall vein and the hangingwall vein strike N. 80° E. and dip 55° to 80° northeast (figure 3). Both veins contain galena and sphalerite with lesser amounts of chalcopyrite, while the intervening rock is so interlaced with stringers of lead and zinc sulfides that the whole area forms a mineralized zone four to six feet wide and about 120 feet long. The level is timbered and tightly lagged for a distance of 25 feet east of the shaft, and again from 38 feet to 110 feet east. The first untimbered stretch, about 13 feet long, is highly radioactive and contains a shoot of pitchblende on the footwall at least 13 feet long, having an average width of about 6 inches and an average grade of about .5% U_3O_8.

No other pitchblende was found on the level. Just beyond the pitchblende shoot is a stope about 70 feet long on the level and tapering to a length of 55 feet at the back, some 40 feet above the level. The west wall of the stope is not accessible, but in a pillar at the back, near the west end, is another segment of pitchblende 13 feet long that averages .3% U_3O_8 over an average width of one foot. This is believed to be a part of the similar shoot encountered on the 177-foot level.

On the 102-foot level, the footwall vein contains considerable galena, sphalerite, and lesser amounts of chalcopyrite. The hangingwall vein is, for the most part, a clay-filled fissure with only small amounts of visible sulfide minerals. Except locally, the rock between the two veins is not mineralized as it is on the level below. No radioactivity above normal background was registered on the level, and according to Kuehnel, there was no fluorescence detected by Atomic Energy geologists during a traverse with a mineralite. However, about 25 feet above the level, at the east end of a short intermediate drift, torbernite and an unidentified yellow radioactive mineral were found in the hangingwall vein, a few feet from a small lens of galena and cerussite. A selected sample of the vein material at the east end of the intermediate drift was taken by Sims. It assayed 1.5% U_3O_8. A 6-inch channel sample taken by Kuehnel at the same place assayed .15% U_3O_8. No pitchblende was found in the sublevel drift.

Subsequent to the examination for this report, Sims completed a more detailed examination including mapping of the two levels and the stope above the 177-foot level. The most interesting addition to the geologic picture is evidence of the existence of a zone of transition between the secondary and primary uranium mineralization at about the normal level of ground water. Torbernite was found not only as a coating

on the hard pitchblende, but also as minute veinlets penetrating it.

The Two Sisters mine was inaccessible as the shaft was caved at the collar and covered with debris. The shaft has since been partially opened and retimbered to a depth of about 40 feet. However, on the dump there are several places where radioactivity is high. No pitchblende was found on the dump but the secondary uranium minerals torbernite and kasolite were found fairly abundantly at three locations. Four selected samples of dump material taken by Sims assayed 1.18% U_3O_8, 3.60% U_3O_8, 5.55% U_3O_8, and 7.21% U_3O_8. The secondary mineral torbernite occurs along fractures and as disseminated flakes in a greenish, altered gneiss. It is estimated that the dump contains about 3.5 tons of material of ore grade.

At the McKay shaft on the RHD vein, about 300 feet east of the Two Sisters shaft, similar pieces of altered schist containing secondary uranium minerals were found. The McKay shaft is 40 feet deep and at the bottom there is a drift extending 12 feet west and 105 feet east of the shaft (figure 4). West of the McKay shaft the RHD vein strikes N. 61° W. while east of the shaft the strike swings to N. 87° E. The vein dips from 60° to 80° north. On the McKay 40-foot level the vein is curved and has many irregular branches and splits. Many of the branches roll into the foliation of the wall rocks and die out within a few feet. The vein mostly contains clay gouge, but in places breccia and white quartz are found. Although pockets of galena surrounded by cerussite are reported from the RHD workings, none was seen in the McKay shaft. The wall rock is predominantly schist with interlayers of granite pegmatite and amphibolite. Both the schist and the amphibolite have been intensely altered. The amphibolite occurs as pod-like bodies within the gneiss

and locally contains torbernite similar to that found on the McKay and the Two Sisters dumps. A grab sample of altered amphibolite, taken by Sims, assayed .28% U_3O_8. Of several other samples taken by Sims, one chip sample of a 1-inch vein in the shaft assayed .22% U_3O_8 and another chip sample of a 6-inch vein in the drift assayed .17% U_3O_8.

CONCLUSIONS AND RECOMMENDATIONS

Both primary and secondary uranium minerals and a zone of transition between them are found in the Carroll mine workings. Secondary uranium minerals are on the dumps of the Two Sisters and the McKay shafts, and are in place on the McKay 40-foot level. There is no other information regarding the occurrence of uranium in the Eureka Gulch area.

It is concluded that some exploration is warranted and might result in a significant discovery. However the limited information available does not justify the extensive program proposed in the application. Speaking for the United Mining and Leasing Corporation, Van McKay agreed that a more cautious approach is advisable and acceptable. He stated that under a reduced program, the United Mining and Leasing Corporation would prefer to carry on at the Carroll mine "on their own," and would appreciate Defense Minerals Exploration Administration assistance at the Two Sisters - RHD end of the property. Therefore it is recommended that the following program, set up in three stages, be approved:

Stage 1. The first stage will provide for a maximum of 350 feet of rehabilitation in the Two Sisters shaft and a maximum of 500 feet of rehabilitation in drifts from the shaft. The levels to be rehabilitated will require designation and approval in writing

by the Field Team prior to starting this work. This wording is necessary because of possible errors in the section furnished with the application. The intent is to rehabilitate those levels that are shown to be about 150 and 300 feet below the collar of the shaft.

Stage II. Upon completion of stage I another field examination will be made and if conditions warrant, stage II will provide for a maximum of 500 feet of drifting and crosscutting on and between the Two Sisters and the RHD veins. Before this stage can be started, written authorization should be given by the Field Team.

Stage III. The third stage will provide for 150 feet of diamond drilling into the walls of the Two Sisters and/or the RHD veins at such sites as may be previously recommended and approved in writing by the Field Team, and may be started prior to completion of Stages I or II if considered advisable by the Field Team.

The estimated cost of this recommended program is given in the Engineer's report.

REFERENCES

Lovering, T. S. and Goddard, E. N. (1950) Geology and ore deposits of the Front Range, Colorado, U.S. Geol. Survey Prof. Paper 223, 1950, pp. 168-191.

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TWO SISTERS GROUP
UNITED MINING AND LEASING CORPORATION
GILPIN COUNTY, COLO.

Engineering Report

By M. H. Salsbury
Mining Engineer
Bureau of Mines

DMEA 3272

TWO SISTERS GROUP
UNITED MINING AND LEASING CORPORATION
GILPIN COUNTY, COLO.

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*See figure with geologic report.

DMEA 3272

TWO SISTERS GROUP
UNITED MINING AND LEASING CORPORATION
GILPIN COUNTY, COLO.

ENGINEERING REPORT

By M. H. Salsbury

INTRODUCTION

The property controlled by the United Mining and Leasing Corporation in Gilpin County, Colo. was examined by a Region IV Defense Minerals Exploration Administration team on May 13, 1954, in company with Van R. McKay, president, and C. R. McKay, general manager of the applicant corporation. Paul Sims and Edward Tooker of the Mineral Deposits Branch of the Geological Survey also participated. Processing of the application was delayed, pending clarification of a lease vital to the project, and after the applicants obtained this lease, a second visit was made on August 10, 1954, to check the status of operations.

Application has been made for Government assistance to explore for uranium the Carroll and Two Sisters mines at an estimated cost of $136,189.49--Government participation 75 percent, or $102,142.12. The proposal called for shaft and level rehabilitation, shaft sinking, and lateral development of three uranium-bearing veins.

ACKNOWLEDGEMENTS

Data on the property was obtained by personal observation, from material submitted with the loan application, and by consultation with Paul Sims of the Geological Survey, who has carried on field work

in the Central City area, and has been particularly concerned with the uranium occurrences on the Carroll and Two Sisters property in recent months. The Survey member of the examining team consulted K. E. Baker of the Atomic Energy Commission and was referred to their field geologist, Frank Kuehnel, who accompanied him on a preliminary examination.

The Spur Daisy group is mentioned briefly on page 208 of U. S. Geological Survey Professional Paper 94.

LOCATION, TOPOGRAPHY, AND PHYSICAL FEATURES

The Two Sisters group is in the Eureka-Quartz Valley mining district, 1 mile northwest of Central City, Gilpin County, Colo., near the head of Eureka Gulch (fig. 1) at an altitude of 8,900 feet. A short mine road connects with a gravelled county road passing through the property. Central City is 40 miles by Colorado State Highway and U. S. Highway 6, both hard surfaced, from Denver, Colo., the nearest major source of supplies. Explosives, timber, and miscellaneous small items can be purchased locally. Water for mining purposes is obtained from mine drainage. Power is available from the network of the Public Service Company of Colorado.

Topography is typical of the eastern slope of the Colorado Front Range. In the immediate area of the property the valley slopes are less precipitous than at points downstream. The mines are on a ridge between Eureka Gulch and Quartz Valley.

The climate is cool in summer and moderate to severe in winter with occasional violent thunderstorms or snowstorms of short duration.

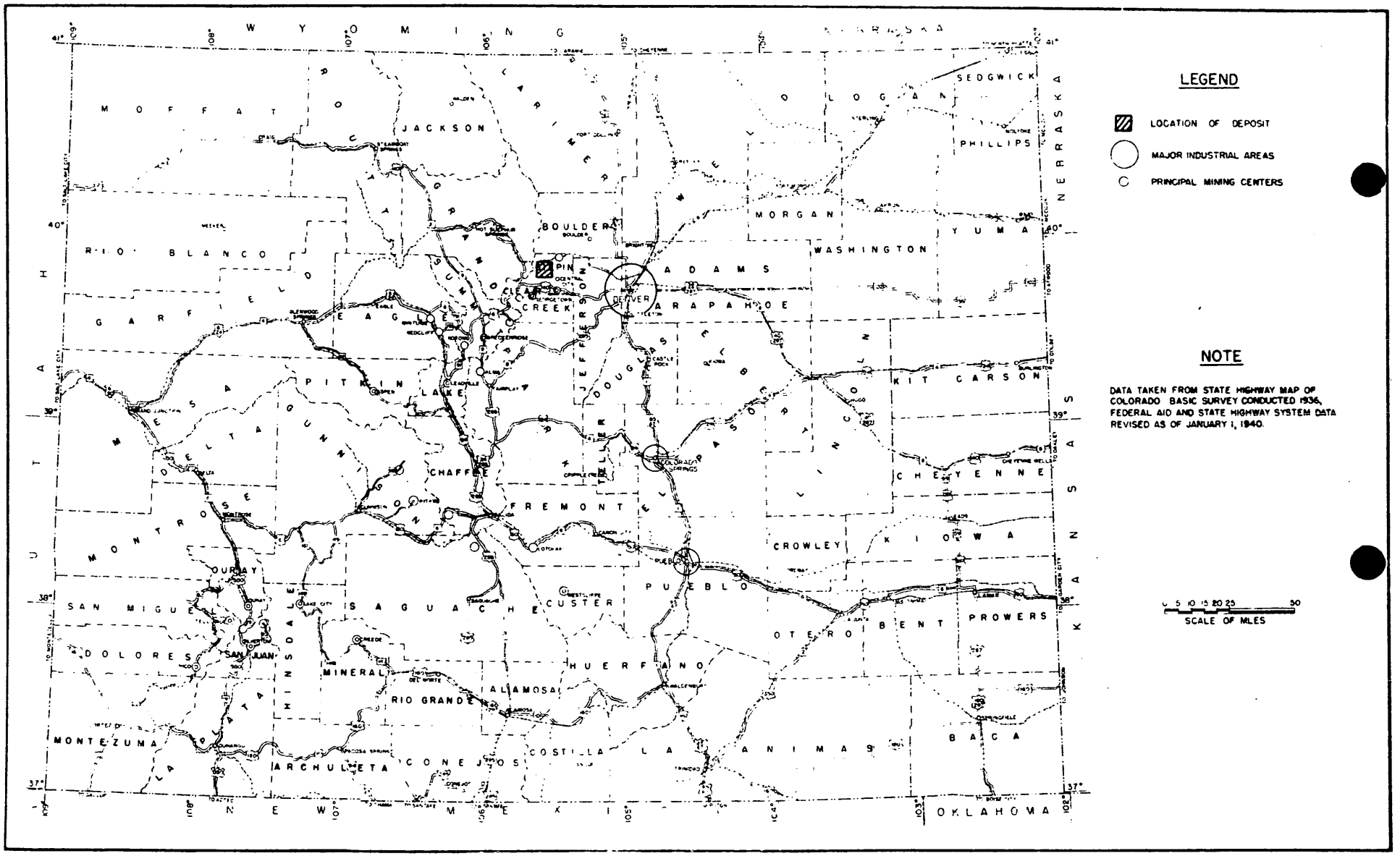

FIGURE 1 - LOCATION MAP, UNITED MINING AND LEASING CORPORATION, TWO SISTERS GROUP, GILPIN COUNTY, COLO. (DMEA 3272)

Operations are feasible throughout the year with possibly a few interruptions after winter storms.

The nearest market for gold-silver-lead ores is at custom mills in the vicinity and at Idaho Springs, Colo., 15 miles distant, or at the Arkansas Valley smelter of the American Smelting and Refining Company at Leadville, Colo., a distance of about 100 miles over hard surfaced highways. Uranium ores from the Front Range area are being shipped to the Salt Lake City, Utah, plant of the Vitro Uranium Company, operated for the Atomic Energy Commission. Ore with a minimum content of 0.20 percent U_3O_8 in carload lots of 40 tons or more is currently being purchased by the Commission, which pays a hauling allowance of 6 cents per ton-mile to the nearest railroad siding, and the rail freight to a buying station. In this case the nearest rail point is the Denver and Rio Grande Western Railroad at Rollinsville, Colo., a distance of about 15 miles from the property.

An excellent supply of mine labor is available in and near Central City. The established rate for mine labor is $1.50 to $1.70 per hour on a normal 6-day week with time-and-one-half being paid for over 40 hours weekly.

HISTORY, PRODUCTION, AND OWNERSHIP

The mines on Nigger Hill, which include those controlled by the applicants, have produced galena-sphalerite ore, with accompanying gold and silver, from moderate depths, with a history dating back to the 1860's. The total amount of development in the immediate area has not been large. The presence of uranium in the veins apparently was

not recognized before 1953. Certainly it is not mentioned in earlier literature, although the occurrences on Quartz Hill and elsewhere are described.

The total production from Nigger Hill in gold, silver, and lead is reported as about $200,000.00.

The last operation on the Two Sisters mine was carried on on the 3rd level, reported as 350 feet deep, by the Hazelwood Brothers of Central City. The McKays explored the R.H.D. vein through the McKay shaft some years ago.

In 1953, examination of the dumps of the Carroll, Two Sisters, and other shafts by the McKays and others disclosed the presence of uranium, chiefly as torbernite or metatorbernite, a complex copper-phosphorus-uranium mineral. A rather widespread distribution of the mineral in the dumps indicated that occurrence of uranium in veins developed by the mine workings might be extensive. Based on these showings, the McKays have organized two stock companies to carry on exploration through several old shafts. Three shafts have been equipped, and in one of these, the Carroll shaft, rehabilitation work underground has been under way for some time.

The United Mining and Leasing Corporation holds leases on the following groups of patented lode claims in Quartz Valley mining district:

(1) A.M. lode claim, et al., U. S. Survey No. 9041 AM, comprising all or part of 17 claims owned by David Kalish, New York, N. Y., and Lawrence L. Kalish, Denver, Colo. Applicants have a 10-year lease expiring November 16, 1963,

with the privilege of a 10-year renewal. A royalty rate of 15 percent of net returns is specified.

(2) R.H.D. lode, U. S. Survey No. 8004, and Polar Star lode, Survey No. 6144, owned by Dorothy Jenkins and Katharine Salstrand of Denver, Colo., and John C. Jenkins, Jr., of Central City, Colo. A lease and option to purchase at a price of $5,000.00, royalties of 10 to 15 percent applying to purchase, is held by Claude R. and Van R. McKay of Central City for a 5-year period expiring October 1, 1958, with the privilege of renewal for an additional 5 years. The McKays have issued a sublease without option to purchase to the United Mining and Leasing Corporation, royalties to be paid direct to the owners. The term of the sublease is erroneously defined as "4 years and 11 months commencing at noon on the thirtieth day of October 1954 and ending at noon on the thirtieth day of October 1958." No provision for extension of the sublease beyond 4 years, 11 months is included. Presumably, this lease was supposed to be dated October 30, 1953, to end on the date the original lease to the McKays expires, October 1, 1958.

(3) Harkaway lode, U. S. Survey No. 557, owned by Jenkins McKay Hardware Company, Central City, is carried by a lease and sublease issued on the same terms as claims listed in item (2).

(4) East half of Two Sisters lode, U. S. Survey No. 8062, east 400 feet of Pacific lode, U. S. Survey No. 9041, and

east 675 feet of the Clara Marie lode, Survey No. 8732, are owned by Van R. and Claude R. McKay of Central City, and are leased to the United Mining and Leasing Corporation for 10 years, ending March 2, 1964, with the privilege of a 5-year extension. This lease has a clause (13a) which provides that, unless the McKays retain their respective positions with the corporation, the lease becomes null and void, except in case of death or voluntary resignation.

By letter dated June 11, 1954, the applicants withdrew the Claire Marie, Pacific, and Maggie lodes from the ground included in the application.

The total of work requirements for all leases is 240 man-shifts per month. It is not stated in any of the leases whether labor expended on one group, for the benefit of the whole enterprise, will be considered as applying on other groups.

In addition to the above leases, the applicants, at the request of the Government, have acquired a sublease on the west half of the Two Sisters lode to protect the Government's interest in proposed work which might find ore extending into the west half of the claim. The west half of this claim is owned by Joseph F. Pughes and is under lease to the Central City Uranium Company for a period of 5 years, ending May 1, 1959. Central City Uranium Company, of which Van R. McKay is secretary-treasurer, has subleased the claim to the United Mining and Leasing Corporation for the same term. The original lease calls for a royalty of 5 to 45 percent of the net return on uranium ores. The

sublease provides an additional royalty to Central City Uranium Company of 50 percent after royalty to the owner is deducted. Thus, the applicants' share in the proceeds of any ore which might be mined from the west half of the Two Sisters claim is less than half.

With the entire Two Sisters claim under lease, the applicants' right to any ore found on the Two Sisters or R.H.D. veins appears to be secure. On the Claire Marie vein, which joins the Two Sisters vein near the Two Sisters shaft, the rights of the applicants extend only to the sideline of the Two Sisters claim because the portion of the Claire Marie claim, which was in the application originally, has been withdrawn. With this withdrawal, the position of the Government in regard to the Claire Marie vein is similar to the situation on the Two Sisters vein before the west half of the Two Sisters was included in the project. The Government's interest in any ore found in the Claire Marie vein as a result of the proposed rehabilitation of the Two Sisters shaft is limited to the south sideline of the Two Sisters claim. The claims which are now included in the project as modified are shown on figure 2A.

Some lease, sublease, and royalty provisions are involved and unfavorable to the applicant corporation, and the advisibility of participation by the Government in the project may be questionable.

DESCRIPTION OF THE DEPOSITS

The veins of the Eureka-Quartz Valley district appear to be transitional between galena-sphalerite veins and gold-pyrite veins and occur in the pre-Cambrian Idaho Springs complex (fig. 2 with the geologic report). The main veins such as the Carroll and Two Sisters

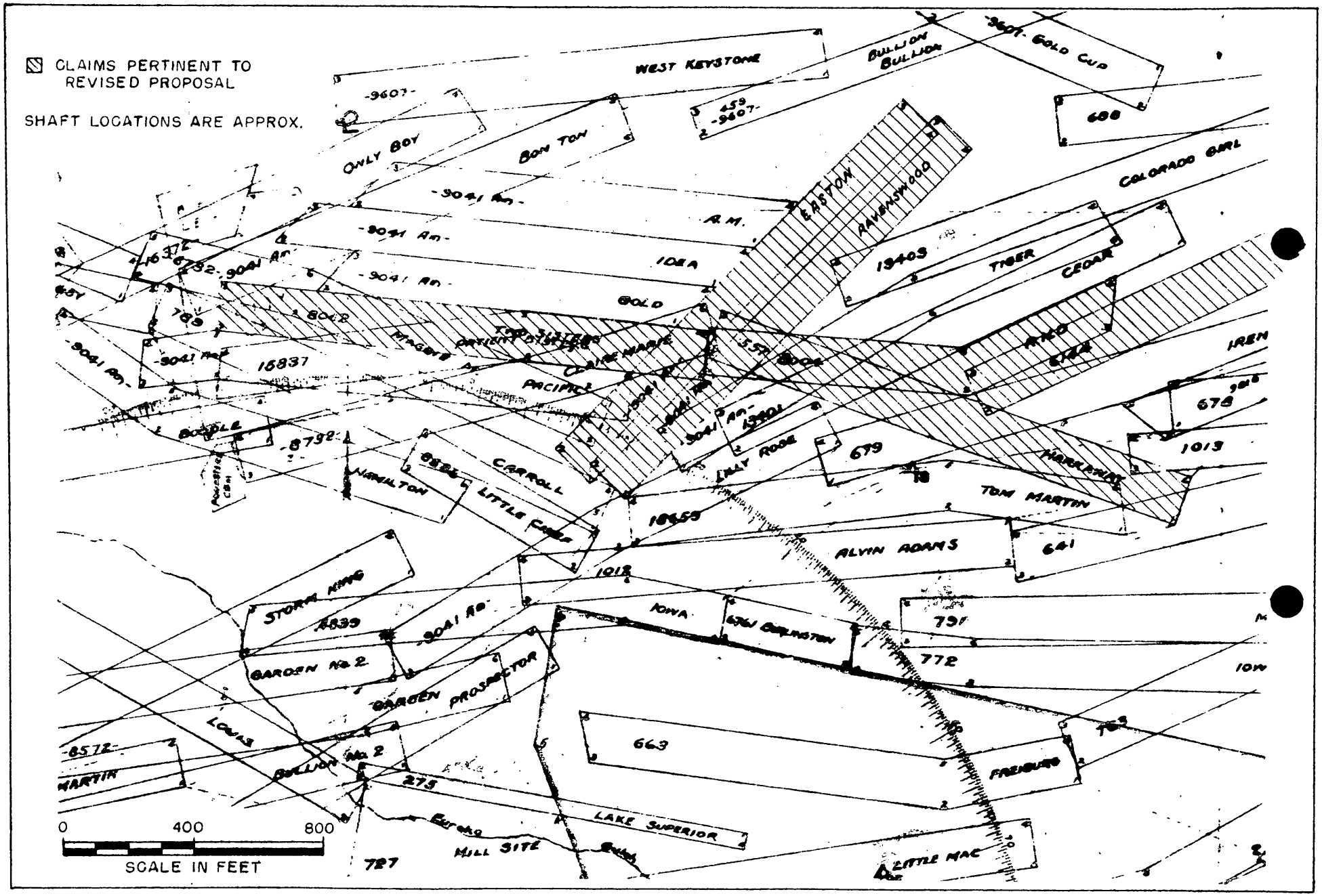

FIGURE 2A- CLAIM MAP, UNITED MINING AND LEASING CORP., TWO SISTERS GROUP, GILPIN COUNTY, COLO. (DMEA 3272)

trend slightly north of west. Others, such as the Claire Marie, appear to be gash veins which trend south of west connecting adjacent northwest-trending veins, joining them at an oblique angle. The R.H.D. is possibly a northwest-trending split of the Two Sisters vein.

Recent work has shown that uranium occurs as pitchblende in the Carroll vein in the form of lenses and irregular stringers similar to the better known occurrences to the south on Quartz Hill, with the difference that the secondary mineral torbernite is found intimately associated. In addition, there was found in old dumps torbernite and other secondary uranium minerals as well as pitchblende. Torbernite as a replacement in amphibolite schist was found in the dump of the McKay shaft and in the hanging wall of the R.H.D. vein, on the 50-foot level of the McKay shaft, to the east of the Two Sisters shaft (fig. 4 with the geologic report). Similar material found in the Two Sisters dump indicates that deposits of this type have been cut in these workings too. Geological Survey personnel considers this mineralization significant, placing the ore deposits of this area in a different category from Quartz Hill occurrences which have not been found to be of commercial value to date.

MINEABLE ORE RESERVES

There are no known ore reserves on the property. In the Carroll mine, about 7 tons of ore from pillars and ends of a stope on the 102- and 177-foot levels have been mined and stockpiled on surface. The average content is reported as about 1.00 percent U_3O_8, and this has been verified by a sample taken by an Atomic Energy Commission

representative which returned 0.61 percent E_u and 0.71 percent U. A truck shipment is planned by the operator.

No sampling was undertaken by the examining team. Samples taken by Geological Survey field personnel on the dumps and underground verify uranium values reported by the applicant. Results of some samples taken in the McKay shaft are shown on figure 4 with the geologic report. Four selected samples taken by Sims of material on the Two Sisters dump returned 1.18, 3.60, 5.55, and 7.21 percent U_3O_8.

The newly discovered ore shoot on the 230-foot level of the Carroll shaft has not been developed sufficiently to justify a reserve estimate.

PRESENT STATUS

Exploration and Development

The claims controlled by the United Mining and Leasing Corporation and the Central City Uranium Company, the latter reported in the press to be an affiliate, have been developed by three major shafts, the Carroll, Two Sisters, and Claire Marie, and a number of shallow shafts such as the McKay, R.H.D., and St. Anthony, all east of the Two Sisters shaft (fig. 2 with the geologic report). There are no authentic records of past operations available, and the information which has been gathered is largely the recollection of men who have worked in the mines. However, the Carroll shaft is reported to be 450 feet deep, and the Two Sisters shaft, 700 feet deep.

The Carroll shaft has been equipped and rehabilitated to a depth of 230 feet (fig. 3 with the geologic report). Three main levels and four short sublevels have been made accessible. A small gold-silver ore body has been mined east of the shaft on the 102- and 177-foot levels.

Pitchblende and torbernite were found in pillars and ends of the old stopes in a short ore shoot with an indicated pitch of about 50 degrees to the northwest. There is still pitchblende showing in the floor of the 177-foot level. On the pitch of the ore shoot projected downward, it should be found on the 230-foot level at the shaft but has not been located. The operators have started driving west on the Carroll 230-foot level and opened up a lens of pitchblende about 10 feet long at a point 50 feet west of the shaft. This is not in line with a possible downward continuation of the ore shoot mined above. About 1,000 pounds of ore from this work has been sacked. Paul Sims of the Geological Survey estimates the content as about 2 percent U_3O_8. McKay reports that a selected specimen assayed 36 percent U_3O_8.

In addition to the sacked ore, about 5 tons of lower grade ore has been saved which may assay as high as 0.50 percent U_3O_8.

No replacement ore has been found in the walls of the Carroll vein, probably for the reason that the walls are not amphibolite schist, the rock which appears to be more easily replaced.

The Two Sisters shaft is reported to have at least four levels. A level at a depth of 350 feet is supposed to extend eastward some 200 feet towards the McKay, R.H.D., and St. Anthony shafts.

The depth of the Claire Marie shaft is not known but it is reported to be connected with the Two Sisters at a depth of about 100 feet.

The McKay shaft is 50 feet deep (fig. 4 with the geologic report). The R.H.D. is 100 feet deep, and the St. Anthony, 200 feet or more. These shafts are very close together, are connected on the 50-foot level, and develop the R.H.D. vein.

In addition to the Carroll shaft operation, the applicants have equipped the Two Sisters mine and rehabilitated the first 40 feet of the shaft. The Central City Uranium Company is currently building a surface plant on the Claire Marie shaft.

The Geological Survey and the applicants, acting jointly, are opening a manway in the collapsed R.H.D. shaft under an agreement whereby the Geological Survey is contributing $500.00. This work had progressed to a point just below the 50-foot level on August 10, 1954. An occurrence of torbernite in the schist hanging wall was visible on the 50-foot level just east of the manway. This is similar to one at the same level east of the McKay shaft.

Operations in this area reach the ground water table at a depth of 150 feet, more or less, so pumping must be resorted to at any depth below this. The Carroll shaft is easily kept open by a pump with a capacity of 50 gallons per minute operating not more than 2 out of 24 hours. The last several years have been abnormally dry, and it is to be expected that in a normal year, and during the spring, a somewhat larger flow would have to be handled. McKay reports that the Two Sisters shaft is the "water hole of the hill." This may be only a relative term and the actual volume which can be expected in an operation below water level may not actually be very large.

Mining and Milling Equipment and Other Facilities

The Carroll mine is equipped with hoist, air compressor, and pumping facilities for a maximum production of 25 tons daily. The Two Sisters mine will be similarly equipped.

There are no milling facilities at the property or in operation in the Central City district.

PROJECT PROPOSALS, WITH COSTS

The applicants propose the following exploration program:

Rehabilitate Two Sisters mine		
700 feet shaft (to be completed in 250 working days) $70.34 per foot*	$49,242.35	
800 feet drifts (to be completed in 135 working days) $25.77 per foot*	20,666.90	
Total of 690 feet of drifts and crosscuts on Two Sisters and R.H.D. lodes (to be completed in 145 working days) $33.17 to $42.44 per foot*	24,415.58	
Diamond drilling in Two Sisters mine 450 feet at $2.50 per foot (to be contracted)	1,125.00	
Total in Two Sisters mine		$ 95,449.43

Total estimated time for Two Sisters--530 days or 21-1/4 months.

*Costs per foot do not include supervision.

Sinking Carroll shaft 200 feet at $86.06 per foot	16,351.42	
Drifting 600 feet on Carroll vein at $30.24 per foot	18,176.14	
Diamond drilling in Carroll mine 325 feet at $2.50 per foot	812.50	
		35,340.06
Supervision for both projects		5,400.00
Total estimated cost		$136,189.49
Government participation at 75 percent		$102,142.12

Projects to be run concurrently.
Total estimated time for completion--24 months.

The time estimate appears to be excessive. The applicants estimate progress in shaft rehabilitation at only 1.4 feet per shift and level rehabilitation at 3.0 feet per shift. Progress in drifting and crosscutting is computed at 2.0 feet per shift. The applicants' estimates on rehabilitation costs are high and not much less than the

cost of new openings. Driving costs listed are more realistic. The cost of compressed air for driving is not included, nor are accounting costs. A low figure for supervision is also used.

It is the opinion of the Defense Minerals Exploration Administration examining team that the proposal is more elaborate than necessary to determine if uranium in significant quantities occurs at the property. Sinking the Carroll shaft and rehabilitating the Two Sisters shaft to the bottom do not appear to be justified. There is unexplored ground at shallower depths in both mines, much of it below ground water level, and there is no valid reason, on the basis of present knowledge, to carry on deeper exploration with the expectation of encountering increased uranium mineralization.

Exploration of the upper levels of the Carroll shaft is already under way. In a conference with Van R. McKay, representing the applicants, it was agreed to confine proposals for Defense Minerals Exploration Administration exploration to the Two Sisters shaft and only as deep as the 3rd or 300-foot level. A maximum of 350 feet of shaft rehabilitation is estimated for this purpose although the actual depth of the 3rd level is not known. The applicants have rehabilitated the shaft to a depth of 40 feet and are building a surface plant. Therefore, these items do not enter into the cost estimate.

The modified proposal consists of the following work in three phases:

Phase I

Rehabilitating the Two Sisters shaft a maximum of 350 feet to the 3rd or 300-foot level, and rehabilitation of mine levels up to a maximum of 500 feet; location of level rehabilitation to require prior written approval by the Defense Minerals Exploration Administration Field Team, Region IV.

Phase II

Drifting and crosscutting a maximum of 500 feet on or between the Two Sisters and R.H.D. veins, if the results of Phase I and/or III justify it; prior written approval by the Defense Minerals Exploration Administration Field Ream, Region IV, to be required.

Phase III

Diamond drilling a maximum of 150 feet in the walls of the Two Sisters and/or R.H.D. veins at locations requiring prior written approval by the Defense Minerals Exploration Administration Field Team, Region IV.

Phase III should not necessarily follow Phases I and II, but might advisedly precede or accompany them.

The maximum of 500 feet of lateral exploration proposed is believed to be enough to test both the Two Sisters vein and the R.H.D. vein, if the mine workings shown on the applicants' map, compiled largely from the recollection of former lessees and workmen, are at all accurate.

The problem of arriving at a good cost estimate for the rehabilitation work is difficult because of uncertain underground conditions. The following cost estimate has been prepared, utilizing the experience gained during Defense Minerals Exploration Administration participation in another shaft rehabilitation project in the same area, and under similar circumstances. This was the German shaft, rehabilitated under DMEA 2878, Contract Idm-E501, at a contract price of $3,095.44 for 436 feet, or $7.10 per foot. This figure was too low. The contractor claimed that the actual cost was $14,037.97, or $32.20 per foot. While this cost reflected some inefficiency in operation, the work, if prosecuted efficiently, would probably have cost at least $20.00 per foot. Although the Government did not share in level rehabilitation at the

German-Belcher mine, the Defense Minerals Exploration Administration examiner was able to observe the condition of the levels. Many sections, particularly below ground water level, required only cleaning up, and retimbering requirements were not excessive at any point.

The following estimate has been made with the assumption that, under a short-form contract, the Government should be committed only to normal and reasonable exploration costs. On this basis, no provision is made for abnormal costs which might result from unpredictable conditions. Progress of 5 feet per shift in shaft rehabilitation, 7 feet per shift for level rehabilitation, and 3 feet per shift for new work is assumed, and in the opinion of the examining engineer, these are entirely reasonable figures which would apply if conditions are comparable to those encountered at the German-Belcher property.

