DMEA Form 9
Rev. 6/57

UNITED STATES
DEPARTMENT OF THE INTERIOR
~~Defense Minerals Exploration Administration~~
GEOLOGICAL SURVEY

OFFICIAL DOCKET FILE

Idm-E NO. -2233

DMEA NO. 0558

Application
- [ ] Denied
- [ ] Withdrawn

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

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

Folder No. 1:

Left Side

- [ ] Royalty Audits
- [x] Certification of Discovery
- [ ] Closing Letter
- [x] Cost Audits Jan. 1969
- [ ] Termination Notice or Agreement
- [ ] Recision Notice
- [ ] Assignment of Contract
- [x] Contract Amendments
- [✓] Contract with all exhibits and annexes
- [ ] Owner's Consent to Lien and Subordination Agreement
- [✓] Application and attachments

Right Side

- [ ] Project summary (final)
- [ ] Work Comoleted analysis (final)
- All other material filed in chronological order including the following reports if checked:
- [ ] Field Team Semi-Annual Report for Certified Project
- [x] Final Field Team Report (Tab) 12/68
- * [x] Operator's Final Report (Tab) *See brown expansion folder
- [ ] Interim Field Team Reports
- [x] Operator's monthly reports and all attachments
- [x] On-site Exam Report (Tab)
- [ ] Settlement Sheets
- [ ] Drill Logs

Additional Folders: #2 Maps + Vouchers

Left Side

Folders No. 2 : Reports
- [ ] Analysis of Semi-Annual Inspection Reports
- [ ] Project Summary (Interim) by DMEA Engineers

Right Side

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

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

Folders No. _____ : Settlement Sheets

Folders No. _____ : Drill Logs

Folders No. _____ : Royalty material

17963

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS:

That DOUBLE RAINBOW MINES, INC., a South Dakota corporation, by its officers and directors thereunto duly authorized, does hereby constitute and appoint JOHN PAUL GRIES, presently of 238 Saint Charles Street, Rapid City, South Dakota 57701, as and to be its true and lawful attorney in all matters arising out of that certain Exploration Contract numbered 2233 between the said Double Rainbow Mines, Inc., and the United States of America, Department of the Interior, U. S. Geological Survey, and in that connection to execute all vouchers for and on behalf of said corporation, receipt for funds received from any source for and on behalf of said corporation, and execute any other documents necessary or convenient to the performance of the Operator's obligations under said Exploration Contract, SAVE AND EXCEPT ONLY amendments or alterations to the terms of said Exploration Contract as it is now executed; and the said DOUBLE RAINBOW MINES, INC., a South Dakota corporation, through us, its duly authorized officers and directors, hereby ratifies and confirms all and whatsoever the said JOHN PAUL GRIES may lawfully do in the premises by virtue of these presents.

IN WITNESS WHEREOF, Double Rainbow Mines, Inc., has caused this instrument to be executed by its duly authorized officers and directors this 31st day of May, 1968.

DOUBLE RAINBOW MINES, INC.,
a South Dakota corporation

By Catherine B. Mayo
Catherine B. Mayo, Secretary
and director

James Hendrick Terry
James Hendrick Terry, director

STATE OF ARIZONA)
) ss
County of Pima)

On this, the 31st day of May, 1968, before me, the undersigned officer, personally appeared CATHERINE B. MAYO, who acknowledged herself to be the Secretary and a director of

see letter 5/3/68

DOUBLE RAINBOW MINES, INC., a South Dakota corporation, and JAMES HENDRICK TERRY, who acknowledged himself to be a director of said corporation, and that they, as such Secretary and director and as such director executed the foregoing POWER OF ATTORNEY for the purposes therein contained, by signing the name of the corporation by themselves as Secretary and director and as director, respectively.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Ann K. Weaver
Notary Public

My commission expires:
8-16-70

MME Form 7
(2/63)

OFFICIAL FILE CO

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SOLICITOR

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INTERIOR DEPT.

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FROM SOLICITOR

MAY 8 - 1969

FOR SIGNATURE

UNITED STATES OF AMERICA
CERTIFICATION OF POSSIBLE PRODUCTION
UNDER AN EXPLORATION CONTRACT

Double Rainbow Mines, Inc.
2251 Virginia Street
Berkeley, California 94709

Re: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

Pursuant to Article 7 of the referenced contract, as amended, the Government hereby certifies that mineral or metal production may be possible as a result of the exploration work.

Therefore, royalties shall be paid to the Government as provided in the contract from January 24, 1967, to January 24, 1979, or until the total amount contributed by the Government under the contract ($222,703.63) is fully repaid with interest at the rate of 7 percent per annum, whichever occurs first.

Royalty payments should be made in favor of the U. S. Geological Survey and mailed or delivered to the Field Officer, Office of Minerals Exploration, Region III, Room 203, Building 53, Denver Federal Center, Denver, Colorado 80225. Each payment should be accompanied by two copies of settlement sheets or other suitable sales evidence showing the date of sale, name of the purchaser, the quantity and grade of the production sold, the price per unit, and the gross proceeds and allowable deductions therefrom. The purchaser should be notified of the Government's royalty on production and directed to pay the royalty, computed as provided in the contract, directly to the Government.

The Field Officer should be promptly notified upon the commencement of any production and upon any extended cessation thereof. Production unsold or unused six months after extraction from the ground should be reported promptly to the Field Officer.

Reserves: 200,000 tons averaging 10.0 oz. Ag, 0.086 oz. Au, 2.0% Pb, 1.5% Zn
Value: Estimated net smelter value $3,310,000

Attention is specifically invited to the provisions of Article 2(c) of the contract referring to the preservation of the Government's royalty rights. Two true copies of any instrument transferring, surrendering, or encumbering any of said rights shall be furnished to the Field Officer.

Dated this 14th day of May, 1969.

THE UNITED STATES OF AMERICA

Harold Kirkemo

Chief, Office of Minerals Exploration
U. S. Geological Survey

Copy to:
Dowdall, Harris, Hull & Terry
250 North Church Avenue
Tucson, Arizona 85701
Attention: Anthony D. Terry

cc: Director's Reading File
Economic Geology File
Branch of Budget & Finance
Assoc. Sol. -- Room 6554
OME Docket
OME Region III
OME Reading File
Harold Kirkemo
130 (2)

HKirkemo/bsl 5/6/69

Government's Copy

EXPLORATION CONTRACT
DOUBLE RAINBOW MINES, INC.
OME-6558

AMENDMENT NO. 4

It is agreed this 16th day of May, 1968, between the United States of America, acting through the Department of the Interior, U. S. Geological Survey, hereinafter called the "Government," and Double Rainbow Mines, Inc., hereinafter called the "Operator," that Exploration Contract No. 2233 (OME-6558), dated January 24, 1967, as amended, is further amended effective March 1, 1968, as follows:

1. In Exhibit A, under the heading Description of the Work, the last paragraph beginning on page 4 and continuing on page 5, and the first full paragraph on page 5 are revised to read as follows:

"Starting from the shaft station established for the Lower contact workings, a drift shall be driven southwesterly approximately 700 feet, thence about 800 feet in drifts extending in southerly and northerly directions using trackless loading and hauling equipment to explore the Lower contact as indicated on Figure 4, entitled 'Proposed Trackless Drifts on Lower Contact, Double Rainbow Mine, Lawrence County, South Dakota,' which is attached hereto and made part hereof.

"About five slusher drifts totalling about 1,300 feet shall be driven to explore mineralized zones in the Lower contact from positions selected in the trackless drifts. The location, bearing, and length of individual drifts will be determined by the geological and operational factors encountered."

This amendment shall not be construed to increase the total estimated cost of the contract, the aggregate amount which the Government may be required to contribute, the amount of any item designated as maximum, nor the fixed unit cost of any item of work.

Executed in quadruplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By Frank E. Johnson
Chief, Office of Minerals Exploration
U. S. Geological Survey

DOUBLE RAINBOW MINES, INC.

By Catherine B. Mayo

Title secretary

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Asst. Sec. Int.
Kirkemo
Johnson
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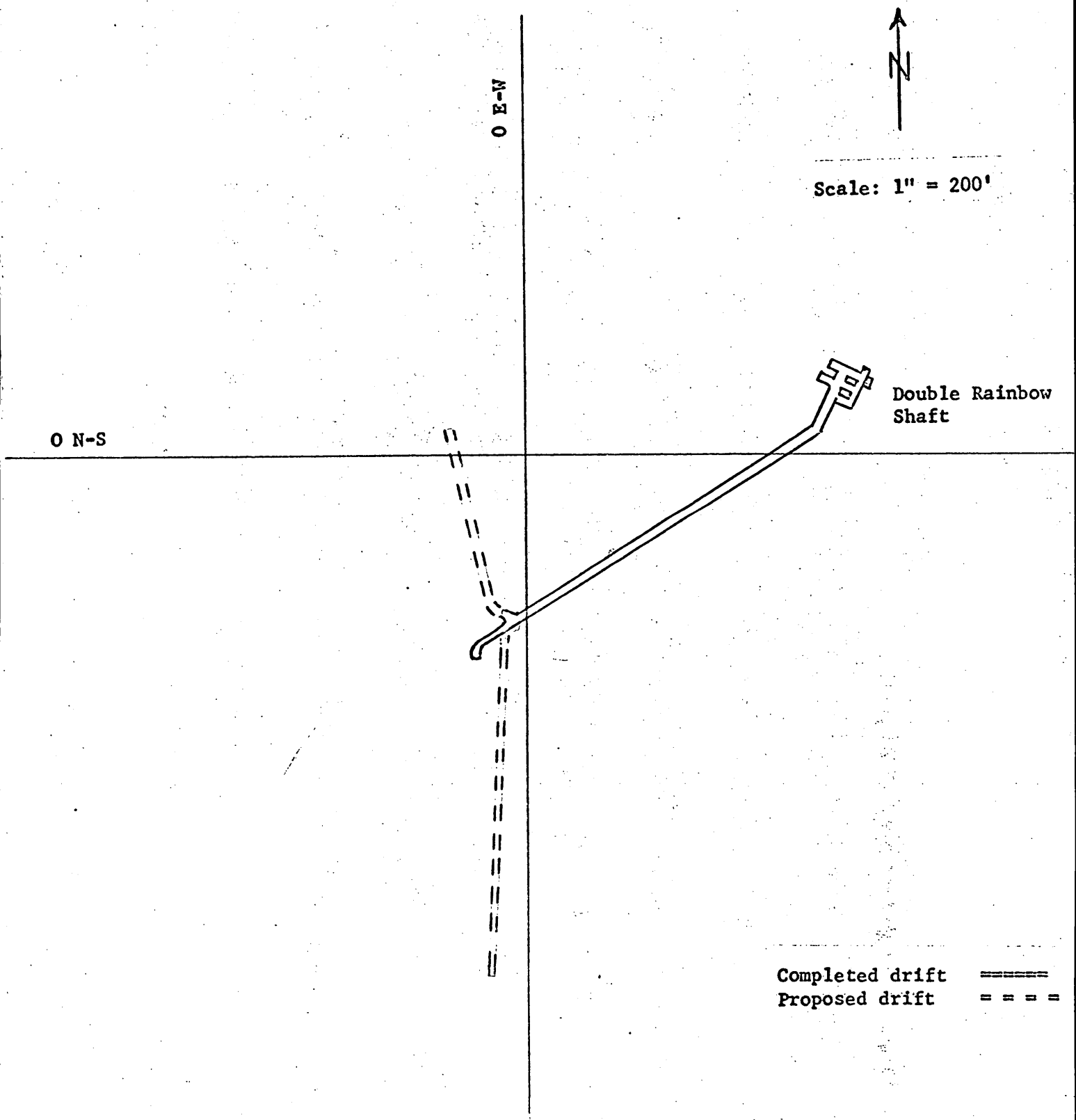
U. S. Geological Survey
Office of Minerals Exploration

OME - 6558
Double Rainbow Mines, Inc.



Proposed Trackless Drifts on Lower Contact
Double Rainbow Mine
Lawrence County, South Dakota

Figure 4

MME Form 7
(2/63)

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5/6	Johnson	
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May 6, 1968

Memorandum

To: The File

From: Assistant Chief, Office of Minerals Exploration

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

Justification for Amendment No. ~~3~~ 4

The original plan to extend the trackless drift about 800 feet south from the vicinity of Drill Hole N-6 cannot be followed because of evidence recently discovered by drilling. It has been found that either porphyry sills or faults offset the Lower contact ore horizon about 25 feet vertically in the area about 500 feet south of Drill Hole N-6. The proposed trackless drift could not be driven beyond the offset and remain within the Lower contact without resorting to an incline. Because of the operating limitation of the trackless equipment, the degree of inclination is limited, and to recover the faulted segment of the Lower contact would require about 150 feet of incline through barren rock formations overlying the Lower contact. While the remaining 150 feet of drift might be in the Lower contact horizon, it would be subject to flooding in the event excessive amounts of water were encountered in crossing the mineralized zones.

The Operator and the Field Officer consider that the 300-foot segment of the originally planned south drift discussed above could be better used to drift in a northerly direction from the vicinity of Drill Hole N-6. Pods and lenses of ore found in the trackless drift between the shaft and Drill Hole N-6 can be explored further by the proposed north drift. The more favorable structures can be selected as sites for the slusher drifts.

The original plan for the slusher drifts is revised in order to accommodate to the geological conditions and operating problems encountered as work proceeds on the project. The original plan as shown on Figure 3 of the contract was not flexible enough to permit on-site changes as the various factors dictated.

I concur in the Field Officer's recommendation to amend the contract as outlined above.

Harold Kirkemo

Harold Kirkemo

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

HKirkemo/gla 5-6-68

Government's copy

EXPLORATION CONTRACT
DOUBLE RAINBOW MINES, INC.
OME-6558

AMENDMENT NO. 3

It is agreed this 5th day of March, 1968, between the United States of America, acting through the Department of the Interior, U. S. Geological Survey, hereinafter called the "Government," and Double Rainbow Mines, Inc., hereinafter called the "Operator," that Exploration Contract No. 2233 (OME-6558), dated January 24, 1967, as amended, is further amended effective January 1, 1968 as follows:

1. In EXHIBIT A under the heading Estimated Costs of the Project, Fixed Unit Costs. -

A - The second item is revised to read as follows:

"Allowance for excess water in shaft sinking $ 800.00*

B - A sixth item is added to read as follows:

"Allowance for excess water in drifting and crosscutting on Lower contact level $10,640.00*

If water flow in excess of 250 gallons per minute is encountered while drifting and crosscutting on the Lower contact level, an increase of $4.00 per foot of drift or crosscut advanced thereafter, not exceeding 2,660 feet, is allowed."