Following is a cost estimate, based on operation 2 shifts per day, 6 days per week:

Phase I

(a) Shaft rehabilitation (350 feet)
Estimated time for completion--35 days or 6 weeks. (5 feet per shift)

(1) Contracts		None
(2) Labor, supervision, and technical services		
Labor		
2 hoistmen at $1.60 per hour or $83.20 per 6-day week of 48 hours with time-and-one-half over 40 hours for 6 weeks	$ 998.40	
2 shaftmen at $1.70 per hour or $88.40 per 6-day week of 48 hours with time-and-one-half over 40 hours for 6 weeks	1,060.80	

2 helpers at $1.60 per hour or $83.20 per 6-day week for 6 weeks	$ 998.40		
2 topmen at $1.50 per hour on same basis as above. 6 weeks at $78.00 per week	936.00		
Total labor		$3,993.60	
Supervision			
Mine foreman, one-half of Van R. McKay's salary chargeable to mining operations ($300.00)* or $150.00 per month for 2 months (includes 1/2 month for preliminary work)	300.00		
Total supervision		300.00	
*Applicants estimated only $112.50 per month for supervision of the Two Sisters.			
Technical services		None	
Total labor, supervision, and technical services			$4,293.60

(3) Operating materials and supplies

Timber (stulls, lagging, plank, wall plates, skids)	850.00
Nails, hardware, pipe hangers, et cetera	50.00
Explosives	None
Pipe	
400 feet 4-inch water column at $1.40 per foot	560.00
400 feet 2-inch air line at $0.70	280.00
400 feet 10-inch ventilating pipe at $1.00	400.00
Power cable	
400 feet 3-wire #6 cable at $1.20 per foot	480.00
400 feet 3-wire #10 waterproof lighting cable at $0.65 per foot	260.00
Gas, oil, repairs on service truck at $50/month	75.00
Electric power for lights, hoist, and pumps at $250/month--1-1/2 months	375.00

Heating, mine lights, et cetera, 2 months at $25/month	$ 50.00		
Pump parts and upkeep-- 1 month at $25.00	25.00		
Total operating materials and supplies			$3,405.00

(4) Operating equipment

Rental		None	
Purchase		None	
Depreciation			
1 mine hoist valued at	$1,200.00		
1 sheave wheel at	150.00		
1 7/8-inch hoist cable	400.00		
2 1-ton shaft buckets	350.00		
1 dump car	150.00		
Miscellaneous tools	750.00		
1 motor truck	1,000.00		
1 25-h.p. sinker pump	1,150.00		
1 15-h.p.station or sinker pump	1,200.00		
1 5-h.p. ventilating blower	250.00		
Total valuation	6,600.00		
Depreciation per month on a 60-month basis	110.00		
Depreciation for 1-1/2 months		165.00	
Total operating equipment			165.00

(5) Initial rehabilitation and repairs — None
(DMEA participation to start with underground work)

(6) New buildings, improvements, et cetera — None

(7) Miscellaneous

Sampling and analysis	None	
Payroll taxes, O.A.B., Compensation insurance at 5 percent of $4,293.60	214.68	
Total miscellaneous		214.68

Total cost shaft rehabilitation — $8,078.28

Cost per foot shaft rehabilitation 8078.28/350--$23.08

(b) Level rehabilitation (500 feet)
Estimated time for completion--
6 weeks or 1-1/2 months

(1) Contracts — None

(2) Labor, supervision, and technical services

Labor (rates same as in shaft rehabilitation)			
2 hoistmen, 2 topmen on surface			
2 miners, 2 helpers underground			
Total payroll per month-- $2,662.40			
Total labor 1-1/2 months at $2,662.40 per month		$3,993.60	
Supervision			
Mine foreman for 1-1/2 months at $150/month	$225.00		
Total supervision		225.00	
Technical services		None	
Total labor, supervision, and technical services			$4,218.60

(3) Operating materials and supplies

Timber at $0.50 per foot	250.00	
Nails, hardware	25.00	
Pipe		
300 feet 8-inch vent line at $0.80	240.00	
300 feet 2-inch air line at $0.70 ?	210.00	
Track		
500 feet 12 pound rail and ties at $1.00 per foot ?	500.00	
Explosives	None	
Gas, oil, repairs on service truck, 1-1/2 months at $50.00/month	75.00	
Electric power for hoist, pumps, and lighting, 1-1/2 months at $250/month	375.00	
Heating, mine lights, et cetera, 1-1/2 months at $25.00/month	37.50	
Pump parts and upkeep, 1-1/2 months at $25.00/month	37.50	
Total operating materials and supplies		1,750.00

(4) Operating equipment

Rental		None	
Purchase		None	
Depreciation			
1 mine hoist valued at	$1,200.00		
1 sheave wheel at	150.00		
1 7/8-inch hoist cable	400.00		
2 1-ton shaft buckets	350.00		
1 dump car	150.00		
Miscellaneous tools	750.00		
1 motor truck	1,000.00		
1 25-h.p. sinker pump	1,150.00		
1 15-h.p. station or sinker pump	1,200.00		
1 5-h.p. ventilating blower	250.00		
1 mine car	150.00		
2 bucket dollies	50.00		
Total valuation	6,800.00		
Depreciation per month, $6,800.00/60=	113.33		
Depreciation, 1-1/2 months at $113.33/month		$170.00	
Total operating equipment			$170.00

(7) Miscellaneous

Sampling and analysis			
Assaying 50 samples for uranium at $3.00		150.00	
Payroll taxes, O.A.B., Compensation insurance at 5 percent of $4,218.60		210.93	
Total miscellaneous			360.93
Total cost level rehabilitation			$6,499.53

Cost per foot level rehabilitation 6499.53/500--$13.00

Total cost Phase I $14,577.81

Phase II (500 feet crosscutting and/or drifting)
Estimated time for completion--87 days or 3-1/2 months.

(1) Contracts None

(2) Labor, supervision, and technical services

Labor (rates and crews as in Phase I(b)			
Total payroll per month--$2,662.40			
Total labor 3-1/2 months at $2,662.40 per month		$9,318.40	
Supervision			
Mine foreman for 3-1/2 months at $150/month	$525.00		
Total supervision		525.00	
Technical services		None	
Total labor, supervision, and technical services			$9,843.40

(3) Operating materials and supplies

Timber at $0.25 per foot, 500 feet	125.00	
Nails, hardware, tool repairs, et cetera	50.00	
Pipe		
500 feet 8-inch vent line at $0.80 per foot	400.00	
500 feet 2-inch air line at $0.70 per foot	350.00	
Track		
500 feet 12 pound rail and ties at $1.00 per foot	500.00	
Explosives		
170 rounds at $10.00 per round	1,700.00	
Carbide tipped drill rods	100.00	
(Tool sharpening including rock bits)		
170 rounds at $1.00 per round	170.00	
Gas, oil, and repairs on service truck, 3-1/2 months at $50.00/month	225.00	
Electric power for hoist, pumps, compressor, lighting--3-1/2 months at $250.00/month	875.00	
Heating, mine lights, et cetera--3-1/2 months at $25.00/month	87.50	
Parts and upkeep on pumps--3-1/2 months at $25.00/month	87.50	
Total operating materials and supplies		4,670.00

(4) Operating equipment			
Rental		None	
Purchase		None	
Depreciation			
1 mine hoist valued at	$1,200.00		
1 sheave wheel at	150.00		
1 7/8-inch hoist cable	400.00		
2 1-ton shaft buckets	350.00		
1 dump car	150.00		
Miscellaneous tools	750.00		
1 motor truck	1,000.00		
1 25-h.p. sinker pump	1,150.00		
1 15-h.p. station or sinker pump	1,200.00		
1 5-h.p. ventilating blower	250.00		
1 mine car	150.00		
2 bucket dollies	50.00		
1 drilling outfit with hoses and water tank	575.00		
1 compressor, used, equivalent of 200 c.f.m.	2,500.00		
Total valuation	$10,875.00		
Depreciation per month on a 60-month basis	181.25		
Depreciation, 3-1/2 months		$634.38	
Total operating equipment			$634.38
(7) Miscellaneous			
Sampling and analysis			
Assaying 50 samples for uranium at $3.00 each		150.00	
Payroll taxes, O.A.B., Compensation insurance at 5 percent of $9,843.40		492.17	
Total miscellaneous			642.17
Total cost Phase II			$15,789.95

Cost per foot for drifting or crosscutting--
$15,789.95/500--$31.58

Phase III (150 feet of diamond drilling)
To be carried on concurrently with Phase I(b) or Phase II.
No extra time required.

(1) Contracts			
Drilling 150 feet minimum AX size hole at $2.50 per foot		375.00	
Total contracts			375.00

No charges under items (2) to (7).

Total cost Phase III	$ 375.00
Total estimated cost of project	$30,742.76

SUMMARY COST OF PROJECT

	Amount in feet	Estimated cost per foot	Estimated maximum cost	
Phase I--				
(a) shaft rehabilitation	350	$23.08	$8,078.28	
(b) level rehabilitation	500	13.00	6,499.53	
Total Phase I				$14,577.81
Phase II--				
drifting and/or crosscutting	500	31.58		15,789.95
Phase III--				
diamond drilling	150	2.50		375.00
Estimated total cost of project				$30,742.76
Government participation at 75 percent				$23,057.07

Total estimated time for completion--6-1/2 months.

PROPOSED FINANCING

The applicants proposed to obtain capital for the proposed project by the sale of stock.

CONCLUSIONS

Geologically, the proposed project appears to have merit because there is a possibility that significant uranium mineralization in an area heretofore unexplored for uranium may be found by exploration of the Two Sisters and R.H.D. veins. This is based in part on the presence of uranium in the wall rock at two points on the R.H.D. vein at shallow depth, as well as similar material on the Two Sisters dump. Because of the very incomplete data available on the past mining

operations, the possible extent of any uranium replacement deposits is uncertain. Because no replacement ore has been found in the Carroll mine, the uranium occurrences on this vein do not appear to be very different from the Quartz Hill deposits, but this does not necessarily apply to the Two Sisters and R.H.D. veins.

The competence of the management in mining operations is unquestioned. This is substantiated by the record of the same management under DMA 744, Contract Idm-E109, which covered exploration for lead and zinc in the Essex mine in Prosser Gulch, Eureka mining district, Gilpin County, Colo., in 1951, 1952, and 1953. In the final project report, the statement is made that "the exploration was carried on efficiently and according to the terms of the contract and amendments."

From a business standpoint, the operation of the United Mining and Leasing Corporation is not set up on a very desirable basis, either for a profitable operation, or for the interest of the Government in the proposed exploration. While the interest of the Government in ore which might be found on the Two Sisters vein has been protected by the lease obtained on the west end of the Two Sisters claim, this is offset by the withdrawal of the lease on part of the Claire Marie claim, and there is now no protection for the Government on ore which might be found on the Claire Marie vein beyond the Two Sisters south sideline, a comparatively short distance.

The separate operation by an affiliated company on the Claire Marie shaft in such close proximity to the Two Sisters mine is questionable from an economic standpoint because both veins could be easily explored from one shaft.

Lease and royalty provisions are unfavorable to the applicant corporation in certain respects and could interfere with profitable operations on possible ore bodies of low or moderate grade. Thus, these provisions might also affect the Government's interest in an exploration project by interfering with production of ore and return of Government royalties.

RECOMMENDATIONS

Based on geological and engineering factors, but subject to consideration of unfavorable lease and royalty terms, as well as insufficient protection of the Government's interest on any ore which might be found as a result of exploration of the Claire Marie vein made possible by the proposed rehabilitation, a modified exploration project under a short-form contract is recommended. The estimated total cost is $30,742.76--Government participation 75 percent, or $23,057.07. The description of the work under "Project Proposals" is suggested for the contract. Because the actual footage of shaft and level rehabilitation required is unknown, it is suggested that these items should be set up on a unit-cost basis per foot with maximums as listed, rather than as an allowable cost for an entire phase as a unit.

More protection for the Government on the Claire Marie vein may not be obtainable because the ground involved is already under lease to the Central City Uranium Company and an operation has already been started by them. For this reason, participation by the Government in the rehabilitation phase of the project may not be advisable.

There are dating errors in the sublease on the R.H.D. and Polar Star lodes. None of the various leases held by the applicants define the claims involved by boundary descriptions or effective acreages, and figure 2A shows many conflicts, although the rights of the applicants in ground which would be explored appeared to be covered by prior locations. The descriptions of the west part of the Two Sisters lode, and part of the Maggie M lode, given in Annex A of the lease from Joseph F. Pughes to Central City Uranium Company, cover the same ground in part. Only the west part of the Two Sisters has been sub-leased to the applicants, and some question as to mining rights may arise. For these reasons, further examination by Bureau of Mines attorneys is recommended, if it appears that a contract will be approved.

Finally, the position of the Two Sisters shaft, as well as the others, is not established in relation to property lines, so far as information furnished by the applicant is concerned. Maps made by the Geological Survey were not tied to claim corners either. If a contract should be approved, a map definitely showing the true position of the Two Sisters shaft would be necessary.

/fkp

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SOLICITOR
WASHINGTON 25, D. C.

September 16, 1954

Memorandum

To: The Administrator, DMEA
Through: Mr. E. W. Ellis

From: Acting Assistant Solicitor, Defense Minerals

Subject: United Mining and Leasing Corporation - Docket No. DMEA-3272

Reference is made to a letter dated September 7 from the Executive Officer, Region 4, to the Operating Committee which Mr. Ellis has submitted to this office on a routing slip dated September 13 bearing this note: "Is any further action necessary?"

The letter of the Executive Officer has attached to it photostatic copies of two letters which seem to indicate some adverse claim in the real property which is the subject of an application for an exploration contract. Inasmuch as this matter is merely in the application stage, this office should not undertake to pass judgment on the sufficiency of the operator's interest in real property. If and when a contract is to be written the matter should be submitted to this office for drafting the contract and for determining the sufficiency of the applicant's showing as to interest in real property.

This office is presently sufficiently swamped with submissions not to become involved in preliminary matters which should be considered in the first instance in the Commodity Division.

J. L. Hofflund
Acting Assistant Solicitor
Defense Minerals

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Acting Assistant Solicitor
Defense Minerals

JLHofflund:bbh
9-16-54

Copy to: Mr. Ellis - Rm4640
DMEA Docket
Solicitor's Docket
Chron.

9/10/54 gla
DMEA-3272

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

224 New Customhouse
Denver 2, Colorado

September 7, 1954

Memorandum

TO: Secretary to the Operating Committee

From: Executive Officer, DMEA Field Team, Region IV

Subject: United Mining and Leasing Corporation.

Enclosed for your information are copies of the following letters:

1. Letter from Clyde B. Neill to the DMEA, dated September 3, 1954;

2. Letter from Clyde B. Neill to the United Mining and Leasing Corporation dated September 3, 1954; and

3. Copy of our reply.

W. H. King

W. H. King

Enclosures

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

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Enclosures

JFS:mb

cc: Subject
WMTraver
AHKoschmann
Chron.

Myron B. Neill

Attorney-at-Law

[illegible] stockholder in the [illegible] Mining
[illegible] area of United Mining and Leasing
Corporation [illegible]

[illegible] gave me a letter on my choice
of [illegible] Lake Mine Bisbee claims for sub
lease.

[illegible] maintenance for Ventures Limited,
Bisbee [illegible] pending the application of a
lease for the [illegible]

[illegible] the Atlantic Mining
Corporation. [illegible] received your letter.
[illegible] asked me about owning all
of the five [illegible] was." Naturally, the defense
Minerals [illegible] "the half owner."
[illegible] Premium Company owned one
half [illegible] United Mining and Leasing money was
operating [illegible]

[illegible] Kelly, a son,

[illegible] will reality

[illegible] will [illegible] you. [illegible] all a man
[illegible] Under the Department, -- that
[illegible] the government.
[illegible] advanced money on the Essex Mine. Now can they get
[illegible] are the Essex is too small to be applied for
[illegible] Mine.
[illegible] too far away, [illegible]
[illegible] Bisbee Bluff to the P. [illegible] 2. [illegible]

[illegible] interest in that 130,000 they are asking for.
[illegible] Bisbee.

[illegible]

Very truly yours,

Myron B. Neill

938 V   Copy

Sept. 3, 1954.

United Mining and Leasing Corp.,
P. O. Box 246,
Central City, Colorado.

Attention: Van R. McKay,,Pres. and
Claude R. McKay, General Manager.

Dear Van and Claude,

I woke up fighting mad a while ago and, although it was 1:00 A.M., I could not go back to sleep. I mull over the many things, but when a stranger, Attorney Frank L. Jones, writes me, a stockholder of United Mining and Leasing Corporation, quote:"The matter of your correspondence with Mr. Claude R. McKay and the United Mining and Leasing Corporation has been referred to me, and in the future any matters you have to take up with the corporation, or Claude R. McKay and Van R. McKay will be addressed direct to me. Please see to it you observe this." Unquote.

You have my letter asking if this Jones has authority to write me. Before I receive an answer, let me say I am writing you when I please and I want you to take this letter to him and all others concerned.

I am sending a copy of this letter to Mr.Cohn, Regional Administrator of the S. E. C.

You sent me a progress report dated Aug. 30, 1954. How much Uranium ore did you ship? When was this shipment made? I have letters stating this shipment was to be 40 to 50 tons and to be made on June 25th to be followed by one shipment after the other.

A broker called me from Denver and told me of your new find and stated he wondered if this was true since the June shipment had never been shipped.

Who are you paying an override to on the other half of the Two Sisters claim? How is it possible that you do not own the other half when you advertise that you own all claims where Uranium has been discovered?

Your prospectus of a few weeks before named the Two Sisters and the percent of find.

This raises the question: How did you start the Central City Uranium upon ground advertised to be owned by United Mining and Leasing Corp.?

Here are the facts. Van R. McKay holds substantial interests in the Claire Marie and Two Sisters claims thru the stock held in Central City Uranium Corp.

United Mining and Leasing is borrowing or trying to borrow money to help the McKays only.

Please remember Cotrell is surrounded by Central City Uranium and Van R. McKay, the principal stockholder. Then Claude R. McKay owns the [illegible], now comes the United Mining and Leasing developing on the other side of the Claire Marie and Two Sisters owned by [illegible] and [illegible] half by them holding one half interest in the Two Sisters claim and Central City Uranium.

In [illegible]
[illegible]
[illegible]

Yet, when you wired me for money to put your little girl in the hospital, although this terrible way of selling stock is and has been used by crooks all over the country, I understood your trouble and you sold me stock for that purpose. You seemed to appreciate me helping you. You told me for purchasing $500.00 more of stock and the help of wiring you the money, that I would have first choice of all claims that United Mining and Leasing owned.

From this I now claim the Claire Marie claim. You represented you owned all surrounding claims and I was shaking hands at the collar of the Carroll shaft with you. Do you suppose I would have given you $500.00 for stock in the United Mining and Leasing Corp. if I had known you were lying about giving me my choice of all and that you owned all claims for 4,500 ft. to 7,000 ft.?

For four years we have asked for a stockholder's meeting. You claim you are afraid to call one as you and your father own less than 11% of United Mining and Leasing. Your father's letter told us a meeting would be called on July 1st, 1954 or about that time.

Are you still working as a miner drawing one half pay and one half stock?

How much money have you in the United Mining and Leasing Corporation?

Your last act of FRAUD is the sending of a lease on the Tom Martin with a clause which cancelled the lease two days before I received it.

Of course, this Lawyer, Frank Jones, may not have had any authority for sending the lease. This lease is not your agreement you have put in writing.

I am asking the Atomic Energy Commission why they plan to make the United Mining and Leasing a loan when one operation will prove the area.

Very truly yours,

Clyde B. Neill

Clyde B. Neill.

Mr King,

In discussing your letter to Mr. McKay I asked him why he did not place the Carroll mine on production. He stated, "The Carroll Mine would never pay and that we need the government money to open up the Two Sisters."

C. B. N.

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

224 New Customhouse
Denver 2, Colorado

September 7, 1954

Mr. Clyde B. Neill
301 Kendrick Avenue
Dalhart, Texas

Dear Mr. Neill:

Thank you for your letter dated September 3, 1954, regarding the United Mining and Leasing Corporation. We believe that any matters concerning the sale of stock should be handled by the Securities and Exchange Commission.

We are sending a copy of your letter with the attached letter to the United Mining and Leasing Corporation to our Washington office for their consideration and appropriate action.

Yours very truly,

W H King

W. H. King
Executive Officer
DMEA Field Team, Region IV

JFS:mb

cc: Subject
Chairman, Oper. Comm.
WMTraver
AHKoschmann

7/12/54 gla

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

224 New Customhouse
Denver 2, Colorado

July 8, 1954.

Mr. C. R. McKay
United Mining and Leasing Corporation
Box 246
Central City, Colorado

Re: Docket No. DMEA-3272
(Uranium)

Dear Mr. McKay:

Your application indicates control by lease of the east one half of the Two Sisters claim. It will be necessary for the United Mining and Leasing Corporation to obtain the right to mine ore on the west one half of the Two Sisters claim.

When you have obtained this right to mine ore on the west one half of the Two Sisters claim by lease or otherwise please advise this office so that we may continue to process your application.

Very truly yours,

W H King

W. H. King
Executive Officer
DMEA Field Team, Region IV

HMC:cwm

cc: Docket
Administrator, DMEA
AHKoschmann
WMTraver
Chron.

6/29/54 gla

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

224 New Customhouse
Denver 2, Colorado

June 25, 1954

Memorandum

To: W. M. Traver

From: Executive Officer, DMEA Field Team, Region IV

Subject: Docket No. DMEA 3272 (Uranium), United Mining and Leasing Corporation, Gilpin County, Colorado

Enclosed is a copy of a letter in reply to our letter to the applicant dated June 8, 1954, copy of which has been forwarded you.

It is noted that the applicant has requested withdrawal of proposed exploration work on three claims; the Clara Marie Mining lode claims, U. S. Survey No. 8732; Pacific Mining lode claim, U. S. Survey No. 9041; and Maggie M. Mining lode claim, U. S. Survey No. 8732. The applicant makes no mention of the Two Sisters Mining lode claim.

We do not have a copy of the application in this office to check the proposed work on the Two Sisters claim. Will you please advise if the applicant's proposed exploration program is now satisfactory without excluding the work on the Two Sisters lode claim.

W. H. King

W. H. King

Enclosure

HMC:es

cc: Docket
Administrator, DMEA w/enc.
Koschmann w/enc.
Chron.

United Mining & Leasing Corporation

Mining Uranium, Gold, Silver, Lead and Zinc

Operating in Central City, Colorado

Often referred to as "The Richest Square Mile on Earth"

Central City, Colorado

Box 246
Phone 2046

June 11, 1954

W. H. King, Executive Officer,
DMA Field Team, Region IV
224 Rar Customhouse
Denver 2, Colorado.

Re: Project No. DMA 3273
(Uranium)

Dear Sir:

In answer to yours of June 8, 1954.

In order to adequately protect the Government's rights on all ground on which work will proceed under our application for loan; we delete any and all requests for exploratory work to be done on, Clara Belle Mining Lode Claim U. S. Survey No. 6738, Pacific Mining Lode Claim, U. S. Survey No. 6041 and Reggie M. Mining Lode Claim, U. S. Survey No. 6738. All three claims being situated in the Dumont-Apple Valley Mining District of Gilpin County, Colorado.

This action will eliminate and make null and void, our original request contained in Item 1 in the last paragraph on page 4 of our original application which refers to " Exploration Work by Diamond Drilling".

Yours very truly,

United Mining & Leasing Corp.

C. H. McK.

Geo. McK.

6/10/54 gla

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

224 New Customhouse
Denver 2, Colorado

June 8, 1954.

Mr. C. R. McKay
United Mining and Leasing Corporation
Box 246
Central City, Colorado

Re: Docket No. DMEA-3272
(Uranium)

Dear Mr. McKay:

Reference is made to your application for exploration assistance on the Carroll, Spur Daisy and R.H.D. Groups, Gilpin County, Colorado, DMEA Docket No. 3272.

According to the information available to this office the United Mining and Leasing Corporation does not have the right to enter upon and mine ore on all of the Two Sisters, Clara Marie, Pacific and Maggie M. Lode claims. Exploration by diamond drilling (particularly item 1 of the last paragraph on page 4 of the application) could disclose ore shoots which lie in or extend into portions of the four claims not controlled by the corporation.

We cannot process your application until such time as you secure the property rights in question or amend the program to include only ground in which the Government's rights are adequately protected.

Please advise us within 30 days regarding the action you propose to take. Otherwise we will assume that you are no longer interested in this application and your docket will be closed.

Very truly yours,

W H King

W. H. King
Executive Officer
DMEA Field Team, Region IV

JFS:cwm

cc: Docket
Administrator, DMEA (2)
WMTraver
AHKoschmann
Chron.

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

224 New Customhouse
Denver 2, Colorado

June 8, 1954.

Mr. C. R. McKay
United Mining and Leasing Corporation
Box 246
Central City, Colorado

Re: Docket No. DMEA-3272
(Uranium)

Dear Mr. McKay:

Reference is made to your application for exploration assistance on the Carroll, Spur Daisy and R.H.D. Groups, Gilpin County, Colorado, DMEA Docket No. 3272.

According to the information available to this office the United Mining and Leasing Corporation does not have the right to enter upon and mine ore on all of the Two Sisters, Clara Marie, Pacific and Maggie M. Lode claims. Exploration by diamond drilling (particularly item 1 of the last paragraph on page 4 of the application) could disclose ore shoots which lie in or extend into portions of the four claims not controlled by the corporation.

We cannot process your application until such time as you secure the property rights in question or amend the program to include only ground in which the Government's rights are adequately protected.

Please advise us within 30 days regarding the action you propose to take. Otherwise we will assume that you are no longer interested in this application and your docket will be closed.

Very truly yours,

W H King

W. H. King
Executive Officer
DMEA Field Team, Region IV

JFS:cwm

cc: Docket
Administrator, DMEA (2)
WMTraver
AHKoschmann
Chron.

700

DOCKET
SURNAME

Ching
Ellis
Guild
Hedges
Selfridge
Johnson

MAR 2 4 1954

United Mining & Leasing Corporation
Box 246
Central City, Colorado

Re: Docket No. DMEA-3272 (Uranium)
Carroll, Spur Bailey & R.E.B. Groups
Gilpin County, Colorado

Gentlemen:

The application for assistance in exploring your property, under the above captioned docket number, has been reviewed by the Rare and Miscellaneous Metals Division of the Defense Minerals Exploration Administration. It has been referred for further investigation to the Executive Officer of Region IV at the following address:

Mr. W. H. Ring
Executive Officer
DMEA Field Team, Region IV
7th New Customhouse Building
Denver 2, Colorado

The Regional Office will contact you in the event they desire to obtain additional information.

Sincerely yours,

G. O. Mittendorf (for)

Administrator

MChing:foc
3-22-54
cc to: Adm. Reading File
Operating Comm.
Docket
Messrs. H. D. Keiser, Rm. 3641
A. P. Butler, Rm. 3212 - GSA
J. O. Hosted, Rm. 3210 - GSA
Code 700
DMEA Field Team, Region IV (2)

R.C.H.
3-24-54

700

DOCKET
SURNAME

Ching
Ellis
Selfridge
Johnson

MAR 24 1954

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

Re: Docket No. DMEA-3272 (Uranium)
United Mining & Leasing Corporation
Capwell, Spur Dump & R.M.D. Groups
Gilpin County, Colorado

Dear Mr. King:

The subject application is being referred to you for investigation and recommendations. A copy of the application has already been forwarded to you.

Enclosed are two copies each of comments and recommendations relative to the application by Arthur P. Butler, Jr., and H. D. Keiser, of the Uranium Commodity Committee, dated March 17 and 15 respectively.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GHS)

Enclosures

MChing:fec 3-22-54
cc to: Docket
Code 700
Adm. Reading File
Oper. Committee
FT. Reg. IV
Messrs. H. D. Keiser, Rm. 3641
A. P. Butler, Rm. 3212 - GSA
J. O. Hosted, Rm. 3210 - GSA

APPROVED:

J. H. Hedges (GHS)
Member, Bureau of Mines

Philip W. Guild (GHS)
Member, Geological Survey

R.C.J. 3-24-54

3/15/54 glc

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

DEPARTMENT OF THE INTERIOR
Defense Materials Administration
RECEIVED
MAR 15 1954

March 15, 1954

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee, Room 4640

From: H. D. Keiser, Bureau of Mines Member
Uranium Commodity Committee

Subject: DMEA Docket 3272, United Mining and Leasing Corporation, Central City, Colorado.

I have reviewed the application included in the subject docket and have discussed it with Joseph O. Hosted, representative of the Atomic Energy Commission.

It is recommended that the application be forwarded to the Field Team for investigation and report, and that the Field Team be requested to discuss the application with Charles C. Towle, Jr., Chief, Denver Exploration Branch, Atomic Energy Commission, Denver, Colorado.

H. D. Keiser

H. D. Keiser

Attachment

(See "Map File" for "Mining Lease".

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved.
Budget Bureau No. 42-R1035.2.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
8 - 1954

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. 3272
Metal or Mineral Uranium
Date Received
Estimated Cost $136,189
Participation (Government %)

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: UNITED MINING AND LEASING CORPORATION, a Colorado corporation, Central City, Colorado.

Answers to all items are attached.

(*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 March 4, 1954

UNITED MINING AND LEASING CORPORATION
(Applicant)

By Van P. McKay Pres.

P. McKay Gen. Mgr.

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

UNITED MINING & [illegible] COMPANY, Central City, Colorado.

The information contained in this application for loan falls into three groups:

Rehabilitation of The Sisters Shaft
Rehabilitation of The Sisters Drifts
Exploration work on Carroll Shaft
Exploration work on Carroll Drifts
Exploration work on The Sisters Drift
Exploration work on Cross Cut connecting The Sisters with R.H.D. Vein
Exploration work on R. H. D. Vein

[illegible] 1954

EXHIBITS

Maps

No. 1 - [illegible] showing work done on R. H. D. and St. Anthony Veins. Drawing situated approximately 45 feet North of The Sisters Vein.

No. 4 The Sisters Shaft and workings as sketched from information gained from the old timers of the district.

No. 5 Shore Lorie Shaft, located on cross vein connecting the The Sister vein with the Carroll.

No. 5 Carroll shaft and workings taken from an old map.

Exhibit No. 2 — Exhibit No. 2

No. 8 (a) Sheet No. 1 — Contract

Exhibit No. 3 — Cuts Sheets.

No. 1 Rehabilitation of Two Sisters Shaft and Drifts.

No. 2 Exploration work on The Sisters Vein

No. 3 Cross Cut to R. H. D. Vein

No. 4 Exploration work on R. H. D. Vein

No. 5 Exploration work on Carroll Shaft

No. 6 Exploration work on Carroll Drift.

No. 7 Supervision

Exhibit No. 4

Recapitulation of all costs

Exhibit No. 5

Photostatic copies of mining leases.

Exhibit No. 6

Photostatic copy of claim map.

UNITED MINING & LEASING CORPORATION
Box 240, Central City, Colorado.

No 1 (b) A corporation. Incorporated under the laws of the State of Colorado In July 1950.

(c) Von R. Kelly, President, Box 240, Central City, Colorado.
Joe A. Oberauler, Vice President, Central City, Colorado
Richard Bruno, Sec & Treas, Central City, Colorado.

No 3 (a) Ground to come under this exploration that will be benefitted through lease;

East one half of Two Sisters Lode U.S. Sur No.	3008
675 Feet of North East end of Clara Harris Lode U.S. Sur No	6745
400 Feet, East end of Pacific Lode, U. S. Sur No.	9041
350 Feet, East end of Maggie H Lode U. S. Sur No.	8750
Hathaway Lode, U. S. Sur No.557	557
E.H.B. Mining Lode U. S. Sur No	3004
Easter Mining Lode U. S. Sur No	9041
Bonanzaed Mining Lode U. S. Sur No	9041
Carroll Mining Lode U. S. Sur No.	759

All situated in the Eureka Quartz Valley Mining District of Gilpin County, Colorado.

No 5 (b) Applicants Property Rights: Property is being held under three leases as follows;
E.675 ft. of E.400 ft. of
E.½ Two Sisters Lode Sur. No 3008/Clara Harris No. 6745/Pacific Lode No. 9041 are being held under ten year lease dating from 1954.
E.350 ft. of
/Maggie H. Lode No.8750, Easter Lode 9041, Bonanzaed No 9041 and Carroll Lode 759, are now under lease to the United Mining & Leasing Corporation for a ten year period, with a ten year extension clause dating from 1955.

Hathaway Lode No. 557 and E.H.B. Lode No. 3004 are under lease to the United Mining & Leasing Corporation for a period of five years, with a five year extension clause, dating from 1955.

No. 2 (b) The Carroll Lode has always been known as the Carroll Mine.

The Two Sisters, Clara Harris, Pacific, Maggie H, Easter and Bonanzaed are best known as the Byer Daley Groups.

The Hathaway and E. H. B. have been operated under the name of E.H.B. Group.

(c) Sales leases

(d) Copies of leases enclosed with this application.

(e) Not usual by United Mining & Leasing Corporation however a search of the County records show that their ~~encumbrances~~ liens or other encumbrances against the property.

No. 4 (a) The United Mining & Leasing Corporation are presently rehabilitating the Carroll Shaft. The depth of this shaft is reported to be 265 feet with very little exploration work being done to either side of shaft. An old sketch, which we are including with this application, will bear this reports. This shaft has now been rehabilitated for the first 150 feet and within a very short time an underground study on the side of the workings. Knowing the district in which the Carroll is situated, the operators of past years were mining for gold, silver and lead. Also we know, through dump examination, that at some point in their limited exploration, uranium ore was encountered, which not carrying sufficient gold and silver values, was thrown into the dump. The walls of the shaft are being tested so to carry on our rehabilitation work and the Geiger counter shows a fair uranium content but not commercial as yet.
From the dump of the Carroll we have taken samples running by assay

from .30 up to 7.7 percent uranium oxide.