This amendment shall not be construed to increase the estimated total cost of the contract, the aggregate amount which the Government may be required to contribute, the amount of any item designated as maximum, nor the fixed unit cost of any item of work.

Executed in quadruplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By Frank E. Johnson
Chief, Office of Minerals Exploration
U. S. Geological Survey

DOUBLE RAINBOW MINES, INC.
By Catherine B. Mayo
Title secretary + director

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MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
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February 23, 1968

Memorandum

To: The File

From: Assistant Chief
Office of Minerals Exploration

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

Justification for Amendment No. 3

The drift on the Lower contact level extending southwestward from the recently completed shaft at the Double Rainbow mine intersected fractures containing water in quantities exceeding the capacity of installed pumping equipment. As a consequence, workings would have been flooded and operations closed if larger capacity pumping equipment had not been installed. The excessive in-flow of water at the working face of the drift slowed operations, and added significantly to the cost of pumping.

An unknown volume of water exists in fractures and fissures that will be intersected by workings as they are advanced on the Lower contact level. An extra expense has been and will continue to be incurred for pumping excess water if the Operator is to complete the contract in the period specified in the contract.

The contract provided an allowance of $11,440 to handle excess water encountered in the process of sinking the shaft. Excess water was encountered only in the lower 32 feet of the shaft, and $800 was spent for the extra pumping required. A balance of $10,640 is available which can be applied to the cost of pumping excess water encountered in workings on the Lower contact level.

Proposed Amendment No. 3 would permit use of available funds originally allowed to handle excess water during shaft sinking operations to help defray the cost of handling excess water encountered in crosscutting and drifting on the Lower contact level.

I concur in the Field Officer's recommendation to amend the contract as outlined above.

Harold Kirkemo

Harold Kirkemo

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

HKirkemo/bsi 2/23/68

Government's copy

EXPLORATION CONTRACT
DOUBLE RAINBOW MINES, INC.
OME-6558

AMENDMENT NO. 2

It is agreed this 12th day of January, 1968 between the United States of America, acting through the Department of the Interior, U. S. Geological Survey, hereinafter called the "Government," and Double Rainbow Mines, Inc., hereinafter called the "Operator," that Exploration Contract No. 2233 (OME-6558), dated January 24, 1967, as amended, is further amended effective December 1, 1967 as follows:

1. In EXHIBIT A under the heading General Provisions the sixth paragraph on page 2 is revised to read as follows:

"Drifts and crosscuts intended for passage of trackless loading and hauling equipment shall be about 9 by 9 feet in cross section. Drifts and crosscuts wherein slusher equipment is used shall be about 6 by 6 feet in cross section."

This amendment shall not be construed to increase the estimated total cost of the contract, the aggregate amount which the Government may be required to contribute, the amount of any item designated as maximum, nor the fixed unit cost of any item of work.

Executed in quadruplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By Frank E. Johnson
Chief, Office of Minerals Exploration
U. S. Geological Survey

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DOUBLE RAINBOW MINES, INC.

By Catherine B. Mayo

Title Secretary

MME Form 7
(10-58)

OFFICIAL FILE

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JAN 3 1968

Memorandum

To: The File

From: Harold Kirkemo, Assistant Chief
Office of Minerals Exploration

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

Justification For Amendment No. 2

The Project Engineer, Mr. H. A. Kelly, in a letter dated December 4, 1967 to the Field Officer, OME Region III, requested permission to modify the cross section of the drift wherein trackless loading and hauling equipment will be used from 8 by 10 feet to 9 by 9 feet. The reason cited for the request is that the equipment requires greater height of drift opening than originally planned. The greater cross sectional area will entail breaking and moving a slightly greater volume of rock, but at no additional cost to the Government. The reduction in width of drift will not restrict installation of the necessary service lines or movement of equipment.

I have discussed this request with Mr. Hasler, Field Officer, Region III, and I concur in his recommendation that the amendment be prepared.

Harold Kirkemo

Harold Kirkemo

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

HKirkemo/bsl 1/3/68

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Government's copy

EXPLORATION CONTRACT
DOUBLE RAINBOW MINES, INC.
OME-6558

AMENDMENT NO. 1

It is agreed this 19th day of April, 1967, between the United States of America, acting through the Department of the Interior, U. S. Geological Survey, hereinafter called the "Government," and Double Rainbow Mines, Inc., hereinafter called the "Operator," that Exploration Contract No. 2233 (OME-6558), dated January 24, 1967, is amended effective the date of the contract as follows:

In Exhibit A, under the heading Description of the Work, the third paragraph on page 4, is revised to read as follows:

"Based on geological and engineering information obtained from diamond drilling and underground work completed prior to execution of this contract, a site for a vertical shaft shall be selected which will provide access for underground workings to be driven from the shaft on the Lower contact. The approximate location of the shaft is indicated on Figures 2 and 3. The approximate total depth of the shaft is 260 feet."

This amendment shall not be construed to increase the total estimated cost of the contract, the aggregate amount which the Government may be required to contribute, the amount of any item designated as maximum, nor the fixed unit cost of any item of work.

Executed in quadruplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By Francis E. Johnson
Chief, Office of Minerals Exploration
U. S. Geological Survey

DOUBLE RAINBOW MINES, INC.

By Leyford W. Barton

Title President

Long
Kirkemo
Johnson
Pilsgaard
Lewis

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
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April 10, 1967

Memorandum

To: The File

From: Harold Kirkemo, Office of Minerals Exploration

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

Justification for Amendment No. 1

Mr. Donald T. Delicate, Manager of Mining, Homestake Mining Company, the contractor performing the work on this contract for the Operator, wrote letters dated March 30 and April 4, 1967, to Mr. J. W. Hasler, Field Officer, Region III, Office of Minerals Exploration. In the first letter, Mr. Delicate reported that initial work involving drilling was started on the OME contract on March 29, and that excavation of the shaft collar would start within a few days. Upon receipt of a copy of this letter, the Washington Office, OME, requested, through Mr. Hasler, a clarification of this schedule because it was its understanding that selection of the site of the shaft was dependent upon stratigraphic information obtained from the surface drilling. In his second letter, Mr. Delicate explained the situation, and requested permission to proceed with the shaft as scheduled at the site proposed originally. The whole problem resulted from a misinterpretation by the Government of a statement in the application, and a provision in the contract that is too restrictive. The Operator did not notice or did not object to this provision before signing the contract. Not until the Government questioned the sequence of contract operations and Mr. Delicate explained the situation did it become apparent that there had been a mutual error. The Washington Office, OME, advised the Field Officer by phone April 10, 1967, that contract operations could proceed as requested by Mr. Delicate in his letter of April 4, and that an amendment would be prepared accordingly.

A statement on page 18, paragraph 2 in the application submitted by Double Rainbow Mines, Inc., reads in part as follows:

> "Approximately 2,000 feet of the proposed diamond drilling would be from the surface. This drilling would be used primarily to gain geologic information to be used in the final detailed layout of the underground work. . . . its main purpose is to provide stratigraphic information."

23263

It was surmised from this that layout of the proposed underground workings depended upon the location of the shaft, which, in turn, depended upon information obtained from the drill holes. The contract, therefore, was written to reflect this sequence of operations, but it was not specifically prepared as a staged contract wherein drilling would have to be completed before the shaft site was selected. The contract reads, in part, as follows, under Description of the Work, page 4:

> "Based principally on information obtained from the surface diamond drilling, and from such information as is useful from the underground drill holes, a site for a vertical shaft shall be selected which will provide access for underground workings to be driven from the shaft on the Lower contact."

The general dip and strike of the rock formations underlying the Double Rainbow mine area is known from the underground work and drilling completed before the OME application was submitted. The elevation of the Lower contact zone in which the underground workings will be driven is not known accurately at the site of the proposed shaft. The purpose of Hole 3S is to determine the elevation before the shaft station for this zone is established.

Selection of the site for the shaft was controlled by land ownership and topography. Any other site would have been either outside the boundaries of the Operator's land or in a location necessitating greater depth of shaft or additional length of drift from the shaft to the target area. Both of the latter alternatives would have increased the total cost of the contract. It is, therefore, in the best interests of the Government to amend the contract.

Harold Kirkemo

Harold Kirkemo

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

HKirkemo/gla 4-10-67

Government's copy

MME Form 50
July 1965

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
U. S. GEOLOGICAL SURVEY

EXPLORATION CONTRACT
(Long Form)

Docket No.	Commodity	Contract No.	County	State
OME-6558	Silver	2233	Lawrence	South Dakota

It is agreed JAN 24 1967 (Date), between the United States of America, acting through the Department of the Interior, U. S. Geological Survey, hereinafter called the "Government," and

Double Rainbow Mines, Inc., a South Dakota corporation

whose mailing address is 2251 Virginia Street, Berkeley, California 94709, hereinafter called the "Operator," as follows:

ARTICLE 1. Authority and scope.--(a) This contract entered into under the authority of Public Law 701, 85th Cong., 2d sess. (72 Stat. 700; 30 U.S.C. § 641 - 646), consists of this form, the attached Annex I (land description), Exhibit A (work and costs), and the maps and documents listed. The work is a search for new or unexplored deposits of the commodity designated above. The Operator shall begin the work on or before June 1, 1967 (Date), and, subject to the provisions of Article 9 and Exhibit A, shall either have completed the work within 24 months from the date of the contract or shall have incurred allowable costs (see Article 6) in a sum not less than the total cost set forth in Exhibit A.

(b) The total allowable cost of the work set forth in Exhibit A is $312,180.00. The Government will contribute 75 percent of the allowable costs as they are incurred, in a total sum not in excess of $234,135.00 in accordance with the provisions of Articles 3, 4, 5, and 6. "Costs incurred" means costs that have been paid or have become due and payable, or that the Government determines have become obligations.

(c) Interest computation.--Simple interest at the rate of 7 percent shall accrue from the dates Federal funds are made available until the period specified for payment of royalty expires, or until the amount of Federal funds contributed is fully repaid with interest.

(d) The Operator shall not transfer or assign this contract or any right or obligation thereunder without the written consent of the Government.

ARTICLE 2. Operator's right in land.--(a) The Operator represents and undertakes that Annex I correctly describes the land which is the subject of this contract and the nature of the Operator's right of property and possession therein (whether as owner, lessee, or otherwise), and that such right, title, or interest is subject only to the following claims, liens, or encumbrances:

See Annex I

(b) The Subordination Agreement of the holder of any claim, lien, or encumbrance listed above and (if the Operator does not hold the legal title) the lien agreement of any holder of the legal title of the land (lessor, seller, optionor, etc.) are attached as follows:

See Annex I

(c) The Operator shall preserve and maintain his right, title, or interest in the land and his right to the possession thereof for the purposes of this contract, and shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of this contract. The Operator shall neither transfer, convey, nor surrender the land nor any right, title, or interest therein, nor permit nor suffer any claim, lien, or encumbrance thereon, without expressly referring to and providing in the instrument of conveyance, lien, or encumbrance for the preservation of the Government's right to a royalty on production and liens for the payment thereof. Two true copies of such instrument shall be furnished to the Government. If the Government's rights to royalty as provided in Article 7 have been terminated, the provisions of this paragraph (c) shall become inapplicable.

ARTICLE 3. Performance of the work.--(a) Operator's responsibility.--The work shall be performed diligently, efficiently, in a workmanlike manner in accordance with good mining standards, and in compliance with State laws governing health, safety, and liability insurance covering employment. The Operator shall provide suitable and adequate equipment, facilities, materials, supplies, and labor to complete the work as specified in Article 1(a).

(b) Independent contracts.--To the extent that the allowable costs are estimated in Exhibit A with express reference to performance by independent contractors on a unit-price basis (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations), the work may be so performed (see Article 6(a), Category (1)). Any such independent contract shall refer to some specific and identifiable part of the work, and shall be subject to all of the pertinent terms and conditions of this exploration contract; but the Government shall not be considered a party thereto, and its rights under this contract, including the right to terminate its contributions, shall not be affected thereby. Regardless of the provisions of any such independent contract, the Government will participate in payments to the independent contractor only as to work performed in accordance with the provisions of this exploration contract, and only to the extent that the Government deems the unit prices for the work under the independent contract to be reasonable.

(c) Government may inspect.--The Operator shall consult with and inform the Government on all phases of the work as it progresses. The Government may enter at all reasonable times to inspect the work under the contract and production operations during the period that royalty is payable to the Government. The Operator shall provide the Government with all reasonable means of access for such inspections.

ARTICLE 4. Contribution by the Government.-- The Government will make its contribution on the basis of the monthly vouchers referred to in Article 5(b), but all payments by the Government are provisional only, subject to audit. Until the account between the Operator and the Government is finally audited and settled and the Operator's final report has been received, the Government may withhold such sums as are necessary to protect its interests. The Government may make payments for the account of the Operator directly to independent contractors and suppliers rather than to the Operator.

ARTICLE 5. Reports, accounts, audits.--(a) Operator's records.--The Operator shall keep suitable records and accounts of the work performed and of any production in which the Government may have an interest; and shall preserve those with respect to work performed for at least three years after final payment by the Government, and those with respect to production for at least three years after any obligation to pay royalties to the Government has terminated. The Government may inspect and audit said records and accounts at any time, either by itself or by a certified public accountant. The Comptroller General of the United States or his representative, until the expiration of said three-year periods, shall have access to and the right to examine all pertinent books, documents, papers, and records of the Operator. If work under this contract is carried on in conjunction with any other operations, or if labor, supervision, services, materials, supplies, equipment, facilities, or other requirements for carrying on the work are also used in connection with other operations, the costs shall be segregated and accounted for on a basis and by methods and accounts that are satisfactory to and approved by the Government.

(b) Monthly reports.--The Operator shall provide the Government with four copies of monthly reports in three sections as follows:

(1) Operator's Monthly Voucher claiming costs for work performed;

(2) Operator's Progress Report showing the number of units of the various types of work performed; and

(3) a narrative report of the work performed during the reporting period, including adequate engineering-geological maps or sketches, drill hole logs and locations, and assay reports on samples taken concurrently with advance in mineralized ground.

(Forms for reporting under (1) and (2) above will be provided by the Government; however, the original of the Operator's Monthly Voucher shall be supported by documentary evidence, such as certified copies or transcripts of payrolls and invoices, for all costs claimed under Article 6 (a) (1).)

(c) Final report.--Upon completion of the work or termination of the Government's obligation to contribute to costs, the Operator shall furnish the Government with three copies of a final report (in addition to the final monthly report). This final report shall include a geological and engineering evaluation of the results of the work performed under the contract with an estimate of the ore reserves resulting from such work, complete assay data, adequate geological and engineering maps or sketches, and a summary of the work performed and the related costs.