The Carroll has been completely equipped with compressor, hoist, shafthouse and gallows frame. All these improvements have been bought and paid for in full by the United Mining & Leasing Corporation.

As to the United Mining & Leasing Corporation's interest in the Carroll mine, as stated above, it consists of a ten-year lease with ten-year extension clause, giving us a leasehold of twenty years.

Another mining lode in this group, the Two Sisters, a separate and distinct vein from the Carroll, will be opened up early this spring by the United Mining and Leasing Corporation. The two operations are close enough to be placed under one supervision and yet are far enough apart as to make two operations the more advantageous. The Two Sisters and Carroll veins have a common cross vein, known as the Clara Marie, which will intersect the Two Sisters at point of shaft and intersect the Carroll less than 100 feet east of Carroll shaft.

The Two Sisters shaft is reported to be down 700 feet with the bulk of drifting having been done to the west. From the old timers of the district we have gathered some information regarding the old workings, and from this information are making a sketch which, while not accurate, will help much in the planning of operations in the beginning.

This shaft cannot be entered at present due to collar timber jamb on which much slide rock has caved and sealed it from entry. An old stope that holes through to the surface 145 feet east of the shaft can be entered for a very short distance. Torbernite crystals can be observed on either wall. This stope, starting at the 100-foot level and going through to surface, is reported to have produced $200,000.00 in Gold, Silver and Lead values.

A large part of the dump responds very favorably to the Gieger Counter. Readings can easily be obtained running from .20 to 18 MR/per hour. Samples have been taken and assayed that run from .20 to 1.34% uranium oxide. The specimens class of ore were carefully excluded from the samples.

From the size of some chunks of the ore out of this dump, ranging up to 40 pounds and one chunk that would run well over 100 pounds, we believe that this deposition of uranium ore will contain volume. The chunks are of altered schist which would indicate that the values are inside the walls instead of occurring in the gangue.

There are three different parts of the dump that show higher values than other points. From this we gain that there might be several ore zones.

Two hundred fifty feet to the east of the Two Sisters shaft another uranium finding is exposed on the R. H. D. Mining Lode. A prospecting shaft, 50 feet in depth, with a drift extending east from shaft, has recently proved from Gieger Counter readings to be a uranium discovery well worth exploring. This shallow drift for a distance of 70 feet produces Gieger Counter readings running from .10 to .18 MR/per hour. At a point 70 feet east of this shaft, the drift passes through the Ravenswood Vein Crossing and the readings jump up to .20 and .30 MR/per hour.

At the time C. R. and Van R. McKay sunk this shaft and drove the drift in 1950 they were in search of Lead and not aware of uranium possibilities.

The uranium values show up in the schist hanging wall and not in the vein proper. At the present time the tonnage possibilities from this shallow depth finding on R.H. D., although low grade, would very likely prove, by the mixing of the higher grade ores of the Two Sisters, to be a successful project.

The values now being found at this shallow depth can be expected to increase as sinking operations continue downward towards the primary mass.

No.4 (d) The roads to these properties are in very good shape and will be kept open the year round by county maintenance.

This group of claims is situated a mile northwest of the post office at Central City, Central City being the supply as well as residence point.

(e) We have an over supply of man power. Supplies and equipment are available. Hoist and compressor for Two Sisters operation have already been purchased.

A power line will have to be extended from the Carroll. The Public Service have already surveyed the line and the installation will run $876.00.

No.5 (a) The mineral being explored for is uranium in both the Carroll and the Two Sisters operations.

(b) Map and Detailed Explanation of Project Planning -
&
(c) 1st The work outlined is to be done on two distinct and separate vein structures,- the two operations to run concurrently. They will be under one supervision.

The points of operation are separated by approximately 750 feet. They are divided by a large bostonite porphyry dike. The Carroll vein is to the south of the dike and contains pitchblende ores while the Two Sisters and R. H. D. veins situated north of the dike carry torbernite ores.

Exploration work on Carroll will start May 15, 1954. Rehabilitation work on Two Sisters vein to start May 15, 1954.

The Carroll shaft will be deepened a further 200 feet or to a total depth of 445 feet, from which depth drifts will be run - 375 feet to east of shaft and 225 feet to west of shaft. The reason for wanting to gain depth on Carroll shaft is to get into the primary zone. The uranium ore, as exposed in Carroll dump, is to a great extent oxidized, and the further depth of 200 feet should reveal the primary ore.

The Two Sisters shaft is now closed due to collar being caved and sealed from entry.

The first work on Two Sisters vein will consist of rehabilitating old 700-foot shaft. Next will be the rehabilitation of approximately 800 feet of drifts, to be followed by exploration program.

Exploration work on Two Sisters vein will consist of 300 feet of drift running from 700-foot level of shaft to the east, at which point a 90-foot cross cut will be driven to the north for purpose of contacting R. H. D. vein. From point of contact with R. H. D. vein a drift 300 feet in length will be driven to explore the lower depths of shallow showing of uranium ore already described.

Three drill holes are planned as follows:

1. 325-foot diamond drill hole to enter hanging wall of Carroll vein at point 200 feet east of shaft on 445-foot level to explore the several veins lying between the Carroll and Two Sisters as well as explore the west end of our holding on Two Sisters vein.

2. 300-foot diamond drill hole to be placed from 700-foot level downward in search of primary ore. Point of level to start drilling from will be fixed at such time as rehabilitation work will permit a study of geology.

3. 150-foot diamond drill hole to enter hanging wall of Two Sisters vein to explore schist belt north of Two Sisters vein.

No. 5 (d) C. R. McKay, of Central City, Colorado, will be General Manager of Operations. With the exception of war time interruptions, his life has been spent in mining. Having represented the Giant Powder Company of California in his early life, has visited underground in many of the larger mines of Montana, Idaho, Colorado, New Mexico, Arizona and Old Mexico. He is fully qualified to manage and conduct the project at hand.

Van R. McKay, President of the United Mining & Leasing Corporation, will supervise all operations at the mines. He entered the Air Forces at eighteen years of age, was shot down over Germany, returned to the United States and given an honorable discharge in 1946. Five of the intervening years have been spent at constant mining. He is very efficient in handling men well experienced in practical mining.

No. 6 (a) The only contract to be let is on diamond drilling and is outlined in Exhibit No. 2.

(b) (c) (d) (e) (f) (g) and (h) are outlined on sheet Nos. one to seven in Exhibit No. 3.

No. 7 (a) Yes.

(b) By current Bank Account, incoming stock sales commitments and the releasing of $43,000.00 of our shares to individuals now dealing with our company, together with use of applicant's mining equipment.

Dated March 4, 1954.

UNITED MINING & LEASING CORPORATION

Van R. McKay — President

C. R. McKay — Gen. Mgr.

UNITED MINING & LEASING CORPORATION, Central City, Colorado.

EXHIBIT No. 2 CONTRACT.

No. 6 (a) The only contract to be let will be on diamond drilling at $2.50 per foot.

One 300-foot hole to be put down from somewhere later determined on the 700-foot level, which will be in search of primary ore.	$ 750.00
One 325-foot hole to enter hanging wall of Carroll vein at point 200 feet east of shaft to explore intervening veins and Bostonite Dike, and entering Two Sisters vein in unexplored territory.	812.50
One 150-foot hole to enter hanging wall of Two Sisters at point later to be decided on. There is considerable Mica Schist in certain parts of theTwo Sisters Dump that will yield Geiger Counter readings of from 2 to 5%. At this time we think it is coming from the hanging wall, which is the reason for hanging wall drill hole.	375.00
775 feet @ $2.50	$1,937.50

REHABILITATION

250 [illegible] Shaft.
Based on two shifts per 24 hours

EXHIBIT 3
Sheet No 1

8 Shaft foreman	$1.70 per hour	$27.20	
8 Shaft man (helpers)	1.60 " "	25.60	
2 Top Engineers	1.60 " "	25.60	
8 Top Stokers & timber forward	1.50 " "	24.00	
250 Working days @		102.40	$25,600.00
Over time			2,240.00
Comp. Ins. Rate $0.00 per $100.00			955.00
S. S. Tax 5%			501.00
Un Employment 5%			240.00
Total pay roll and concessions			$29,591.00

Entered in the records
Division Mining Administration
Received
[illegible] 1954

REHABILITATION

Estimated costs of power, equipment and supplies on Shaft.

No 1	Installation of power line	$ 670.00
No.2	Wiring from line transformers, entry pole disconnects, fuse and control boxes	750.00
No.3	532 - 8" x 12" Stulls $1.20 each	638.40
4	750 - 4" x 12' lagging 50¢ each	375.00
5	8500 Ft 2 x 10 plank (Shaft Timers Etc.	500.00
6	2450 Bd 4 x 6 Sill Plates $70.00 per M	171.50
7	1200 Ft. 2 x 4 (Ladder material	84.00
8	700 1 x 4 ladder rungs	28.00
9	1400 Ft. 6 x 6 Ring Set Guide $70.00 per M	147.00
10	Gallows frame - Curve steel Treading rods and installation	650.00
11	Estimated power cost - 50 H.P. Hoist & 25 H.P. Sinker pump, 1 10 H.P. sinker pump $250.00 per Mo	3,250.00
12	800 Ft. 4" Water Column @ $1.40 per foot	1,120.00
13	700 Ft 6" Galv. Air line Column @ 1.00 per Ft	700.00
14	6 H.P. Blower for ventilation with heater	420.00
15	1 25 H.P. Sinker pump	1,150.00
16	2 10 H.P. Sinker pumps	1,320.00
17	800 Ft 3 Wire # 8 water proof cable (Pump) 1.20'	960.00
18	2700 Ft 3 Wire # 10 water proof light cable.65'	1,755.00
19	1000 Ft 7/8 Steel Bucket cable	400.00
20	2 Ton Hoist shaft Bucket	350.00
21	1 Ton Dump car	150.00
22	Top side tooling	450.00
23	Block Chain car	225.00
24	10' x 14 Shaft Frame for hoist and change room	350.00
25	Installation of hoist (4 man five days-count gravel and moving hoist	375.00
26	Accountants Services $20.00 per Mo	300.00
27	Underground tools	350.00
28	Mine monthly supplies $75.00 per Mo.	750.00
29	Up Hole on 1 ton power truck Gas oil 30c ($12.00 Mo	360.00
30	Mo Lodged for expense	2,000.00
		$19,040.90

Total cost of rehabilitating shaft $49,240.50

$70.56 per foot

Maintenance of ~~[illegible]~~ 75 Ft Per Sinker Hoist two shifts per day
Same help as used above

250 working days @	@ 102.40	$25,600.00	
Over time		1,044.20	
Comp. Insurance		255.20	
S. S. Tax 5% on $20.00 Un Employment 5% $1472		691.20	$15,829.50
Power Est. @ $250.00 Mo	1,250.00		
100 8" x 12' Stulls 120.00 Lagging 200.00	320.00		
1000 Ft 12# Rail 44# Ft Fish Plates Etc 2500	715.00		
800 Ft Col 8" Pipe @ 1.00 per Ft	800.00		
Mining Supplies Etc. $125 per Mo	625.00		
Mo Lodged for 6 Truck upkeep	1,250.00		4,957.00

Cost per Ft $66.767 Total cost Drift rehabilitated on 6 $20,666.50

EXHIBIT 3
Cost Sheet No. 2

[illegible] Sheet [illegible]

[illegible] feet [illegible] drift from [illegible] between [illegible] drift [illegible] at [illegible] point of [illegible] proposed main crossing. Section [illegible] to be determined after rehabilitation work is finished and goal is determined.

Based on two shifts of 4 hours - 40 hour week.

1st. shift			
1 Driller & tiller [illegible]	1.70 per hour	14.60	
1 [illegible] helper	1.63 per hour	14.00	
1 Top engineer	1.60 per hour	13.80	
2nd shift			
1 [illegible] checking	1.50 per hour	25.65	
1 Top engineer	1.60 per hour	13.80	
1 [illegible]	1.60 per hour	13.80	
6 working days		9265	5,376.[illegible]
Over time pay			358.47
[illegible] Insurance	[illegible] per 100		11[illegible].50
[illegible] Tax xx %			107.5[illegible]
[illegible] Payment	%		161.[illegible]
Total pay roll and payroll taxes extn			6,115.55

[illegible] No. 3

1 [illegible] st. cost [illegible]		[illegible]
2 Building cost, Compressor House		528.00
3 Binder - 675 caps [illegible] - Page 71.		777.00
4 [illegible] ft. [illegible] galv. line installation		500.00
5 [illegible] ft. 1½ Hall [illegible] .44 f.o.b. line		264.[illegible]
6 [illegible] plates [illegible]		30.00
7 Hardware current a[illegible]		150.[illegible]
8 [illegible] hoop - gas & oil [illegible] truck		150.[illegible]
9 [illegible] ft. [illegible] line 4[illegible] per ft		13[illegible]
10 4[illegible] - [illegible] 1' studs [illegible] each		42.00
11 [illegible] ft. 4" x 6" lagging [illegible] each		150.00
12 [illegible] automatic drill complete with [illegible]		525.[illegible]
13 [illegible] 3 [illegible] [illegible] 1'[illegible] [illegible] with [illegible]		[illegible]
14 [illegible] Power [illegible]		1[illegible]
15 [illegible] for [illegible]		[illegible]
Total [illegible] current costs	[illegible]	1,4[illegible]05

Total cost per ft. 34.93

UNITED MINERS [illegible] CORPORATION

EXHIBIT [illegible] 3
Cost Sheet [illegible] 3

[illegible]st cost [illegible] 90 foot cross cut. Cost Sheet No.

To be driven North from East drift of Two Sister to contact E. H. P Vein.

Location of cross cut to be determined after rehabilitation and Geology has been worked out.

Based on two shifts in 24 hours - 4[illegible] hour week.

1st shift;				
1 [illegible] Timber [illegible]	1.70	per hour	13.60	
1 [illegible] Helper	1.60		12.80	
1 Top Engineer	1.60		12.80	
2nd shift				
2 [illegible] Machine	1.60	per hour	25.60	
1 Top Engineer	1.60		12.80	
1 Driver	1.50		12.00	
25 days			89.60	2,240.00
Over time				179.20
Compensation Insurance				50.46
[illegible]				42.00
[illegible] Employment [illegible]				72.00
				2,589.66

Cost Sheet No. 4

1	Power [illegible]	250.00	
2	Powder 1,250 lb. [illegible] per lb	281.25	
3	[illegible]	42.00	
4	[illegible] 1, full 44 per foot	88.00	
5	Flash [illegible] Ikes	5.60	
6	75 feet [illegible] Vent. Pipe @ 1.[illegible]	75.00	
7	75 ft. [illegible] 40% and 1 times	40.00	
8	Hardware, supplies	15.00	
9	[illegible] on one time [illegible] truck [illegible]	75.00	
10	[illegible] for	100.00	1,[illegible]9.85
	Total Costs		3,813.51

Cost per foot [illegible] above costs 42.44

UNITED MINING & LEASING CORP., Central City, Colo.

E X P L O R A T I O N Sheet No. E X H I B I T #3
Cost Sheet #4

300 Ft. of Drifting on R. H. D. Due to underground work getting farther away from shaft an underground tramer has been added to one crew in the following estimates.

Based on two shifts in 24 hours.-- 48 Hr. Week.

1 st shift:					
	2 men mucking	1.60 per hour	$25.60		
	1 man traming	1.50 per hour	12.00		
	1 Top Engineer	1.60	12.80		
	1 Top Tramer		12.00		
2nd shift					
	1 Driller & Timber Man	1.70	13.60		
	1 " " " Helper	1.60	12.80		
	1 Top Engineer	1.60	12.80		
	60 Days @		101.60	$6,096.00	
	Over Time			408.60	
	Compensation Ins.			127.00	
	S. S. Tax 2%			121.92	
	Un Employment			182.00	$6,935.52
1	Power Cost per Mo. $250.00 per Mo.			$ 500.00	
2	Powder $22.50 per 100#			675.00	
3	Caps			31.00	
4	Fuse			71.00	
5	300 Ft. 8" Galv. Pipe @ 1.00 per Ft			300.00	
6	600 Ft. 12# Rail @ 44¢ f.o.b. mine			264.00	
7	Fish Plates and Spikes			30.00	
8	Hardware current supplies $125.00 Mo			250.00	
9	Up keep on mine truck Gas & Oil			150.00	
10	300 Ft. 2" pipe @ 40¢ per Ft. Mine			120.00	
11	40 8" x 12 Mine Stulls @ 1.20			48.00	
12	300 Ft. 4" x 12'			150.00	
13	5 Seede Drilling Steel 5' 4" long with Carb. Bit			90.50	
14	Contingencies			500.00	
	Total Equip power and supply cost			3,179.50	$3,179.50
	Total Wage, Equip Supply & Power costs				$10,115.02

Cost per Ft $33.17

UNITED [illegible] & [illegible] CORPORATION, Central City, Colorado.

EXHIBIT # 3
Cost sheet 5

EXPLORATION CARGOL SHAFT. Sinking 190 Ft.

Based on two shifts per 24 hours - 48 hour week.

1st Shift:			
1 Driller & timber man	$1.70 per Hr.	$13.60	
1 " " Helper	1.60 " "	12.80	
1 Top Engineer	1.60 " "	12.80	
2nd Shift:			
2 Men sinking	1.60	25.60	
1 Top Engineer	1.60	12.80	
1 Trimmer	1.50	12.00	
170 days (working days		89.60	$6,272.00
Over time			507.60
Compensation Insurance			131.67
F. U. Tax 2%			125.44
Unemployment Tax 3%			176.16 $7,254.87

COSTS

Powder, Equipment, Supplies etc.

No 1	Power Est. Per [illegible]	$750.00
2	Top side tooling	400.00
3	2 Transformers - 3 Phase - [illegible]	160.00
4	510 Ft. 12 - 3 Wire Under Ground Cable	816.00
5	500 Ft. 6 - 3 Wire Underground Cable	600.00
6	Two 15 H. P. Centrifugal Pumps	1,500.00
7	Hardware for South 145.00	575.00
8	5 H. P. Blower for ventilating	400.00
9	545 Ft 8" Galv Vent. Pipe	545.00
10	160 Line Stulls 8" x 12' @ 1.20 ea	192.00
11	250 Lagging 5" 8a	125.00
12	2000 Bd Ft. 2 x 10 plank @ 87.50	175.00
13	600 Bd Ft sawed ding skids	48.00
14	500 Ft. 2" pipe @ .40	200.00
15	2" Fittings, Valves Etc	50.00
16	500 Ft 4" Water Column Pipe @ 1.40	665.00
17	4" Pipe fittings - Valves & Chargers	105.00
18	Under Ground Tools	200.00
19	Atlas Drill - Complete with Leg & Hose	525.00
20	2 - 1400 Shaft Buckets	200.00
21	3 Pc. 5' 2" Steeds Steel Work Set	144.00
22	1,500 Lbs Powder @ 1.50 per Lb	787.50
23	1,000 Elec Blasting Caps	75.00
24	Line track to Shaft	150.00
25	Contingencies	700.00
		9,096.55

$7,254.87
15,351.42

$80.06 per Ft.

UNITED MINING & MILLING CORPORATION, Central City, Colorado.

E X P L O R A T I O N * CARROLL DRIFTS 600 Ft

Based on two shifts per 24 hours - 48 hour week.

E X H I B I T A 3
Cost Sheet No 6

1st Shift:

1 Driller & Timber man	1.70 per Hr	$13.60	
1 " " Helper	1.60 per Hr	12.80	
1 Top Engineer	1.60	12.00	

2nd Shift:

2 Men Mucking	1.60	25.60		
1 Top Engineer	1.60	12.80		
1 Tramer Top	1.50	12.00		
148 working days		89.60	$13,752.00	
Over time pay			716.85	
Compensation Insurance			324.75	
S. S. Tax			315.35	
Unemployment Tax			322.56	$15,431.14

Cost sheet No. 6

1	Power, Est. Cost per No. $250.00	$1,000.00	
2	Powder Est 5000 lbs .30 per lb.	1,350.00	
3	600 Ft 3" Galv Pipe 1.00 per Ft	600.00	
4	1,200 Ft. 16# Rail 44# line	528.00	
5	Tank Plates & Steel	60.00	
6	Hardware Supplies per No. 125.00	500.00	
7	600 Ft. 2" pipe 40 per Ft	240.00	
8	80 - 8" x 12' Stulls 1.20 Each	96.00	
9	600 Ft. Lagging 500 Bd.	300.00	
10	10 pc. 5' 5" Cowcode Steel with Carbon Bits	181.00	
11	Contingencies	1,000.00	5,855.00
			$18,176.14

Cost per Foot $30.24 per Ft.

This work runs concurrently with the Sisters Project.

UNITED MINING & LEASING CORPORATION, Central City, Colo.

EXHIBIT 3
Sheet 7

No. 7 (b) The General supervision will be carried out by C. R. McKay, General Manager who will not appear at any time on the pay roll of the Shaft contract.

Van R. McKay, President of the United Mining & Leasing Corporation, will devote all of his time, except when called out on Corporate business, to the actual activities of the work at the mines. This means that he will be supervisor, or General Superintendent of operations. As such he will spend three quarters of his time directing the actual activities at the Carroll and Two Sisters properties. His pay, for services rendered in this capacity will be $300.00 per month of which three quarters will be charged against the loan contract amounting to $,400.00.

The number of calendar months necessary to complete the project is 24.

Schedule of wages.

Shaft foreman, actually working on shaft work	$1.7[illegible] per hr.
Shaft " Helper " " " "	1.60 per hr.
Driller and Timberman	1.60 per hr.
Driller " " Helper	1.55 " "
Muckers	1.50 " "
Top Engineer	1.60 " "
Raise work	1.70 " "

United Mining & Reduction Corporation, Central City, Colorado.

R E H A B I L I T A T I O N

C A R R O L L

Exhibit No 2

No 6 (b) Contracts 775 ft @ [illegible].50		$ 1,937.50

Exhibit No 3

Sheet No. 1	Rehabilitation of The Sisters Shaft & Drifts	
	Shaft	49,[illegible].33
	Drift	20,666.50
Sheet No. 2	300 Ft. Drift on The Sisters	10,481.05
Sheet No 3	93 feet cross cut- The Sisters to R.H.E.	3,819.51
Sheet No 4	300 feet Drift on R. H. E. Lode	10,113.02
Sheet No 5	200 Feet sinking on Carrol Shaft	16,351.42
Sheet No 6	600 Feet Drifting on Carroll Lode	18,173.14
Sheet No 7	Supervision	5,400.00
	Total of Allocation for Loan	136,189.49

Work will cover a period of 24 calendar months

STANDARD FORM NO. 64

3/19/54 gla

Office Memorandum • UNITED STATES GOVERNMENT

TO : E. Wm. Ellis, DMEA Member, Uranium Commodity DATE: March 17, 1954

FROM : Arthur P. Butler, Jr., USGS Member, Uranium Commodity Committee

SUBJECT: Application - DMEA Docket 3272 (Uranium), United Mining and Leasing Corporation, Central City, Colorado, applicant; Carrol Mine, Spur Daisy Groups, and R. H. D. Group, Eureka Quart Valley Mining District, Gilpin County, Colorado.

Comment

I have reviewed the application identified in the subject above. The applicant, United Mining and Leasing Corporation, proposes 775 feet of diamond drilling, rehabilitation of the Two Sisters shaft and drifts, and 1490 feet of additional underground exploration at an estimated cost of $136,189.49 to explore occurrences of primary and secondary uranium minerals on three separate veins.

The Geological Survey is currently preparing areal geologic maps in the vicinity of the property and have prepared detailed maps of these occurrences of uranium minerals. The results of this work should be considered in fully evaluating the merits of the application particularly in regard to the amount of exploration warranted. This information is available in the project office. Proper evaluation of this application can best be made by consultation between the Field Team and Paul K. Sims, Project Chief U. S. Geological Survey, Denver Federal Center. Such consultation would also serve to indicate the extent, if any, of examination of the property that might be needed.

Recommendations

1. I recommend that the application be forwarded to the Field Team for review and evaluation especially with respect to the general scope of the exploration in relation to the results of examinations by Geological Survey personnel.

2. I suggest that the Field Team consult with Mr. Paul Sims, U. S. Geological Survey, and with members of his staff, who have first-hand knowledge of these occurrences, and also with the members of the Denver Exploration Branch, U. S. Atomic Energy Commission.

Arthur P. Butler, Jr.

Copies to: E. Wm. Ellis (2)

(See "Map File" for Opening Lease.

MF-698
(Revised April 1950)

GEOLOGICAL SURVEY
TEPO
RECEIVED
MAR 15 1954
Denver

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved.
Budget Bureau No. 42-R1035.2.

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. 3272
Metal or Mineral Uranium
Date Received
Estimated Cost $136,189
Participation (Government %)

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: UNITED MINING AND LEASING CORPORATION, a Colorado corporation, Central City, Colorado.

Answers to all items are attached.

(*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 March 4, 1954

UNITED MINING AND LEASING CORPORATION
(Applicant)

By Van P. McKay Pres

R. McKay Sec-Treas

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

UNITED MINING & MILLING CORPORATION, Central City, Colorado.

The information contained in this application for loan falls into these groups;

Rehabilitation of Two Sisters Shaft
Rehabilitation of Two Sisters Drifts
Exploration work on Carroll Shaft
Exploration work on Calloll Drifts
Exploration work on Two Sisters Drift
Exploration work on Cross Cut connecting Two Sisters with R.H.D. Vein
Exploration work on R. H. D. Vein

E X H I B I T S

Maps

No. 1 - 2 & 3 showing work done on R. H. D and St. Anthony Vein. being situated approximately 85 feet North of Two Sisters Vein.

No 4 Two Sisters Shaft and workings as sketched from information gained from the old timers of the district.

No 5 Clara Marie Shaft, located on cross vein connecting the Two Sister Vein with the Carroll.

No 6 Carroll shaft and workings taken from an old map.

Exhibit
No 2 2 Exhibit No. 3
No 3 (a) Sheet No. 1 Contract

Exhibit No.3 Costs Sheets.

No 1 Rehabilitation of Two Sisters Shaft and drifts.

No 2 Exploration work on Two Sisters Vein

No. 3 Cross Cut to R. H. D. Vein

No. 4 Exploration work on R. H. D. Vein

No. 5 Exploration work on Carroll Shaft

No. 6 Exploration work on Carroll Drift.

No. 7 Supervision

Exhibit No. 4

Recapitulation of all costs

Exhibit No. 5

Photostatic copies of mining leases.

Exhibit No. 6

Photostatic copy of claim map.

UNITED MINING & LEASING CORPORATION
Box 246, Central City, Colorado.

No 1 (b) A corporation. Incorporated under the laws of the State of Colorado In July 1950.

(c) Von E. McKay, President, Box 246, Central City, Colorado.
Joe A. Cheesoler, Vice President, Central City, Colorado
Richard Douse, Sec & Treas, Central City, Colorado.

No 3 (a) Ground to come under this exploration that will be benefitted through loan;

East one half of Two Sisters Lode U.S. Sur No.	6062
675 Feet of North East end of Clara Marie Lode U.S. Sur No	8732
400 Feet, East end of Pacific Lode, U. S. Sur No.	9041
350 Feet, East end of Maggie M Lode U. S. Sur No.	8732
Harkney Lode, U. S. Sur No.557	557
R.H.D. Mining Lode U. S. Sur No	6004
Easton Mining Lode U. S. Sur No	9041
Ravenswood Mining Lode U. S. Sur No	9041
Carroll Mining Lode U. S. Sur No.	789

All situated in the Eureka Quartz Valley Mining District of Gilpin County, Colorado.

No 3 (b) Applicants Property Rights: Property in being held under three leases as follows; E.675 ft. of E.400 ft. of E.½Two Sisters Lode Sur. No 6062,/Clara Marie No. 8732,/Pacific Lode No. 9041 are being held under ten year lease dating from 1954.
E. 350 ft. of
/Maggie M. Lode No.8732, Easton Lode 9041, Ravenswood No 9041 and Carroll Lode 789, are now under lease to the United Mining & Leasing Corporation for a ten year period, with a ten year extension clause dating from 1955.

Harkney Lode No. 557 and R.H.D. Lode No. 6004 are under lease to the United Mining & Leasing Corporation for a period of five years, with a five year extension clause, dating from 1955.

No. 3 (b) The Carroll Lode has always been known as the Carroll Mine.

The Two Sisters, Clara Marie, Pacific, Maggie M, Easton and Ravenswood are best known as the Spay Daisy Groups.

The Harkney and R. H. D. have been operated under the name of R.H.D. Group.

(c) Under lease

(d) Copies of leases inclosed with this application.

(e) Not owned by United Mining & Leasing Corporation however a search of the County records show that their are no liens or other encumbrances against the property.

No. 4 (a) The United Mining & Leasing Corporation are presently rehabilitating the Carroll Shaft. The depth of this shaft is reported to be 248 feet with very little exploration work having been done to either side of shaft. An old sketch, which we are including with this application, will bear the reports. This shaft has now been rehabilitated for the first 100 feet and within a very short time an underground study canbe made of the workings. Knowing the District in which the Carroll is situated, the operators of past years were mining for gold, silver and lead. Also we know, through dump exposures, that at some point in their limited exploration, uranium ore was encountered, which not carrying sufficient gold and silver values, was thrown into the dump. The walls of the shaft are being tested as we carry on our rehabilitation work and the geiger counter shows a fair uranium content but not commercial as yet.
From the dump of the Carroll we have taken samples ranging by assay

from .30 up to 7.7 percent uranium oxide.

The Carroll has been completely equipped with compressor, hoist, shafthouse and gallows frame. All these improvements have been bought and paid for in full by the United Mining & Leasing Corporation.

As to the United Mining & Leasing Corporation's interest in the Carroll mine, as stated above, it consists of a ten-year lease with ten-year extension clause, giving us a leasehold of twenty years.

Another mining lode in this group, the Two Sisters, a separate and distinct vein from the Carroll, will be opened up early this spring by the United Mining and Leasing Corporation. The two operations are close enough to be placed under one supervision and yet are far enough apart as to make two operations the more advantageous. The Two Sisters and Carroll veins have a common cross vein, known as the Clara Marie, which will intersect the Two Sisters at point of shaft and intersect the Carroll less than 100 feet east of Carroll shaft.

The Two Sisters shaft is reported to be down 700 feet with the bulk of drifting having been done to the west. From the old timers of the district we have gathered some information regarding the old workings, and from this information are making a sketch which, while not accurate, will help much in the planning of operations in the beginning.

This shaft cannot be entered at present due to collar timber jamb on which much slide rock has caved and sealed it from entry. An old stope that holes through to the surface 145 feet east of the shaft can be entered for a very short distance. Torbernite crystals can be observed on either wall. This stope, starting at the 100-foot level and going through to surface, is reported to have produced $200,000.00 in Gold, Silver and Lead values.

A large part of the dump responds very favorably to the Gieger Counter. Readings can easily be obtained running from .20 to 18 MR/per hour. Samples have been taken and assayed that run from .20 to 1.34% uranium oxide. The specimens class of ore were carefully excluded from the samples.

From the size of some chunks of the ore out of this dump, ranging up to 40 pounds and one chunk that would run well over 100 pounds, we believe that this deposition of uranium ore will contain volume. The chunks are of altered schist which would indicate that the values are inside the walls instead of occurring in the gangue.

There are three different parts of the dump that show higher values than other points. From this we gain that there might be several ore zones.

Two hundred fifty feet to the east of the Two Sisters shaft another uranium finding is exposed on the R. H. D. Mining Lode. A prospecting shaft, 50 feet in depth, with a drift extending east from shaft, has recently proved from Gieger Counter readings to be a uranium discovery well worth exploring. This shallow drift for a distance of 70 feet produces Gieger Counter readings running from .10 to .18 MR/per hour. At a point 70 feet east of this shaft, the drift passes through the Ravenswood Vein Crossing and the readings jump up to .20 and .30 MR/per hour.

At the time C. R. and Van R. McKay sunk this shaft and drove the drift in 1950 they were in search of Lead and not aware of uranium possibilities.

The uranium values show up in the schist hanging wall and not in the vein proper. At the present time the tonnage possibilities from this shallow depth finding on R.H. D., although low grade, would very likely prove, by the mixing of the higher grade ores of the Two Sisters, to be a successful project.

The values now being found at this shallow depth can be expected to increase as sinking operations continue downward towards the primary mass.

No.4 (d) The roads to these properties are in very good shape and will be kept open the year round by county maintenance.

This group of claims is situated a mile northwest of the post office at Central City, Central City being the supply as well as residence point.

(e) We have an over supply of man power. Supplies and equipment are available. Hoist and compressor for Two Sisters operation have already been purchased.

A power line will have to be extended from the Carroll. The Public Service have already surveyed the line and the installation will run $876.00.

No.5 (a) The mineral being explored for is uranium in both the Carroll and the Two Sisters operations.

(b) Map and Detailed Explanation of Project Planning -
&
(c) 1st The work outlined is to be done on two distinct and separate vein structures,- the two operations to run concurrently. They will be under one supervision.

The points of operation are separated by approximately 750 feet. They are divided by a large bostonite porphyry dike. The Carroll vein is to the south of the dike and contains pitchblende ores while the Two Sisters and R. H. D. veins situated north of the dike carry torbernite ores.

Exploration work on Carroll will start May 15, 1954. Rehabilitation work on Two Sisters vein to start May 15, 1954.

The Carroll shaft will be deepened a further 200 feet or to a total depth of 445 feet, from which depth drifts will be run - 375 feet to east of shaft and 225 feet to west of shaft. The reason for wanting to gain depth on Carroll shaft is to get into the primary zone. The uranium ore, as exposed in Carroll dump, is to a great extent oxidized, and the further depth of 200 feet should reveal the primary ore.

The Two Sisters shaft is now closed due to collar being caved and sealed from entry.

The first work on Two Sisters vein will consist of rehabilitating old 700-foot shaft. Next will be the rehabilitation of approximately 800 feet of drifts, to be followed by exploration program.

Exploration work on Two Sisters vein will consist of 300 feet of drift running from 700-foot level of shaft to the east, at which point a 90-foot cross cut will be driven to the north for purpose of contacting R. H. D. vein. From point of contact with R. H. D. vein a drift 300 feet in length will be driven to explore the lower depths of shallow showing of uranium ore already described.

Three drill holes are planned as follows:

1. 325-foot diamond drill hole to enter hanging wall of Carroll vein at point 200 feet east of shaft on 445-foot level to explore the several veins lying between the Carroll and Two Sisters as well as explore the west end of our holding on Two Sisters vein.

2. 300-foot diamond drill hole to be placed from 700-foot level downward in search of primary ore. Point of level to start drilling from will be fixed at such time as rehabilitation work will permit a study of geology.

3. 150-foot diamond drill hole to enter hanging wall of Two Sisters vein to explore schist belt north of Two Sisters vein.

No. 5 (d) C. R. McKay, of Central City, Colorado, will be General Manager of Operations. With the exception of war time interruptions, his life has been spent in mining. Having represented the Giant Powder Company of California in his early life, has visited underground in many of the larger mines of Montana, Idaho, Colorado, New Mexico, Arizona and Old Mexico. He is fully qualified to manage and conduct the project at hand.

Van R. McKay, President of the United Mining & Leasing Corporation, will supervise all operations at the mines. He entered the Air Forces at eighteen years of age, was shot down over Germany, returned to the United States and given an honorable discharge in 1946. Five of the intervening years have been spent at constant mining. He is very efficient in handling men well experienced in practical mining.

No. 6 (a) The only contract to be let is on diamond drilling and is outlined in Exhibit No. 2.

(b) (c) (d) (e) (f) (g) and (h) are outlined on sheet Nos. one to seven in Exhibit No. 3.

No. 7 (a) Yes.

(b) By current Bank Account, incoming stock sales commitments and the releasing of $43,000.00 of our shares to individuals now dealing with our company, together withuse of applicant's mining equipment.

Dated March 4, 1954.

UNITED MINING & LEASING CORPORATION

Van R. McKay

Van R. McKay President

C. R. McKay

C. R. McKay Gen. Mgr.

UNITED MINING & LEASING CORPORATION, Central City, Colorado.

EXHIBIT No. 2 CONTRACT.

No. 6 (a) The only contract to be let will be on diamond drilling at $2.50 per foot.

One 300-foot hole to be put down from somewhere later determined on the 700-foot level, which will be in search of primary ore.	$ 750.00
One 325-foot hole to enter hanging wall of Carroll vein at point 200 feet east of shaft to explore intervening veins and Bentonite Dike, and entering Two Sisters vein in unexplored territory.	812.50
One 150-foot hole to enter hanging wall of Two Sisters at point later to be decided on. There is considerable Mica Schist in certain parts of theTwo Sisters Dump that will yield Geiger Counter readings of from 2 to 5%. At this time we think it is coming from the hanging wall, which is the reason for hanging wall drill hole.	375.00
775 feet @ $2.50	$1,937.50

UNITED MINING & DRESSING CORPORATION, Central City, Colorado

R E H A B I L I T A T I O N

[illegible] Shaft.
Based on Our Shifts per 24 hours

EXHIBIT 3
Sheet No 1

2 Shift Foreman	$3.75 per hour	$37.50	
2 Shift man (helper)	1.50 " "	15.00	
2 Top Engineers	1.50 " "	15.00	
2 Top firemen & timber carpenters	1.50 " "	15.00	
240 working days @		100.00	$24,000.00
Over time			5,000.00
Comp. Ins. Rate ($2.00 per $100.00)			500.00
S. S. Tax 4%			956.00
To Employment 1%			241.00
Total pay roll and assessments			$30,697.00

R E H A B I L I T A T I O N

Estimated costs of power, equipment and supplies on Shaft.

Dr 1	Installation of power line @	675.00
Dr.2	Wiring from line transformer, entry pole concrete, fuse and control boxes	720.00
Dr.3	200 - 6" x 12' Poles ($4.50 each	900.00
4	700 - 6" x 12' Lagging 60¢ each	420.00
5	2000 Ft - 5 x 10 plank (Shaft timber Etc.	500.00
6	5000 Ft 4 x 6 Rail Plates ($75.00 per M	375.00
7	1000 Ft. 6 x 6 (Ladder material	60.00
8	100 1 x 4 Ladder rungs	50.00
9	1400 Ft. 6 x 6 Bins Cut Skin ($70.00 per M	147.00
10	Collars frame - Chute Cost Bending rails and installation	800.00
11	Estimated power cost - 50 H.P. Hoist & 20 H.P. Pump Pump, 1 20 H.P. Hoist pump ($50.00 per Hp	2,000.00
12	800 Ft. 6" Water Column @ ($1.40 per foot	1,120.00
13	700 Ft 6" Comp. air line Column @ 1.00 per Ft	700.00
14	6 H.P. Blower for ventilation with Heater	600.00
15	1 50 H.P. Hoist pump	1,000.00
16	2 10 H.P. Hoist pumps	1,200.00
17	800 Ft 5 Wire 6 Cond. water power cable (Fungal) 1.00'	800.00
18	2500 Ft 5 Wire 6 Cond water shaft light cable.60'	1,275.00
19	1500 Ft 7/8 Steel Bucket cable	600.00
20	2 Cu Yd Shaft Bucket	300.00
21	1 Ft Dump car	100.00
22	Cap side tracks	600.00
23	Elec Shaft car	500.00
24	10" x 10 Shaft frame for hoist and change room	350.00
25	Installation of hoist (2 car Elec dump-drum control and moving hoist	500.00
26	Accessories Devices ($10.00 per Ft	200.00
27	Underground tools	100.00
28	Elec sundry supplies ($75.00 per Ft.	750.00
29	Dr Hoist on 1 Yd rocker truck Cap of: Ft ($2.00 Ft	600.00
30	Ft Locked Car dumps	2,000.00
		19,000.00
	Total cost of rehabilitating shaft	$40,000.00

$20.00 per foot

Installation of 500 Ft Ele Elevator Hoist two shifts per day
Does help on wind shaft 50¢

120 working days at	@ 100.00	$12,000.00	
Over time		1,000.00	
Comp. Insurance		500.00	
S. S. Tax 6% 1% Employment 1% ($2.00		691.20	$15,829.50
Power Est. @ ($200.00 Hp	1,500.00		
100 6" x 12' cribs $8.00 Lagging $3.50	600.00		
1500 Ft 1x8 Rail 6¢ Ft Rail Plates Etc ($75	710.00		
300 Ft Col 6" Pipe @ 1.50 per Ft	450.00		
Mining Supplies Elec. ($75 per Ft	675.00		
Ft Locked Car & Tower upkeep	1,500.00		
Cost per Ft $20.00	Total cost Shaft Rehabilitation on 6		$20,666.50

EXHIBIT 3
Cost Sheet No 2

EXPLORATION Cost Sheet No

300 feet of drift from Two Sisters Shaft East to point of Ravenswood Vein crossing. Location of depth to be determined after rehabilitation work is finished and geology determined.

Based on two shifts or 24 hours - 48 hour week.

1 st. shift:			
1 Driller & timber man	$1.70 per hour	$15.60	
1 " " Helper	1.60 per hour	12.80	
1 Top Engineer	1.60 per hour	12.80	
2nd shift			
8 Men tucking	1.50 per hour	36.60	
1 Top Engineer	1.60 per hour	12.80	
1 Trimmer	1.50 per hour	12.00	
60 working days		8960	5,376.00
Over time pay			358.40
Compensation Insurance	$3.09 per$100		112.55
S. S. Tax xx 2%			107.52
Un Employment 3%			161.28
Total Pay Roll and Payroll Assessments			$6,115.55

COSTS EXHIBIT No. 3

1	Power,- Est. cost per Mo. $350.00	$ 500.00	
2	Building cost, Compressor House	528.00	
3	Powder - 1675 Caps $31.00 - Fuse $71.00	777.00	
4	500 Ft. 8" Galv. Pipe Ventilation	300.00	
5	600 Ft. 12# Rail @ .44 f.o.b. Mine	304.00	
6	Rail fish plates & Spikes	30.00	
7	Hardware current small supplies for Mo $125.00	250.00	
8	Up keep - gas & oil on Mine 1 ton truck	150.00	
9	300 Ft. 8" Pipe @ 40¢ per Ft	120.00	
10	40 - 6" x 12' stulls 1.20 each	48.00	
11	300 Ft 4" x 12' lagging 50¢ Each	150.00	
12	Atlas Pneumatic drill complete with leg and Base	555.00	
13	5 Speed Drilling Steel 5'6" long with Jerk Bit	90.50	
14	1 Ohor Abrasive Grinder Mac.	135.00	
15	Re-bolted for (Contingencies)	500.00	
	Total supply & equipment costs	$4,365.50	10,481.05

Total cost per Ft. $34.93

UNITED MINING & LEASING CORPORATION

EXHIBIT [illegible]

[illegible]st cost [illegible]ent 90 foot Cross Cut Cost Sheet No. Cost Sheet [illegible] 3

To be driven north from East Drift of Two Sister to contact B. M. B Vein.

Location of cross cut to be determined after rehabilitation and Geology has been worked out.

Based on two shifts in 24 hours - 48 hour week.

1st shift;				
1 Driller & Timber man	$1.70 per hour	$13.60		
1 " " Helper	1.60	12.80		
1 Top Engineer	1.60	12.80		
2nd shift				
2 [illegible] Muckers	1.60 per hour	25.60		
1 Top Engineer	1.60	12.80		
1 Tender	1.50	12.00		
25 days		89.60	2,240.00	
Over Time			172.80	
Co. Compensation Insurance			50.40	
F. O. A. Tax (3)			42.00	
Unemployment (3)			73.00	$3,580.60

Cost Sheet No. 4

1	Power 250.00 per mo. Est.	250.00	
2	Powder 1,250 lb 32¢ per lb	221.28	
3	Caps 11.00 Fuse 29.00	40.00	
4	210 Ft. 12# Rail 44¢ per foot	92.40	
5	Misc. plates and spikes	5.00	
6	75 feet of 2" Galv Vent. Pipe @ 1.00 per ft	75.00	
7	75 Ft. 2" line 40¢ and fittings	40.00	
8	Hardware, supplies	125.00	
9	To keep on one tone line track Gas & Oil	75.00	
10	To be Looked for	350.00	1,239.05
	Total Costs		3,819.51

Cost per foot to above costs 42.44

UNITED MINING & LEASING CORP., Central City, Colo.

E X P L O R A T I O N Sheet No. E X H I B I T #3
Cost Sheet #4

300 Ft. of Drifting on R. H. D. Due to underground work getting farther away from shaft an underground tramer has been added to one crew in the following estimates.

Based on two shifts in 24 hours.-- 48 Hr. Week.

1 st shift:					
	2 men mucking	1.60 per hour	$25.60		
	1 man traming	1.50 per hour	12.00		
	1 Top Engineer	1.60	12.80		
	1 Top Tramer		12.00		
2nd shift					
	1 Driller & Timber Man	1.70	13.60		
	1 " " " Helper	1.60	12.80		
	1 Top Engineer	1.60	12.80		
	60 Days @		101.60	$6,096.00	
	Over Time			408.60	
	Compensation Ins.			127.00	
	S. S. Tax 2%			121.92	
	Un Employment			182.00	$6,935.52
1	Power Cost per Mo. $250.00 per Mo.			$ 500.00	
2	Powder $22.50 per 100#			675.00	
3	Caps			31.00	
4	Fuse			71.00	
5	300 Ft. 8" Galv. Pipe @ 1.00 per Ft			300.00	
6	600 Ft. 12# Rail @ 44¢ f.o.b. mine			264.00	
7	Fish Plates and Spikes			30.00	
8	Hardware current supplies $125.00 Mo			250.00	
9	Up keep on mine truck Gas & Oil			150.00	
10	300 Ft. 2" pipe @ 40¢ per Ft. Mine			120.00	
11	40 8" x 12 Mine Stulls @ 1.20			48.00	
12	300 Ft. 4" x 12'			150.00	
13	5 Seede Drilling Steel 5' 4" long with Carb. Bit			90.50	
14	Contingencies			500.00	
	Total Equip power and supply cost			3,179.50	$3,179.50
	Total Wage, Equip Supply & Power costs				$10,115.02

Cost per Ft $33.17

UNITED MINING & LEASING CORPORATION, Central City, Colorado.

EXHIBIT # 3
Cost sheet # 5

EXPLORATION CHERCOL SHAFT. Sinking 190 Ft.

Based on two shifts per 24 hours - 48 hour week.

1st Shift:				
1 Driller & timber man	$1.70 per Hr.	$13.60		
1 " " Helper	1.60 " "	12.80		
1 Top Engineer	1.60 " "	12.80		
2nd Shift:				
2 Men mucking	1.60	25.60		
1 Top Engineer	1.60	12.80		
1 Trammer	1.50	12.00		
170 Days (working days		89.60	$6,272.00	
Over Time			537.60	
Compensation Insurance			121.67	
S. S. Tax 5%			115.44	
Unemployment Tax 3%			128.16	$7,254.87

COSTS

Powder, Equipment, Supplies Etc.

No 1	Power Est. per Mo	$750.00
2	Top Side tooling	400.00
3	2 Transformers - 3 phase - 2 H.P.	160.00
4	500 Ft. # 10 - 3 Wire Under Ground Cable	316.25
5	500 Ft. # 6 3 Wire Underground Cable	600.00
6	Two 15 H.P. Centrifical Pumps	1,[illegible]
7	Hardware per Month $125.00	375.00
8	5 H. P. Blower for ventilating	400.00
9	545 Ft 8" Galv Vent. Pipe	545.00
10	160 Mine Stulls 8" x 12' @ 1.20 Ea	192.00
11	250 Lagging @ 50¢ Ea	125.00
12	3000 Bd Ft. 2 x 10 plank @ $70.00	175.00
13	600 Bd Ft sawed diag skids	48.00
14	500 Ft. 2" pipe @ 40¢	200.00
15	2" Fittings, Valves Etc	50.00
16	500 Ft 4" Water Column Pipe @ 1.40	665.00
17	4" Pipe fittings - Valves & Hangers	105.00
18	Under Ground Tools	200.00
19	Atlas Drill - Complete with leg & hose	535.00
20	2 - 1400# Shaft Buckets	200.00
21	8 Pc. 5' 8" Swede Steel Carb Bit	144.80
22	3,500 Lbs Powder 22.50 per 100#	787.50
23	1,050 Elec Blasting Caps	75.00
24	Mine truck up keep	150.00
25	Contingencies	700.00
		9,096.55
		$7,254.87
		$ 16,351.42

$86.06 per Ft.

UNITED MINING & REGINE CORPORATION, Central City, Colorado.

E X P L O R A T I O N * CARROLL DRIFTS 600 Ft

Based on two shifts per 24 hours - 48 hour week.

E X H I B I T # 3
Cost Sheet No 6

1st Shift:

1 Driller & Timber man	$1.70 per Hr	$13.60	
1 " " Helper	1.60 per Hr	12.80	
1 Top Engineer	1.60	12.80	

2nd Shift:

8 Men Mucking	1.60	85.60		
1 Top Engineer	1.60	12.80		
1 Tramer Top	1.50	12.00		
180 working days		89.60	$10,752.00	
Over time pay			716.85	
Compensation Insurance			224.70	
S. S. Tax			215.03	
Un Employment Tax			322.56	$12,231.14

Cost sheet No. 6

1	Power, Est. Cost per Mo. $250.00	$1,000.00	
2	Powder Est 6000 Lbs @ .22½ per lb.	1,350.00	
3	600 Ft 8" Galv Pipe @ 1.00 per Ft	600.00	
4	1,200 Ft. 12# Rail @ 44¢ Line	528.00	
5	Fish Plates & Spikes	60.00	
6	Hardware Supplies per Mo. $125.00	500.00	
7	600 Ft. 2" pipe @ 40¢ per Ft	240.00	
8	80 - 8" x 12' Stulls @ 1.20 Each	96.00	
9	600 Ft. Lagging @ 50¢ Sq.	300.00	
10	10 Pc. 5' 3" Gweedo Steel with Carbon Bits	181.00	
11	Contingencies	1,000.00	5,855.00
			$18,176.14

Cost per Foot $30.24 per Ft.

This work runs concurently with Two Sisters Project.

UNITED MINING & LEASING CORPORATION, Central City, Colo.

EXHIBIT 3
Sheet 7

No. 7 (b) The General supervision will be carried out by C. R. McKay, General Manager who will not appear at any time on the pay roll of the DMEA contract.

Von R. McKay, President of the United Mining & Leasing Corporation, will devote all of his time, except when called out on Corporate business, to the actual activities of the work at the mines. This means that he will be supervisor, or General Superintendent of operations. As such he will spend three quarters of his time directing the actual activities at the Carroll and Two Sisters properties. His pay, for services rendered in this capacity will be $800.00 per month of which three quarters will be charged against the loan contract amounting to 5,400.00.

The number of calendar months necessary to complete the project is 24.

Schedule of wages.

Shaft foreman, actually working on shaft work	$1.70 per Hr.
Shaft " Helper " " " "	1.60 per Hr.
Driller and Timbermen	1.60 per Hr.
Driller " " Helper	1.55 " "
Muckers	1.50 " "
Top Engineer	1.60 " "
Raise work	1.70 " "

United Mining & Leasing Corporation, Central City, Colorado.

R E C A P I T U L A T I O N

OF ALL COSTS.

Exhibit No 2

No 6 (b)	Contracts 775 Ft [illegible].50	1,937.50

Exhibit No 3

Sheet No. 1	Rehabilitation of Two Sisters Shaft & Drifts	
	Shaft	49,042.33
	Drift	20,666.50
Sheet No. 2	300 Ft. Drift on Two Sisters	10,481.95
Sheet No 3	90 foot cross cut- Two Sisters to R.H.D.	5,819.51
Sheet No 4	300 foot Drift on R. H. D. Lode	10,115.02
Sheet No 5	200 Feet sinking on Carrol Shaft	16,351.42
Sheet No 6	600 Feet Drifting on Carroll Lode	18,176.14
Sheet No 7	Supervision	5,400.00
	Total of application for loan	136,189.49

Loan will cover a period of 24 calender months

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

March 9, 1954
Subject: DMEA-3272
Re: Exploration Assistance
Carroll Mine, et al.

United Mining & Leasing Corp.
Box 246
Central City, Colorado

Dear Sir:

The receipt of your application dated March 4, 1954 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-3272 and referred to the Rare and Miscellaneous Metals Division.

Kindly refer to DMEA-3272 in any future correspondence relating to your application.

Sincerely yours,

Robert E. Adams
Chief, Operation's Control
and Statistics Division

United Mining & Leasing Corporation

Operating in Central City, Colorado

Often referred to as "The Richest Square Mile on Earth"

Central City, Colorado

Box 246
Phone 2046

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

March 5, 1954

Defense Minerals Exploration Administration
Department of the Interior
Washington 25, D. C.

Gentlemen:

Herewith we transmit a quadruplicate set of our application for aid in an exploration project pursuant to DMEA Order 1, under the Defense Production Act of 1950, as amended.

We have endeavored to prepare this with exactness in manner we best know how.

Yours very truly,

UNITED MINING & LEASING CORPORATION

By C. R. McKay

C. R. McKay, General Manager

Enclosures

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved.
Budget Bureau No. 42-R1035.2.

Department of the Interior
Defense Minerals Administration
Received
JUN 8 - 1954

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. 3272
Metal or Mineral Uranium
Date Received
Estimated Cost $136,189
Participation (Government %)

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: UNITED MINING AND LEASING CORPORATION, a Colorado corporation, Central City, Colorado.

Answers to all items are attached.

(*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 March 4, 1954

UNITED MINING AND LEASING CORPORATION
(Applicant)

By Van P. McPray Pres

Sec Treas

Asst Treas.

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

UNITED MINING & LEASING CORPORATION, Central City, Colorado.

The information contained in this application for loan falls into these groups;

Rehabilitation of Two Sisters Shaft
Rehabilitation of Two Sisters Drifts
Exploration work on Carroll Shaft
Exploration work on Calloll Drifts
Exploration work on Two Sisters Drift
Exploration work on Cross Cut connecting Two Sisters with R.H.D. Vein
Exploration work on R. H. D. Vein

E X H I B I T S

No 1
Maps

No. 1 - 2 & 3 showing work done on R. H. D and St. Anthony Vein. being situated approximately 25 feet North of Two Sisters Vein.

No 4 Two Sisters Shaft and workings as sketched from information gained from the old timers of the district.

No 5 Clara Marie Shaft, located on cross vein connecting the Two Sister Vein with the Carroll.

No 6 Carroll shaft and workings taken from an old map.

Exhibit
No 2 6 Exhibit No. 2
No ~~7~~ (a) Sheet No. 1 Contract

Exhibit No.3 Costs Sheets.

No 1 Rehabilitation of Two Sisters Shaft and Drifts.

No 2 Exploration work on Two Sisters Vein

No. 3 Cross Cut to R. H. D. Vein

No. 4 Exploration work on R. H. D. Vein

No. 5 Exploration work on Carroll Shaft

No. 6 Exploration work on Carroll Drift.

No. 7 Supervision

Exhibit No. 4

Recapitulation of all costs

Exhibit No. 5

Photostatic copies of mining leases.

Exhibit No. 6

Photostatic copy of claim map.

UNITED MINING & LEASING CORPORATION
Box 246, Central City, Colorado.

No 1 (b) A corporation. Incorporated under the laws of the State of Colorado In Jly 1950.

(c) Van R. McKay, President, Box 246, Central City, Colorado.
Joe A. Oberosler, Vice President, Central City, Colorado
Richard Dowse, Sec & Treas, Central City, Colorado.

No 3 (a) Ground to come under this exploration that will be benefitted through loan;

East one half of Two Sisters Lode U.S. Sur No.		8062	
675 Feet of North East end of Clara Marie Lode U.S. Sur No		8732	out
400 Feet, East end of Pacific Lode, U. S. Sur No.		9041	out
350 Feet, East end of Maggie M Lode U. S. Sur No.		8732	out
Harkaway Lode, U. S. Sur No.557		557	
R.H.D. Mining Lode U. S. Sur No		8004	
Easton Mining Lode U. S. Sur No		9041	
Ravenswood Mining Lode U. S. Sur No		9041	
Carroll Mining Lode U. S. Sur No.		789	

All situated in the Eureka Quartz Valley Mining District of Gilpin County, Colorado.

(47) ~~No 3~~ (b) Applicants Property Rights: Property is being held under three leases as follows; E. 675 ft. of E. 400 ft. of E. ½ Two Sisters Lode Sur. No 8062, Clara Marie No. 8732, Pacific Lode No. 9041 are being held under ten year lease Dating from 1954.
E. 350 ft. of Maggie M. Lode No.8732, Easton Lode 9041, Ravenswood No 9041 and Carroll Lode 789, are now under lease to the United Mining & Leasing Corporation for a ten year period, with a ten year extension clause dating from 1953.

Harkaway Lode No. 557 and R.H.D. Lode No. 8004 are under lease to the United Mining & Leasing Corporation for a period of five years, with a five year extension clause, dating from 1953.

No. 3 (b) The Carroll Lode has always been known as the Carroll Mine.

The Two Sisters, Clara Marie, Pacific, Maggie M, Easton and Ravenswood are best known as the Spur Daisy Groupe.

The Harkway and R. H. D. have been operated under the name of R.H.D. Group.

(c) Under lease

(d) Copies of leases inclosed with this application.

(e) Not owned by United Mining & Leasing Corporation however a search of the County records show that their are No liens or other encumbrances against the property.

No. 4 (a) The United Mining & Leasing Corporation are presently rehabilitating the Carroll Shaft. The depth of this shaft is reported to be 245 feet with very little exploration work having been done to either side of shaft. An old sketch, which we are including with this application, will bear the reports. This shaft has now been rehabilitated for the first 100 feet and within a very short time an underground study candbe made of the workings. Knowing the district in which the Carroll is situated, the operators of past years were mining for gold, silver and lead. Also we know, through dump exposures, that at some point in their limited exploration, uranium ore was encountered, which not carrying sufficient gold and silver values, was thrown into the dump. The walls of the shaft are being tested as we carry on our rehabilitation work and the geiger counter shows a fair uranium content but not commercial as yet.
From the dump of the Carroll we have taken samples ranging by assay

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from .30 up to 7.7 percent uranium oxide.

The Carroll has been completely equipped with compressor, hoist, shafthouse and gallows frame. All these improvements have been bought and paid for in full by the United Mining & Leasing Corporation.

As to the United Mining & Leasing Corporation's interest in the Carroll mine, as stated above, it consists of a ten-year lease with ten-year extension clause, giving us a leasehold of twenty years.

Another mining lode in this group, the Two Sisters, a separate and distinct vein from the Carroll, will be opened up early this spring by the United Mining and Leasing Corporation. The two operations are close enough to be placed under one supervision and yet are far enough apart as to make two operations the more advantageous. The Two Sisters and Carroll veins have a common cross vein, known as the Clara Marie, which will intersect the Two Sisters at point of shaft and intersect the Carroll less than 100 feet east of Carroll shaft.

The Two Sisters shaft is reported to be down 700 feet with the bulk of drifting having been done to the west. From the old timers of the district we have gathered some information regarding the old workings, and from this information are making a sketch which, while not accurate, will help much in the planning of operations in the beginning.

This shaft cannot be entered at present due to collar timber jamb on which much slide rock has caved and sealed it from entry. An old stope that holes through to the surface 145 feet east of the shaft can be entered for a very short distance. Torbernite crystals can be observed on either wall. This stope, starting at the 100-foot level and going through to surface, is reported to have produced $200,000.00 in Gold, Silver and Lead values.

A large part of the dump responds very favorably to the Gieger Counter. Readings can easily be obtained running from .20 to 18 MR/per hour. Samples have been taken and assayed that run from .20 to 1.34% uranium oxide. The specimens class of ore were carefully excluded from the samples.

From the size of some chunks of the ore out of this dump, ranging up to 40 pounds and one chunk that would run well over 100 pounds, we believe that this deposition of uranium ore will contain volume. The chunks are of altered schist which would indicate that the values are inside the walls instead of occurring in the gangue.

There are three different parts of the dump that show higher values than other points. From this we gain that there might be several ore zones.

Two hundred fifty feet to the east of the Two Sisters shaft another uranium finding is exposed on the R. H. D. Mining Lode. A prospecting shaft, 50 feet in depth, with a drift extending east from shaft, has recently proved from Gieger Counter readings to be a uranium discovery well worth exploring. This shallow drift for a distance of 70 feet produces Gieger Counter readings running from .10 to .18 MR/per hour. At a point 70 feet east of this shaft, the drift passes through the Ravenswood Vein Crossing and the readings jump up to .20 and .30 MR/per hour.

At the time C. R. and Van R. McKay sunk this shaft and drove the drift in 1950 they were in search of Lead and not aware of uranium possibilities.

The uranium values show up in the schist hanging wall and not in the vein proper. At the present time the tonnage possibilities from this shallow depth finding on R.H. D., although low grade, would very likely prove, by the mixing of the higher grade ores of the Two Sisters, to be a successful project.

The values now being found at this shallow depth can be expected to increase as sinking operations continue downward towards the primary mass.

No.4 (d) The roads to these properties are in very good shape and will be kept open the year round by county maintenance.

This group of claims is situated a mile northwest of the post office at Central City, Central City being the supply as well as residence point.

(e) We have an over supply of man power. Supplies and equipment are available. Hoist and compressor for Two Sisters operation have already been purchased.

A power line will have to be extended from the Carroll. The Public Service have already surveyed the line and the installation will run $876.00.

No.5 (a) The mineral being explored for is uranium in both the Carroll and the Two Sisters operations.

(b) Map and Detailed Explanation of Project Planning -
&
(c) 1st The work outlined is to be done on two distinct and separate vein structures,- the two operations to run concurrently. They will be under one supervision.

The points of operation are separated by approximately 750 feet. They are divided by a large bostonite porphyry dike. The Carroll vein is to the south of the dike and contains pitchblende ores while the Two Sisters and R. H. D. veins situated north of the dike carry torbernite ores.

Exploration work on Carroll will start May 15, 1954. Rehabilitation work on Two Sisters vein to start May 15, 1954.

The Carroll shaft will be deepened a further 200 feet or to a total depth of 445 feet, from which depth drifts will be run - 375 feet to east of shaft and 225 feet to west of shaft. The reason for wanting to gain depth on Carroll shaft is to get into the primary zone. The uranium ore, as exposed in Carroll dump, is to a great extent oxidized, and the further depth of 200 feet should reveal the primary ore.

The Two Sisters shaft is now closed due to collar being caved and sealed from entry.

The first work on Two Sisters vein will consist of rehabilitating old 700-foot shaft. Next will be the rehabilitation of approximately 800 feet of drifts, to be followed by exploration program.

Exploration work on Two Sisters vein will consist of 300 feet of drift running from 700-foot level of shaft to the east, at which point a 90-foot cross cut will be driven to the north for purpose of contacting R. H. D. vein. From point of contact with R. H. D. vein a drift 300 feet in length will be driven to explore the lower depths of shallow showing of uranium ore already described.

Three drill holes are planned as follows:

1. 325-foot diamond drill hole to enter hanging wall of Carroll vein at point 200 feet east of shaft on 445-foot level to explore the several veins lying between the Carroll and Two Sisters as well as explore the west end of our holding on Two Sisters vein.

2. 300-foot diamond drill hole to be placed from 700-foot level downward in search of primary ore. Point of level to start drilling from will be fixed at such time as rehabilitation work will permit a study of geology.

3. 150-foot diamond drill hole to enter hanging wall of Two Sisters vein to explore schist belt north of Two Sisters vein.

No. 5 (d) C. R. McKay, of Central City, Colorado, will be General Manager of Operations. With the exception of war time interruptions, his life has been spent in mining. Having represented the Giant Powder Company of California in his early life, has visited underground in many of the larger mines of Montana, Idaho, Colorado, New Mexico, Arizona and Old Mexico. He is fully qualified to manage and conduct the project at hand.

Van R. McKay, President of the United Mining & Leasing Corporation, will supervise all operations at the mines. He entered the Air Forces at eighteen years of age, was shot down over Germany, returned to the United States and given an honorable discharge in 1946. Five of the intervening years have been spent at constant mining. He is very efficient in handling men well experienced in practical mining.

No. 6 (a) The only contract to be let is on diamond drilling and is outlined in Exhibit No. 2.

(b) (c) (d) (e) (f) (g) and (h) are outlined on sheet Nos. one to seven in Exhibit No. 3.

No. 7 (a) Yes.

(b) By current Bank Account, incoming stock sales commitments and the releasing of $43,000.00 of our shares to individuals now dealing with our company, together with use of applicant's mining equipment.

Dated March 4, 1954.

UNITED MINING & LEASING CORPORATION

Van R. McKay

Van R. McKay President

C. R. McKay

C. R. McKay Gen. Mgr.

UNITED MINING & LEASING CORPORATION, Central City, Colorado.

DEPARTMENT OF THE INTERIOR
Administration
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EXHIBIT No. 2 CONTRACT.

No. 6 (a) The only contract to be let will be on diamond drilling at $2.50 per foot.

One 300-foot hole to be put down from somewhere later determined on the 700-foot level, which will be in search of primary ore.	$ 750.00
One 325-foot hole to enter hanging wall of Carroll vein at point 200 feet east of shaft to explore intervening veins and Bostonite Dike, and entering Two Sisters vein in unexplored territory.	812.50
One 150-foot hole to enter hanging wall of Two Sisters at point later to be decided on. There is considerable Mica Schist in certain parts of theTwo Sisters Dump that will yield Geiger Counter readings of from 2 to 5%. At this time we think it is coming from the hanging wall, which is the reason for hanging wall drill hole.	375.00
775 feet @ $2.50	$1,937.50

UNITED MINING & LEASING CORPORATION, Central City, Colorado

REHBILITATION

E MX

TWO SISTERS SHAFT.

Based on two shifts per 24 hours

EXHIBIT 3
Sheet No 1

2 Shaft foreman	$1.70 per hour	$27.20	
2 Shaft men (helpers)	1.60 " "	25.60	
2 Top Engineers	1.60 " "	25.60	
2 Top Tramers 7 timber framers	1.50 " "	24.00	
250 Working days @		102.40	$25,600.00
Over time			2,048.00
Comp. Ins. Rate $2.09 per $100.00			535.00
S. S. Tax 2%			564.00
Un Employment 3%			846.00
Total pay roll and assessments			$29,593.60

REHABILITATION

Estimated costs of power, equipment and supplies on Shaft.