(d) Report of sales.--The Operator shall provide the Government with suitable accounting and documentary evidence covering all production to which the Government's royalty relates, such as two copies of smelter or concentrator settlement sheets and certified accounts of production and sale or other disposition of production.

(e) Compliance with requirements.--If the Government determines that any of the Operator's reports, records, or accounts are insufficient or incomplete, or if the Operator fails to make them, the Government may procure the preparation or completion of the same with suitable attachments as an expense of the work to which the Operator shall contribute. The Government may withhold approval and payment of any vouchers relating to insufficient or incomplete reports, records, or accounts.

ARTICLE 6. Costs.--(a) Allowable costs.--The allowable costs of the work to which the Government will contribute are limited to:

(1) the necessary, reasonable, and direct actual costs that are estimated in Exhibit A by categories as specified in this article; and

(2) fixed costs for units of work to be performed (per foot, per hour, etc.) agreed upon in lieu of actual costs and set forth in Exhibit A.

The Government will not contribute to costs under any category or subcategory omitted from the estimate of costs in Exhibit A. Any excess over any estimate which is indicated as the maximum of any category, subcategory, or item, either as to requirement or related cost; any excess over a fixed unit cost; and any excess over the total allowable cost of the work are not allowable. The Operator shall incur such excesses for his own account without contribution by the Government, but the Operator is not obligated to incur more than his agreed percentage of the total allowable cost of the work.

Any category or subcategory or element thereof not designated as a maximum in this article, or in Exhibit A may be exceeded, provided that the total allowable cost of the work, which is a maximum, is not exceeded.

CATEGORY (1)--INDEPENDENT CONTRACTS.--(See Article 3(b)). The total of this category and the average unit cost estimated for each type of work to be performed under an independent contract are maximums.

CATEGORY (2)--PERSONAL SERVICES.

Subcategory (a)--Supervision and Technical Services--All elements of this subcategory (number of supervisors, technicians, outside consultants, periods of employment, rates of pay, and total) are maximums.

Subcategory (b)--Labor.

CATEGORY (3)--OPERATING MATERIALS AND SUPPLIES.--Includes such items as drill bits and steel, explosives, fuel, pipe, power, timber, rail, and small tools costing less than $50 each.

CATEGORY (4)--OPERATING EQUIPMENT.

Subcategory (a)--Rental.--The number of each rented item [6 mine cars, 1 truck], the rate of rental [$100 per month, $5 per hour], and the total of this subcategory are maximums.

Subcategory (b)--Purchases.--The total of this subcategory is a maximum.

Subcategory (c)--Depreciation.--All elements of this subcategory (time periods, rate of depreciation, and subcategory total) are maximums.

CATEGORY (5)--INITIAL REHABILITATION AND REPAIRS.--Costs of items listed under this category include all requirements, such as labor, materials and supplies, and supervision at a rate not higher than provided for in Category (2), and shall not be duplicated under any other category. The total of this category is a maximum.

Subcategory (a)--Initial rehabilitation and repairs of existing buildings, fixtures, and installations (exclusive of mine workings).--The total of this subcategory is a maximum.

Subcategory (b)--Initial rehabilitation and repairs of operating equipment.--The total of this subcategory is a maximum.

CATEGORY (6)--NEW BUILDINGS, FIXTURES, AND INSTALLATIONS (EXCLUSIVE OF MINE WORKINGS).--Costs of items listed under this category include all requirements, such as labor, materials and supplies, and supervision at a rate not higher than provided for in Category (2), and shall not be duplicated under any other category. The total of this category is a maximum.

CATEGORY (7)--MISCELLANEOUS.--Includes requirements and costs that do not fall within any of the first six categories, such as repairs other than initial and maintenance of operating equipment, analytical work, prints and other reproductions, accounting, Operator's share of payroll taxes, liability insurance covering employment, travel, and communications.

(b) Nonallowable costs.--In addition to the limitations imposed by paragraph (a) of this Article 6 the Government will not contribute to the following costs:

(1) Costs of the land, such as rental, depreciation, depletion, or other costs of acquiring, owning, or holding possession;

(2) Indirect costs, such as general overhead, corporate management, interest, taxes (other than payroll and sales taxes), insurance (other than liability insurance covering employment), damages to persons, damages to property (other than necessary repairs or replacements of equipment or other property used in the work);

(3) Previous work performed or costs incurred before the date of this contract; and

(4) Deferred payments.--Any costs incurred by the Operator under any rental-purchase agreement, installment-purchase agreement, or any agreement for the purchase of goods under the provisions of which payment of the full purchase price is deferred more than 90 days from the delivery of the goods, unless the purchase agreement is approved by the Government in writing.

(c) Reductions in costs.--The Operator shall account for and give the Government credit for any incidental benefits, credits, or money received in the ordinary course of business in prosecuting the work (as by salvage or sale of materials or equipment, furnishing of room or board, furnishing of power or services to third persons, rebates or discounts on purchases, etc.), in the same ratio in which the Government contributes to costs; and such amounts shall be treated as a reduction in costs incurred so that they are available for use within the limit of the original total cost. The provision does not apply to receipts from production which are subject to the Government's royalty under the provisions of Article 7.

ARTICLE 7. Repayment by Operator.--(a) Certification.--If the Government considers that mineral or metal production from the land covered by the contract may be possible as a result of the exploration work, it shall so certify in writing to the Operator at any time not later than six months after a sufficient final report and final accounting (see Article 5) have been furnished.

(b) Royalty on production.--The Operator, whether or not the producer (for example, if the Operator either transfers or does not retains his interest in the land), shall pay to the Government a royalty on all minerals and metals mined or produced from the land as follows:

(1) irrespective of any certification of possible production--from the date of the contract until the lapse of the time within which the government may issue such certification or until the total net amount contributed by the Government is fully repaid with interest, whichever occurs first; or

(2) if the Government issues a certification of possible production--for a period of twelve years from the date of the contract, or until the total net amount contributed by the Government is fully repaid with interest, whichever occurs first.

(c) Payment of royalty.--(1) The Government's royalty shall be five percent of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, concentrate, metal or equivalent), at the point of delivery (the f.o.b. point); except, that charges of the buyer arising in the regular course of business and shown as deductions on the buyer's settlement sheets (such as treatment processes performed by the buyer, sampling and assaying to determine the value of the production sold, and freight payable by the buyer to a carrier (not the Operator or producer)), shall be allowed as deductions in arriving at the "gross proceeds" as that term is used herein. No costs of the Operator or Producer are deductible in arriving at the "gross proceeds" as that term is here used.

The term "treatment processes" means those processes (such as milling, concentrating, smelting, refining, or equivalent, but excluding fabricating or manufacturing) applied to the crude ore or other production after it is extracted from the ground to put it into a commercially marketable form.

(2) The Government's royalty shall be computed and paid currently upon each lot sold, held, or used in integrated operations, as the case may be.

(d) Unsold production.--If any production (ore, concentrate, metal, or equivalent), after the lapse of six months from the date the ore was extracted from the ground, remains neither sold nor used in integrated manufacturing or fabricating operations (for instance, if it is stockpiled), the Government, at its option, as long as it so remains, may require the computation and payment of its royalty on the value of such production in the form (ore, concentrate, metal, or equivalent) it is in when the Government elects to require computation and payment. If any production is used in integrated manufacturing or fabricating operations before the Government makes its election, the Government's royalty on such production shall be computed on the value thereof in the form in which and at the time it is so used. "Value" as here used means what is or would be gross income from mining operations for percentage depletion purposes in Federal income tax determination or the market value, whichever is greater.

(e) Lien for payment.--To secure the payment of royalty (see Article 7(b)), the Operator hereby grants to the Government a lien upon his interest in the land and upon any production of minerals and metals therefrom until the royalty claim is extinguished by lapse of time or is fully paid.

(f) Notice to purchasers.--The Operator or producer shall give notice of the Government's claim for royalty to any purchaser of the production, and shall authorize and direct such purchaser to pay the royalty directly to the Government and to furnish the Government with copies of the settlement sheets. If the records of any production and sales or other disposition of production, whether the production is by the Operator or by others, are not made available to the Government, the amount of the royalty may be estimated by the Government, and this estimate shall be final and binding upon the Operator or producer.

(g) No obligation to produce.--Nothing in this contract shall be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any production operations.

(h) Government not obligated to buy.--Nothing in this contract shall be construed as imposing any obligation on the Government to purchase any minerals and metals mined or produced from the land.

ARTICLE 8. Interests in purchased property.--(a) Title and ownership.--All costs under this contract shall be incurred by the Operator in the Operator's own name and for the Operator's own account; but any property acquired to the cost of which the Government contributes shall belong to the Operator and the Government jointly in proportion to their respective contributions although title thereto shall be taken in the name of the Operator.

(b) Preservation of property.--Until the final disposal of any property in which the Government has an interest, the Operator shall preserve and protect same for the best interest of the Government, and any reasonable and necessary cost thereof will be treated as an allowable cost of the exploration. After the completion of the work, termination of the Government's obligation to contribute, or when such property is not being used for the work, the Operator shall not use it elsewhere without the written consent of the Government and without paying a reasonable rental to be fixed by the Government for its proportionate interest.

(c) Disposal of property.--Upon the completion of the work, termination of the Government's obligation to contribute to costs, or when the property is no longer needed for the work, the Operator shall promptly dispose of salable or salvageable property in which the Government has an interest for the joint account of the Government and the Operator, either by return to the vendor, sale to others, purchase by the Operator, or sale or transfer to the Government at a price at least as high as could be obtained from others, unless the Government in writing waives its interest in any such property. Without advance approval of the sales price by the Government, the Operator shall not sell at any price any item of property that cost more than $500, and shall not sell at less than 25 percent of the purchase price any item of property that cost $500 or less. The Government, in lieu of approving the sales price for any such item, may itself purchase the item at the best price which the Operator is able to obtain or offers. Property remaining upon any termination of the work shall be considered in groups or categories (such as drill steel, explosives, pipe, or rail), and if the original cost of the remaining unexpended portion of any such group or category is less than $50, the Government waives its interest therein. If necessary to accomplish the disposal of any item, the Operator shall dismantle and sever it from the land, the cost thereof to be treated as a cost of the exploration.

(d) Default of the Operator re disposal.--If within 90 days after the completion of the work, termination of the Government's obligation to contribute to costs, or after the property is no longer needed for the work, the Operator has failed to sell or otherwise liquidate or dispose of any property in which the Government has an interest, the Government, at any time prior to final settlement under the contract, may:

(1) in writing extend the time within which the Operator must dispose of or liquidate the property;

(2) by written notice to the Operator, place upon such property what it determines to be a fair valuation thereof, not in excess of the cost less 1.66 percent per month from the date such property was purchased under this contract to the termination of said 90-day period; and such property shall thereupon be considered and accounted for as having been purchased by the Operator at the valuation so fixed by the Government; and

(3) enter and take possession of such property wherever it may be found, and remove and dispose of it for the joint account of the parties.

ARTICLE 9. Termination of the Government's obligations.--(a) If the Government determines that operations at any time have failed to achieve anticipated results and further work is not justified, the Government may give the Operator written notice thereof, and thereupon:

(1) the Government shall be free of all obligation to contribute to costs not then incurred other than such as may be allowable under the provisions of the contract as necessary and incidental to final accounting and reporting; and

(2) the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to final accounting and reporting.

(b) If the Government determines that the Operator is in default under the terms of the contract, the Government may give the Operator written notice of such default with a specification of reasonable time within which the default must be cured; and if the Operator fails to cure such default as required, thereupon:

(1) the Government shall be relieved of all obligation to contribute to costs not incurred when the notice was given, other than such as may be allowable by the provisions of the contract as necessary and incidental to final accounting and reporting; and

(2) the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to final accounting and reporting.

The Government may also avail itself of any other remedy the law may provide for breach of contract, including the right to rescind the contract and to demand repayment of all moneys contributed by the Government under the contract.

(c) The giving of any notice by the Government under the provisions of this Article 9 shall not affect the Government's rights as provided for in the contract with respect to royalty and liens to secure the payment thereof, and such rights shall be fully preserved.

(d) The determinations of the Government are subject to appeal under Article 13.

ARTICLE 10. Notices to be given by the Government may be delivered to the Operator, or may be sent by certified mail addressed to the Operator at his mailing address stated in this contract. If mailed, notices are deemed to have been delivered five days after the date of mailing.

ARTICLE 11. Officials not to benefit.--No member of or delegate to Congress or resident commissioner shall be admitted to any share or part of this contract or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

ARTICLE 12. Nondiscrimination in Employment. The provisions respecting nondiscrimination in employment which are required by section 301 of Executive Order 10925, dated March 6, 1961 as amended and supplemented are attached hereto as Exhibit B and are hereby incorporated in and made a part of this contract.

ARTICLE 13. Disputes.--Any dispute arising under this contract which is not disposed of by agreement shall be decided by the Director, U. S. Geological Survey, who shall reduce his decision to writing and mail or otherwise furnish a copy thereof to the Operator. The decision of the Director, U. S. Geological Survey, shall be final and conclusive unless, within 30 days from the date of receipt of such copy, the Operator mails or otherwise furnishes to the Director, U. S. Geological Survey, a written appeal addressed to the Secretary of the Interior. The decision of the Secretary or his duly authorized representative for the determination of such appeals shall be final and conclusive unless determined by a court of competent jurisdiction to have been fraudulent, or capricious, or arbitrary, or so grossly erroneous as necessarily to imply bad faith, or not supported by substantial evidence.

The term "Director, U. S. Geological Survey," as used herein includes his duly authorized representative.

ARTICLE 14. Work Hours Act of 1962 - Overtime Compensation.--This contract, to the extent that it is of a character specified in the Work Hours Act of 1962 (Public Law 87-581, 76 Stat. 357-360) and is not covered by the Walsh-Healey Public Contracts Act (41 U.S.C. 35-45), is subject to the following provisions and to all other provisions and exceptions of said Work Hours Act of 1962.

(a) Overtime requirements.--No Operator or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any laborer or mechanic to be employed on such work in excess of eight hours in any calendar day or in excess of forty hours in any workweek unless such laborer or mechanic receives compensation at a rate of not less than one and one-half times his basic rate of pay for all hours worked in excess of eight hours in any such calendar day or in excess of forty hours in any such workweek, as the case may be.

(b) Violations; liability for unpaid wages; liquidated damages.--In the event of any violation of the clause set forth in subparagraph (a) of this paragraph, the Operator and any subcontractor responsible therefor shall be liable to any affected employee for his unpaid wages. In addition, such Operator and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for

liquidated damages. Such liquidated damages shall be computed, with respect to each individual laborer or mechanic employed in violation of the clause set forth in subparagraph (a) of this paragraph, in the sum of $10 for each calendar day on which such employee was required or permitted to work in excess of eight hours or in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in subparagraph (a) of this paragraph.

(c) Withholding for unpaid wages and liquidated damages.--The U. S. Geological Survey may withhold or cause to be withheld, from any moneys payable on account of work performed by the Operator or subcontractor, such sums as may administratively be determined to be necessary to satisfy any liabilities of such Operator or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in subparagraph (b) of this paragraph.

ARTICLE 15. Copeland (Anti-Kickback) Act--Nonrebate of wages.--The regulations of the Secretary of Labor applicable to contractors and subcontractors (29 CFR, Part 3), made pursuant to the Copeland Act, as amended (40 U. S. C. 276c) and to aid in the enforcement of the Anti-Kickback Act (18 U. S. C. 874) are made a part of this contract by reference. The Operator will comply with these regulations and any amendments or modifications thereof and will be responsible for the submission of affidavits required of independent contractors thereunder. The foregoing shall apply except as the Secretary of Labor may specifically provide for reasonable limitations, variations, tolerances, and exemptions.

ARTICLE 16. Changes and added provision.--

Executed in quintuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

DOUBLE RAINBOW MINES, INC.
(Operator)

By Rexford W. Barton
President and Director

CSM Catherine B. Mayo
Title ~~Vice President~~
Secretary and Director

By Arthur R. Baker
Acting Director, U. S. Geological Survey

Long
Kirkemo
Johnson
Kidsgaard
Bergin

I, CATHERINE B. MAYO, certify that I am the
(Name)

secretary of the corporation named as Operator herein; that REXFORD W. BARTON and CATHERINE B. MAYO, who signed this contract on behalf of the Operator, was then
(Name)

President and Secretary, rexpectively, of said corporation; that said contract was duly signed for
(Title)

and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

CSM Catherine B. Mayo

[CORPORATE SEAL]

EXPLORATION CONTRACT
DOUBLE RAINBOW MINES, INC.
OME-6558

ANNEX I

The land referred to in Article 2 of the contract consists of twenty-nine (29) patented lode mining claims, and one (1) unpatented lode mining claim situated in sections 3, 4, 9, and 10, T. 4 W., R. 4 E., Black Hills Meridian, Galena district, Lawrence County, South Dakota.

These claims are shown on Figure 1, entitled "Double Rainbow Mine Claim Map, Lawrence County, South Dakota," which is attached hereto and made part hereof.

The patented claims in the group are as follows:

Claims	Survey No.	Claims	Survey No.
Merritt No. 1	73	Grand View	365
Merritt No. 2	133	Ora Flamme	384
Florence	163	Sleeper	1980
Chicago	334	George B. McClellan	2031
Sitting Bull	336	Gorman	2031
Richmond	345	Bank of Dakota	1901
Tiger Tail	333	Teddy	1901
Center Fraction	2030	Fissure	1901
Grand View Fraction Lode	366	Bed Rock	1901
Silver Terra	364	Gulch	1901
Mountain	1640	Gray Eagle	1901
Custer	919	Camillus	1901
Rock Hill	1639	Margaret	1901
Savage	372	Wabash	1901
		War Eagle	1901

The unpatented claim is recorded in the Lawrence County Courthouse, Deadwood, South Dakota, as follows:

Rattle Fraction	Book 240, page 286

The Operator is the sole owner of the surface and mineral rights on the property described above with the exception of the surface rights to approximately 1.80 acres of the Merritt No. 1 claim which are in conflict with a patented placer claim (Galena Placer, M. S., No. 692). Because the area of conflict is more than one-quarter mile from the site of the proposed work, the surface rights in such land are not essential to the Government's interest. The requirement for a Lien and Subordination Agreements is hereby waived.

EXPLORATION CONTRACT
DOUBLE RAINBOW MINES, INC.
OME-6558

EXHIBIT A

The purpose of this project is to explore for silver-bearing ore deposits occurring as replacement bodies associated with three dolomitic zones referred to as the Upper, Lower, and Basal contacts in the Deadwood formation of Cambrian age, and with sedimentary and metamorphic rocks at the base of the Deadwood formation overlying Precambrian rocks.

The work shall be performed by diamond core drilling from the surface and from underground workings, and by shaft sinking, cross-cutting, and drifting.

General Provisions

No drilling or underground work shall be done within 100 feet of the exterior boundaries of the land outlined on Figure 1.

The location, direction, and extent of each work item shall be subject to prior Government approval. The Government will not participate in the costs incurred for incomplete drill holes or for casing left in holes at the request of the Operator.

All surface diamond drill holes shall be cased through overburden and completed with standard BX (nominal diameter 1-5/8") core size or equivalent wire line size equipment.

All diamond drill holes drilled from underground locations shall be completed with standard AX (nominal diameter 1-1/8") core size or equivalent wire line size equipment.

Significantly mineralized core shall be split and one split assayed for silver and gold. Where indicated by the mineralization, the core may be assayed also for lead and zinc. No sample shall represent a core length greater than five feet. The remaining core shall be stored in proper sequence with the unmineralized core.

Facilities shall be provided for recovering drill sludges. Sludge samples shall be retained when drilling in significantly mineralized rock.

Diamond drill core shall be stored in boxes identified as to hole number with markers in the core sections indicating the depth represented. Sludge samples shall be stored in suitable containers properly identified as to source and location. The stored core and sludge samples shall be retained for Government inspection and possible use. With prior Government approval, the Operator may dispose of the core and sludge samples.

All significantly mineralized areas intersected by underground workings shall be sampled and assayed. A representative bulk sample shall be collected from each round broken in mineralized rock. Channel or chip samples shall be cut normal to the trends of the mineralized areas at intervals of not more than 5 feet. Each sample shall be split and one split assayed for silver and gold and, if warranted by inspection, for lead and zinc. The remainder of each sample shall be stored and identified in a suitable container for Government inspection and possible use. With prior Government approval, the Operator may dispose of the stored samples.

True copies of assay certificates of all samples shall be submitted with the Operator's monthly report which shall include also a map, sketch, or cross section showing the work completed during the reporting period and the locations of all samples taken from drill core and underground workings.

All drill holes and underground workings shall be logged or mapped geologically and copies of the logs of completed holes and maps of workings shall likewise be submitted with the Operator's monthly report.

The vertical shaft shall be not less than 7'4" by 15'4" outside timber, and shall be divided into three compartments. Ladders throughout and landings at vertical intervals of not more than 20 feet shall be installed in a manway compartment.

Drifts and crosscuts intended for passage of trackless loading and hauling equipment shall be not less than 8 by 10 feet in cross section. Drifts and crosscuts wherein slusher equipment is used shall be not less than 6 by 6 feet in cross section. 8 x 8

The underground workings shall be rock bolted or timbered to the extent necessary and proper. The Government's contribution shall be limited by the total estimated for the item, Rock bolting, listed under Estimated Costs of the Project.

Air lines shall be not less than 3-inch diameter, water lines not less than 1-inch diameter, and ventilation pipe not less than 14-inch diameter in all drifts except slusher drifts. Either a 2-inch diameter pipe or two 1-inch diameter hoses shall be used for slusher drift air lines. Vent tubing of 12-inch minimum diameter shall be used for ventilation of slusher drifts while drilling. In the event track haulage is used, mine rails shall be not less than 20-pound size.

The Operator shall provide such supervision, labor, and technical services as may be required to complete the work in a satisfactory manner.

The Operator at its own cost and expense shall rehabilitate and repair mine workings and installations on the Upper contact level which are necessary for access and operation of the exploration work on that level specified in the contract. The Operator also shall bear the total cost and expense of surface construction necessary for operation of the project.

Description of the Work

The work shall consist of diamond core drilling from surface and underground sites approximately 13 holes totalling about 6,110 feet, sinking a vertical shaft about 260 feet, excavating a station, sump, and loading pocket, and drifting a total of 4,200 feet on two levels, the Upper and Lower contacts.

The approximate locations of the work described are shown in plan view on Figure 2, entitled "Double Rainbow Mine Proposed Underground Exploration Work, Upper Contact," and on Figure 3, entitled "Double Rainbow Proposed Underground Exploration Work, Lower Contact," which are attached hereto and made part hereof.

Four holes, Nos. 1S-4S, inclusive, totalling about 2,635 feet shall be drilled from the surface at sites located approximately as indicated in red color on Figure 2.

Nine holes, Nos. 1U-9U, inclusive, totalling about 3,475 feet shall be drilled from the Richmond-Sitting Bull mine workings on the Upper contact at sites located approximately as indicated in blue color on Figure 3.

All holes presently planned are to be drilled vertically unless results of drilling dictate changes in the plan for subsequent holes. The geological targets and the possible depths of the holes are as follows:

Geological Targets

Hole No.	Upper Contact	Lower Contact	Basal Contact and Precambrian Rocks	Approximate Maximum Depth of Hole, feet
1S	X	X	X	750
2S	X	X		650
3S	X	X	X	535
4S	X	X	X	700
1U thru 8U		X		340-370
9U		X	X	640

Holes intended to cut the Basal contact and basement rocks should penetrate about 25 feet into Precambrian rocks.

Unused footage remaining from the above described drilling program may be used as warranted within the limits of available drilling funds.

Based principally on information obtained from the surface diamond drilling, and from such information as is useful from the underground drill holes, a site for a vertical shaft shall be selected which will provide access for underground workings to be driven from the shaft on the Lower contact. The approximate location of the shaft is indicated on Figures 2 and 3. The approximate total depth of the shaft is 260 feet.

A shaft station, rock storage pocket, and sump shall be excavated for servicing the workings to be driven on the Lower contact.

Four slusher drifts totalling 1,400 feet shall be driven on the Upper contact from the Richmond-Sitting Bull mine workings and the McClellan tunnel as indicated on Figure 2.

Starting from the shaft station established for the Lower contact workings, a drift shall be driven southwesterly approximately

700 feet, thence southerly approximately 800 feet using trackless loading and hauling equipment to explore the Lower contact as indicated on Figure 3.

From positions selected in the trackless drift, about five slusher drifts totalling about 1,300 feet shall be driven to explore mineralized zones in the Lower contact as indicated on Figure 3.

Estimated Costs of the Project

Actual Costs

Category (1) Independent Contracts		
Drilling, 6,110 feet [1]	$ 28,548.00	$ 28,548.00
1,985 feet from surface sites into Precambrian rocks, BX @ $6.50/foot		
650 feet from surface site through Lower contact, BX @ $6.00/foot		
3,475 feet from underground sites, AX @ $3.38/foot		
Category (2) Personal Services		
None except:		
Subcategory (a) Supervision and Technical Services		
1 - Outside geological consultant 30 days @ $75.00/day	$ 2,250.00	$ 2,250.00
Category (7) Miscellaneous		
None except:		
Consultant's per diem 30 days @ $16.00/day	$ 480.00	
Consultant's travel expenses, 1,825 miles @ $0.12/mile	219.00	699.00

Total Estimated Actual Costs (rounded)		$ 31,500.00

Fixed Unit Costs

Shaft sinking, 260 feet @ $220.00/foot 1/	$ 57,200.00	
Allowance for excess water in shaft sinking	11,440.00*	
If water flow in excess of 50 gallons per minute is encountered during shaft sinking, an increase of $25.00 per foot of shaft sunk thereafter is allowed for each 50-gallon-per-minute increase in water flow.		
Excavate shaft station, sump, and loading pocket, including installation of skip loader, 9,000 cubic feet @ $2.16/cubic foot.	19,440.00*	
Rock bolting	4,348.00	
5-foot bolts @ $3.00 each, installed		
8-foot bolts @ $3.50 each, installed		
Drifting, 4,200 feet 1/ (rounded)	188,250.00	
Slusher drift, Upper contact, 1,400 feet @ $35.00/foot		
Slusher drift, Lower contact, 1,300 feet @ $41.73/foot		
Trackless drift, Lower contact, 1,500 feet @ $56.67/foot		
Total Estimated Fixed Unit Costs (rounded)		$280,680.00

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* Maximum

1/ Includes all costs whatsoever such as mobilization and demobilization, labor, equipment, materials and supplies, services, taxes, insurance, supervision, assays, etc.

SUMMARY

Total Estimated Actual Costs	$ 31,500.00
Total Estimated Fixed Unit Costs	$280,680.00
Total Estimated Cost of the Project	$312,180.00
Government Participation @ 75%	$234,135.00

EXHIBIT B

NONDISCRIMINATION IN EMPLOYMENT

(Section 202, Executive Order 11246, September 24, 1965)

"During the performance of this contract, the contractor agrees as follows:

'(1) The contractor will not discriminate against any employee or applicant for employment because of race, creed, color, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, creed, color, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.

'(2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, creed, color, or national origin.