No 1	Installation of power line	$ 876.00	
No.2	Wiring from line transformers, entry pole disconects, fuse and control boxes	750.00	
No.3	262 - 8" x 12' Stulls $1.20 each	314.00	
4	700 - 4" x 12' lagging 50¢ each	350.00	
5	8000 Ft 2 x 10 plank (Shaft Liners Etc.	560.00	
6	2450 Ft 4 x 6 Wall Plates $70.00 per M	171.50	
7	1200 Ft. 2 x 4 (Ladder material	84.00	
8	700 1 x 4 ladder runds	28.00	
9	1400 Ft. 6 x 6 Diag Cut Skids $70.00 per M	147.00	
10	Gallows frame - Sheave wheel Treading rods and installation	610.00	
11	Estimated power cost - 50 H.P. Hoist a 25 H.P. Sinker pump, 1 15 H.P. sinker pump $250.00 per Mo	2,500.00	
12	800 Ft. 4" Water Column @ $1.40 per foot	1,120.00	
13	750 Ft 8" Galv. Air Line Column @ 1.00 per Ft	750.00	
14	5 H.P. Blower for ventilation with booster	400.00	
15	1 25 H.P. Sinker pump	1,150.00	
16	2 15 H.P. Sinker pumps	1,200.00	
17	800 Ft 3 Wire # 6 water proof cable (Pumps) 1.20'	960.00	
18	1700 Ft 3 Wire # 10 water proff light cable.63¼'	1,075.25	
19	1000 Ft 7/8 Steel Bucket cable	400.00	
20	2 One Ton shaft Buckets	350.00	
21	1 Top Dump car	150.00	
22	Top side tooling	425.00	
23	Elec Chain saw	525.00	
24	16' x 14 Shaft House for hoist and change room	528.00	
25	Installation of hoist (4 men five days-cement gravel amd moving hoist	375.00	
26	Accountants Services $25.00 per Mo	250.00	
27	Underground tools	350.00	
28	Hdwe monthly supplies $75.00 per Mo.	750.00	
29	Up Keep on 1 ton power truck Gas oil Etc $50.00 Mo	500.00	
30	Un Looked for expense	2,000.00	
			$19,648.75
	Total cost of rehabilitating shaft		$49,242.35

$70.34 per foot

REHABILITATION OF ~~[illegible]~~ 700 Ft Two Sister Mine two shifts per day

Same help as used above

135 working days at	@ 102.40	$13,824.00	
Over Time		1,024.00	
Comp. Insurance		290.30	
S. S. Tax 276.48 Un Employment 3%	$41472	691.20	$15,829.50
Power Est. @ $250.00 Mo	1,250.00		
100 8" x 12' stulls 120.00 Lagging 300.00	420.00		
1600 Ft 12# Rail 44¢ Ft Fish Plates Etc $38	742.00		
800 Ft Gal 8" Pipe @ 1.00 per Ft	800.00		
Mining Supplies Hdwe. $125 per Mo	625.00		
Un Looked for & Truck upkeep	1,200.00		5,037.00
Cost per Ft $25.74	Total cost Drift Rehabilitation		$ 20,866.50

UNITED MINING & LEASING

EXHIBIT 3
Cost Sheet No 2

EXPLORATION Cost Sheet No :

300 feet of drift from Two Sisters Shaft East to point of Ravenswood Vein crossing. Location of depth to be determined after rehabilitation work is finished and geology determined.

Based on two shifts per 24 Hours - 48 hour week.

1 st. shift;			
1 Driller & timber man	$1.70 per hour	$13.60	
1 " " Helper	1.60 per hour	12.80	
1 Top Engineer	1.60 per hour	12.80	
2nd shift			
2 Men mucking	1.60 per hour	25.60	
1 Top Engineer	1.60 per hour	12.80	
1 Tramer	1.50 per hour	12.00	
60 working days @		8960	5,376.00
Over time pay			358.40
Compensation Insurance @ $2.09 per$100			112.35
S. S. Tax ~~$2~~ 2%			107.52
Un Employment 3%			161.28
Total Pay Roll and Payroll Assements			$6,115.55

COSTS SHEET No. 3

1	Power,- Est. cost per Mo. $250.00	$ 500.00	
2	Building cost, Compressor House	528.00	
3	Powder - $675 Caps $31.00 - Fuse $71.00	777.00	
4	300 Ft. 8" Galv. Pipe (Ventilation	300.00	
5	600 Ft. 12# Rail @ .44 f.o.b. mine	264.00	
6	Rail fish plates & Spikes	30.00	
7	Hardware current small supplies for Mo $125.00	250.00	
8	Up keep & gas & oil on Mine 1 ton truck	150.00	
9	300 Ft. 2" Pipe @ 40¢ per Ft	120.00	
10	40 - 8" x 12' stulls @ 1.20 each	48.00	
11	300 Ft 4" x 12' lagging 50¢ Each	150.00	
12	Atlas Pheumatic drill complete with leg and Hose	533.00	
13	5 Sweed Drilling Steel 5'3" long with Carb Bit	90.50	
14	1 Thor Abrasive Grinder Elec.	125.00	
15	Un-looked for (Contingencies)	500.00	
	Total supply & equipment costs	$4,365.50	10,481.05

Total cost per Ft. $34.93

UNITED MINING & LEASING CORPORATION

EXHIBIT #3
Cost Sheet # 3

Est cost perFt 90 foot Cross Cut Cost Sheet No.

To be driven North from East Drift of Two Sister to contact R. H. D Vein.

Location of cross cut to be determined after rehabilitation and Geology has been worked out.

Based on two shifts in 24 hours - 48 Hour week.

1 st shift;				
1 Driller & Timber man	@ $1.70 per hour	$13.60		
1 " " Helper	1.60	12.80		
1 Top Engineer	1.60	12.80		
2nd shift				
2 Men mucking	1.60 per hour	25.60		
1 Top Engineer	1.60	12.80		
1 Tramer	1.50	12.00		
25 days @		89.60	2,240.00	
Over Time			179.20	
Compensation Insurance			50.46	
S. S. Ta 2%			48.00	
Un Employment	3%		72.00	$2,589.66

Cost Sheet No. 4

1	Power @ 250.00 per Mo. Est.	$250.00	
2	Powder 1,250 Lb @ 22½ ¢ per lb	281.25	
3	Caps $11.00 Fuse $29.00	40.00	
4	200 Ft. 12# Rail @ 44¢ per foot	88.00	
5	Fish plates and Spikes	5.60	
6	75 Feet of 8" Galv Vent. Pipe @ 1.00 per Ft	75.00	
7	75 Ft. 2" Pipe @ 40¢ and fittings	40.00	
8	Hardware, supplies	125.00	
9	Up keep on one tone mine truck Gas & Oil	75.00	
10	Un Looked for	250.00	$1229.85
	Total Costs		3,819.51

Cost per Foot on above costs $42.44

UNITED MINING & LEASING CORP., Central City, Colo.

E X P L O R A T I O N Sheet No. E X H I B I T #3
Cost Sheet #4

300 Ft. of Drifting on R. H. D. Due to underground work getting farther away from shaft an underground tramer has been added to one crew in the following estimates.

Based on two shifts in 24 hours.-- 48 Hr. Week.

1 st shift:					
	2 men mucking	1.60 per hour	$25.60		
	1 man traming	1.50 per hour	12.00		
	1 Top Engineer	1.60	12.80		
	1 Top Tramer		12.00		
2nd shift					
	1 Driller & Timber Man	1.70	13.60		
	1 " " " Helper	1.60	12.80		
	1 Top Engineer	1.60	12.80		
	60 Days @		101.60	$6,096.00	
	Over Time			408.60	
	Compensation Ins.			127.00	
	S. S. Tax 2%			121.92	
	Un Employment			182.00	$6,935.52
1	Power Cost per Mo. $250.00 per Mo.			$ 500.00	
2	Powder $22.50 per 100#			675.00	
3	Caps			31.00	
4	Fuse			71.00	
5	300 Ft. 8" Galv. Pipe @ 1.00 per Ft			300.00	
6	600 Ft. 12# Rail @ 44¢ f.o.b. mine			264.00	
7	Fish Plates and Spikes			30.00	
8	Hardware current supplies $125.00 Mo			250.00	
9	Up keep on mine truck Gas & Oil			150.00	
10	300 Ft. 2" pipe @ 40¢ per Ft. Mine			120.00	
11	40 8" x 12 Mine Stulls @ 1.20			48.00	
12	300 Ft. 4" x 12'			150.00	
13	5 Seede Drilling Steel 5' 4" long with Carb. Bit			90.50	
14	Contingencies			500.00	
	Total Equip power and supply cost			3,179.50	$3,179.50
	Total Wage, Equip Supply & Power costs				$10,115.02

Cost per Ft $33.17

UNITED MINING & LEASING CORPORATION, Central City, Colorado.

EXHIBIT # 3
Cost sheet # 5

EXPLORATION CARROLL SHAFT. Sinking 190 Ft.

Based on two shifts per 24 hours - 48 Hour Week.

1st Shift:				
1 Driller & timber man	$1.70 per Hr.	$13.60		
1 " " Helper	1.60 " "	12.80		
1 Top Engineer	1.60 " "	12.80		
2nd Shift:				
2 Men mucking	1.60	25.60		
1 Top Engineer	1.60	12.80		
1 Tramer	1.50	12.00		
170 Days (working days		89.60	$6,272.00	
Over Time			537.60	
Compensation Insurance			131.67	
S. S. Tax 2%			125.44	
Un Employment Tax 3%			188.16	$7,254.87

C O S T S

Powder, Equipment, Supplies Etc.

No 1	Power Est. per Mo	$750.00	
2	Top Side tooling	400.00	
3	2 Transformers - 3 phase - 2 KW	160.00	
4	500 Ft. # 10 - 3 Wire Under Ground Cable	316.25	
5	500 Ft. # 6 3 Wire Underground Cable	600.00	
6	Two 15 H.P. Centrifical pumps	1,200.00	
7	Hardware per Month $125.00	375.00	
8	5 H. P. Blower for ventilating	400.00	
9	545 Ft 8" Galv Vent. Pipe	545.00	
10	160 Mine Stulls 8" x 12' @ 1.20 Ea	192.00	
11	250 Lagging @ 50¢ Ea	125.00	
12	3000 Bd Ft. 2 x 10 plank @ $70.00	175.00	
13	600 Bd Ft sawed diag skids	48.00	
14	500 Ft. 2" pipe @ 40¢	200.00	
15	2" Fittings, Valves Etc	50.00	
16	500 Ft 4" Water Colum Pipe @ 1.40	665.00	
17	4" Pipe fittings - Valves & Hangers	105.00	
18	Under Ground Tools	200.00	
19	Atlas Drill - Complete with leg & hose	533.00	
20	2 - 1400# Shaft Buckets	200.00	
21	8 Pc. 5' 3" Sweede Steel Carb Bit	144.80	
22	3,500 Lbs Powder 22.50 per 100#	787.50	
23	1,050 Elec Blasting Caps	75.00	
24	Mine truck up keep	150.00	
25	Contingencies	700.00	
		9,096.55	$7,254.87
	$86.06 per Ft.		$ 16,351.42

UNITED MINING & LEASING CORPORATION, Central City, Colorado.

E X P L O R A T I O N * CARROLL DRIFTS 600 Ft

Based on two shifts per 24 hours - 48 hour week.

E X H I B I T # 3
Cost Sheet No 6

1st Shift:

1 Driller & Timber man	$1.70 per Hr	$13.60	
1 " " Helper	1.60 per Hr	12.80	
1 Top Engineer	1.60	12.80	

2nd Shift:

2 Men Mucking	1.60	25.60		
1 Top Engineer	1.60	12.80		
1 Tramer Top	1.50	12.00		
120 working days		89.60	$10,752.00	
Over time pay			716.85	
Compensation Insurance			224.70	
S. S. Tax			215.03	
Un Employment Tax			322.56	$12,231.14

Cost sheet No. 6

1	Power, Est. Cost per Mo. $250.00	$1,000.00	
2	Powder Est 6000 Lbs @ .22½ per lb.	1,350.00	
3	600 Ft 8" Galv Pipe @ 1.00 per Ft	600.00	
4	1,200 Ft. 12# Rail @ 44¢ Mine	528.00	
5	Fish Plates & Spikes	60.00	
6	Hardware Supplies per Mo. $125.00	500.00	
7	600 Ft. 2" pipe @ 40¢ per Ft	240.00	
8	80 - 8" x 12' Stulls @ 1.20 Each	96.00	
9	600 Ft. Lagging @ 50¢ Ea.	300.00	
10	10 Pc. 5' 3" Sweede Steel with Carbon Bits	181.00	
11	Contingencies	1,000.00	15,855.00
			$18.176.14

Cost per Foot $30.24 per Ft.

This work runs concurently with Two Sisters project.

UNITED MINING & LEASING CORPORATION, Central City, Colo.

EXHIBIT # 3
Sheet # 7

No. 7 (b) The General supervision will be carried out by C. R. McKay, General Manager who will not appear at any time on the pay roll of the DMEA contract.

Van R. McKay, President of the United Mining & Leasing Corporation, will devote all of his time, except when called out on Corporate business, to the actual activities of the work at the mines. This means that he will be supervisor, or General Superintendent of operations. As such he will spend three quarters of his time directing the actual activities at the Carroll and Two Sisters properties. His pay, for services rendered in this capacity will be $300.00 per month of which three quarters will be charged against the loan contract Amounting to 5,400.00.

The number of calendar months necessary to complete the project is 24.

Schedule of wages.

Shaft foreman, actually working on shaft work	$1.70 per Hr.
Shaft " Helper " " " "	1.60 per Hr.
Driller and Timbermen	1.60 per Hr.
Driller " " Helper	1.55 " "
Muckers	1.50 " "
Top Engineer	1.60 " "
Raise work	1.70 " "

United Mining & Leasing Corporation, Central City, Colorado.

R E C A P I T U L A T I O N

OF ALL COSTS.

Exhibit No 2

No 6	(a) Contracts 775 Ft @ $2.50	$ 1,937.50

Exhibit No 3

Sheet No. 1	Rehabilitation of Two Sisters Shaft & Drifts	
	Shaft	49,242.35
	Drift	20,666.50
Sheet No. 2	300 Ft. Drift on Two Sisters	10,481.05
Sheet No 3	90 foot cross cut- Two Sisters to R.H.D.	3,819.51
Sheet No 4	300 foot Drift on R. H. D. Lode	10,115.02
Sheet No 5	200 Feet sinking on Carrol Shaft	16,351.42
Sheet No 6	600 Feet Drifting on Carroll Lode	18,176.14
Sheet No 7	Supervision	5,400.00
	Total of application for loan	136,189.49

Loan will cover a period of 24 calendar months

MINING LEASE

THIS AGREEMENT AND LEASE Made this 16th day of November 19 53, between David Kalish, New York City, N. Y.

Lawrence L. Kalish

of Denver, Colorado Party, of the first part, hereinafter called the "Lessor", and

United Mining & Leasing Corporation, a Colorado Corporation

of Central City, Colo. Party, of the second part, hereinafter called the "Lessee".

WITNESSETH, That for and in consideration of the rents, royalties, covenants and agreements hereinafter expressed to be paid, kept and performed by the Lessee, the Lessor has granted, let and demised, and by these presents does grant, let and demise, unto the Lessee all of the right, title and interest of the Lessor in and to the following described mining property and premises, situated in the

Quartz Valley Mining District, County of Gilpin, State of Colorado, to-wit:

A. M. Mining Lode Claim	Sur.	No	9041 Am
Undivided 2/3 of Bon Ton Lode Claim	"	"	9041 Am
Undivided 1/2 of Lilly Rose Lode Claim	"	"	9041 Am
Ravensworth Mining Lode Claim	"	"	9041 Am
Undivided 3/4 Spur Daisy Mining Lode Claim	"	"	9041 Am
East 1/2 Only Boy Mining Lode Claim	"	"	16372
350 Ft Maggie M. Lode Mining Claim	"	"	8732
1360 Ft of Idea Mining Lode Claim	"	"	9041 Am
Easton Mining Lode Claim	"	"	9041 Am
Carroll Mining Lode Mining Claim	"	"	789
Alva Adams Mining Lode Claim	"	"	1012
Lulu Bowen Mining Lode Claim	"	"	1013
Irene Mining Lode Claim	"	"	679
Doc. Beers	"	"	678
Bell Lode Mining Claim	"	"	9041 Am
Chicago Mining Lode Claim	"	"	9041 Am.
Undivided 4/5 of Gold Mining Lode Claim	"	"	9041 Am.

TO HAVE AND TO HOLD the demised premises unto the Lessee, with the right to mine, extract and remove ore therefrom and to sell and dispose of the same as hereinafter provided for the term of ten (10) Years, commencing at Noon on the 16th day of November, 19 53 and ending at Noon on the 16th day of November, 19 63, subject to the terms and conditions of this agreement, unless sooner forfeited or determined through the violation of any of the terms, conditions, covenants or agreements hereinafter against the Lessee expressed or reserved.

The Lessee, for and in consideration of the demise of said premises, hereby covenants and agrees with the Lessor as follows:

1. To enter upon said premises on the first day of the term hereof, and to work the same in a thorough and minerlike manner so as to take out the greatest amount of ore possible, with due regard to the development and preservation of said premises as a workable mining property and to the unworked ground for future continued mining operations, and to the other covenants hereinafter expressed.

2. To work and mine the demised premises steadily and continuously from the first day of the term hereof with a force of at least 3 men working at least 20 eight-hour shifts per month during the term hereof.

1963 Correcting Erron

This lease to be extended on November 16, 1953, for another ten year period providing that all terms have been strictly carried our, as out lined in the body of this lease. This ten year extension agreeable to both parties.

3. To repair and replace all old timbering upon the demised premises wherever it may become necessary, and to well and sufficiently timber said mine and mining premises wherever proper and necessary in accordance with good and safe mining practices.

4. To keep and hold as the property of the Lessor all cross and parallel lodes, spurs or mineral deposits of every kind and nature that may be uncovered, disclosed or discovered on or within the demised premises by the Lessee, or by any person employed by, through or under the Lessee, or by any person in privity with such Lessee, with the privilege tothe Lessee of working the same as part and parcel of the demised premises.

5. To at all times keep the drifts, shafts, tunnels and all other workings on the demised premises thoroughly drained and clear of loose rock and rubbish; to stow no waste under ground without the written consent of the Lessor; and to properly care for all dumpings and tailings and prevent their accumulation upon any part of the demised premises remaining unworked.

6. To do no underhand stoping below the bottom of any working level or winze; to do no stoping or breaking of ore rock within 10 feet of any working shaft; to make all shafts at least three and one-half (3½) feet by seven (7) feet in the clear, all drifts and tunnels at least six (6) feet high by three and one-half (3½) feet wide in the clear, and all winzes and raises at least three and one-half (3½) feet by seven (7) feet in the clear.

7. To allow the Lessor, and his agents, from time to time and at any time, to enter upon and into all parts of the demised premises for the purpose of inspection, survey, taking ore samples, or otherwise; and to give to the Lessor such assistance as may be necessary or proper to accomplish any such inspection, survey, sampling or otherwise.

8. To keep true and accurate record showing all ore taken from said premises and from which part thereof, the disposition thereof, the amount received therefrom, and a record of all assays of ore taken from said premises, together with complete maps of all development as the work progresses; said accounts, records and maps shall be open to the inspection of the Lessor, or his agents, at all times during ordinary business hours, and the Lessor shall have the privilege of making extracts therefrom or copies thereof.

9. To make no assignment of this lease, or any interest hereunder, nor to sublet the whole or any part of the demised premises, without the written consent of the Lessor first had and obtained, and to allow no party not in privity with the parties hereto to take or hold possession of the demised premises, or any part thereof, under any pretext whatsoever.

10. To promptly pay for all labor, material and supplies to be done for, or furnished to, the Lessee, or any person or persons under him or in privity with him upon said premises; and if any lien be filed, or if the Lessee shall become insolvent or bankrupt, or make an assignment for the benefit of creditors, or if any part of the pay roll, or any other indebtedness incurred in connection with the operations of the Lessee shall remain unpaid for a period of thirty (30) days after the same shall become due and payable, the Lessor may, at his election, declare a forfeiture of this lease, as hereinafter provided.

11. To indemnify and save harmless the Lessor from any and all liability for any accident, injury or loss to any property, or to any party or parties whatsoever, arising out of, or incurred in connection with the operation or mining of the demised premises for any reason whatsoever. To carry a proper amount of workman's compensation insurance for the purposes aforesaid, and to comply with all of the rules and regulations of any public or governmental authority having supervision or jurisdiction over the demised premises and the operations thereon.

12. To pay, or cause to be paid, during the term hereof, any and all taxes assessed upon the demised premises, the improvements thereon and the ores mined and shipped therefrom, beginning with the taxes for the year 1952, except

13. To allow and pay to the Lessor, as royalty upon all ores mined, shipped or sold from the demised premises in any manner during the term hereof the following (it being expressly understood and agreed that the Lessor reserves unto himself the property and right of property in and to all ores mined and extracted from the demised premises during the term hereof), to-wit:

15% Royalty on all oresshipped or otherwise marketed.

All settlements to be made upon the smelter, mill or sampler net assay values, deducting therefrom only the actual cost of transportation and treatment.

14. To preserve and redeliver to the Lessor quiet and peaceable possession of the demised premises, with the appurtenances and all improvements, machinery and buildings thereon in good order and condition, with all drifts, shafts, tunnels and passages thoroughly clear of loose rocks and rubbish and drained, and the ground and mines ready for immediate continued working and mining, without demand or further notice, at the date of the expiration hereof, or at any time previous thereto, upon demand, upon the termination or forfeiture hereof; and in the event of any such forfeiture, all fixed improvements, tracks, ties, piping, machinery, and other appurtenances and material, used or installed by the Lessee on the demised premises shall thereupon revert to and become the property of the Lessor.

Upon the failure of the Lessee to keep and fulfill any and all agreements and covenants herein expressed or implied, then and in that event it shall be lawful for the Lessor, his agents or attorneys, to declare the term hereof ended and this lease null, void and of no further force or effect, and with or without notice or process of law to enter upon and take possession of the demised premises and dispossess all persons occupying the same, with or without force, or, at the option of the Lessor, the Lessee and all persons found in occupation or possession may be proceeded against as being guilty of unlawful detainer.

Any notice given by the Lessor shall be deemed sufficiently served and shall be held to be binding upon the Lessee or any person holding or claiming to hold any interest in the demised premises through or under the Lessee, if the same is deposited post paid in a United States Post Office, addressed to the Lessee at

Time is of the essence of this agreement, and this lease shall be appropriately construed to include each of the above-named Lessors and Lessees, whether one or more and whether individuals, associations or corporations, and the terms and conditions hereof shall extend to, and be binding upon, the heirs, executors, administrators, successors and assigns of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have executed this Lease the day and year first above written.

David Kalish (SEAL)

Lawrence L. Kalish (SEAL)
Lessor.

United Mining & Leasing Corporation (SEAL)

By _____ (SEAL)
Gen. Mgr.
Lessee.

PHOTO - COPY
BY PICK
FOR EXTRA COPIES, CALL KE. 2876
MAR 4 1954
PICK PHOTOGRAPH & BLUEPRINT CO.
1015 - 17th ST. DENVER, COLO.
CERTIFIED ON REQUEST

37129

Mining Lease

KALISH DAVID
KALISH LARY

Lessor

United Tiger & Gulf

Lessee

$2.50

10:00 a.m.

Nov 28 1953

Recorded in Book 225

Page 471-472

Barbara Galbraith

Recorder

No. 118T—MINING LEASE. Printed and for sale by The W. H. Kistler Stationery Co., Denver, Colo.

This is a Sub-lease

MINING LEASE

THIS AGREEMENT AND LEASE Made this 30th day of October 1953, between C. R. McKay, Central City, Colorado
Van R. McKay, Central City, Colorado

of , of the first part, hereinafter called the "Lessor", and

United Mining & Leasing Corporation

of Central City, Colorado , of the second part, hereinafter called the "Lessee".

WITNESSETH, That for and in consideration of the rents, royalties, covenants and agreements hereinafter expressed to be paid, kept and performed by the Lessee, the Lessor has granted, let and demised, and by these presents does grant, let and demise, unto the Lessee all of the right, title and interest of the Lessor in and to the following described mining property and premises, situated in the

Eureka-Quartz Valley Mining District, County of Gilpin, State of Colorado, to-wit:

Harkaway Mining Lode Patent U. S. Survey No. 557

TO HAVE AND TO HOLD the demised premises unto the Lessee, with the right to mine, extract and remove ore therefrom and to sell and dispose of the same as hereinafter provided for the term of four years eleven months, commencing at Noon on the 30th day of October, 1953 and ending at Noon on the 30th d day of October, 19 1958 subject to the terms and conditions of this agreement, unless sooner forfeited or determined through the violation of any of the terms, conditions, covenants or agreements hereinafter against the Lessee expressed or reserved.

The Lessee, for and in consideration of the demise of said premises, hereby covenants and agrees with the Lessor as follows:

1. To enter upon said premises on the first day of the term hereof, and to work the same in a thorough and minerlike manner so as to take out the greatest amount of ore possible, with due regard to the development and preservation of said premises as a workable mining property and to the unworked ground for future continued mining operations, and to the other covenants hereinafter expressed.

2. To work and mine the demised premises steadily and continuously from the first day of the term hereof with a force of at least three men working at least 60 one man eight-hour shifts per month during the term hereof.

It is further agreed and understood, that providing all the terms are faithfully preformed, a five year extension of lease will be granted dating from October 1, 1958.

3. To repair and replace all old timbering upon the demised premises wherever it may become necessary, and to well and sufficiently timber said mine and mining premises wherever proper and necessary in accordance with good and safe mining practices.

4. To keep and hold as the property of the Lessor all cross and parallel lodes, spurs or mineral deposits of every kind and nature that may be uncovered, disclosed or discovered on or within the demised premises by the Lessee, or by any person employed by, through or under the Lessee, or by any person in privity with such Lessee, with the privilege tothe Lessee of working the same as part and parcel of the demised premises.

5. To at all times keep the drifts, shafts, tunnels and all other workings on the demised premises thoroughly drained and clear of loose rock and rubbish; to stow no waste under ground without the written consent of the Lessor; and to properly care for all dumpings and tailings and prevent their accumulation upon any part of the demised premises remaining unworked.

6. To do no underhand stoping below the bottom of any working level or winze; to do no stoping or breaking of ore rock within ten (10) feet of any working shaft; to make all shafts at least three and one-half (3½) feet by seven (7) feet in the clear, all drifts and tunnels at least six (6) feet high by three and one-half (3½) feet wide in the clear, and all winzes and raises at least three and one-half (3½) feet by seven (7) feet in the clear.

7. To allow the Lessor, and his agents, from time to time and at any time, to enter upon and into all parts of the demised premises for the purpose of inspection, survey, taking ore samples, or otherwise; and to give to the Lessor such assistance as may be necessary or proper to accomplish any such inspection, survey, sampling or otherwise.

8. To keep true and accurate record showing all ore taken from said premises and from which part thereof, the disposition thereof, the amount received therefrom, and a record of all assays of ore taken from said premises, together with complete maps of all development as the work progresses; said accounts, records and maps shall be open to the inspection of the Lessor, or his agents, at all times during ordinary business hours, and the Lessor shall have the privilege of making extracts therefrom or copies thereof.

9. To make no assignment of this lease, or any interest hereunder, nor to sublet the whole or any part of the demised premises, without the written consent of the Lessor first had and obtained, and to allow no party not in privity with the parties hereto to take or hold possession of the demised premises, or any part thereof, under any pretext whatsoever.

10. To promptly pay for all labor, material and supplies to be done for, or furnished to, the Lessee, or any person or persons under him or in privity with him upon said premises; and if any lien be filed, or if the Lessee shall become insolvent or bankrupt, or make an assignment for the benefit of creditors, or if any part of the pay roll, or any other indebtedness incurred in connection with the operations of the Lessee shall remain unpaid for a period of thirty (30) days after the same shall become due and payable, the Lessor may, at his election, declare a forfeiture of this lease, as hereinafter provided.

11. To indemnify and save harmless the Lessor from any and all liability for any accident, injury or loss to any property, or to any party or parties whatsoever, arising out of, or incurred in connection with the operation or mining of the demised premises for any reason whatsoever. To carry a proper amount of workman's compensation insurance for the purposes aforesaid, and to comply with all of the rules and regulations of any public or governmental authority having supervision or jurisdiction over the demised premises and the operations thereon.

12. To pay, or cause to be paid, during the term hereof, any and all taxes assessed upon the demised premises, the improvements thereon and the ores mined and shipped therefrom, beginning with the taxes for the year 1953, except

in the original lease, Jenkins McKay Hardware Company,

13. To allow and pay to the Lessor as royalty upon all ores mined, shipped or sold from the demised premises in any manner during the term hereof the following (it being expressly understood and agreed that the Lessor reserves unto himself the property and right of property in and to all ores mined and extracted from the demised premises during the term hereof), to-wit:

10% on all Mill Dirt
15% on all smelter shipments
1% on all ores for the purpose of paying any production taxes assessed on account of said production. The Lessors agree to apply the said one (1) percent on the production taxes assessed and return to the lessees any part of said one (1) percent not needed for said payments.

All settlements to be made on the Smelter, sampler or mint assay values deducting therefrom only the actual costs of transportation and treatment.

The said lessee also agree promptly to apply for, take out and keep always in force such insurance under and pursuant to the Workmens Compensation Act of Colorado, as the same is now, or as it may from time to time be amended, as will fully insure the liability of the lessee as employers with respect to any and all persons employed by them on or upon the demised premises or in any operation under this lease.

All settlements to be made upon the smelter, mill or sampler net assay values, deducting therefrom only the actual cost of transportation and treatment.

14. To preserve and redeliver to the Lessor quiet and peaceable possession of the demised premises, with the appurtenances and all improvements, machinery and buildings thereon in good order and condition, with all drifts, shafts, tunnels and passages thoroughly clear of loose rocks and rubbish and drained, and the ground and mines ready for immediate continued working and mining, without demand or further notice, at the date of the expiration hereof, or at any time previous thereto, upon demand, upon the termination or forfeiture hereof; and in the event of any such forfeiture, all fixed improvements, tracks, ties, piping, machinery, and other appurtenances and material, used or installed by the Lessee on the demised premises shall thereupon revert to and become the property of the Lessor.

Upon the failure of the Lessee to keep and fulfill any and all agreements and covenants herein expressed or implied, then and in that event it shall be lawful for the Lessor, his agents or attorneys, to declare the term hereof ended and this lease null, void and of no further force or effect, and with or without notice or process of law to enter upon and take possession of the demised premises and dispossess all persons occupying the same, with or without force, or, at the option of the Lessor, the Lessee and all persons found in occupation or possession may be proceeded against as being guilty of unlawful detainer.

Any notice given by the Lessor shall be deemed sufficiently served and shall be held to be binding upon the Lessee or any person holding or claiming to hold any interest in the demised premises through or under the Lessee, if the same is deposited post paid in a United States Post Office, addressed to the Lessee at

Time is of the essence of this agreement, and this lease shall be appropriately construed to include each of the above-named Lessors and Lessees, whether one or more and whether individuals, associations or corporations, and the terms and conditions hereof shall extend to, and be binding upon, the heirs, executors, administrators, successors and assigns of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have executed this Lease the day and year first above written.

J. B. McKay (SEAL)

Van R. McKay (SEAL)
Lessor.

United Mining and Leasing Corp. (SEAL)

Van R. McKay (SEAL)
By President Lessee

Attest:

Richard Dowse
Secretary

PHOTO - COPY
BY PICK
FOR EXTRA COPIES, CALL KE. 2876
MAR 4 1954
PICK PHOTOGRAPH & BLUEPRINT CO.
1015 - 17th ST. DENVER, COLO.
CERTIFIED ON REQUEST

Mining Lease

Lessor

Lessee

STATE OF COLORADO,
County of Delta, } ss.

I hereby certify that the copy of this instrument was
filed for record in my office at 3:48 o'clock
P. M., Mar 2 1954
and duly recorded in Book
Page No.

Barbara Gallraith
Recorder

No. 90-A. MINING LEASE (Long Form).—The Bradford-Robinson Ptg. Co., Mfrs. Robinson's Legal Blanks, 1824-46 Stout St., Denver, Colo.

And Option to Purchase

THIS AGREEMENT OF LEASE, Made and entered into this 1st day of October, A. D. 19 53, by and between Dorothy Jenkins, Katherine Salstrand of Denver, Colorado, and John C. Jenkins Jr., of Central City, Colorado, hereinafter called the lessor S, and Claude R. McKay and Van R. McKay, of Central City, Colorado hereinafter called lessee S;

WITNESSETH, That the said lessor S for and in consideration of the rents, royalties, covenants and agreements hereinafter expressed to be paid, kept and performed by the said lessee S, have leased, let and demised and by these presents do lease, let and demise unto said lessee S the following described mining property and premises, situate North slope Nigger Hill Mining District, Gilpin County, Colorado State of, to-wit:

R.H.D. Mining Lode Patent Sur No. 8004
Polar Star Mining Lode Claim Sur. No. 6144

(This agreement is a renewal of a former lease and option between the parties hereto.)

TO HAVE AND TO HOLD the above described premises for the purposes of mining, from the 1st day of October, A. D. 19 3, to the 1st day of October, A. D. 19 1958, unless sooner forfeited or terminated through the violation of any of the covenants and conditions herein contained, with power to assign this lease or any part thereof or to sublet the whole or any part of said leased premises without the written consent of the said lessor S first had and obtained. Power granted to make one assignment

The said lessee S in consideration of the premises have covenanted, contracted and agreed and by these presents do covenant, contract and agree to and with the said lessor S, executors, administrators and assigns:

(1) To enter upon said leased premises and to work the same in mine fashion in manner necessary to good and economical mining, so as to take out the greatest amount of ore possible, with due regard to the development and preservation of said mine or mining premises, as a workable mining property, and to the special covenants herein contained.

(2) To work and mine said premises as aforesaid, steadily and continuously during the period of this lease and in doing said work to perform at least twenty six (26) shifts of mining labor per month each and every month during the life of this lease.

(3) To repair all old timbering wherever it may become necessary, and to well and sufficiently timber said mine and mining premises at all points where proper and necessary in accordance with good and safe mining; continuing the timbering in the working shafts now upon said premises with timber of the same dimensions as heretofore used, unless it becomes necessary for safety to use larger timber, in which event timber of sufficient size for safety and permanent mining shall be used.

It is further understood that providing all terms of this lease are faithfully preformed a five year extension of lease will be granted dating from 1958 to October 1, 1963.