'(3) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under Section 202 of Executive Order No. 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

'(4) The contractor will comply with all provisions of Executive Order No. 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

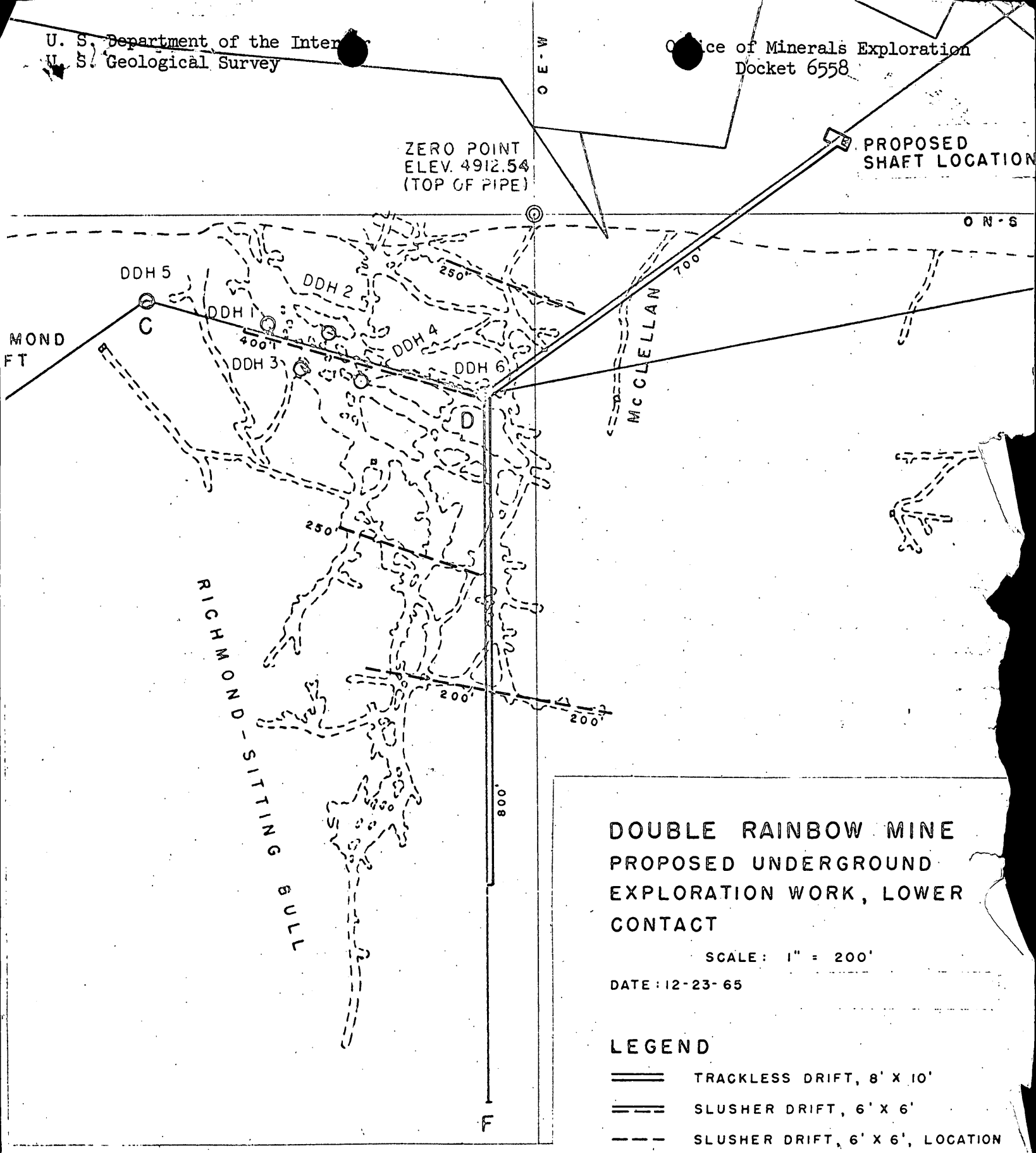
'(5) The contractor will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

'(6) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be cancelled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order No. 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

'(7) The contractor will include the provisions of Paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order No. 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the contracting agency may direct as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, That in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States.'"

U. S. Department of the Interior
U. S. Geological Survey

Office of Minerals Exploration
Docket 6558



DOUBLE RAINBOW MINE

PROPOSED UNDERGROUND EXPLORATION WORK, LOWER CONTACT

SCALE: 1" = 200'

DATE: 12-23-65

LEGEND

- TRACKLESS DRIFT, 8' X 10'
- SLUSHER DRIFT, 6' X 6'
- SLUSHER DRIFT, 6' X 6', LOCATION DEPENDS UPON POSITION OF ORE INTERCEPTS ALONG TRACKLESS DRIFT

Figure 3

HULL, TERRY AND BRET HARTE
ATTORNEYS AT LAW
PHOENIX TITLE BUILDING
TUCSON, ARIZONA

NORMAN S. HULL
ANTHONY D. TERRY
LAWRENCE K. BRET HARTE

JAMES HENDRICK TERRY
OF COUNSEL

TELEPHONE
AREA CODE 602
623-8426

2 September 1966

OFFICIAL
COPY
O. M. E.
RECEIVED
SEP 6 1966
INITIAL CODE
120 AK
110
HK 120 BK

Mr. Frank E. Johnson, Chief
Office of Minerals Exploration
U. S. Department of the Interior
Geological Survey
Washington 25, D. C.

Re: OME-6558 (Silver) Double Rainbow Mines, Inc.
Double Rainbow Mine, Lawrence County,
South Dakota

Dear Mr. Johnson:

Supplementing my letter of August 24, 1966, I now enclose original and two copies of revised bid of Homestake Mining Company. It is my understanding that Mr. Hasler already has a copy of this revised bid.

Very truly yours,

HULL, TERRY and BRET HARTE

Anthony D. Terry

Anthony D. Terry

ADT/efd

enclosure

AIR MAIL

cc-Mr. J. William Hasler
Office of Minerals Exploration
U. S. Department of the Interior
Denver Federal Center
Building 25, Room 2284
Denver, Colorado 80225

HOMESTAKE MINING COMPANY

INTER-DEPARTMENT COMMUNICATIONS

TO Mr. A. L. Slaughter

DATE August 31, 1966

FROM Donald T. Delicate

SUBJECT HOMESTAKE MINING COMPANY REVISED BID FOR DOUBLE RAINBOW MINES, INC. PROJECT

REFERENCE

The following revised bid is submitted for the proposed exploration work at the Double Rainbow Mines property near Galena, South Dakota.

This bid is based on the specifications listed by you.

	Type Of Work	Footage	BID PRICE $/Unit	BID PRICE $
*1)	Sink vertical shaft and install skips & dump	260 ft.	$ 220.00/ft.	$ 57,200
2)	Excavate station and pocket and install skip loader	9,000 cu. ft.	2.16/cu. ft.	19,500
3)	Lower Contact Drifting			
	Drive exploration drift 8x10	1,500 ft.	56.67/ft.	85,000
	Drive exploration drift 6x6	1,300 ft.	41.73/ft.	54,250
4)	Upper Contact Drifting			
	Drive exploration drift 6x6	1,000 ft.*	35.00/ft.	35,000*
5)	Surface diamond drilling - BX	2,000 ft.	6.00/ft.	12,000
	U.G. diamond drilling - AX	3,200 ft.	3.38/ft.	10,800
				$ 273,750

(*) The shaft sinking bid price will escalate $25.00 per foot for each 50-gallon-per-minute increase in water flow over and above 50 gpm.

Rock Bolting Bid

5-foot bolts	$ 3.00/bolt
8-foot bolts	3.50/bolt

Submitted by:

Donald T. Delicate

Donald T. Delicate
Manager of Mining

DTD:k

* If this footage is increased to 1400 ft. as per suggestion of Mr. Wm Hasler, this cost is increased to $49,000, the total to $287,750

A.L.S.

G090

HULL, TERRY AND BRET HARTE
ATTORNEYS AT LAW
PHOENIX TITLE BUILDING
TUCSON, ARIZONA

NORMAN S. HULL
ANTHONY D. TERRY
LAWRENCE K. BRET HARTE

JAMES HENDRICK TERRY
OF COUNSEL

TELEPHONE
AREA CODE 602
623-8426

24 August 1966

OFFICIAL
COPY
O. M. E.
RECEIVED
AUG 26 1966

INITIALS	CODE
	120
FJ	110
HR	120
EP	120

Mr. Frank E. Johnson, Chief
Office of Minerals Exploration
U. S. Department of the Interior
Geological Survey
Washington 25, D. C.

Re: OME-6558 (Silver) Double Rainbow Mines, Inc.
Double Rainbow Mine, Lawrence County,
South Dakota

Dear Mr. Johnson:

I have been in contact with Mr. Barton regarding your letter of June 20th. We have finally received all bids and in that connection enclose bids from the following companies:

Homestake Mining Company
MacPherson Drilling Company
Materi Exploration
Four Corners Exploration Company
Centennial Development Company

We hope these will be satisfactory for your purposes.

In regard to the other questions raised in your letter, in order to clarify the questions in regard to exhibit 3 we are enclosing a new exhibit 3 which we request that you substitute. A search of the records indicates this new exhibit correctly identifies the claims involved, including the spelling of "Ora Flamme" and the M.S. number for the War Eagle claim.

In regard to the Merritt No. 1 claim and the interest of Esther Allen Borsch, these surface rights extend to less than two acres and are on the fringe area and not deemed to be of

any great importance, and, therefore, we do not feel a lien and subordination agreement is required. The table of contents indication is erroneous and we request that you delete this item therefrom.

Deleted HM 5/29/80

As soon as any arrangement is worked out which would require a lien and subordination agreement we will provide it forthwith. At the present time, however, as you have been advised, the loan is being sought by Double Rainbow Mines, Inc.

I believe that this is all of the information which you requested. If there is anything further please do not hesitate to contact me immediately.

Very truly yours,

HULL, TERRY and BRET HARTE

Anthony D. Terry

Anthony D. Terry

ADT/efd
enclosures
AIR MAIL

cc-Mr. J. William Hasler
Office of Minerals Exploration
U. S. Department of the Interior
Denver Federal Center
Building 25, Room 2284
Denver, Colorado 80225

cc-Mr. Rexford W. Barton, President
Double Rainbow Mines, Inc.

HOMESTAKE MINING COMPANY

INTER-DEPARTMENT COMMUNICATIONS

TO Mr. A. L. Slaughter

FROM Donald T. Delicate

REFERENCE

DATE July 11, 1966

SUBJECT HOMESTAKE MINING CO. BID FOR DOUBLE RAINBOW MINES, INC. PROJECT

The following bid prices are submitted for the proposed exploration work at the Double Rainbow Mines property near Galena, South Dakota.

This bid is based on the specifications listed by you.

	Type Of work	Footage	BID PRICE $/Unit	BID PRICE $
*1)	Sink vertical shaft and install skips & dump	260 ft.	$ 195.19/ft.	$ 50,750
2)	Excavate station and pocket and install skip loader	9,000 cu. ft.	2.16/cu. ft.	19,500
3)	Lower Contact Drifting			
	Drive exploration drift 8x10	1,500 ft.	56.67/ft.	85,000
	Drive exploration drift 6x6	1,300 ft.	41.73/ft.	54,250
4)	Upper Contact Drifting			
	Drive exploration drift 6x6	1,000 ft.	30.00/ft.	30,000
5)	Surface diamond drilling - BX	2,000 ft.	6.00/ft.	12,000
	U.G. diamond drilling - AX	3,200 ft.	3.38/ft.	10,800
				$ 262,300

? 6' x 6' Low bank / slusher drift

(*) The shaft sinking bid price will escalate $25.00 per foot for each 50-gallon per minute increase in water flow over and above 50 gpm.

Rock Bolting Bid

5-foot bolts	$ 3.00/bolt
8-foot bolts	$ 3.50/bolt

Submitted by:

Donald T. Delicate

Donald T. Delicate
Manager of Mining

DTD:k

G090

Consideration Schedule
Surface & Underground Drilling
Double Rainbow Property
Galena, South Dakota

To; Hull, Terry and Bret Harte
Phoenix Title Building
Tucson, Arizona

From; MacPherson Drilling Company
601 N. 2nd, Street
P. O. Box 1167
Montrose, Colorado 81401

Attention; Mr. Anthony D. Terry

Gentlemen:

I hereby submit my proposal to core drilling approximately 5000 feet of BX & AX cores from surface and underground drill sites located at Galena, South Dakota on the Double Rainbow property.

MacPherson Drilling Company undertakes to perform such drilling under the terms and for the fees setforth herein. And, Double Rainbow Mines Inc. agrees to accept such terms and fees for the services of MacPhersn Drilling Company which follow for the purpose indicated.

Core drilling rates

Surface drilling
From surface to top of bedrock, Overburden @ $9.00 per ft. cased
From top bedrock to 700 ft. in depth BXWL size core @ 5.85 per ft.

Underground drilling
From 0 to 500 ft. indepth AX-size core @ $ 5.30 per ft.

Mobilization and inculding demobilization of drilling equipment and drill personnel at a lump sum of $1400.00.

Should contractor be requested to furnish a suitable compressor for underground drilling contractor shall receive as payment $8.00 per hour working time plus the cost of mobilization and demobilization

Contractor's labor and equipment funrinshed for both surface and underground drilling to cementing, drilling out cement, reaming for and installing casings, recovery of casings from drill holes on completion of drilling, surveying of drill holes or other work owner may request contractor to perform with his equipment and labor shall be charged to owner at an hourly rate of $12.50 per hr. so used.

Suppiles used to complete holes to the required depth, such as drilling mud, cement or cement substitutes or other additives shall be charged to owner at contractor's cost F.O.B. job site. Core boxes shall be furnished by contractor at cost to owner.

Contractor shall furnish all drilling equipment, pumps, water lines, diamonds, tools, labor, supervision and all auxiliary equipment necessary to complete holes to the required depth. all insurances required by the State of South Dakota shall be furnished by contractor.

Owner agrees to make roads and drill sites for surface drilling, provide suitable drill stations for underground drilling, engineering services in connection with drilling operations when required and make available free of charge it's underground transportation facilities to contractor for the moving of his equipment and supplies to drill locations.

August 20, 1966

Respectfully submitted,

By M. MacPherson
Malcolm MacPherson

MATERI
EXPLORATION

P. O. BOX 151 DIAL 468-2663

DRILLING CONTRACTOR
MOTOR AND MACHINE WORK
UPTON, WYOMING

July 25, 1966

Double Rainbow Mines, Inc.
c/o Anthony D. Terry, Attorney at Law,
509 Phoenix Title Building,
Tucson, Arizona

Re: Double Rainbow Mines , Inc.

Dear Mr. Terry:

In regard to your request for bid to drill in Double Rainbow property, Galena, South Dakota, for surface drilling, consisting of four vertical holes, BX core, we bid $ 8.00 per ft.

For underground drillings of AX core, we submit a bid of $ 6.00 per ft.

Very truly yours,

MATERI EXPLORATION

Lawrence E. Materi

mp

UTAH | COLORADO
ARIZONA | NEW MEXICO

Four Corners Exploration Company

P. O. BOX 116 287-4722 GRANTS, NEW MEXICO

IRVING RAPAPORT
FORREST FINCHER

August 17, 1966

Double Rainbow Mines, Inc.
% Anthony D. Terry
Attorney at Law
509 Phoenix Title Building
Tucson, Arizona

Dear Sirs:

The following bid is submitted in response to your letter of July 22, 1966 in accordance with the specifications presented at that time.

Underground Work at Galena, South Dakota

	Footage	Unit Price	Total Price
Sink Vertical shaft ($11\frac{1}{2}$' X $10\frac{1}{2}$' in the rough) including installation of skip and dump	260 ft.	$275.00/ft.	$71,500.00
Excavate station and pockets including installation of skip loader	9,000 $ft.^3$	$2.50/$ft.^3$	$22,500.00
Lower contact drifting			
Drive exploration drift (8'X10')	1,500 ft.	$60.00/ft	$90,000.00
Drive exploration drift (6'X6')	1,300 ft.	$50.00/ft	$65,000.00
Upper contact drifting			
Drive exploration drift (6'X6')	1,000 ft.	$40.00/ft	$40,000.00
		Total Price	$289,000.00

Water in excess of 50 g.p.m. in the shaft would probably present a serious problem and Four Corners would only be prepared to continue on the basis of cost plus 15%.

Roof bolting of an unspecified quantity in the main exploration heading is bid as follows:

5' bolts	$4.00 per bolt
8' bolts	$4.50 per bolt

I believe all major items have been covered in the bid and specifications. Minor modifications and problems should be negotiable on the job.

I appreciate this opportunity to bid on your work.

Yours truly,

IRVING RAPAPORT

IR/ba

HAROLD B. SPENCER, PRESIDENT
JAMES QUIGLEY, VICE-PRESIDENT
ROBERT E. WATT, SEC'Y-TREASURER

P. O. BOX 290
TELEPHONE 433-6876
AREA CODE 801

CENTENNIAL DEVELOPMENT COMPANY

MINING ENGINEERS AND CONTRACTORS

EUREKA, UTAH

August 1, 1966

Double Rainbow Mines, Inc.
c/o Anthony D. Terry, Attorney at Law
509 Phoenix Title Building
Tucson, Arizona

Gentlemen:

We have examined the work called for under your specifications and request for bid dated July 22, 1966 and are pleased to submit the following proposal.

1.	Sink Vertical Shaft, 260 ft.	$ 225.00 per ft.
2.	Install Skips and Dump.	$1,000.00 Lump Sum
3.	Station and Pocket Excavation.	$ 1.60 per cu. ft.
4.	Install Skip Loader.	$1,500.00 Lump Sum
5.	Lower Contact Drifting.	
	8' x 10' Drift.	$ 60.00 per ft.
	6' x 6' Drift.	$ 42.00 per ft.
6.	Upper Contact Drifting.	
	6' x 6' Drift.	$ 38.00 per ft.
7.	Rock Bolts, installed, 3/4".	$ 1.60 per ft.

We appreciate the opportunity of bidding and hope we may be of service.

Very truly yours,

Centennial Development Company

H B Spencer

H. B. Spencer

HBS/ce

EXHIBIT 3

LEGAL DESCRIPTION OF LAND

Patented Mining Claims Located in The Black Hills National Forest, Lawrence County, South Dakota, Sections 3, 4, 9 and 10, Township 4 N, Range 4 E, Black Hills Meridian.

Merritt No. 1	- M.S.	73	Grand View	- M.S.	365
Merritt No. 2	- M.S.	133	Ora Flamme	- M.S.	384
Florence	- M.S.	163	Sleeper	- M.S.	1980
Chicago	- M.S.	334	George B. McClellan	- M.S.	2031
Sitting Bull	- M.S.	336	Gorman	- M.S.	2031
Richmond	- M.S.	345	Bank of Dakota	- M.S.	1901
Tiger Tail	- M.S.	333	Teddy	- M.S.	1901
Center Fraction	- M.S.	2030	Fissure	- M.S.	1901
Grand View Fraction			Bed Rock	- M.S.	1901
Lode	- M.S.	366	Gulch	- M.S.	1901
Silver Terra	- M.S.	364	Gray Eagle	- M.S.	1901
Mountain	- M.S.	1640	Camillus	- M.S.	1901
Custer	- M.S.	919	Margaret	- M.S.	1901
Rock Hill	- M.S.	1639	Wabash	- M.S.	1901
Savage	- M.S.	372	War Eagle	- M.S.	1901

(it should be noted that Esther Allen Borsch has surface rights to approximately 1.80 acres on a portion of M.S. 73, which are not considered of any use for purposes of this exploration or development.)

MME Form 40
July 1962

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

OFFICIAL COPY
O. M. E.
RECEIVED
MAY 23 1966
MINERALS CODE

APPLICATION FOR FINANCIAL ASSISTANCE IN MINERALS EXPLORATION

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

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

Double Rainbow Mines, Inc.
Mrs. Catherine B. Mayo, Secretary
c/o: Anthony D. Terry, Attorney
250 North Church Avenue
Tucson, Arizona 85701

APPLICANT DO NOT USE THIS BLOCK

DOCKET NUMBER: 6558

DATE RECEIVED: 5/23/66

REGION: III

DIVISION CODE:

BUSINESS ORGANIZATION *(Check one)*

INDIVIDUAL	
CORPORATION	X
PARTNERSHIP	
OTHER *(Specify)*	

STATE IN WHICH FIRM IS ORGANIZED: South Dakota

LIST CORPORATE OFFICERS OR PARTNERS HERE, IF APPLICABLE

NAME	ADDRESS	TITLE
Rexford W. Barton	2251 Virginia Street Berkeley 9, California	President
Catherine B. Mayo	5574 East Pima Tucson, Arizona	Secretary-Treasurer

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

ESTIMATED COST OF PROJECT: $ 278,800.00

PROPERTY NAME	LOCATION COUNTY	STATE
Double Rainbow Mines. Inc.	Lawrence	South Dakota

GENERAL INSTRUCTIONS

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

CERTIFICATION

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

DOUBLE RAINBOW MINES, INC.

20 April 1966
DATED

Rexford W. Barton
BY *(Signature)*

President
TITLE

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

INFORMATION REQUIRED WITH THIS APPLICATION

1. Financial Eligibility:

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

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

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

2. Applicant's Rights in Land:

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

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

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

3. Physical Description:

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

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

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

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

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

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

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

4. Accessibility of Property:

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

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

5. Exploration Work:

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

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

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

6. Experience:

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

7. Estimate of Costs:

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

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

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

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

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

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

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

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

INT.-DUP. SEC., WASH., D.C.11879

DOUBLE RAINBOW MINES, INC.
Pierre, South Dakota

OFFICIAL COPY
O. M. E.
RECEIVED
MAY 23 1966
INITIALS | CODE

Rexford W. Barton, President
2251 Virginia Street
Berkeley 9, California

20 April 1966

Mr. Frank Johnson, Chief
Office of Minerals Exploration
U. S. Geological Survey
Department of the Interior
Washington 25, D. C.

Dear Sir:

The accompanying report is in support of an application for financial assistance in the exploration of the Double Rainbow Mines, Inc. property. The property is located in Lawrence County, South Dakota, a short distance from the City of Lead.

The property contains silver, and it is believed that sufficient ore can be found in geologically favorable zones to support a small mining operation. The estimated cost of the exploration project is $278,800.00.

The history, geology, and exploration plan are described in the accompanying material.

We hope you will find that you can join us in this exploration venture.

Very truly yours,

DOUBLE RAINBOW MINES, INC.

Rexford W. Barton

Rexford W. Barton, President

Lwth
J.O.A.

EXHIBIT "A"

Patented Mining Claims Located In The Black Hills National Forest, Lawrence County, South Dakota, Sections 3, 4, 9 and 10, Township 4 N, Range 4 E, Black Hills Meridian

Merritt No. 1	- M. S.	73	Grand View	- M. S.	365
Merritt No. 2	- M. S.	133	Ora Flamme	- M. S.	384
Florence	- M. S.	163	Sleeper	- M. S.	1980
Chicago	- M. S.	334	George B. McClellan	- M. S.	2031
Sitting Bull	- M. S.	336	Gorman	- M. S.	2031
Richmond	- M. S.	345	Bank of Dakota	- M. S.	1901
Tiger Tail	- M. S.	333	Teddy	- M. S.	1901
Center Fraction	- M. S.	2030	Fissure	- M. S.	1901
Grand View Fraction			Bed Rock	- M. S.	1901
Lode	- M. S.	366	Gulch	- M. S.	1901
Silver Terra	- M. S.	364	Gray Eagle	- M. S.	1901
Mountain	- M. S.	1640	Camillus	- M. S.	1901
Custer	- M. S.	919	Margaret	- M. S.	1901
Rock Hill	- M. S.	1639	Wabash	- M. S.	1901
Savage	- M. S.	372	War Eagle	- M. S.	363

SUBJECT, however, to all surface rights in favor of Esther Allen Borsch, her heirs and assigns, with respect to the surface right in and to that part of M. S. No. 73 the Merritt No. 1 Lode Mining Claim contained within the boundaries of the Galena Placer M. S. No. 692, being that portion of M. S. 73 which is in conflict with M. S. 692 and contains approximately 1.80 acres.

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Applicant requests deletion of this item see ltr dated 8/29/66 HK

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APPLICATION FOR FINANCIAL ASSISTANCE
IN MINERAL EXPLORATION

BY

Double Rainbow Mines, Inc.
2257 Virginia Street
Berkeley 9, California

FOR

Exploration Assistance - Double Rainbow Project
Galena, South Dakota

Introduction

This application by Double Rainbow Mines, Inc., Applicant, a South Dakota corporation, is for assistance in the exploration of the Double Rainbow Mines property, Galena Mining District, near Deadwood, Lawrence County, South Dakota. It is believed that commercial deposits of silver-bearing ores may be found in this property. In accordance with the regulations of the Office of Minerals Exploration, Department of Interior, United States of America, these attachments to M.M.E. Form 40 cover, to the best of our knowledge, the information required.

It is proposed to explore the favorable geologic target area described in the appropriate section of this application and the reports which accompany the application. The Applicant believes that this project has inherent in it a degree of risk greater than is normally assumed by private companies and therefore Applicant would not normally undertake such exploration at its sole expense under present economic conditions.

March 17, 1966

OME APPLICATION - PART 1 - DOUBLE RAINBOW PROJECT

1. Financial Eligibility

(a) Double Rainbow Mines, Inc., has approached its bankers as to the availability of funds from commercial sources. Such funds cannot be obtained from the usual sources of finance. This is evidenced by the attached letters, Exhibit 1.

(b) Double Rainbow Mines, Inc., has owned the subject property for many years. Double Rainbow Mines is a small independent company.

(c) Double Rainbow Mines, Inc., will make available from private sources sufficient funds to carry the Applicant's share of the project.

OME APPLICATION - PART 2 - DOUBLE RAINBOW PROJECT

Applicant's Rights in the Land

Double Rainbow Mines, Inc., is the sole owner of surface and mineral rights on the property described in this application. The complete address of Double Rainbow Mines, Inc., is as follows:

Double Rainbow Mines, Inc.
% Mr. R. W. Barton
2257 Virginia Street
Berkeley, California

The property of Double Rainbow, on which application for financial assistance is made, covers parts of sections 3, 4, 9, and 10 of Township 4 N, Range 4 E, Black Hills Meridian, Lawrence County, South Dakota. It consists of 29 patented mining claims and one unpatented claim, about 290 acres in all. All of the property listed would be subject to Government royalty and liens. There are no liens or encumbrances.

The property is known by two names; the Richmond-Sitting Bull and the Double Rainbow.

A list of the claims is given in Exhibit 3. A claim map of the property is included as Figure 1.

OME APPLICATION - PART 3 - DOUBLE RAINBOW PROJECT

Physical Description

Introductory Statement

The Double Rainbow property is located near the small community of Galena, South Dakota. The property is 6-1/2 airline miles and 10-1/2 road miles from Lead, South Dakota, 9-1/2 road miles from the C.B.&Q. Railroad at Pluma. The northeast corner of the main block of property lies in the canyon of Bear Butte Creek at an elevation of 4,700 feet. The highest point encompassed in the property is the top of Custer Hill which is 5,514 feet above sea level. The Galena area is covered on two 7-1/2' U.S.G.S. quadrangle sheets, Deadwood South and Deadman Mountain. An index map made up of these two sheets and showing the property outline is included as Figure 2.

(a) Description of Past Mining and Exploration

The principal underground mine on the property is known as the Richmond-Sitting Bull. This is opened by several adits on the north slope of Custer Hill and the workings are in the so-called "upper contact" ore horizon. The workings extend over a distance of 600 feet parallel to the hillside near the portals and into the hill about 1,300 feet. The shapes of the workings are controlled by the abundance and directions of the vertical fractures which control the ore deposition. Several other workings are east of the Richmond-Sitting Bull, all on the upper contact horizon; the McClellan Tunnel, two unnamed adits and the Barton Tunnel. West and southwest of the Richmond-Sitting Bull are several shallow workings also on the upper contact; the War Eagle, the Savage and the Custer. Upper contact workings on the Florence claim, which is north across Bear Butte Creek from the main block of property, penetrate the hill 700 feet. The upper contact workings are generally open and accessible.

The only lower contact workings are on the Merritt claims at the west edge of the property. On the Merritt No. 2 claim, the workings cover an area of about 400 feet by 300 feet. These are caved and inaccessible. On the Merritt No. 1 claim are several shallow workings.

All underground workings are shown on the 1" = 200' scale map, Figure 5. They are also shown at a scale of 1" = 50' on the underground sample map, Figure 11.

The latest attempt to operate the property was in 1931 when a 150 ton flotation mill was built and the Barton Tunnel was driven. The mill operated only a few months, mostly on dump material from the Richmond-Sitting Bull. Two reasons have been given for this failure, poor metallurgical recovery and poor management. The mill has been dismantled and all that remains is the foundation. There are no buildings or improvements on the property of any value, except, perhaps some of the old roads.

In 1964 an exploration program was conducted by Newmont Exploration and Hecla Mining Company as a joint venture. The program consisted chiefly of drilling 6 diamond drill holes from the surface through the Deadwood formation. Copies of graphic logs of 4 of the holes are presented as Figures 7, 8, 9, 10.

A lease was made with the Little Beaver Mining Company, a wholly owned subsidiary of the Homestake Mining Company, in 1965. Little Beaver conducted an underground sampling program and made a general geologic investigation. This lease is now abrogated.

(b) Applicant's Interest

The applicant has, of course, as the owner of the property, been a party to various lease agreements.

(c) Past Production

Statements from various reports credit the Double Rainbow property with total production of from $450,000 to $1,750,000. The $450,000 figure was reported by Joseph Boreo in 1913 (Exhibit 4) to have been substantiated from books of the First National Bank of Deadwood. Louis Noble in a report written in 1907 (Exhibit 5) says that the mine was most actively productive from 1880 to 1883 and to some extent in 1891 and that records of production submitted to him showed a net value received of $451,383 from the sale of bullion and ores. He estimated that about 100,000 tons of material had been removed from the mine and that one-half of it was still on the ground. He also estimated that the gross value of all ore shipped and treated was $750,000.

Litigation involving a dispute over extra-lateral rights began in 1884 and continued for 16 years. During this period production was small and sporatic. Samples taken in 1920 indicate some production in that year, probably by leasers. Copies of a settlement sheet showing shipments in 1908 to March 1912 are included with this application as Exhibit 6. This is the only record of actual ore shipments that is available.

The records of how the ore was handled and treated are rather obscure. Noble says in his report that during the most productive time, 1880 to 1883, the ore was sorted by hand, the lead ores were smelted on the ground and shipped to Omaha, the silver and gold ores were treated in a pan amalgamation mill on the ground, and material too low grade for this treatment was put on the dump.