(4) To allow the lessor S or their agent from time to time to enter upon and descend into all parts of said leased premises, for the purpose of inspection, surveys or taking samples therefrom, and to render to said parties proper assistance in making such inspection, surveys or examination.

(5) To occupy and hold as the property of the lessor S all cross and parallel lodes, spurs and mineral deposits of every kind which may be uncovered, disclosed or discovered within said leased ground by the said lessee S or any person or persons under or in privity with them, with privilege to said lessee S to work and mine the same as part and parcel of said premises.

(6) To keep at all times the drifts, shafts, tunnels and other workings thoroughly drained and clear of loose rock and rubbish, unless prevented by extraordinary mining casualty.

(7) To stow no waste underground except with the consent and under the direction of the lessor S.

(8) To do no underhand stoping below the bottom of any main working level or winze and to do no stoping or breaking of ore rock within ten feet feet of any working shaft.

(9) Not to adulterate or mix any ores broken or mined without the consent of the lessor S; it being understood that all ores mined which are too low grade for present shipment shall remain the property of and be subject to the control and disposition of the lessor S.

(10) To make all working shafts at least four (4) feet by eight (8) feet in the clear; all drifts and tunnels at least three and one-half (3½) feet by six and one-half (6½) feet in the clear, and all winzes and raises at least three and one-half (3½) feet by seven (7) feet in the clear.

(11) It is expressly understood and agreed that the lessor S reserve the property and right of property in and to all ores extracted from said premises during the period of this lease, and the said lessee S covenant and agree to pay and allow the lessor S as royalty upon all ores mined, shipped or sold from said leased premises in any manner during the life of this lease, as follows, to-wit:

10% on all mill dirt
15% on all smelter shipments
1% on all ores for the purpose of paying any production taxes assessed on account of said production. The Lessors agree to apply the said 1% on the production taxes assessed and return to the Lessees any part of said 1% not needed for said payments.
All settlements to be made on the smelter, sampler or mint assay values deducting therefrom only the actual cost of transportation and treatment.
The said leasees also agree promptly to apply for, take out and keep always in force such insurance under and pursuant to the Workmens Compensation Act of Colorado, as the same is now or as it may from time to time be amended, as will fully insure the liability of the Lessees as employers with respect to any and all persons employed by them on or upon the demised premises or in any operation under this lease.

All settlements to be made upon the smelter, mill or sampler net assay values, deducting therefrom only the actual cost of transportation and treatment

OPTION TO PURCHASE For $5,000.00

And in consideration of the acceptance of the forgoing lease and the expenditures to be made thereon, and the well and faithfull keeping of the covenants thereof, said leasees shall have the right to purchase the said demised premises by the payment of the sum of ~~Two Thousand~~ Five Thousand (5,000) Dollars on or before the first day of October, 1958.

The forfeiture, surrender or termination of the above lease for any cause shall render this option void, and the above mentioned payment may not thereafter be tendered.

Any extension of above lease beyond October 1, 1958 will carry the option rights as above expressed.

(12) The lessee.S..shall and hereby do.....assume all responsibility in case of accident to....them.... or any of....their.....employees in or about said property.

(13) All taxes assessed against said demised premises for ores mined and shipped under this lease shall be paid by the lessees.....

(14) All bills and expenses incurred by the lessees....or those in privity with....them.....shall be promptly paid by the lessee.S.., and by said prompt payment said lessee.S..shall prevent the filing of any and all liens of miners, mechanics or material men, against said demised premises; and, if by reason of the failure of said lessees....to pay such bills or expenses, any lien or liens shall be filed against said premises the said lessor.....may forthwith pay off and discharge the same, and the said lessee..S..hold..themselves bound to pay to said lessorS....all sums so advanced or paid to clear said premises from liens which may be filed as aforesaid, and the said lessorS...may also at.....their.....election declare a forfeiture of this lease.

(15) Said lesseeS....further covenant.....that no person not in privity with the parties hereto shall be allowed to hold possession of said premises or any part thereof under any pretext whatever.

(16) Further, that....they.....will deliver to said lessor.S..quiet and peaceable possession of said demised premises in good order and condition with all drifts, tunnels and other passages thoroughly drained and cleared of loose rock and rubbish and said premises ready for immediate continued working, without demand or further notice, on the....1st.....day of....October....., A. D. 19..58...., at noon, or at any time previous thereto, upon demand for forfeiture, and it is mutually understood that all machinery and tools which may be placed upon said premises by the said lessees....may be removed therefrom within ten days after the termination of this lease; provided, however, that no such tools or machinery shall be so removed while the said lesseeS....may be in any manner indebted to the said lessorS.. under any obligation incurred under this lease. In case lease is extended for a five year period possession of premisies by Lessors will be Oct 1, 1963

(17) Upon the violation of any covenant or condition herein contained, this lease shall, at the option of said lessor.S..., expire and terminate, and the said premises with the appurtenances and all buildings and other improvements shall become forfeited to the lessor.S..., and the said lessor.S.. or..their..... agent may thereupon, after demand in writing for possession, enter upon said premises and dispossess all persons occupying the same, with or without force, and with or without process of law, or at the option of the lessor..S..the said lessee..S..and all persons found occupying said premises or any part thereof may be proceeded against as guilty of unlawful detainer.

Time is of the essence of this agreement, and each and every clause of this indenture and all the covenants and conditions contained herein, expressed or implied, shall extend to the successors, heirs, executors, administrators and lawful assigns of all of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have hereunto subscribed their names the day and year first above written.

Dorothy Jenkins [SEAL]
Lessor

Katherine Salstrand [SEAL]
Lessor

John Jensen Jr [SEAL]
Lessor

[SEAL]

R. W. McKay [SEAL]
Lessee

Van R. McKay [SEAL]
Lessee

PHOTO - COPY
BY PICK
FOR EXTRA COPIES, CALL KE. 2876
MAR 4 1954
PICK PHOTOGRAPH & BLUEPRINT CO.
1015 - 17th ST. DENVER, COLO.
CERTIFIED ON REQUEST

MINING LEASE

FROM

.....

TO

.....

STATE OF Colorado
County of Gilpin } SS.

I hereby certify that this instrument was filed for record in my office, at 3:47 o'clock P. M., on the 2 day of March, A. D. 1954, and is duly recorded in book ....., page .....

Barbara Galbraith
Recorder.

By .....
Deputy.

Fees, $ 3.00

1-52 THE BRADFORD-ROBINSON PTG. CO., DENVER

21

This is a Sub-lease

MINING LEASE

THIS AGREEMENT AND LEASE Made this 30th day of October 1954, between

C. R. McKay, Central City, Colorado
Van R. McKay, Central City, Colorado.

of , of the first part, hereinafter called the "Lessor", and

United Mining & Leasing Corporation

of Central City, Colorado. , of the second part, hereinafter called the "Lessee".

WITNESSETH, That for and in consideration of the rents, royalties, covenants and agreements hereinafter expressed to be paid, kept and performed by the Lessee, the Lessor has granted, let and demised, and by these presents does grant, let and demise, unto the Lessee all of the right, title and interest of the Lessor in and to the following described mining property and premises, situated in the

Eureka-Quartz Valley Mining District, County of Gilpin, State of Colorado, to-wit:

R.H.D. Mining Lode Patent Sur. No. 8004
Polar Star Mining Lode Claim No. 6144

TO HAVE AND TO HOLD the demised premises unto the Lessee, with the right to mine, extract and remove ore therefrom and to sell and dispose of the same as hereinafter provided for the term of four (4) Years (11) Months, commencing at Noon on the 30th day of October, 19 54 and ending at Noon on the 30th day of October, 19 58, subject to the terms and conditions of this agreement, unless sooner forfeited or determined through the violation of any of the terms, conditions, covenants or agreements hereinafter against the Lessee expressed or reserved.

The Lessee, for and in consideration of the demise of said premises, hereby covenants and agrees with the Lessor as follows:

1. To enter upon said premises on the first day of the term hereof, and to work the same in a thorough and minerlike manner so as to take out the greatest amount of ore possible, with due regard to the development and preservation of said premises as a workable mining property and to the unworked ground for future continued mining operations, and to the other covenants hereinafter expressed.

2. To work and mine the demised premises steadily and continuously from the first day of the term hereof with a force of at least three (3) men working at least 20 Each eight-hour shifts per month during the term hereof. Each and every calender month.

3. To repair and replace all old timbering upon the demised premises wherever it may become necessary, and to well and sufficiently timber said mine and mining premises wherever proper and necessary in accordance with good and safe mining practices.

4. To keep and hold as the property of the Lessor all cross and parallel lodes, spure or mineral deposits of every kind and nature that may be uncovered, disclosed or discovered on or within the demised premises by the Lessee, or by any person employed by, through or under the Lessee, or by any person in privity with such Lessee, with the privilege tothe Lessee of working the same as part and parcel of the demised premises.

5. To at all times keep the drifts, shafts, tunnels and all other workings on the demised premises thoroughly drained and clear of loose rock and rubbish; to stow no waste under ground without the written consent of the Lessor; and to properly care for all dumpings and tailings and prevent their accumulation upon any part of the demised premises remaining unworked.

6. To do no underhand stoping below the bottom of any working level or winze; to do no stoping or breaking of ore rock within 10 feet of any working shaft; to make all shafts at least three and one-half (3½) feet by seven (7) feet in the clear, all drifts and tunnels at least six (6) feet high by three and one-half (3½) feet wide in the clear, and all winzes and raises at least three and one-half (3½) feet by seven (7) feet in the clear.

7. To allow the Lessor, and his agents, from time to time and at any time, to enter upon and into all parts of the demised premises for the purpose of inspection, survey, taking ore samples, or otherwise; and to give to the Lessor such assistance as may be necessary or proper to accomplish any such inspection, survey, sampling or otherwise.

8. To keep true and accurate record showing all ore taken from said premises and from which part thereof, the disposition thereof, the amount received therefrom, and a record of all assays of ore taken from said premises, together with complete maps of all development as the work progresses; said accounts, records and maps shall be open to the inspection of the Lessor, or his agents, at all times during ordinary business hours, and the Lessor shall have the privilege of making extracts therefrom or copies thereof.

9. To make no assignment of this lease, or any interest hereunder, nor to sublet the whole or any part of the demised premises, without the written consent of the Lessor first had and obtained, and to allow no party not in privity with the parties hereto to take or hold possession of the demised premises, or any part thereof, under any pretext whatsoever.

10. To promptly pay for all labor, material and supplies to be done for, or furnished to, the Lessee, or any person or persons under him or in privity with him upon said premises; and if any lien be filed, or if the Lessee shall become insolvent or bankrupt, or make an assignment for the benefit of creditors, or if any part of the pay roll, or any other indebtedness incurred in connection with the operations of the Lessee shall remain unpaid for a period of thirty (30) days after the same shall become due and payable, the Lessor may, at his election, declare a forfeiture of this lease, as hereinafter provided.

11. To indemnify and save harmless the Lessor from any and all liability for any accident, injury or loss to any property, or to any party or parties whatsoever, arising out of, or incurred in connection with the operation or mining of the demised premises for any reason whatsoever. To carry a proper amount of workman's compensation insurance for the purposes aforesaid, and to comply with all of the rules and regulations of any public or governmental authority having supervision or jurisdiction over the demised premises and the operations thereon.

12. To pay, or cause to be paid, during the term hereof, any and all taxes assessed upon the demised premises, the improvements thereon and the ores mined and shipped therefrom, beginning with the taxes for the year 1953, except

in the original lease, Dorothy Jenkins, Katherine Salstrand and John C. Jenkins, Jr.,

13. To allow and pay to the Lessors as royalty upon all ores mined, shipped or sold from the demised premises in any manner during the term hereof the following (it being expressly understood and agreed that the Lessor reserves unto himself the property and right of property in and to all ores mined and extracted from the demised premises during the term hereof), to-wit:

10% on all mill Dirt
15% on all smelter shipments
1% on all ores for the purpose of paying any production taxes assessed on account of said production. The Lessors agree to apply the said 1% on the production taxes assessed and return to the lessees any part of said 1% on the production tax not needed for said payments.

All payments to be made, of settlements, on Smelter, Mint or Samplers net Check. Deducting therefrom only the actual costs of transportation and treatment.

The said lessees also agree promptly to apply for, take out and keep always in force such insurance under and pursuant to the Workmens Compensation Act of Colorado, as the same is now or as it may from time to time be amended, as eill fully insure the liability of the lessees as employers with respect to any and all persons employed by them on or upon the demised premises or ina any operation under this lease.

All settlements to be made upon the smelter, mill or sampler net assay values, deducting therefrom only the actual cost of transportation and treatment.

14. To preserve and redeliver to the Lessor quiet and peaceable possession of the demised premises, with the appurtenances and all improvements, machinery and buildings thereon in good order and condition, with all drifts, shafts, tunnels and passages thoroughly clear of loose rocks and rubbish and drained, and the ground and mines ready for immediate continued working and mining, without demand or further notice, at the date of the expiration hereof, or at any time previous thereto, upon demand, upon the termination or forfeiture hereof; and in the event of any such forfeiture, all fixed improvements, tracks, ties, piping, machinery, and other appurtenances and material, used or installed by the Lessee on the demised premises shall thereupon revert to and become the property of the Lessor.

Upon the failure of the Lessee to keep and fulfill any and all agreements and covenants herein expressed or implied, then and in that event it shall be lawful for the Lessor, his agents or attorneys, to declare the term hereof ended and this lease null, void and of no further force or effect, and with or without notice or process of law to enter upon and take possession of the demised premises and dispossess all persons occupying the same, with or without force, or, at the option of the Lessor, the Lessee and all persons found in occupation or possession may be proceeded against as being guilty of unlawful detainer.

Any notice given by the Lessor shall be deemed sufficiently served and shall be held to be binding upon the Lessee or any person holding or claiming to hold any interest in the demised premises through or under the Lessee, if the same is deposited post paid in a United States Post Office, addressed to the Lessee at

Time is of the essence of this agreement, and this lease shall be appropriately construed to include each of the above-named Lessors and Lessees, whether one or more and whether individuals, associations or corporations, and the terms and conditions hereof shall extend to, and be binding upon, the heirs, executors, administrators, successors and assigns of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have executed this Lease the day and year first above written.

E. B. McKay (SEAL)

Van R. McKay (SEAL)
Lessor.

United Mining and Leasing Corp. (SEAL)

Van R. McKay (SEAL)
By President Lessee.

Attest:
Richard Dowse
Secretary

PHOTO - COPY
BY PICK
FOR EXTRA COPIES, CALL KE. 2876
MAR 4 1954
PICK PHOTOGRAPH & BLUEPRINT CO.
1015 - 17th ST. DENVER, COLO.
CERTIFIED ON REQUEST

Mining Lease

Lessor

Lessee

the copy of

3:49

P. March 1954

Barbara Galbraith

Recorder

2

No. 90-A. MINING LEASE (Long Form).—The Bradford-Robinson Ptg. Co., Mfrs. Robinson's Legal Blanks, 1824-46 Stout St., Denver, Colo.

and option to purchase

THIS AGREEMENT OF LEASE, Made and entered into this 1st day of October, A. D. 1953, by and between Jenkins McKay Hardware Company of Central City, Colorado, hereinafter called the lessor, and Claude R. McKay and Van R. McKay, of Central City, Colorado hereinafter called lessees;

WITNESSETH, That the said lessor for and in consideration of the rents, royalties, covenants and agreements hereinafter expressed to be paid, kept and performed by the said lessees, has leased, let and demised and by these presents does lease, let and demise unto said lessees the following described mining property and premises, situate On north slope of Nigger Hill Mining District, Gilpin County, Colorado State of, to-wit:

Harkaway Mining Lode Patent Sur. No. 557

(This agreement is a renewal of a former lease and option between the parties hereto.)

TO HAVE AND TO HOLD the above described premises for the purposes of mining, from the First day of October, A. D. 1953, to the 1st day of October, A. D. 1958, unless sooner forfeited or terminated through the violation of any of the covenants and conditions herein contained, with no power to assign this lease or any part thereof or to sublet the whole or any part of said leased premises without the written consent of the said lessor first had and obtained. Power is hereby granted to make one transfer

The said lessees in consideration of the premises have covenanted, contracted and agreed and by these presents do covenant, contract and agree to and with the said lessor, his executors, administrators and assigns:

(1) To enter upon said leased premises and to work the same in mine fashion in manner necessary to good and economical mining, so as to take out the greatest amount of ore possible, with due regard to the development and preservation of said mine or mining premises, as a workable mining property, and to the special covenants herein contained.

(2) To work and mine said premises as aforesaid, steadily and continuously during the period of this lease and in doing said work to perform at least Twenty six shifts of mining labor per month each and every month during the life of this lease.

(3) To repair all old timbering wherever it may become necessary, and to well and sufficiently timber said mine and mining premises at all points where proper and necessary in accordance with good and safe mining; continuing the timbering in the working shafts now upon said premises with timber of the same dimensions as heretofore used, unless it becomes necessary for safety to use larger timber, in which event timber of sufficient size for safety and permanent mining shall be used.

It is further understood that providing all terms of this lease are faithfully reformed a five year extension of lease will be granted from 1958 to October 1st 1963.

(4) To allow the lessor.....or.....his.....agent from time to time to enter upon and descend into all parts of said leased premises, for the purpose of inspection, surveys or taking samples therefrom, and to render to said parties proper assistance in making such inspection, surveys or examination.

(5) To occupy and hold as the property of the lessor.....all cross and parallel lodes, spurs and mineral deposits of every kind which may be uncovered, disclosed or discovered within said leased ground by the said lessee.s...or any person or persons under or in privity with.....them....., with privilege to said lessee.s..to work and mine the same as part and parcel of said premises.

(6) To keep at all times the drifts, shafts, tunnels and other workings thoroughly drained and clear of loose rock and rubbish, unless prevented by extraordinary mining casualty.

(7) To stow no waste underground except with the consent and under the direction of the lessor.....

(8) To do no underhand stoping below the bottom of any main working level or winze and to do no stoping or breaking of ore rock within.....ten feet (10).....feet of any working shaft.

(9) Not to adulterate or mix any ores broken or mined without the consent of the lessor.....; it being understood that all ores mined which are too low grade for present shipment shall remain the property of and be subject to the control and disposition of the lessor.....

(10) To make all working shafts at least four (4) feet by eight (8) feet in the clear; all drifts and tunnels at least three and one-half (3½) feet by six and one-half (6½) feet in the clear, and all winzes and raises at least three and one-half (3½) feet by seven (7) feet in the clear.

(11) It is expressly understood and agreed that the lessor.....reserve.s...the property and right of property in and to all ores extracted from said premises during the period of this lease, and the said lessee.s..covenant.....and agree..s..to pay and allow the lessor.....as royalty upon all ores mined, shipped or sold from said leased premises in any manner during the life of this lease, as follows, to-wit:

Ten (10) percent on all mill dirt
Fifteen (15) percent on all smelter shipments
One (1) percent on all ores for purpose of paying any production taxes assessed on account of said production. The Lesor agrees to apply the said tax of one (1) percent on the production taxes assessed and return to the lessees any part of said one (1) percent not needed for said payments.

All settlements to be made on the smelter, sampler or mint assay values deducting therefrom only the actual cost of transportation and treatment.

The said lessees also agree promptly to apply for, take out and keep always in force such insurance under and pursuant to the Workmens Compensation Act of Colorado, as the same is now or as it may from time to time be amended, as will fully insure the liability of the lessees as employers with respect to any and all persons employed by them on or upon the demised premises or in any operation under this lease.

All settlements to be made upon the smelter, mill or sampler net assay values, deducting therefrom only the actual cost of transportation and treatment.....

OPTION TO PURCHASE

And in consideration of the acceptance of the forgoing lease and the expenditures to be made thereon, and the well and faithfull keeping of the covenants thereof, said lesees shall have the right to purchase the said demised property by the payment of the sum of

Two Thousand Five Hundred (2,500) Dollars onwor before the first day of October 1958

The forfeiture, surrender or termination of the above lease for any cause shall render this option void, and the above mentioned payment may not thereafter be tendered.

Any extension of above lease beyond October 1, 1958 will carry the option rights as above expressed.

(12) The lessees shall and hereby do assume all responsibility in case of accident to them or any of their employees in or about said property.

(13) All taxes assessed against said demised premises for ores mined and shipped under this lease shall be paid by the lessees.

(14) All bills and expenses incurred by the lessees or those in privity with them shall be promptly paid by the lessees, and by said prompt payment said lessees shall prevent the filing of any and all liens of miners, mechanics or material men, against said demised premises; and, if by reason of the failure of said lessees to pay such bills or expenses, any lien or liens shall be filed against said premises the said lessor may forthwith pay off and discharge the same, and the said lessees hold them bound to pay to said lessor all sums so advanced or paid to clear said premises from liens which may be filed as aforesaid, and the said lessor may also at his election declare a forfeiture of this lease.

(15) Said lessees further covenant that no person not in privity with the parties hereto shall be allowed to hold possession of said premises or any part thereof under any pretext whatever.

(16) Further, that they will deliver to said lessor quiet and peaceable possession of said demised premises in good order and condition with all drifts, tunnels and other passages thoroughly drained and cleared of loose rock and rubbish and said premises ready for immediate continued working, without demand or further notice, on the First day of October, A. D. 19 58, at noon, or at any time previous thereto, upon demand for forfeiture, and it is mutually understood that all machinery and tools which may be placed upon said premises by the said lessees may be removed therefrom within ten days after the termination of this lease; provided, however, that no such tools or machinery shall be so removed while the said lessees may be in any manner indebted to the said lessor under any obligation incurred under this lease. In case lease is extended for a five year period possesion of premises of premises by lessors will be 'ctl, 1963

(17) Upon the violation of any covenant or condition herein contained, this lease shall, at the option of said lessor, expire and terminate, and the said premises with the appurtenances and all buildings and other improvements shall become forfeited to the lessor, and the said lessor or his agent may thereupon, after demand in writing for possession, enter upon said premises and dispossess all persons occupying the same, with or without force, and with or without process of law, or at the option of the lessor the said lessees and all persons found occupying said premises or any part thereof may be proceeded against as guilty of unlawful detainer.

Time is of the essence of this agreement, and each and every clause of this indenture and all the covenants and conditions contained herein, expressed or implied, shall extend to the successors, heirs, executors, administrators and lawful assigns of all of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have hereunto subscribed their names the day and year first above written.

Jasper M. McKay Hardware Co [SEAL]
Lessor
John B. Jenkins Jr President [SEAL]

Lessee [SEAL]

Lessee [SEAL]

J. R. McKay [SEAL]

Dan R. McKay [SEAL]

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BY PICK
FOR EXTRA COPIES, CALL KE. 2876
MAR 4 1954
PICK PHOTOGRAPH & BLUEPRINT CO.
1015 - 17th ST. DENVER, COLO.
CERTIFIED ON REQUEST

MINING LEASE

FROM

.....

TO

.....

STATE OF Colorado
County of Gilpin } SS.

I hereby certify that this instrument was filed for record in my office, at 3:46 o'clock P. M., on the 2 day of March, A. D. 1954, and is duly recorded in book ....., page .....

Barbara Galbraith
Recorder.

By .....
Deputy.

Fees, $ 3.00

1-52 THE BRADFORD-ROBINSON PTG. CO., DENVER

MINING LEASE

THIS AGREEMENT AND LEASE Made this 2nd day of March 1954, between Van R. McKay, Central City, Colorado
Claude R. McKay, Central City, Colorado

of , of the first part, hereinafter called the "Lessor", and

United Mining and Leasing Corporation

of Central City, Colorado , of the second part, hereinafter called the "Lessee".

WITNESSETH, That for and in consideration of the rents, royalties, covenants and agreements hereinafter expressed to be paid, kept and performed by the Lessee, the Lessor has granted, let and demised, and by these presents does grant, let and demise, unto the Lessee all of the right, title and interest of the Lessor in and to the following described mining property and premises, situated in the Eureka and Quartz Valley Mining District, County of Gilpin, State of Colorado, to-wit:

East 1/2 of Two Sisters Lode Mining Claim, U. S. Survey No. 8062; the East 400 Feet of Pacific Lode Mining Claim, U.S. Survey No.9041; the East 675 Feet of the Clara Marie Lode Mining Claim, U.S. Survey No. 8732.

TO HAVE AND TO HOLD the demised premises unto the Lessee, with the right to mine, extract and remove ore therefrom and to sell and dispose of the same as hereinafter provided for the term of Ten years, commencing at Noon on the 2nd day of March, 19 54 and ending at Noon on the 2nd day of March, 19 64, subject to the terms and conditions of this agreement, unless sooner forfeited or determined through the violation of any of the terms, conditions, covenants or agreements hereinafter against the Lessee expressed or reserved.

The Lessee, for and in consideration of the demise of said premises, hereby covenants and agrees with the Lessor as follows:

1. To enter upon said premises on the first day of the term hereof, and to work the same in a thorough and minerlike manner so as to take out the greatest amount of ore possible, with due regard to the development and preservation of said premises as a workable mining property and to the unworked ground for future continued mining operations, and to the other covenants hereinafter expressed.

2. To work and mine the demised premises steadily and continuously from the first day of the term hereof with a force of at least three men working at least 60 one man eight-hour shifts per month during the term hereof.

It is further agreed and understood, that providing all the terms are faithfully performed, a five year extension of lease will be granted dating from March 2, 1964.

3. To repair and replace all old timbering upon the demised premises wherever it may become necessary, and to well and sufficiently timber said mine and mining premises wherever proper and necessary in accordance with good and safe mining practices.

4. To keep and hold as the property of the Lessor all cross and parallel lodes, spurs or mineral deposits of every kind and nature that may be uncovered, disclosed or discovered on or within the demised premises by the Lessee, or by any person employed by, through or under the Lessee, or by any person in privity with such Lessee, with the privilege tothe Lessee of working the same as part and parcel of the demised premises.

5. To at all times keep the drifts, shafts, tunnels and all other workings on the demised premises thoroughly drained and clear of loose rock and rubbish; to stow no waste under ground without the written consent of the Lessor; and to properly care for all dumpings and tailings and prevent their accumulation upon any part of the demised premises remaining unworked.

6. To do no underhand stoping below the bottom of any working level or winze; to do no stoping or breaking of ore rock within ten (10) feet of any working shaft; to make all shafts at least three and one-half (3½) feet by seven (7) feet in the clear, all drifts and tunnels at least six (6) feet high by three and one-half (3½) feet wide in the clear, and all winzes and raises at least three and one-half (3½) feet by seven (7) feet in the clear.

7. To allow the Lessor, and his agents, from time to time and at any time, to enter upon and into all parts of the demised premises for the purpose of inspection, survey, taking ore samples, or otherwise; and to give to the Lessor such assistance as may be necessary or proper to accomplish any such inspection, survey, sampling or otherwise.

8. To keep true and accurate record showing all ore taken from said premises and from which part thereof, the disposition thereof, the amount received therefrom, and a record of all assays of ore taken from said premises, together with complete maps of all development as the work progresses; said accounts, records and maps shall be open to the inspection of the Lessor, or his agents, at all times during ordinary business hours, and the Lessor shall have the privilege of making extracts therefrom or copies thereof.

9. To make no assignment of this lease, or any interest hereunder, nor to sublet the whole or any part of the demised premises, without the written consent of the Lessor first had and obtained, and to allow no party not in privity with the parties hereto to take or hold possession of the demised premises, or any part thereof, under any pretext whatsoever.

10. To promptly pay for all labor, material and supplies to be done for, or furnished to, the Lessee, or any person or persons under him or in privity with him upon said premises; and if any lien be filed, or if the Lessee shall become insolvent or bankrupt, or make an assignment for the benefit of creditors, or if any part of the pay roll, or any other indebtedness incurred in connection with the operations of the Lessee shall remain unpaid for a period of thirty (30) days after the same shall become due and payable, the Lessor may, at his election, declare a forfeiture of this lease, as hereinafter provided.

11. To indemnify and save harmless the Lessor from any and all liability for any accident, injury or loss to any property, or to any party or parties whatsoever, arising out of, or incurred in connection with the operation or mining of the demised premises for any reason whatsoever. To carry a proper amount of workman's compensation insurance for the purposes aforesaid, and to comply with all of the rules and regulations of any public or governmental authority having supervision or jurisdiction over the demised premises and the operations thereon.

12. To pay, or cause to be paid, during the term hereof, any and all taxes assessed upon the demised premises, the improvements thereon and the ores mined and shipped therefrom, beginning with the taxes for the year 1954, except

13. To allow and pay to the Lessor, as royalty upon all ores mined, shipped or sold from the demised premises in any manner during the term hereof the following (it being expressly understood and agreed that the Lessor reserves unto himself the property and right of property in and to all ores mined and extracted from the demised premises during the term hereof), to-wit:

15% of all ore sales
1% on all ores for the purpose of paying any production taxes assessed on account of said production. The Lessors agree to apply the said one (1) percent on the production taxes assessed and return to the lessees any part of said one (1) percent not needed for said payments.

All settlements to be made on the Smelter, sampler or mint assay values deducting therefrom only the actual costs of transportation and treatment.

The said lessee also agree promptly to apply for, take out and keep always in force such insurance under and pursuant to the Workmens Compensation Act of Colorado, as the same is now, or as it may from time to time be amended, as will fully insure the liability of the lessee as employers with respect to any and all persons employed by them on or upon the demised premises or in any operation under this lease.

All settlements to be made upon the smelter, mill or sampler net assay values, deducting therefrom only the actual cost of transportation and treatment.

13a - As a further consideration of the granting of this lease by the Grantors herein it is mutually agreed that Van R. McKay and Claude R. McKay shall retain the management of said corporation for the period of this lease, and shall retain their offices of President and General Manager, respectively.
In the event of the death or voluntary resignation of either party this clause shall not become effective as to that party.
In the event of the removal by the corporation of either party by stockholders' vote or otherwise, this lease shall become null and void as of the date of said removal.

14. To preserve and redeliver to the Lessor quiet and peaceable possession of the demised premises, with the appurtenances and all improvements, machinery and buildings thereon in good order and condition, with all drifts, shafts, tunnels and passages thoroughly clear of loose rocks and rubbish and drained, and the ground and mines ready for immediate continued working and mining, without demand or further notice, at the date of the expiration hereof, or at any time previous thereto, upon demand, upon the termination or forfeiture hereof; and in the event of any such forfeiture, all fixed improvements, tracks, ties, piping, machinery, and other appurtenances and material, used or installed by the Lessee on the demised premises shall thereupon revert to and become the property of the Lessor.

Upon the failure of the Lessee to keep and fulfill any and all agreements and covenants herein expressed or implied, then and in that event it shall be lawful for the Lessor, his agents or attorneys, to declare the term hereof ended and this lease null, void and of no further force or effect, and with or without notice or process of law to enter upon and take possession of the demised premises and dispossess all persons occupying the same, with or without force, or, at the option of the Lessor, the Lessee and all persons found in occupation or possession may be proceeded against as being guilty of unlawful detainer.

Any notice given by the Lessor shall be deemed sufficiently served and shall be held to be binding upon the Lessee or any person holding or claiming to hold any interest in the demised premises through or under the Lessee, if the same is deposited post paid in a United States Post Office, addressed to the Lessee at

Time is of the essence of this agreement, and this lease shall be appropriately construed to include each of the above-named Lessors and Lessees, whether one or more and whether individuals, associations or corporations, and the terms and conditions hereof shall extend to, and be binding upon, the heirs, executors, administrators, successors and assigns of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have executed this Lease the day and year first above written.

Van R. McKay (SEAL)

C. R. McKay (SEAL)
Lessor.

United Mining and Leasing Corp. (SEAL)

Van R. McKay (SEAL)
By President Lessee.

Attest:
Richard Dowse
Secretary

PHOTO - COPY
BY PICK
FOR EXTRA COPIES, CALL KE. 2876
MAR 4 1954
PICK PHOTOGRAPH & BLUEPRINT CO.
1015 - 17th ST. DENVER, COLO.
CERTIFIED ON REQUEST

Mining Lease

Lessor

Lessee

[illegible] DO,
[illegible] M.

the copy of
this instrument was
[illegible] at 3:50 o'clock
P. March 1954
[illegible]

Barbara Galbraith
Recorder

MINING LEASE

THIS AGREEMENT AND LEASE Made this 16th day of November, 19 53, between David Kalish, New York City, N. Y.

Lawrence L. Kalish

of Denver, Colorado Party, of the first part, hereinafter called the "Lessor", and

United Mining & Leasing Corporation, a Colorado Corporation

of Central City, Colo. Party, of the second part, hereinafter called the "Lessee".

WITNESSETH, That for and in consideration of the rents, royalties, covenants and agreements hereinafter expressed to be paid, kept and performed by the Lessee, the Lessor has granted, let and demised, and by these presents does grant, let and demise, unto the Lessee all of the right, title and interest of the Lessor in and to the following described mining property and premises, situated in the

Quartz Valley Mining District, County of Gilpin, State of Colorado, to-wit:

A. M. Mining Lode Claim	Sur.	No	9041 Am
Undivided 2/3 of Bon Ton Lode Claim	"	"	9041 Am
Undivided 1/2 of Lilly Rose Lode Claim	"	"	9041 Am
Ravensworth Mining Lode Claim	"	"	9041 Am
Undivided 3/4 Spur Daisy Mining Lode Claim	"	"	9041 Am
East 1/2 Only Boy Mining Lode Claim	"	"	16372
350 Ft Maggie M. Lode Mining Claim	"	"	8732
1360 Ft of Idea Mining Lode Claim	"	"	9041 Am
Easton Mining Lode Claim	"	"	9041 Am
Carroll Mining Lode Mining Claim	"	"	789
Alva Adams Mining Lode Claim	"	"	1012
Lulu Bowen Mining Lode Claim	"	"	1013
Irene Mining Lode Claim	"	"	679
Doc. Beers	"	"	678
Bell Lode Mining Claim	"	"	9041 Am
Chicago Mining Lode Claim	"	"	9041 Am.
Undivided 4/5 of Gold Mining Lode Claim	"	"	9041 Am.