(d) Reserves and Grade of Ore

Upper Contact Ore - An examination of the Double Rainbow property was made by Dr. F. C. Lincoln and Harold B. Ewoldt in 1939 (Exhibit 7). Dr. Lincoln was, at that time, professor of mining engineering at the South Dakota School of Mines and Technology. Ewoldt is a mining engineer graduate of the same school in 1930. They sampled 40 faces, 32 of which are in the Richmond-Sitting Bull, 6 in the Florence, and 2 in the War Eagle. A large composite sample was made up by combining 5 pounds of material for each foot

of sample width (a 3 foot sample contributed 15 pounds). Three splits were made of this large sample; DRA, 150 pounds; DRB, 150 pounds; DRC, 190 pounds. Each split was assayed and the results averaged to give the following:

Silver	9.55 ozs. per ton @ $1.29	$12.32
Gold	0.078 ozs. per ton @ $35.00	2.73
Lead	1.97% @ 16¢ per pound	6.30
	Total contained value	$21.35

Zinc	0.9%
Iron	15.5%
Manganese	3.5%
Calcium	1.95%
Sulphur	0.85%
Insoluble	56.4%

The zinc could add to the contained value.

Only ore from the upper contact horizon is contained in the above samples. A number of the samples from which material was taken to make up the composite sample were not of ore grade.

The samples making up the composite are listed as Exhibit 8. The complete list of samples taken by Lincoln and Ewoldt, including those not composited is included as Exhibit 9.

The Richmond-Sitting Bull was examined and a report written in February 1913 by Joseph Boreo, about whom we have no personal information. This was at a time when the mine was being worked. He listed a number of shipments by location in the mine and labled some "high grade ore" and some "second grade ore". He stated that the ore was difficult to sort by hand, but that it was in this way from the beginning that the shipments were made. Contained value in gold, silver and lead was as high as $359.80 per ton by present prices. A shipment from a dump had a present value of $18.26 and one from the Florence dump of $28.10. Data on these shipments is listed in Boreo's report (Exhibit 4).

Other statements made by Boreo: "A systematic sampling of Main Drift, Fort Drift and Blind Lode on 37 bags of 50 pounds each gave 35 ounces of silver per ton". "Following Main Drift south in Grand View claim the ore has value of about 30-40 ounces of silver per ton and $21.00 in gold."

29 ore shipments made between November 17, 1908 and March 16, 1912 ranged in size from 5 to 27 tons and totaling 453 tons. It is not known whether this represents total mine production for this period. These shipments averaged $13.82 in gold ($35.00 per oz.) and 33.01 ounces of silver. Gold content varied from $1.75 to $41.65 per ton and silver content from 5.0 ounces to 190.15 ounces per ton. 19 of the shipments totaling 280 tons contained an average of 6.54% lead. A copy of this assay data is attached as Exhibit 6.

A report on the Galena District was written for the United States Bureau of Mines by Dr. E. L. Tullis of the South Dakota School of Mines and Technology (Exhibit 10). Tullis says, "The assays from the car lot shipments of ore from the Sitting Bull during 1890 indicate the value of the bulk of the ore shipped at that time. In the 5 car lots reported between March 3, 1890 and May 19, 1890, the silver varied between 83 and 109 ounces per ton, the gold between 0.2 and 0.4 ounces per ton and the lead between 25 and 36 per cent". Tullis further states that the milling ore during the same period carried from 10 to 45 ounces of silver and a trace to 0.1 ounces of gold per ton. This material was concentrated to a product carrying from 36 to 86 ounces of silver, a trace to 0.2 ounces of gold and 31 to 67 per cent lead.

Old assay records of C. B. Harris, one time assayer for the Sitting Bull, were obtained by Tullis. These books contain hundreds of assays of the Richmond-Sitting Bull mine and other mines and prospects in the Galena area, made during operation of the Sitting Bull between August 29, 1889 and July 1890 and during exploration work in 1903 and 1904 and in 1919 and 1920. Many high grade assays were obtained. Unfortunately, there is no information on thickness of ore. Copies of the notes from Harris' assay records are attached as Exhibit 11.

Louis Noble examined the Richmond-Sitting Bull in 1907 (Exhibit 5) and after taking 10 samples, stated that Mr. Harris was familiar with the ores and his judgment and statements were not misleading. He reported that in 1905 a trial lot of 183 tons of average dump material was shipped to the Imperial Company Mill at Deadwood, South Dakota. Assays were as follows:

Gold		$3.40 per ton (35.00)
Silver	4.63 ounces	$5.97 per ton (1.29)
Lead	1.75 per cent	$5.60 per ton (16¢)
		$14.97

Noble estimated that about 100,000 tons of material had been removed and that 50,000 tons of it was still on the ground. He estimated that the gross value of ore treated and shipped was about $750,000 and thus he arrives at an average grade of $15.00 per ton. The proportion of gold, silver and lead are not closely known, but at present prices and using the same proportion of gold, silver and lead as in Ewoldt's bulk sample, this ore would have a present contained value of $37.00 per ton.

A fairly complete sampling job was done in the Richmond-Sitting Bull by Noble in 1913. These 400 samples were taken systematically along the walls and faces of the workings without regard for the ore controls of verticals and favorable beds. Many of these can now be observed in the mine and appear to be well taken channel samples. Most samples represent the full height of wall where taken, 6 feet or more. Many of these samples are low grade because they were taken along walls of stopes where the ore had been removed. Some are ore grade, however, the best being ore that contains 40.4 ounces of silver per ton (see Figure 12 and Exhibit 12). Lincoln and Ewoldt took

samples at some of the same faces as sampled by Noble and checked his results fairly closely. Some are listed below:

Noble's No.	Ewoldt's No.	Gold, $ @ 35.00	Silver, ounces
D211		9.10	18.60
	R12	3.15	16.80
D210		.35	14.40
	R13	.35	20.50
D78		5.25	6.80
	R10	14.00	30.50
D63		4.20	5.60
	R30	3.85	4.27

45 samples were taken in the Richmond-Sitting Bull and Merritt No. 1 during November, 1965 by Little Beaver personnel under the supervision of Little Beaver geologists. Many of these were taken at places previously sampled by Ewoldt and Noble, for the purpose of checking on the earlier sampling. A number of them, however, were taken at places not previously sampled. Comparative analyses are shown on the underground sample map, Figure 11. Most analyses of Little Beaver samples shown on the map (prefix "G") are weighted averages of 2 or 3 vertically contiguous samples taken in the same face or wall. This, together with the fact that outlines of some earlier samples are not clearly discernible, may be the reason for divergence between Little Beaver samples and earlier samples taken at the same places. Little Beaver samples are listed individually on the sample list, Exhibit 13.

Some of the better Little Beaver samples are listed below:

Sample No.	Height Ft.	Width Ft.	Gold, $ @ $35.00	Silver ounces	Lead %	Zinc %	Cu %
G10	1.5	7.0	6.80	64.90	1.26	1.34	.03
G20	4.0	6.0	.34	11.40	.59	.72	.005
G25	2.0	7.0	13.60	13.55	.75	.86	.030
G28	4.0	6.0	6.26	10.32	.60	.93	.038
G32	0.9	6.0	5.25	24.10	.86	1.00	
G34	3.5	6.5	1.36	12.72	.58	.72	
G48	2.0	6.0	1.00	13.24	1.37	.90	
G52	1.5	4.5	1.75	9.20	6.99	.82	.14
G53	1.5	4.5	5.75	3.53	1.65	.79	
G55	3.5	3.0	15.58	3.38	.80	.75	

The better faces are listed below:

Sample No.	Height Ft.	Width Ft.	Gold, $ @ $35.00	Silver ounces	Lead %	Zinc %
G9, 10, 11	5.5	7.0	1.85	20.44	.34	.67
G19, 20	6.5	6.0	.21	8.71	.60	.70
G33, 34	6.5	6.5	.89	8.80	.50	.74
G40, 41	5.0	5.0	3.17	4.73	2.33	1.46
G51, 52, 53	5.5	4.5	1.75	4.54	2.80	.74

In summary, there are several reasons why samples on walls and faces of the present workings indicate a lower grade of ore than was actually produced from the Richmond-Sitting Bull. In the extensive replacement deposits of this type from which gold was produced, the ore shoots are lenticular in cross-section, thicker at the verticals and thinning with distance from the verticals. Thus, many of the present samples in the Richmond-Sitting Bull are probably rim samples, It is logical to assume that the early miners would, in most cases, follow an ore shoot to its economic limit. This limit could be caused by lower grade, thinner ore, or a circumstance such as a steepening dip, causing the handling of the ore to be more difficult and hazardous. This last reason may be why mining was stopped in the working called Haven's Drift. (Figure 11).

The longest dimension of the ore bodies is in the direction of the vertical that makes the ore. This can be from a few feet to several hundred feet. A number are only a few feet in width, but many stopes have widths of 18 to 20 feet, and in the northern and central part of the Richmond-Sitting Bull several stopes are 30 to 50 feet wide. One is 70 to 80 feet wide for a few hundred feet. The larger ore bodies result from mineralization along several closely spaced verticals or from intersections of verticals.

The 40 face samples taken by Lincoln and Ewoldt from the Double Rainbow mine and used to make up a composite sample for metallurgical testing (Exhibit 8) have an average thickness of 3.5 feet, with a maximum of 6 feet and a minimum of 2 feet. These, however, are probably not representative of the areas where the ore has been removed. Nearly all of the stoped areas are 6 feet or more in height and in some places are as high as 10 feet.

The quantity of ore that could economically be mined from the upper contact on the Double Rainbow property is impossible to determine. Material of ore grade or near ore grade is present in about 17 faces and wall samples. Several of these are pointed toward unexplored areas.

By following ore on some of these verticals, their continuity would be proven or disproven, and it is hoped that intersecting ore-bearing verticals would be found.

Noble's figure of 100,000 tons of material removed from the Richmond-Sitting Bull seems a reasonable one. Only about 50,000 tons of this was

milled or shipped, but much material was put on dumps and mixed with waste rock that would be commercial ore under present conditions. The actual area tested by the underground workings is only about 1/5 of the total size of a block that has some mineralization on both the east and west ends.

The estimate of average metal content and average value of ore mined from the upper contact Richmond-Sitting Bull is as follows:

	Grade per ton	
Gold, $ @ $35.00		$ 3.15
Silver, ozs.	15.7 @ $1.29	20.25
Lead, %	2.0 @ 16¢/lb.	6.40
Total contained value		$29.80

The ore is estimated to also have contained about .75% zinc and .03% copper.

Lower Contact Ore - The only workings of the Double Rainbow Company which are in the lower contact ore horizon are on the Merritt claims at the west edge of the property.

Three samples in a vertical line were taken by Lincoln and Ewoldt in 1939 from the Merritt workings. The center sample, one foot thick, contained $0.70 in gold ($35.00), 4.18 ounces of silver and 6.56% lead for a total gross value of $27.08. Two 1.5 foot samples, one above and one below had insignificant values.

Assays on three cars of ore shipped from the Merritt in June of 1890 are listed in the data taken from the notebooks of C. B. Harris (Exhibit 11). They are as follows:

No.	Gold, $ @ $35.00/oz.	Silver Ounces	Lead %
16	3.40	40	68.5
17	3.40	38	63
18	3.40	37.5	70

Judging from the high lead content, these would appear to have been rather carefully sorted galena ore.

The mine known as the Horseshoe Comet, on the Comet claim adjacent to the southwest corner of the Merritt No. 2, produced ore from the lower contact horizon. Although this mine is not owned by the Double Rainbow Company, the grade of ore found here may be somewhat indicative of that which could be expected on the property of the Double Rainbow. The assay records of C. B. Harris show many samples from the Horseshoe Comet during the period of February 1903 to June of 1904. A number contained over 100 ounces of silver

per ton. One sample of "pyrite, soft stuff" contained 1,466 ounces of silver per ton. (See Exhibit 11).

The Silver Queen mine, about one mile south of the Double Rainbow property is another lower contact mine with a history of important production. The average of six faces sampled by Ewoldt and described by him as being over mining widths is as follows: $1.40 in gold (at $35.00), 18 ounces of silver, and 13% lead per ton.

Recent drilling (1964) has been done on the Double Rainbow property by Newmont Exploration, Ltd. Six holes were drilled to test the lower contact below the upper contact workings of the Richmond-Sitting Bull. The core is stored at Galena. Where sampled, the core was split and one-half remains. Logs of four of the holes are made part of this application as Figures 7, 8, 9 and 10. Most of the core samples from drill hole No. 1 were assayed at the South Dakota School of Mines, all others were sent to C. O. Parker and Company of Denver. Results are as follows:

Hole No.	Footage	Ft.	Oz. Au	Oz. Ag	% Pb	% Zn	% Cu	Remarks
1	462.5-465	2.5	.16	10.41	0.2	1.7	.45	(Quartzitic dolomite
	465-467.5	2.5	.22	401.11	1.6	3.1	.15	(above sill "D"
2	599-602	3.0	.08	9.34				Basal quartzite
3	466-469	3.0	.01	0.94				(Quartzitic dolomite (above sill "D"
4	475.4-480.8	5.4	.04	2.01	0.1	0.8	.20	(Quartzitic dolomite (above sill "D"
5	591-598	7.0	.01	1.26				Basal quartzite
6	466.3-475	8.7	.07	2.48	Tr	1.2	Tr	(Quartzitic dolomite (above sill "D"

There is really no good basis for arriving at a figure for the grade of ore to be expected on the lower contact under the Double Rainbow property. The Merritt and other lower contact mines in the district are known to have produced good ore in quantity and to have produced some high grade ore. However, sample information is incomplete, except perhaps for the Silver Queen and this is too far away to have a direct bearing.

In the Bald Mountain District which is 10 airline miles west of the Galena District, gold ore was mined for many years from the same two horizons in the Deadwood formation. It is a well established fact that ore from the lower contact was better grade than that from the upper contact. If this relation holds true for the Galena area, somewhat better grade ore than the estimated grade of ore removed from the Richmond-Sitting Bull can be expected.

The high grade ore intersected by Newmont's No. 1 hole proves that such

ore does exist beneath the upper workings. The average, of course, would be expected to be much lower.

Lower Contact Reserves - Ewoldt and Watkins (1940) report that the average working face at the Silver Queen was 8 feet wide and that the average thickness was only 2 feet.

A map of the Merritt mine indicates that ore bodies of 200 to 300 feet in length were mined. Notes on this map (Ewoldt and Robinson 1943) describe the stopes as being from 10 to 30 feet wide and 8 to 14 feet high (Figure 13).