TO HAVE AND TO HOLD the demised premises unto the Lessee, with the right to mine, extract and remove ore therefrom and to sell and dispose of the same as hereinafter provided for the term of ten (10) Years, commencing at Noon on the 16th day of November, 19 53 and ending at Noon on the 16th day of November, 19 63, subject to the terms and conditions of this agreement, unless sooner forfeited or determined through the violation of any of the terms, conditions, covenants or agreements hereinafter against the Lessee expressed or reserved.

The Lessee, for and in consideration of the demise of said premises, hereby covenants and agrees with the Lessor as follows:

1. To enter upon said premises on the first day of the term hereof, and to work the same in a thorough and minerlike manner so as to take out the greatest amount of ore possible, with due regard to the development and preservation of said premises as a workable mining property and to the unworked ground for future continued mining operations, and to the other covenants hereinafter expressed.

2. To work and mine the demised premises steadily and continuously from the first day of the term hereof with a force of at least 3 men working at least 20 eight-hour shifts per month during the term hereof.

1963 Correcting Erron

This lease to be extended on November 16, 1953, for another ten year period providing that all terms have been strictly carried our, as out lined in the body of this lease. This ten year extension agreeable to both parties.

3. To repair and replace all old timbering upon the demised premises wherever it may become necessary, and to well and sufficiently timber said mine and mining premises wherever proper and necessary in accordance with good and safe mining practices.

4. To keep and hold as the property of the Lessor all cross and parallel lodes, spurs or mineral deposits of every kind and nature that may be uncovered, disclosed or discovered on or within the demised premises by the Lessee, or by any person employed by, through or under the Lessee, or by any person in privity with such Lessee, with the privilege tothe Lessee of working the same as part and parcel of the demised premises.

5. To at all times keep the drifts, shafts, tunnels and all other workings on the demised premises thoroughly drained and clear of loose rock and rubbish; to stow no waste under ground without the written consent of the Lessor; and to properly care for all dumpings and tailings and prevent their accumulation upon any part of the demised premises remaining unworked.

6. To do no underhand stoping below the bottom of any working level or winze; to do no stoping or breaking of ore rock within 10 feet of any working shaft; to make all shafts at least three and one-half (3½) feet by seven (7) feet in the clear, all drifts and tunnels at least six (6) feet high by three and one-half (3½) feet wide in the clear, and all winzes and raises at least three and one-half (3½) feet by seven (7) feet in the clear.

7. To allow the Lessor, and his agents, from time to time and at any time, to enter upon and into all parts of the demised premises for the purpose of inspection, survey, taking ore samples, or otherwise; and to give to the Lessor such assistance as may be necessary or proper to accomplish any such inspection, survey, sampling or otherwise.

8. To keep true and accurate record showing all ore taken from said premises and from which part thereof, the disposition thereof, the amount received therefrom, and a record of all assays of ore taken from said premises, together with complete maps of all development as the work progresses; said accounts, records and maps shall be open to the inspection of the Lessor, or his agents, at all times during ordinary business hours, and the Lessor shall have the privilege of making extracts therefrom or copies thereof.

9. To make no assignment of this lease, or any interest hereunder, nor to sublet the whole or any part of the demised premises, without the written consent of the Lessor first had and obtained, and to allow no party not in privity with the parties hereto to take or hold possession of the demised premises, or any part thereof, under any pretext whatsoever.

10. To promptly pay for all labor, material and supplies to be done for, or furnished to, the Lessee, or any person or persons under him or in privity with him upon said premises; and if any lien be filed, or if the Lessee shall become insolvent or bankrupt, or make an assignment for the benefit of creditors, or if any part of the pay roll, or any other indebtedness incurred in connection with the operations of the Lessee shall remain unpaid for a period of thirty (30) days after the same shall become due and payable, the Lessor may, at his election, declare a forfeiture of this lease, as hereinafter provided.

11. To indemnify and save harmless the Lessor from any and all liability for any accident, injury or loss to any property, or to any party or parties whatsoever, arising out of, or incurred in connection with the operation or mining of the demised premises for any reason whatsoever. To carry a proper amount of workman's compensation insurance for the purposes aforesaid, and to comply with all of the rules and regulations of any public or governmental authority having supervision or jurisdiction over the demised premises and the operations thereon.

12. To pay, or cause to be paid, during the term hereof, any and all taxes assessed upon the demised premises, the improvements thereon and the ores mined and shipped therefrom, beginning with the taxes for the year 1952, except

13. To allow and pay to the Lessor, as royalty upon all ores mined, shipped or sold from the demised premises in any manner during the term hereof the following (it being expressly understood and agreed that the Lessor reserves unto himself the property and right of property in and to all ores mined and extracted from the demised premises during the term hereof), to-wit:

15% Royalty on all oresshipped or otherwise marketed.

All settlements to be made upon the smelter, mill or sampler net assay values, deducting therefrom only the actual cost of transportation and treatment.

14. To preserve and redeliver to the Lessor quiet and peaceable possession of the demised premises, with the appurtenances and all improvements, machinery and buildings thereon in good order and condition, with all drifts, shafts, tunnels and passages thoroughly clear of loose rocks and rubbish and drained, and the ground and mines ready for immediate continued working and mining, without demand or further notice, at the date of the expiration hereof, or at any time previous thereto, upon demand, upon the termination or forfeiture hereof; and in the event of any such forfeiture, all fixed improvements, tracks, ties, piping, machinery, and other appurtenances and material, used or installed by the Lessee on the demised premises shall thereupon revert to and become the property of the Lessor.

Upon the failure of the Lessee to keep and fulfill any and all agreements and covenants herein expressed or implied, then and in that event it shall be lawful for the Lessor, his agents or attorneys, to declare the term hereof ended and this lease null, void and of no further force or effect, and with or without notice or process of law to enter upon and take possession of the demised premises and dispossess all persons occupying the same, with or without force, or, at the option of the Lessor, the Lessee and all persons found in occupation or possession may be proceeded against as being guilty of unlawful detainer.

Any notice given by the Lessor shall be deemed sufficiently served and shall be held to be binding upon the Lessee or any person holding or claiming to hold any interest in the demised premises through or under the Lessee, if the same is deposited post paid in a United States Post Office, addressed to the Lessee at

Time is of the essence of this agreement, and this lease shall be appropriately construed to include each of the above-named Lessors and Lessees, whether one or more and whether individuals, associations or corporations, and the terms and conditions hereof shall extend to, and be binding upon, the heirs, executors, administrators, successors and assigns of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have executed this Lease the day and year first above written.

David Kalish (SEAL)

Lawrence L. Kalish (SEAL)
Lessor.

United Mining & Leasing Corporation (SEAL)

By _____ (SEAL)
Gen. Mgr.
Lessee.

PHOTO - COPY
BY PICK
FOR EXTRA COPIES, CALL KE. 2876
MAR 4 1954
PICK PHOTOGRAPH & BLUEPRINT CO.
1915 - 17th ST. DENVER, COLO.
CERTIFIED ON REQUEST

37129

Mining Lease

KALISH DAVID
KALISH LARY

Lessor

United Tiger Oil Corp

Lessee

$2 50

Nov 28 1953

in Book 225

471-472

Barbara Galbraith

Recorder

This is a Sub-lease

MINING LEASE

THIS AGREEMENT AND LEASE Made this 30th day of October 1953, between C. R. McKay, Central City, Colorado
Van R. McKay, Central City, Colorado

of , of the first part, hereinafter called the "Lessor", and

United Mining & Leasing Corporation

of Central City, Colorado , of the second part, hereinafter called the "Lessee".

WITNESSETH, That for and in consideration of the rents, royalties, covenants and agreements hereinafter expressed to be paid, kept and performed by the Lessee, the Lessor has granted, let and demised, and by these presents does grant, let and demise, unto the Lessee all of the right, title and interest of the Lessor in and to the following described mining property and premises, situated in the

Eureka-Quartz Valley Mining District, County of Gilpin, State of Colorado, to-wit:

Harkaway Mining Lode Patent U. S. Survey No. 557

TO HAVE AND TO HOLD the demised premises unto the Lessee, with the right to mine, extract and remove ore therefrom and to sell and dispose of the same as hereinafter provided for the term of four years eleven months, commencing at Noon on the 30th day of October, 1953 and ending at Noon on the 30th d day of October, 19 1958 subject to the terms and conditions of this agreement, unless sooner forfeited or determined through the violation of any of the terms, conditions, covenants or agreements hereinafter against the Lessee expressed or reserved.

The Lessee, for and in consideration of the demise of said premises, hereby covenants and agrees with the Lessor as follows:

1. To enter upon said premises on the first day of the term hereof, and to work the same in a thorough and minerlike manner so as to take out the greatest amount of ore possible, with due regard to the development and preservation of said premises as a workable mining property and to the unworked ground for future continued mining operations, and to the other covenants hereinafter expressed.

2. To work and mine the demised premises steadily and continuously from the first day of the term hereof with a force of at least three men working at least 60 one man eight-hour shifts per month during the term hereof.

It is further agreed and understood, that providing all the terms are faithfully preformed, a five year extension of lease will be granted dating from October 1, 1958.

3. To repair and replace all old timbering upon the demised premises wherever it may become necessary, and to well and sufficiently timber said mine and mining premises wherever proper and necessary in accordance with good and safe mining practices.

4. To keep and hold as the property of the Lessor all cross and parallel lodes, spurs or mineral deposits of every kind and nature that may be uncovered, disclosed or discovered on or within the demised premises by the Lessee, or by any person employed by, through or under the Lessee, or by any person in privity with such Lessee, with the privilege tothe Lessee of working the same as part and parcel of the demised premises.

5. To at all times keep the drifts, shafts, tunnels and all other workings on the demised premises thoroughly drained and clear of loose rock and rubbish; to stow no waste under ground without the written consent of the Lessor; and to properly care for all dumpings and tailings and prevent their accumulation upon any part of the demised premises remaining unworked.

6. To do no underhand stoping below the bottom of any working level or winze; to do no stoping or breaking of ore rock within ten (10) feet of any working shaft; to make all shafts at least three and one-half (3½) feet by seven (7) feet in the clear, all drifts and tunnels at least six (6) feet high by three and one-half (3½) feet wide in the clear, and all winzes and raises at least three and one-half (3½) feet by seven (7) feet in the clear.

7. To allow the Lessor, and his agents, from time to time and at any time, to enter upon and into all parts of the demised premises for the purpose of inspection, survey, taking ore samples, or otherwise; and to give to the Lessor such assistance as may be necessary or proper to accomplish any such inspection, survey, sampling or otherwise.

8. To keep true and accurate record showing all ore taken from said premises and from which part thereof, the disposition thereof, the amount received therefrom, and a record of all assays of ore taken from said premises, together with complete maps of all development as the work progresses; said accounts, records and maps shall be open to the inspection of the Lessor, or his agents, at all times during ordinary business hours, and the Lessor shall have the privilege of making extracts therefrom or copies thereof.

9. To make no assignment of this lease, or any interest hereunder, nor to sublet the whole or any part of the demised premises, without the written consent of the Lessor first had and obtained, and to allow no party not in privity with the parties hereto to take or hold possession of the demised premises, or any part thereof, under any pretext whatsoever.

10. To promptly pay for all labor, material and supplies to be done for, or furnished to, the Lessee, or any person or persons under him or in privity with him upon said premises; and if any lien be filed, or if the Lessee shall become insolvent or bankrupt, or make an assignment for the benefit of creditors, or if any part of the pay roll, or any other indebtedness incurred in connection with the operations of the Lessee shall remain unpaid for a period of thirty (30) days after the same shall become due and payable, the Lessor may, at his election, declare a forfeiture of this lease, as hereinafter provided.

11. To indemnify and save harmless the Lessor from any and all liability for any accident, injury or loss to any property, or to any party or parties whatsoever, arising out of, or incurred in connection with the operation or mining of the demised premises for any reason whatsoever. To carry a proper amount of workman's compensation insurance for the purposes aforesaid, and to comply with all of the rules and regulations of any public or governmental authority having supervision or jurisdiction over the demised premises and the operations thereon.

12. To pay, or cause to be paid, during the term hereof, any and all taxes assessed upon the demised premises, the improvements thereon and the ores mined and shipped therefrom, beginning with the taxes for the year 1953, except

in the original lease, Jenkins McKay Hardware Company,

13. To allow and pay to the Lessor as royalty upon all ores mined, shipped or sold from the demised premises in any manner during the term hereof the following (it being expressly understood and agreed that the Lessor reserves unto himself the property and right of property in and to all ores mined and extracted from the demised premises during the term hereof), to-wit:

10% on all Mill Dirt
15% on all smelter shipments
1% on all ores for the purpose of paying any production taxes assessed on account of said production. The Lessors agree to apply the said one (1) percent on the production taxes assessed and return to the lessees any part of said one (1) percent not needed for said payments.

All settlements to be made on the Smelter, sampler or mint assay values deducting therefrom only the actual costs of transportation and treatment.

The said lessee also agree promptly to apply for, take out and keep always in force such insurance under and pursuant to the Workmens Compensation Act of Colorado, as the same is now, or as it may from time to time be amended, as will fully insure the liability of the lessee as employers with respect to any and all persons employed by them on or upon the demised premises or in any operation under this lease.

All settlements to be made upon the smelter, mill or sampler net assay values, deducting therefrom only the actual cost of transportation and treatment.

14. To preserve and redeliver to the Lessor quiet and peaceable possession of the demised premises, with the appurtenances and all improvements, machinery and buildings thereon in good order and condition, with all drifts, shafts, tunnels and passages thoroughly clear of loose rocks and rubbish and drained, and the ground and mines ready for immediate continued working and mining, without demand or further notice, at the date of the expiration hereof, or at any time previous thereto, upon demand, upon the termination or forfeiture hereof; and in the event of any such forfeiture, all fixed improvements, tracks, ties, piping, machinery, and other appurtenances and material, used or installed by the Lessee on the demised premises shall thereupon revert to and become the property of the Lessor.

Upon the failure of the Lessee to keep and fulfill any and all agreements and covenants herein expressed or implied, then and in that event it shall be lawful for the Lessor, his agents or attorneys, to declare the term hereof ended and this lease null, void and of no further force or effect, and with or without notice or process of law to enter upon and take possession of the demised premises and dispossess all persons occupying the same, with or without force, or, at the option of the Lessor, the Lessee and all persons found in occupation or possession may be proceeded against as being guilty of unlawful detainer.

Any notice given by the Lessor shall be deemed sufficiently served and shall be held to be binding upon the Lessee or any person holding or claiming to hold any interest in the demised premises through or under the Lessee, if the same is deposited post paid in a United States Post Office, addressed to the Lessee at

Time is of the essence of this agreement, and this lease shall be appropriately construed to include each of the above-named Lessors and Lessees, whether one or more and whether individuals, associations or corporations, and the terms and conditions hereof shall extend to, and be binding upon, the heirs, executors, administrators, successors and assigns of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have executed this Lease the day and year first above written.

Van R. McKay (SEAL)

Van R. McKay (SEAL)
Lessor.

United Mining and Leasing Corp. (SEAL)

Van R. McKay (SEAL)
By President Lessee

Attest:
Richard Dowse
Secretary

PHOTO - COPY
BY PICK
FOR EXTRA COPIES, CALL KE. 2876
MAR 4 1954
PICK PHOTOGRAPH & BLUEPRINT CO.
1015 - 17th ST. DENVER, COLO.
CERTIFIED ON REQUEST

Mining Lease

Lessor

Lessee

STATE OF [illegible],
County of [illegible] } ss.

I hereby certify that this instrument was the copy of filed for record in my office at 2:48 o'clock P.M. Mar 2 1954 and duly recorded in book _____ Page No. _____

Barbara Galbraith
Recorder

No. 90-A. MINING LEASE (Long Form).—The Bradford-Robinson Ptg. Co., Mfrs. Robinson's Legal Blanks, 1824-46 Stout St., Denver, Colo.

And Option to Purchase

THIS AGREEMENT OF LEASE, Made and entered into this 1st day of October, A. D. 19 53, by and between Dorothy Jenkins, Katherine Salstrand of Denver, Colorado, and John C. Jenkins Jr., of Central City, Colorado, hereinafter called the lessor s, and Claude R. McKay and Van R. McKay, of Central City, Colorado hereinafter called lessees;

WITNESSETH, That the said lessor s for and in consideration of the rents, royalties, covenants and agreements hereinafter expressed to be paid, kept and performed by the said lessee s, have leased, let and demised and by these presents do lease, let and demise unto said lessee s the following described mining property and premises, situate North slope Nigger Hill Mining District, Gilpin County, Colorado State of, to-wit:

R.H.D. Mining Lode Patent Sur No. 8004
Polar Star Mining Lode Claim Sur. No. 6144

(This agreement is a renewal of a former lease and option between the parties hereto.)

TO HAVE AND TO HOLD the above described premises for the purposes of mining, from the 1st day of October, A. D. 19 3, to the 1st day of October, A. D. 19 1958, unless sooner forfeited or terminated through the violation of any of the covenants and conditions herein contained, with power to assign this lease or any part thereof or to sublet the whole or any part of said leased premises without the written consent of the said lessor s first had and obtained. Power granted to make one assignment

The said lessee s in consideration of the premises have covenanted, contracted and agreed and by these presents do covenant, contract and agree to and with the said lessor s, executors, administrators and assigns:

(1) To enter upon said leased premises and to work the same in mine fashion in manner necessary to good and economical mining, so as to take out the greatest amount of ore possible, with due regard to the development and preservation of said mine or mining premises, as a workable mining property, and to the special covenants herein contained.

(2) To work and mine said premises as aforesaid, steadily and continuously during the period of this lease and in doing said work to perform at least twenty six (26) shifts of mining labor per month each and every month during the life of this lease.

(3) To repair all old timbering wherever it may become necessary, and to well and sufficiently timber said mine and mining premises at all points where proper and necessary in accordance with good and safe mining; continuing the timbering in the working shafts now upon said premises with timber of the same dimensions as heretofore used, unless it becomes necessary for safety to use larger timber, in which event timber of sufficient size for safety and permanent mining shall be used.

It is further understood that providing all terms of this lease are faithfully preformed a five year extension of lease will be granted dating from 1958 to October 1, 1963.

(4) To allow the lessor S or their agent from time to time to enter upon and descend into all parts of said leased premises, for the purpose of inspection, surveys or taking samples therefrom, and to render to said parties proper assistance in making such inspection, surveys or examination.

(5) To occupy and hold as the property of the lessor S all cross and parallel lodes, spurs and mineral deposits of every kind which may be uncovered, disclosed or discovered within said leased ground by the said lessee S or any person or persons under or in privity with them, with privilege to said lessee S to work and mine the same as part and parcel of said premises.

(6) To keep at all times the drifts, shafts, tunnels and other workings thoroughly drained and clear of loose rock and rubbish, unless prevented by extraordinary mining casualty.

(7) To stow no waste underground except with the consent and under the direction of the lessor S.

(8) To do no underhand stoping below the bottom of any main working level or winze and to do no stoping or breaking of ore rock within ten feet feet of any working shaft.

(9) Not to adulterate or mix any ores broken or mined without the consent of the lessor S; it being understood that all ores mined which are too low grade for present shipment shall remain the property of and be subject to the control and disposition of the lessor S.

(10) To make all working shafts at least four (4) feet by eight (8) feet in the clear; all drifts and tunnels at least three and one-half (3½) feet by six and one-half (6½) feet in the clear, and all winzes and raises at least three and one-half (3½) feet by seven (7) feet in the clear.

(11) It is expressly understood and agreed that the lessor S reserve the property and right of property in and to all ores extracted from said premises during the period of this lease, and the said lessee S covenant and agree to pay and allow the lessor S as royalty upon all ores mined, shipped or sold from said leased premises in any manner during the life of this lease, as follows, to-wit:

10% on all mill dirt
15% on all smelter shipments
1% on all ores for the purpose of paying any production taxes assessed on account of said production. The Lessors agree to apply the said 1% on the production taxes assessed and return to the Lessees any part of said 1% not needed for said payments.
All settlements to be made on the smelter, sampler or mint assay values deducting therefrom only the actual cost of transportation and treatment.
The said leasees also agree promptly to apply for, take out and keep always in force such insurance under and pursuant to the Workmens Compensation Act of Colorado, as the same is now or as it may from time to time be amended, as will fully insure the liability of the Lessees as employers with respect to any and all persons employed by them on or upon the demised premises or in any operation under this lease.

All settlements to be made upon the smelter, mill or sampler net assay values, deducting therefrom only the actual cost of transportation and treatment.

OPTION TO PURCHASE For $5,000.00

And in consideration of the acceptance of the forgoing lease and the expenditures to be made thereon, and the well and faithfull keeping of the covenants thereof, said leasees shall have the right to purchase the said demised premises by the payment of the sum of Five Thousand (5,000) Dollars on or before the first day of October, 1958.

The forfeiture, surrender or termination of the above lease for any cause shall render this option void, and the above mentioned payment may not thereafter be tendered.

Any extension of above lease beyond October 1, 1958 will carry the option rights as above expressed.

(12) The lessee.S..shall and hereby do.....assume all responsibility in case of accident to...them.... or any of....their.....employees in or about said property.

(13) All taxes assessed against said demised premises for ores mined and shipped under this lease shall be paid by the lessees.....

(14) All bills and expenses incurred by the lessees....or those in privity with...them.....shall be promptly paid by the lessee.S..., and by said prompt payment said lessee.S..shall prevent the filing of any and all liens of miners, mechanics or material men, against said demised premises; and, if by reason of the failure of said lessees....to pay such bills or expenses, any lien or liens shall be filed against said premises the said lessor.....may forthwith pay off and discharge the same, and the said lessee..S hold...themselves bound to pay to said lessorS...all sums so advanced or paid to clear said premises from liens which may be filed as aforesaid, and the said lessor.S...may also at.....their.....election declare a forfeiture of this lease.

(15) Said lesseeS....further covenant.....that no person not in privity with the parties hereto shall be allowed to hold possession of said premises or any part thereof under any pretext whatever.

(16) Further, that....they.....will deliver to said lessor.S..quiet and peaceable possession of said demised premises in good order and condition with all drifts, tunnels and other passages thoroughly drained and cleared of loose rock and rubbish and said premises ready for immediate continued working, without demand or further notice, on the....1st.....day of....October....., A. D. 19..58....., at noon, or at any time previous thereto, upon demand for forfeiture, and it is mutually understood that all machinery and tools which may be placed upon said premises by the said lessees....may be removed therefrom within ten days after the termination of this lease; provided, however, that no such tools or machinery shall be so removed while the said lesseeS....may be in any manner indebted to the said lessorS... under any obligation incurred under this lease. In case lease is extended for a five year period possession of premisies by Lessors will be Oct 1, 1963

(17) Upon the violation of any covenant or condition herein contained, this lease shall, at the option of said lessor.S..., expire and terminate, and the said premises with the appurtenances and all buildings and other improvements shall become forfeited to the lessor.S..., and the said lessor.S.. or...their..... agent may thereupon, after demand in writing for possession, enter upon said premises and dispossess all persons occupying the same, with or without force, and with or without process of law, or at the option of the lessor.S..the said lessee..S..and all persons found occupying said premises or any part thereof may be proceeded against as guilty of unlawful detainer.

Time is of the essence of this agreement, and each and every clause of this indenture and all the covenants and conditions contained herein, expressed or implied, shall extend to the successors, heirs, executors, administrators and lawful assigns of all of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have hereunto subscribed their names the day and year first above written.

Dorothy Jenkins .....[SEAL]
Lessor

Katherine Salstrand .....[SEAL]
Lessor

John Jensen Jr .....[SEAL]
Lessor

.....[SEAL]

R. W. McKay .....[SEAL]
Lessee

Van R. McKay .....[SEAL]
Lessee

PHOTO - COPY
BY PICK
FOR EXTRA COPIES, CALL KE. 2875
MAR 4 1954
PICK PHOTOGRAPH & BLUEPRINT CO.
1015 - 17th ST. DENVER, COLO.
CERTIFIED ON REQUEST

MINING LEASE

FROM

.....

TO

.....

STATE OF Colorado
County of Gilpin } SS.

I hereby certify that this instrument was filed for record in my office, at 3:47 o'clock P. M., on the 2 day of March, A. D. 1954, and is duly recorded in book ....., page .....

Barbara Galbraith
Recorder.

By .....
Deputy.

Fees, $ 3.00

1-52 THE BRADFORD-ROBINSON PTG. CO., DENVER

12

This is a Sub-lease

MINING LEASE

THIS AGREEMENT AND LEASE Made this 30th day of October 1954, between

C. R. McKay, Central City, Colorado
Van R. McKay, Central City, Colorado.

of , of the first part, hereinafter called the "Lessor", and

United Mining & Leasing Corporation

of Central City, Colorado. , of the second part, hereinafter called the "Lessee".

WITNESSETH, That for and in consideration of the rents, royalties, covenants and agreements hereinafter expressed to be paid, kept and performed by the Lessee, the Lessor has granted, let and demised, and by these presents does grant, let and demise, unto the Lessee all of the right, title and interest of the Lessor in and to the following described mining property and premises, situated in the

Eureka-Quartz Valley Mining District, County of Gilpin, State of Colorado, to-wit:

R.H.D. Mining Lode Patent Sur. No. 8004
Polar Star Mining Lode Claim No. 6144

TO HAVE AND TO HOLD the demised premises unto the Lessee, with the right to mine, extract and remove ore therefrom and to sell and dispose of the same as hereinafter provided for the term of four (4) Years (11) Months, commencing at Noon on the 30th day of October, 19 54 and ending at Noon on the 30th day of October, 1958, subject to the terms and conditions of this agreement, unless sooner forfeited or determined through the violation of any of the terms, conditions, covenants or agreements hereinafter against the Lessee expressed or reserved.

The Lessee, for and in consideration of the demise of said premises, hereby covenants and agrees with the Lessor as follows:

1. To enter upon said premises on the first day of the term hereof, and to work the same in a thorough and minerlike manner so as to take out the greatest amount of ore possible, with due regard to the development and preservation of said premises as a workable mining property and to the unworked ground for future continued mining operations, and to the other covenants hereinafter expressed.

2. To work and mine the demised premises steadily and continuously from the first day of the term hereof with a force of at least three (3) men working at least 20 Each eight-hour shifts per month during the term hereof. Each and every calender month.

3. To repair and replace all old timbering upon the demised premises wherever it may become necessary, and to well and sufficiently timber said mine and mining premises wherever proper and necessary in accordance with good and safe mining practices.

4. To keep and hold as the property of the Lessor all cross and parallel lodes, spure or mineral deposits of every kind and nature that may be uncovered, disclosed or discovered on or within the demised premises by the Lessee, or by any person employed by, through or under the Lessee, or by any person in privity with such Lessee, with the privilege tothe Lessee of working the same as part and parcel of the demised premises.

5. To at all times keep the drifts, shafts, tunnels and all other workings on the demised premises thoroughly drained and clear of loose rock and rubbish; to stow no waste under ground without the written consent of the Lessor; and to properly care for all dumpings and tailings and prevent their accumulation upon any part of the demised premises remaining unworked.

6. To do no underhand stoping below the bottom of any working level or winze; to do no stoping or breaking of ore rock within 10 feet of any working shaft; to make all shafts at least three and one-half (3½) feet by seven (7) feet in the clear, all drifts and tunnels at least six (6) feet high by three and one-half (3½) feet wide in the clear, and all winzes and raises at least three and one-half (3½) feet by seven (7) feet in the clear.

7. To allow the Lessor, and his agents, from time to time and at any time, to enter upon and into all parts of the demised premises for the purpose of inspection, survey, taking ore samples, or otherwise; and to give to the Lessor such assistance as may be necessary or proper to accomplish any such inspection, survey, sampling or otherwise.

8. To keep true and accurate record showing all ore taken from said premises and from which part thereof, the disposition thereof, the amount received therefrom, and a record of all assays of ore taken from said premises, together with complete maps of all development as the work progresses; said accounts, records and maps shall be open to the inspection of the Lessor, or his agents, at all times during ordinary business hours, and the Lessor shall have the privilege of making extracts therefrom or copies thereof.

9. To make no assignment of this lease, or any interest hereunder, nor to sublet the whole or any part of the demised premises, without the written consent of the Lessor first had and obtained, and to allow no party not in privity with the parties hereto to take or hold possession of the demised premises, or any part thereof, under any pretext whatsoever.

10. To promptly pay for all labor, material and supplies to be done for, or furnished to, the Lessee, or any person or persons under him or in privity with him upon said premises; and if any lien be filed, or if the Lessee shall become insolvent or bankrupt, or make an assignment for the benefit of creditors, or if any part of the pay roll, or any other indebtedness incurred in connection with the operations of the Lessee shall remain unpaid for a period of thirty (30) days after the same shall become due and payable, the Lessor may, at his election, declare a forfeiture of this lease, as hereinafter provided.

11. To indemnify and save harmless the Lessor from any and all liability for any accident, injury or loss to any property, or to any party or parties whatsoever, arising out of, or incurred in connection with the operation or mining of the demised premises for any reason whatsoever. To carry a proper amount of workman's compensation insurance for the purposes aforesaid, and to comply with all of the rules and regulations of any public or governmental authority having supervision or jurisdiction over the demised premises and the operations thereon.

12. To pay, or cause to be paid, during the term hereof, any and all taxes assessed upon the demised premises, the improvements thereon and the ores mined and shipped therefrom, beginning with the taxes for the year 1953, except

in the original lease, Dorothy Jenkins, Katherine Salstrand and John C. Jenkins, Jr.,

13. To allow and pay to the Lessor as royalty upon all ores mined, shipped or sold from the demised premises in any manner during the term hereof the following (it being expressly understood and agreed that the Lessor reserves unto himself the property and right of property in and to all ores mined and extracted from the demised premises during the term hereof), to-wit:

10% on all mill Dirt
15% on all smelter shipments
1% on all ores for the purpose of paying any production taxes assessed on account of said production. The Lessors agree to apply the said 1% on the production taxes assessed and return to the lessees any part of said 1% on the production tax not needed for said payments.
All payments to be made, of settlements, on Smelter, Mint or Samplers net Check. Deducting therefrom only the actual costs of transportation and treatment.
The said lessees also agree promptly to apply for, take out and keep always in force such insurance under and pursuant to the Workmens Compensation Act of Colorado, as the same is now or as it may from time to time be amended, as eill fully insure the liability of the lessees as employers with respect to any and all persons employed by them on or upon the demised premises or ina any operation under this lease.

All settlements to be made upon the smelter, mill or sampler net assay values, deducting therefrom only the actual cost of transportation and treatment.

14. To preserve and redeliver to the Lessor quiet and peaceable possession of the demised premises, with the appurtenances and all improvements, machinery and buildings thereon in good order and condition, with all drifts, shafts, tunnels and passages thoroughly clear of loose rocks and rubbish and drained, and the ground and mines ready for immediate continued working and mining, without demand or further notice, at the date of the expiration hereof, or at any time previous thereto, upon demand, upon the termination or forfeiture hereof; and in the event of any such forfeiture, all fixed improvements, tracks, ties, piping, machinery, and other appurtenances and material, used or installed by the Lessee on the demised premises shall thereupon revert to and become the property of the Lessor.

Upon the failure of the Lessee to keep and fulfill any and all agreements and covenants herein expressed or implied, then and in that event it shall be lawful for the Lessor, his agents or attorneys, to declare the term hereof ended and this lease null, void and of no further force or effect, and with or without notice or process of law to enter upon and take possession of the demised premises and dispossess all persons occupying the same, with or without force, or, at the option of the Lessor, the Lessee and all persons found in occupation or possession may be proceeded against as being guilty of unlawful detainer.

Any notice given by the Lessor shall be deemed sufficiently served and shall be held to be binding upon the Lessee or any person holding or claiming to hold any interest in the demised premises through or under the Lessee, if the same is deposited post paid in a United States Post Office, addressed to the Lessee at

Time is of the essence of this agreement, and this lease shall be appropriately construed to include each of the above-named Lessors and Lessees, whether one or more and whether individuals, associations or corporations, and the terms and conditions hereof shall extend to, and be binding upon, the heirs, executors, administrators, successors and assigns of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have executed this Lease the day and year first above written.

D. B. McKay (SEAL)

Dan R. McKay (SEAL)
Lessor.

United Mining and Leasing Corp. (SEAL)

Dan R. McKay (SEAL)
By President Lessee.

Attest:

Richard Dowse
Secretary

PHOTO - COPY
BY PICK
FOR EXTRA COPIES, CALL KE. 2876
MAR 4 1954
PICK PHOTOGRAPH & BLUEPRINT CO.
1015 - 17th ST. DENVER, COLO.
CERTIFIED ON REQUEST

Mining Lease

Lessor

Lessee

the copy of

349

P. March 1954

Barbara Galbraith

Recorder

2

No. 90-A. MINING LEASE (Long Form).—The Bradford-Robinson Ptg. Co., Mfrs. Robinson's Legal Blanks, 1824-46 Stout St., Denver, Colo.

and option to purchase

THIS AGREEMENT OF LEASE, Made and entered into this 1st day of October, A. D. 1953, by and between Jenkins McKay Hardware Company of Central City, Colorado, hereinafter called the lessor, and Claude R. McKay and Van R. McKay, of Central City, Colorado hereinafter called lessees;

WITNESSETH, That the said lessor for and in consideration of the rents, royalties, covenants and agreements hereinafter expressed to be paid, kept and performed by the said lessees, has leased, let and demised and by these presents do lease, let and demise unto said lessees the following described mining property and premises, situate in the On north slope of Nigger Hill Mining District, Gilpin County, Colorado State of, to-wit:

Harkaway Mining Lode Patent Sur. No. 557

(This agreement is a renewal of a former lease and option between the parties hereto.)

TO HAVE AND TO HOLD the above described premises for the purposes of mining, from the First day of October, A. D. 1953, to the 1st day of October, A. D. 1958, unless sooner forfeited or terminated through the violation of any of the covenants and conditions herein contained, with no power to assign this lease or any part thereof or to sublet the whole or any part of said leased premises without the written consent of the said lessor first had and obtained. Power is hereby granted to make one transfer

The said lessees in consideration of the premises have covenanted, contracted and agreed and by these presents do covenant, contract and agree to and with the said lessor, his executors, administrators and assigns:

(1) To enter upon said leased premises and to work the same in mine fashion in manner necessary to good and economical mining, so as to take out the greatest amount of ore possible, with due regard to the development and preservation of said mine or mining premises, as a workable mining property, and to the special covenants herein contained.

(2) To work and mine said premises as aforesaid, steadily and continuously during the period of this lease and in doing said work to perform at least Twenty six shifts of mining labor per month each and every month during the life of this lease.

(3) To repair all old timbering wherever it may become necessary, and to well and sufficiently timber said mine and mining premises at all points where proper and necessary in accordance with good and safe mining; continuing the timbering in the working shafts now upon said premises with timber of the same dimensions as heretofore used, unless it becomes necessary for safety to use larger timber, in which event timber of sufficient size for safety and permanent mining shall be used.

It is further understood that providing all terms of this lease are faithfully reformed a five year extension of lease will be granted from 1958 to October 1st 1963.

(4) To allow the lessor.....or.....his.....agent from time to time to enter upon and descend into all parts of said leased premises, for the purpose of inspection, surveys or taking samples therefrom, and to render to said parties proper assistance in making such inspection, surveys or examination.

(5) To occupy and hold as the property of the lessor.....all cross and parallel lodes, spurs and mineral deposits of every kind which may be uncovered, disclosed or discovered within said leased ground by the said lessee.S....or any person or persons under or in privity with.....them....., with privilege to said lessee.S..to work and mine the same as part and parcel of said premises.

(6) To keep at all times the drifts, shafts, tunnels and other workings thoroughly drained and clear of loose rock and rubbish, unless prevented by extraordinary mining casualty.

(7) To stow no waste underground except with the consent and under the direction of the lessor.....

(8) To do no underhand stoping below the bottom of any main working level or winze and to do no stoping or breaking of ore rock within.....ten feet (10).....feet of any working shaft.

(9) Not to adulterate or mix any ores broken or mined without the consent of the lessor.....; it being understood that all ores mined which are too low grade for present shipment shall remain the property of and be subject to the control and disposition of the lessor.....

(10) To make all working shafts at least four (4) feet by eight (8) feet in the clear; all drifts and tunnels at least three and one-half (3½) feet by six and one-half (6½) feet in the clear, and all winzes and raises at least three and one-half (3½) feet by seven (7) feet in the clear.

(11) It is expressly understood and agreed that the lessor.....reserve.S...the property and right of property in and to all ores extracted from said premises during the period of this lease, and the said lessee.S..covenant.....and agree..S..to pay and allow the lessor.....as royalty upon all ores mined, shipped or sold from said leased premises in any manner during the life of this lease, as follows, to-wit:

Ten (10) percent on all mill dirt
Fifteen (15) percent on all smelter shipments
One (1) percent on all ores for purpose of paying any production taxes assessed on account of said production. The Lesor agrees to apply the said tax of one (1) percent on the production taxes assessed and return to the lessees any part of said one (1) percent not needed for said payments.
All settlements to be made on the smelter, sampler or mint assay values deducting therefrom only the actual cost of transportation and treatment.
The said lessees also agree promptly to apply for, take out and keep always in force such insurance under and pursuant to the Workmens Compensation Act of Colorado, as the same is now or as it may from time to time be amended, as will fully insure the liability of the lessees as employers with respect to any and all persons employed by them on or upon the demised premises or in any operation under this lease.

All settlements to be made upon the smelter, mill or sampler net assay values, deducting therefrom only the actual cost of transportation and treatment.....

OPTION TO PURCHASE

And in consideration of the acceptance of the forgoing lease and the expenditures to be made thereon, and the well and faithfull keeping of the covenants thereof, said lessees shall have the right to purchase the said demised property by the payment of the sum of

Two Thousand Five Hundred (2,500) Dollars onwor before the first day of October 1958

The forfeiture, surrender or termination of the above lease for any cause shall render this option void, and the above mentioned payment may not thereafter be tendered.

Any extension of above lease beyond October 1, 1958 will carry the option rights as above expressed.

(12) The lessees shall and hereby do assume all responsibility in case of accident to them or any of their employees in or about said property.

(13) All taxes assessed against said demised premises for ores mined and shipped under this lease shall be paid by the lessees.

(14) All bills and expenses incurred by the lessees or those in privity with them shall be promptly paid by the lessees, and by said prompt payment said lessees shall prevent the filing of any and all liens of miners, mechanics or material men, against said demised premises; and, if by reason of the failure of said lessees to pay such bills or expenses, any lien or liens shall be filed against said premises the said lessor may forthwith pay off and discharge the same, and the said lessees hold them bound to pay to said lessor all sums so advanced or paid to clear said premises from liens which may be filed as aforesaid, and the said lessor may also at his election declare a forfeiture of this lease.

(15) Said lessees further covenant that no person not in privity with the parties hereto shall be allowed to hold possession of said premises or any part thereof under any pretext whatever.

(16) Further, that they will deliver to said lessor quiet and peaceable possession of said demised premises in good order and condition with all drifts, tunnels and other passages thoroughly drained and cleared of loose rock and rubbish and said premises ready for immediate continued working, without demand or further notice, on the First day of October, A. D. 19 58, at noon, or at any time previous thereto, upon demand for forfeiture, and it is mutually understood that all machinery and tools which may be placed upon said premises by the said lessees may be removed therefrom within ten days after the termination of this lease; provided, however, that no such tools or machinery shall be so removed while the said lessees may be in any manner indebted to the said lessor under any obligation incurred under this lease. In case lease is extended for a five year period possesion of premises of premises by lessors will be (ctl, 1963

(17) Upon the violation of any covenant or condition herein contained, this lease shall, at the option of said lessor, expire and terminate, and the said premises with the appurtenances and all buildings and other improvements shall become forfeited to the lessor, and the said lessor or his agent may thereupon, after demand in writing for possession, enter upon said premises and dispossess all persons occupying the same, with or without force, and with or without process of law, or at the option of the lessor the said lessees and all persons found occupying said premises or any part thereof may be proceeded against as guilty of unlawful detainer.

Time is of the essence of this agreement, and each and every clause of this indenture and all the covenants and conditions contained herein, expressed or implied, shall extend to the successors, heirs, executors, administrators and lawful assigns of all of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have hereunto subscribed their names the day and year first above written.

Jerolyn McGlay Hardware Co [SEAL]
Lessor
John B. Jerolyn Jr President [SEAL]

Lessee [SEAL]

Lessee [SEAL]

[SEAL]

Vern R. McGlay [SEAL]

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BY PICK
FOR EXTRA COPIES, CALL KE. 2876
MAR 4 1954
PICK PHOTOGRAPH & BLUEPRINT CO.
1015 - 17th ST. DENVER, COLO.
CERTIFIED ON REQUEST

MINING LEASE

FROM

.....

TO

.....

STATE OF Colorado
County of Gilpin } SS.

I hereby certify that this instrument was filed for record in my office, at 3:46 o'clock P. M., on the 2 day of March, A. D. 1954, and is duly recorded in book ....., page .....

Barbara Galbraith
Recorder.

By .....
Deputy.

Fees, $ 3.00

1-52 THE BRADFORD-ROBINSON PTG. CO., DENVER

8

MINING LEASE

THIS AGREEMENT AND LEASE Made this 2nd day of March 1954, between Van R. McKay, Central City, Colorado
Claude R. McKay, Central City, Colorado

of , of the first part, hereinafter called the "Lessor", and

United Mining and Leasing Corporation

of Central City, Colorado , of the second part, hereinafter called the "Lessee".

WITNESSETH, That for and in consideration of the rents, royalties, covenants and agreements hereinafter expressed to be paid, kept and performed by the Lessee, the Lessor has granted, let and demised, and by these presents does grant, let and demise, unto the Lessee all of the right, title and interest of the Lessor in and to the following described mining property and premises, situated in the

Eureka and Quartz Valley Mining District, County of Gilpin, State of Colorado, to-wit:

East 1/2 of Two Sisters Lode Mining Claim, U. S. Survey No. 8062; the East 400 Feet of Pacific Lode Mining Claim, U.S. Survey No.9041; the East 675 Feet of the Clara Marie Lode Mining Claim, U.S. Survey No. 8732.

TO HAVE AND TO HOLD the demised premises unto the Lessee, with the right to mine, extract and remove ore therefrom and to sell and dispose of the same as hereinafter provided for the term of Ten years, commencing at Noon on the 2nd day of March, 19 54 and ending at Noon on the 2nd day of March, 19 64, subject to the terms and conditions of this agreement, unless sooner forfeited or determined through the violation of any of the terms, conditions, covenants or agreements hereinafter against the Lessee expressed or reserved.

The Lessee, for and in consideration of the demise of said premises, hereby covenants and agrees with the Lessor as follows:

1. To enter upon said premises on the first day of the term hereof, and to work the same in a thorough and minerlike manner so as to take out the greatest amount of ore possible, with due regard to the development and preservation of said premises as a workable mining property and to the unworked ground for future continued mining operations, and to the other covenants hereinafter expressed.

2. To work and mine the demised premises steadily and continuously from the first day of the term hereof with a force of at least three men working at least 60 one man eight-hour shifts per month during the term hereof.

It is further agreed and understood, that providing all the terms are faithfully performed, a five year extension of lease will be granted dating from March 2, 1964.

3. To repair and replace all old timbering upon the demised premises wherever it may become necessary, and to well and sufficiently timber said mine and mining premises wherever proper and necessary in accordance with good and safe mining practices.

4. To keep and hold as the property of the Lessor all cross and parallel lodes, spurs or mineral deposits of every kind and nature that may be uncovered, disclosed or discovered on or within the demised premises by the Lessee, or by any person employed by, through or under the Lessee, or by any person in privity with such Lessee, with the privilege tothe Lessee of working the same as part and parcel of the demised premises.

5. To at all times keep the drifts, shafts, tunnels and all other workings on the demised premises thoroughly drained and clear of loose rock and rubbish; to stow no waste under ground without the written consent of the Lessor; and to properly care for all dumpings and tailings and prevent their accumulation upon any part of the demised premises remaining unworked.

6. To do no underhand stoping below the bottom of any working level or winze; to do no stoping or breaking of ore rock within ten (10) feet of any working shaft; to make all shafts at least three and one-half (3½) feet by seven (7) feet in the clear, all drifts and tunnels at least six (6) feet high by three and one-half (3½) feet wide in the clear, and all winzes and raises at least three and one-half (3½) feet by seven (7) feet in the clear.

7. To allow the Lessor, and his agents, from time to time and at any time, to enter upon and into all parts of the demised premises for the purpose of inspection, survey, taking ore samples, or otherwise; and to give to the Lessor such assistance as may be necessary or proper to accomplish any such inspection, survey, sampling or otherwise.

8. To keep true and accurate record showing all ore taken from said premises and from which part thereof, the disposition thereof, the amount received therefrom, and a record of all assays of ore taken from said premises, together with complete maps of all development as the work progresses; said accounts, records and maps shall be open to the inspection of the Lessor, or his agents, at all times during ordinary business hours, and the Lessor shall have the privilege of making extracts therefrom or copies thereof.

9. To make no assignment of this lease, or any interest hereunder, nor to sublet the whole or any part of the demised premises, without the written consent of the Lessor first had and obtained, and to allow no party not in privity with the parties hereto to take or hold possession of the demised premises, or any part thereof, under any pretext whatsoever.

10. To promptly pay for all labor, material and supplies to be done for, or furnished to, the Lessee, or any person or persons under him or in privity with him upon said premises; and if any lien be filed, or if the Lessee shall become insolvent or bankrupt, or make an assignment for the benefit of creditors, or if any part of the pay roll, or any other indebtedness incurred in connection with the operations of the Lessee shall remain unpaid for a period of thirty (30) days after the same shall become due and payable, the Lessor may, at his election, declare a forfeiture of this lease, as hereinafter provided.

11. To indemnify and save harmless the Lessor from any and all liability for any accident, injury or loss to any property, or to any party or parties whatsoever, arising out of, or incurred in connection with the operation or mining of the demised premises for any reason whatsoever. To carry a proper amount of workman's compensation insurance for the purposes aforesaid, and to comply with all of the rules and regulations of any public or governmental authority having supervision or jurisdiction over the demised premises and the operations thereon.

12. To pay, or cause to be paid, during the term hereof, any and all taxes assessed upon the demised premises, the improvements thereon and the ores mined and shipped therefrom, beginning with the taxes for the year 1954, except

13. To allow and pay to the Lessor, as royalty upon all ores mined, shipped or sold from the demised premises in any manner during the term hereof the following (it being expressly understood and agreed that the Lessor reserves unto himself the property and right of property in and to all ores mined and extracted from the demised premises during the term hereof), to-wit:

15% of all ore sales
1% on all ores for the purpose of paying any production taxes assessed on account of said production. The Lessors agree to apply the said one (1) percent on the production taxes assessed and return to the lessees any part of said one (1) percent not needed for said payments.

All settlements to be made on the Smelter, sampler or mint assay values deducting therefrom only the actual costs of transportation and treatment.

The said lessee also agree promptly to apply for, take out and keep always in force such insurance under and pursuant to the Workmens Compensation Act of Colorado, as the same is now, or as it may from time to time be amended, as will fully insure the liability of the lessee as employers with respect to any and all persons employed by them on or upon the demised premises or in any operation under this lease.

All settlements to be made upon the smelter, mill or sampler net assay values, deducting therefrom only the actual cost of transportation and treatment.

13a - As a further consideration of the granting of this lease by the Grantors herein it is mutually agreed that Van R. McKay and Claude R. McKay shall retain the management of said corporation for the period of this lease, and shall retain their offices of President and General Manager, respectively.
In the event of the death or voluntary resignation of either party this clause shall not become effective as to that party.
In the event of the removal by the corporation of either party by stockholders' vote or otherwise, this lease shall become null and void as of the date of said removal.

14. To preserve and redeliver to the Lessor quiet and peaceable possession of the demised premises, with the appurtenances and all improvements, machinery and buildings thereon in good order and condition, with all drifts, shafts, tunnels and passages thoroughly clear of loose rocks and rubbish and drained, and the ground and mines ready for immediate continued working and mining, without demand or further notice, at the date of the expiration hereof, or at any time previous thereto, upon demand, upon the termination or forfeiture hereof; and in the event of any such forfeiture, all fixed improvements, tracks, ties, piping, machinery, and other appurtenances and material, used or installed by the Lessee on the demised premises shall thereupon revert to and become the property of the Lessor.

Upon the failure of the Lessee to keep and fulfill any and all agreements and covenants herein expressed or implied, then and in that event it shall be lawful for the Lessor, his agents or attorneys, to declare the term hereof ended and this lease null, void and of no further force or effect, and with or without notice or process of law to enter upon and take possession of the demised premises and dispossess all persons occupying the same, with or without force, or, at the option of the Lessor, the Lessee and all persons found in occupation or possession may be proceeded against as being guilty of unlawful detainer.

Any notice given by the Lessor shall be deemed sufficiently served and shall be held to be binding upon the Lessee or any person holding or claiming to hold any interest in the demised premises through or under the Lessee, if the same is deposited post paid in a United States Post Office, addressed to the Lessee at

Time is of the essence of this agreement, and this lease shall be appropriately construed to include each of the above-named Lessors and Lessees, whether one or more and whether individuals, associations or corporations, and the terms and conditions hereof shall extend to, and be binding upon, the heirs, executors, administrators, successors and assigns of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have executed this Lease the day and year first above written.

Van R. McKay (SEAL)

Claude R. McKay (SEAL)
Lessor.

United Mining and Leasing Corp. (SEAL)

Van R. McKay (SEAL)
By President Lessee.

Attest:
Richard Dowse
Secretary

PHOTO - COPY
BY PICK
FOR EXTRA C P... 11 SE. 287
MAR 4 19..
PICK PHOTOGRAPH & BLUEPRINT CO.
1015 - 17th ST. DENVER, COLO.
CERTIFIED ON REQUEST

Mining Lease

Lessor

Lessee

STATE OF COLORADO, } ss.
COUNTY OF GRAND.

I hereby certify that the copy of this instrument was filed for record in my office at 3:50 o'clock P. M. March 1954

and is duly recorded in Book

Barbara Galbraith

Recorder.

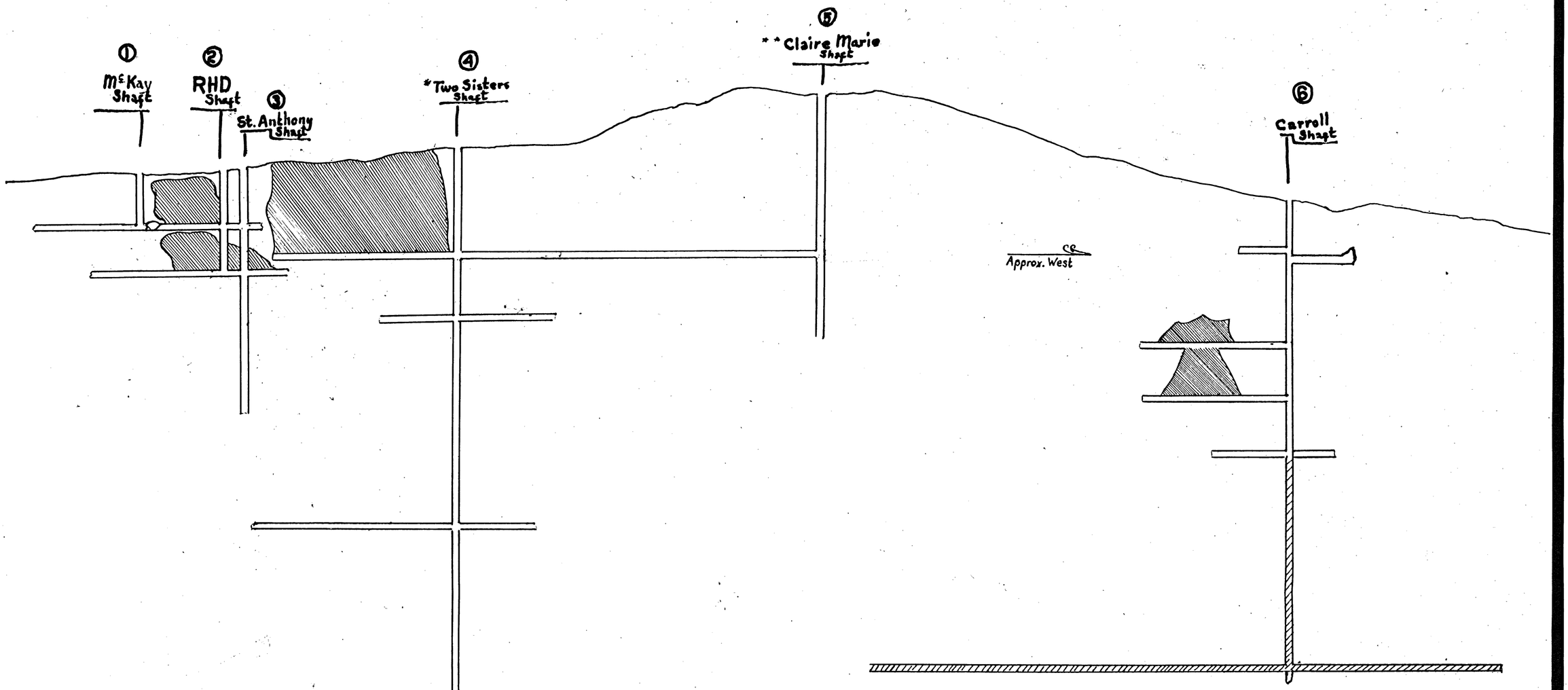
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
1012 Flood Building
870 Market Street
San Francisco 2, Calif.
OFFICIAL BUSINESS

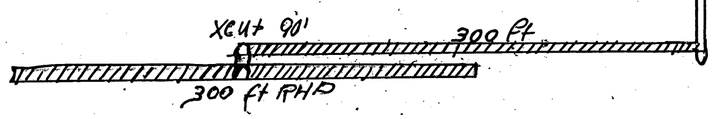
SAN FRANCISCO CALIF. MAR-2'54 U.S. POSTAGE 2¢

Defense Minerals Exploration Administration
Interior Building
Washington 25, D. C.

DMEA-3272

Exhibit No I





① **McKay Shaft:** Located 75 feet from West end line of RHD. This underground working indicates quantity of U_3O_8.

② RHD Shaft: On West End Line of claim. Dump shows U_3O_8.

③ St Anthony Shaft: Located on Two Sisters ground, but is an extension of RHD vein structure. Shows U_3O_8.. At St Anthony shaft, Two Sisters vein structure will lie 25 ft. South of RHD vein.

④ Two Sisters Shaft: Reported to be 700 feet Deep. Last worked by the Hazelwood Brothers on 350 ft. Level. This Dump gives a picture of a large quantity of good quality U_3O_8.

⑤ Claire Marie Shaft: Vein crosses between Two Sisters structure and Carroll vein structure. Dump readings are good. The Two Sisters shaft and Claire Marie shaft are reportedly connected by first level of the Two Sisters.

⑥ Carroll Shaft: This vein junctions with Claire Marie close to Carroll shaft, but no reports are available as to any under ground exploration from Carroll workings. Dump gives indications of a high grade pitchblend.

Legend

Scale 50 100 feet

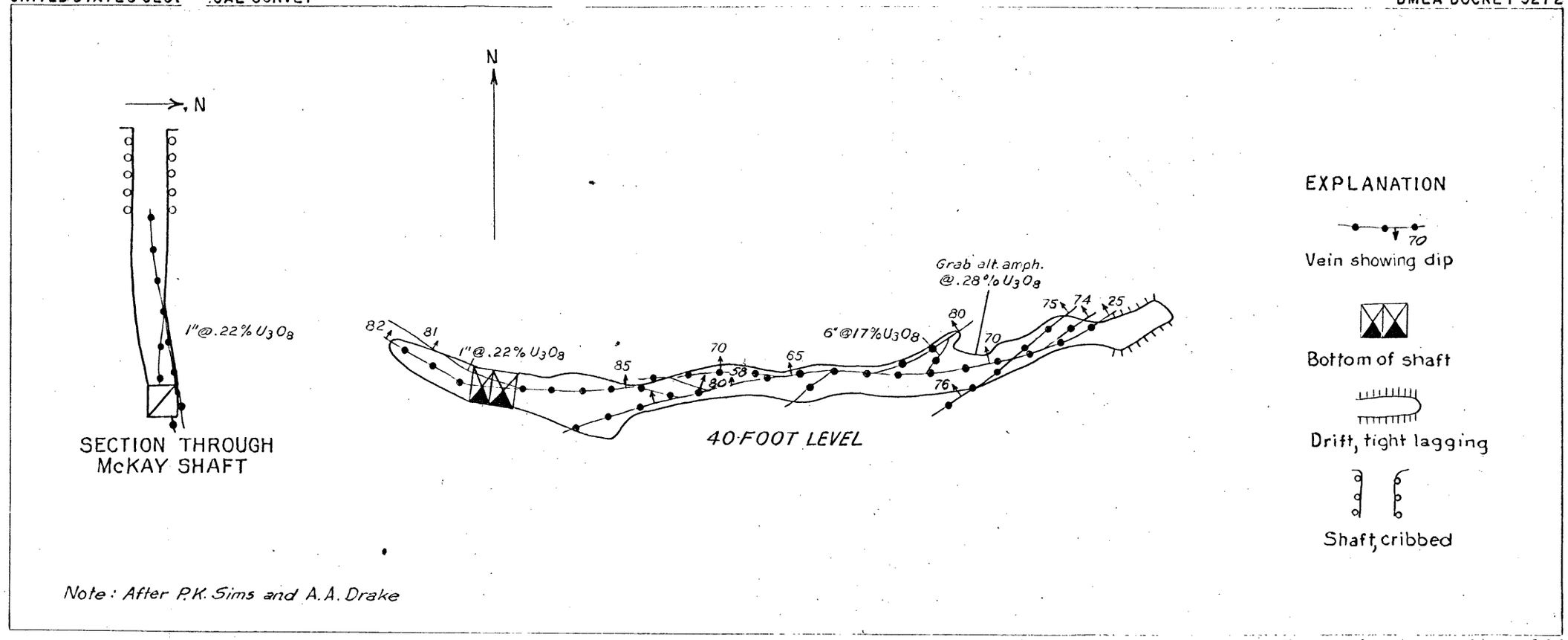
Stopes

Proposed Exploration

* Proposed Exploration ~~not~~ shown on Two Sisters. Subject to Geological findings.

** Underground working maps of Claire Marie are not available.

UNITED MINING & LEASING CORP. CENTRAL CITY, COLO. F.S.R 3-1-54



By D.R. MacLaren May 1954

FIGURE 4 – PLAN OF 40-FOOT LEVEL AND SECTION THROUGH SHAFT, McKAY MINE, UNITED MINING AND LEASING CORPORATION, GILPIN COUNTY, COLORADO.

20 10 0 20 Feet

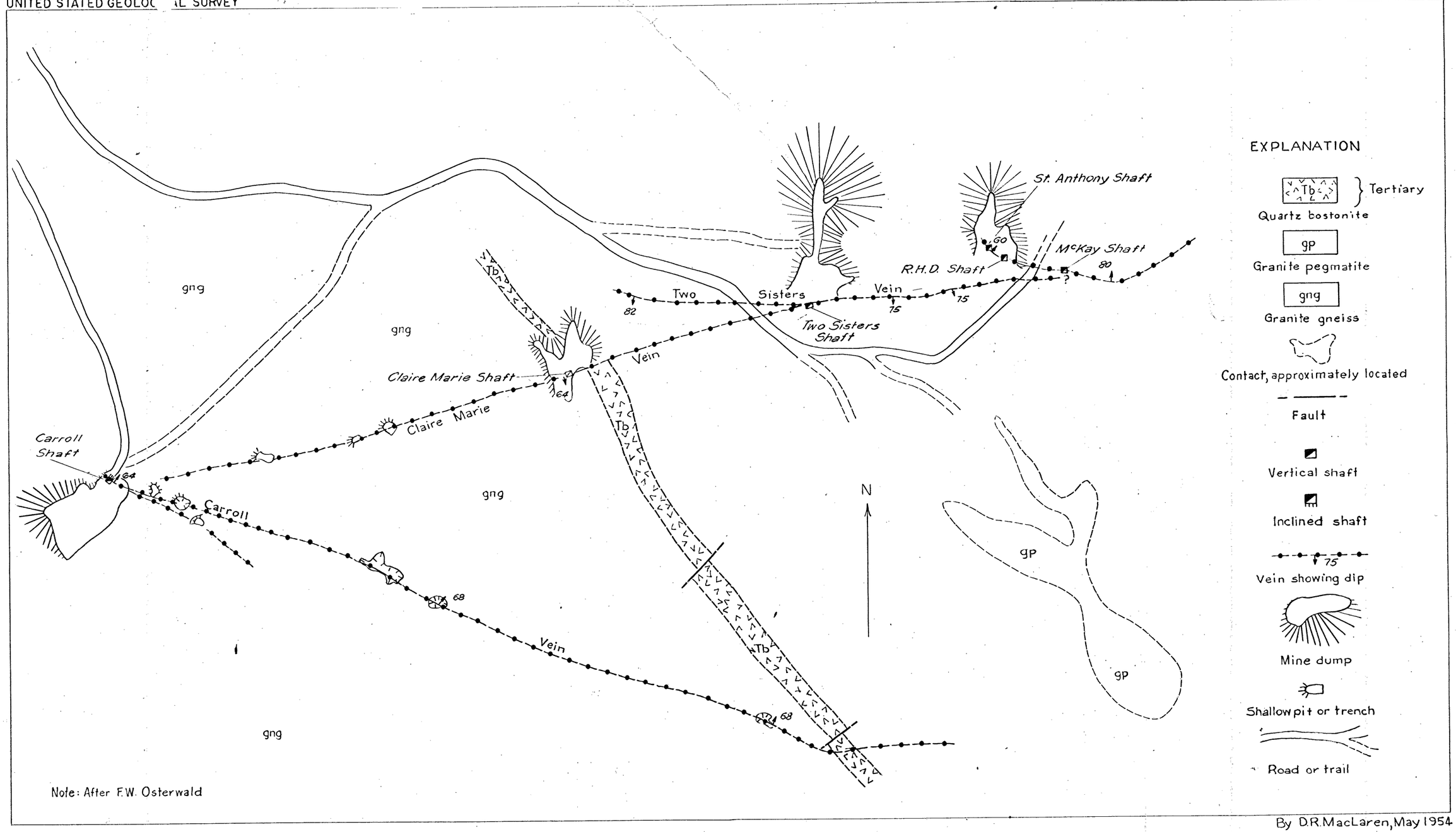


FIGURE 2— PLAN SHOWING SURFACE GEOLOGY, UNITED MINING AND LEASING CORPORATION, GILPIN COUNTY, COLORADO

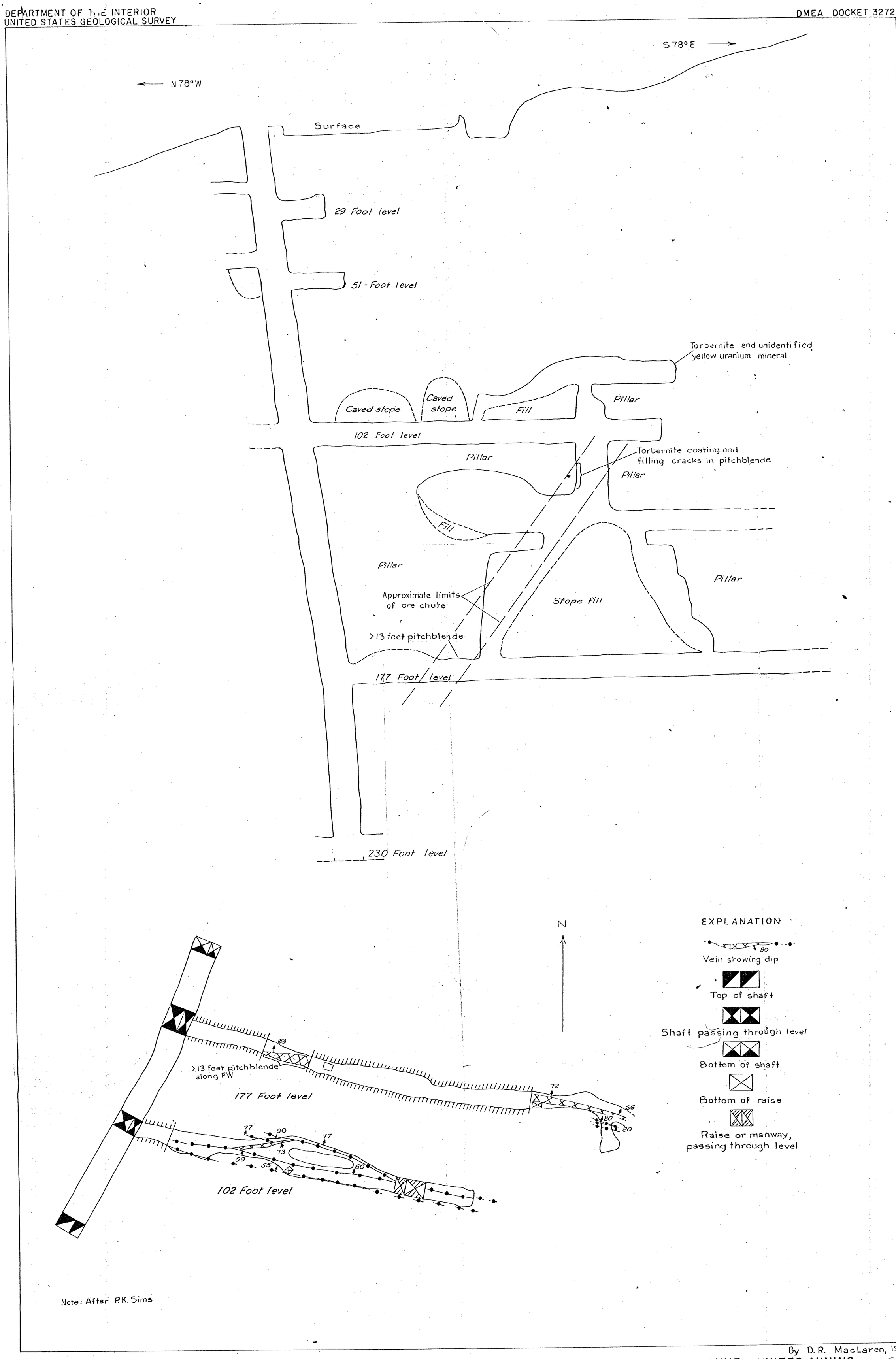


FIGURE 3 — COMPOSITE LEVEL PLAN AND VERTICAL PROJECTION OF MINE WORKINGS, CARROLL MINE, UNITED MINING AND LEASING CORPORATION, GILPIN COUNTY, COLORADO

United Mining & Leasing Coporation

Town Site of the City of Central.

Townsite.

Nevadaville

H.E.S. No 215 (Fritz Goebel)

H.E.S. No. 43

Jacob Tascher.

Sec. 11, T. 3 S., R. 73 W.