A hole was drilled by the Bureau of Mines at a location about 1600 feet southeast of the east corner of the Camillus claim of Double Rainbow. At a depth of 525 feet the lower contact showed two feet of limestone and quartzite, well mineralized with pyrite, galena and sphalerite, plus 9 feet of pyritic quartzite below. A copy of the log is included as Exhibit 2.

In the summer of 1965, E. L. Tullis obtained a sample from the streambed at the lower end of the Galena placer claim where the stream is crossed by the lower contact ore horizon. This sample contained 0.02 ounces of gold, 2.38 ounces of silver, 0.9% lead and 3.8% zinc per ton.

No. 1 hole of Newmont intersected 5 feet of ore. Other holes intersected from 5.4 feet, 7.0 feet, and 8.7 feet of mineralization.

Almost the entire area of the property, about 280 acres, is underlain by the lower contact horizon and is potential ore-bearing ground. The underground workings in the Richmond-Sitting Bull explore an area of about 20 acres, whereas the actual area of the workings is 139,000 square feet or about 3.2 acres.

The estimate of metal content and value of ore which could be mined from the lower contact is as follows:

	Grade per ton	
Gold, $ @ $35.00		$ 3.50
Silver, ozs.	18.0 @ $1.29	23.22
Lead, %	2.0 @ 16¢/lb.	6.40
		$33.12

Summary of Ore Reserves - It has been characteristic of the Deadwood formation mines in the northern Black Hills not to have any substantial ore reserves at any time. The ore shoots, which follow vertical fractures in favorable beds, are often not any wider or higher than the openings being driven, so that all or most of the ore is mined as the development progresses. Continuity of ore shoots between intersections is not assured. However, some of these mines, while none is producing at the present time, operated for many years (Bald Mountain, Golden Reward, Maitland).

While a number of ore faces are present in the Richmond-Sitting Bull, probably not more than a few thousand tons could be called "known" ore reserves. High grade silver ore was found in one of the 6 holes drilled in 1964 through the lower contact ore horizon. The area prospected by this drilling is but a small part of the potential ore-bearing area. Large areas of favorable ground on the Double Rainbow property still remain to be explored on both the upper and lower contacts.

It is believed that the program as outlined in this application will lead to the discovery of sufficient ore to justify construction of a mill with a capacity of from 100 to 150 tons per day.

(e) Geologic Features

Description of the Rocks - The oldest rocks exposed near the property in Bear Butte Creek are Precambrian schists, slates and quartzites, The upper Cambrian Deadwood formation unconformably overlies the Precambrian, and the Cambrian rocks cover most of the Double Rainbow property. Total thickness of the Deadwood formation is about 500 feet. A basal quartzite is present at the base, in some places with a few feet of quartz pebble conglomerate. The basal quartzite ranges from 20 to 85 feet in thickness. Above the quartzite is a 10 to 30 foot section of thin, bedded, sandy dolomite. Above this are shales, limestone conglomerates, and more dolomitic beds. About 380 feet above the base is a massive quartzite 25 to 40 feet thick. Above this quartzite is a sandy to quartzitic dolomite probably 30 or more feet in thickness. The upper part of the formation consists of shales and limestone conglomerates with a 9 foot cap of massive quartzite at the top of the formation. The Whitewood limestone of Ordovician age overlies the Deadwood and is 62 feet thick. Next in the sequence is the Englewood limestone of Mississippian age, 34 feet thick. Forming the top of Custer Hill is a cover of Pahasapa limestone also of Mississippian age.

The stratigraphic section is thickened greatly by the intrusion of porphyry sills of general monzonitic to quartz monzonitic composition. These range from a few feet to 100 feet in thickness.

The column of sedimentary and intrusive rocks is shown by the graphic logs of the 4 Newmont drill holes (Figures 7, 8, 9 and 10).

The regional strike of the Deadwood in the area of the Double Rainbow is north-south and the dip is to the east. Dips are variable. On the outcrops at the Custer and Merritt mines the dips are from 16° to 20° to the east. In the zone explored by the Richmond-Sitting Bull workings, dips are from 5° to 7°, although the most easterly face (Haven's drift) shows a considerable steepening. In the vicinity of the Barton Tunnel the dips are from 12° to 30°. The attitudes of the rocks are clearly shown on the sections, Figure 6.

The rocks of the Deadwood formation, where seen in underground workings on the two main ore horizons are broken by numerous vertical fractures, called "verticals". An individual vertical may not extend more than a few tens of feet along its strike, but parallel to it and overlapping may be one or two

others. Such a group of verticals may be confined to a total width of a foot, but the en echelon system may extend for several hundred feet. Some of the verticals are small faults with seldom more than a few inches displacement. According to Dr. E. L. Tullis (Exhibit 10 and Figure 14) about one-half of the verticals in the Richmond-Sitting Bull strike in a general east-west direction, between N 70° E and S 60° E. Nineteen per cent fall into a northeast classification, from N 30° E to N 50° E. A minor group falls between N 20° and north-south. The pattern of the underground workings is controlled by the directions and spacing of the verticals.

Geology and Mineralogy of the Ore Deposits - The size and grade of the ore bodies has previously been discussed. The ore occurs as replacements chiefly at two horizons in the Deadwood formation where the verticals intersect the favorable beds. These two favorable horizons are designated the "upper contact" and the "lower contact". Ores of the lower contact are in the base of a sandy dolomite section which lies above the basal quartzite. Mineralization is in some places disseminated in the top few feet of quartzite. Ores of the upper contact replace dolomitic quartzite and sandy dolomite just above a massive quartzite which is about 100 feet below the top of the formation. Vertical separation of the top two contacts is about 370 feet. A minor contact has been designated on the sections (Figure 6). This is below the lower contact in the basal quartzite and the separation of about 150 feet is largely due to a thick porphyry intrusive. Mineralization consists of fine pyrite, a little sphalerite, and perhaps a little galena, disseminated in the quartzite or dolomitic quartzite.

A secondary control has been suggested by Ewoldt and others. They relate the better ore bodies to areas of flatter dips or "flats". It is true that much of the Richmond-Sitting Bull workings are in an area of flatter dip, but good ore follows steeper dips to the east in Haven's Drift (Figure 11). The lower contact Merritt No. 2 mine produced good ore from more steeply dipping beds. See section, Figure 6.

The primary ore minerals are, in order of abundance, pyrite, galena and sphalerite. The pyrite is usually fine grained, the galena somewhat coarser. Sphalerite is not abundant. Other primary minerals that have been reported have been found in small amounts with a microscope are arsenopyrite, lollingite, chalcopyrite and tetrahedrite. There is much quartz in the ore as a dense fine-grained replacement of the dolomite. As evidenced by the recent drilling, the ore of the lower contact below the Richmond-Sitting Bull is of the primary type. The five foot section of high grade ore in hole No. 1 is massive pyrite with galena and some chalcopyrite and sphalerite. As no silver minerals were identified, it is assumed that the silver is closely associated with the galena.

Secondary ore minerals include limonite, hematite, pyrolusite, psilomelane, cerrusite, anglesite, and smithsonite. Small amounts of covellite and native silver have been reported. The oxidized ore is brown to yellow and the higher values seem to be associated with the yellow material. There is also much dark color due to the manganese minerals. The medium grade silver values appear to be associated with the manganese.

Past production from the Richmond-Sitting Bull has been from both primary and oxidized ores. Faces of ore now available for sampling are mostly

oxidized ore.

(f) Reasons for Expecting to Find Ore

General - General reasons for expecting to be able to now mine ore of the grade previously produced are (1) the greater efficiency of modern mining methods, (2) the greatly increased prices of gold, silver and lead, and (3) the improved metallurgical procedures.

Upper Contact - Extensive sampling has been done in the Richmond-Sitting Bull by various parties. Some sampling has been done in other upper contact workings, the Savage, War Eagle, Barton Tunnel and the Florence. Sample locations and values for which sufficient data is available are shown on the underground sample map (Figure 11). On the map of the Richmond-Sitting Bull, however, many low grade samples taken by Louis Noble were omitted to avoid over-crowding. All of Noble's samples in the Richmond-Sitting Bull are shown by number on copies of a map made by him and by gold and silver content in his list of samples (Figure 12 and Exhibit 12).

Noble's samples were channel samples taken from floor to back and based on the appearance of the channels, seem to have been well taken samples. Ewoldt's samples are described as sheet samples, actually chip samples taken over the area of a face or part of a face. Little Beaver samples were taken in the same manner. As the distribution of ore is closely controlled by the verticals, the exact position of an up and down channel would greatly effect it's value. A horizontal channel would likewise be undependable as certain stratigraphic beds are more favorable for ore than others. Therefore, a chip sample taken over a rectangular area was thought to give the fairest representation. These were usually taken across a vertical or verticals for the full width of the face or for an arbitrary width if taken along a wall. Several rectangular areas divided on the basis of the stratigraphy and mineralization make up the complete sampling of a face or section of a wall.

Production from the Richmond-Sitting Bull is estimated at about $750,000 from about 50,000 tons of ore which at present prices would have a value of about $37.00 per ton. Old sample records indicate that a considerable amount of the ore was bonanza grade, as high as 100 ounces in silver and better. A 64 ounce silver sample over a 1-1/2 foot thickness was obtained in the recent sampling. Large areas of upper contact remain unexplored, both east and west of the Richmond-Sitting Bull workings and several ore faces could now be mined which lead into these areas. Numerous verticals extend from the workings into unexplored portions of the property. For these reasons it is thought that a well planned prospecting program in the upper contact has a good chance of finding a substantial quantity of ore.

Lower Contact - Here, little sampling has been done on the Double Rainbow property. A one foot sample taken by Ewoldt on the Merritt No. 1 claim contains 4.18 ounces of silver and 6.56% lead. Drill holes found a 5.0 foot section of high grade silver ore and several intersections of silver mineralization.

Silver, lead and zinc mineralization is present in the lower contact horizon where it is cut by Bear Butte Creek, at the lower end of the Galena Placer Claim.

Extensive mining for gold has been done in the Cambrian Deadwood formation in the Lead-Trojan-Maitland areas. It is an accepted and proven fact that lower contact ores have been better grade than those mined from the upper contact.

A very similar fracture pattern between the Richmond-Sitting Bull (upper contact) and the Merritt No. 2 (lower contact) is revealed by Tullis' study of vertical directions (Figure 14). Ore solutions reaching the upper contact horizon through the Deadwood formation and depositing the ore bodies of the Richmond-Sitting Bull should have encountered similar conditions at the lower contact horizon.

Other mines in the district have had important production from the lower contact.

For the reasons given above it is thought that the lower contact horizon under the Richmond-Sitting Bull is a very favorable area to prospect for substantial deposits of silver-lead ore.

(g) Return of Reports

Copies of reports, maps and other data furnished with this application need not be returned.

OME APPLICATION - PART 4 - DOUBLE RAINBOW PROJECT

Accessibility of Property

The OME representative should contact Dr. E. L. Tullis of the South Dakota School of Mines and Technology at Rapid City, South Dakota, when he wishes to make an examination of the property.

The Double Rainbow property is located near Galena, South Dakota, which may be reached from Lead by traveling on a good, all-weather road. The property is 6½ airline miles, and 10½ road miles southeast of Lead (See index map, Figure 2).

The present upper contact workings on the Double Rainbow property are accessible and, for the most part, in good condition.

The shipping point for any concentrates from the property would be Pluma, South Dakota, which is located on the CB&Q railroad, 9½ miles from the property.

OME APPLICATION - PART 5 - DOUBLE RAINBOW PROJECT

Exploration Work

Proposed exploration work at the Double Rainbow property includes surface and underground diamond drilling; shaft sinking; station and pocket excavation; and exploration drifting in the upper and lower contacts (horizons). It is intended to explore the upper and lower contacts in the vicinity of the old Richmond-Sitting Bull Mine (Double Rainbow property). Recent diamond drilling indicates the presence of silver, lead, zinc, copper and gold mineralization in the unexplored lower contact below the old workings. Recent sampling indicates ore grade or near ore grade mineralization at several locations in the old mine on the upper contact. The proposed drifting is oriented to crosscut several areas of known mineralized "verticals" or fractures in the two favorable horizons or contacts. Some drifts would follow known mineralized verticals. Approximately 3,500 feet of the proposed drifting would be in the horizons favorable for ore deposition. See figures 3, 4 and 6.

Approximately 2,000 feet of the proposed diamond drilling would be from the surface. This drilling would be used primarily to gain geologic information to be used in the final detailed layout of the underground work. It is hoped that this drilling might intersect mineralized rock or ore, but its main purpose is to provide stratigraphic information. The tentative locations of the surface holes are shown on Figure 5.

In addition to the surface drilling approximately 3,200 feet of diamond drilling is proposed from the upper contact workings down to the lower contact. This drilling is shown on Figure 5, and its main function would be to provide stratigraphic information to aid in the lower contact layout and planning. The orientation and location of several slusher exploration drifts will be governed by the underground diamond drilling results.

Historically, diamond drilling alone, has not been a successful tool for finding Cambrian ore bodies which are localized along verticals. However, it is a valuable aid to underground exploration work.

The following summary lists the proposed exploration work, size of openings, footages, etc.

PROPOSED EXPLORATION WORK

Type Work	Size	Footage	Comments
Vertical shaft	$11\frac{1}{2}$x$10\frac{1}{2}$'	260'	Lower contact
Station & Pocket	9,000 cu. ft.	-	Lower contact
Trackless drift	8x10	1,500'	Lower contact
Slusher drift	6x6	1,300'	Lower contact
Slusher drift	6x6	1,000'	Upper contact
Surface diamond drilling	BX	2,000'	Upper & Lower contact
U.G. Diamond drilling	AX	3,200'	Lower contact

In the event that an OME contract is executed, it is estimated that work would start August 1, 1966 and finish July 1, 1967. A time schedule for the proposed work is as follows:

Type of Work	Date Begin	Date Finish	Est. Monthly Progress
*Surface construction	8/ 1/66	10/31/66	-
Surface diamond drilling	9/ 1/66	10/31/66	1,000 ft.
**Shaft sinking	9/15/66	12/30/66	125 ft.
*Rehabilitation - Main tunnel	11/ 1/66	12/15/66	534 ft.
Underground diamond drilling	12/ 1/66	3/10/67	900 ft.
Excavate station & pocket	12/15/66	1/20/67	-
Trackless drifting lower contact	2/ 1/67	5/28/67	375 ft.
Slusher drifting upper contact	2/ 1/67	5/28/67	250 ft.
Slusher drifting lower contact	4/ 1/67	6/31/67	325 ft. (2) 650 ft. (1)

* The surface construction and main tunnel rehabilitation will be done without OME assistance.

** Shaft sinking will be done in two phases with interruptions when the headframe is installed and the station excavation is started.

OME APPLICATION - PART 6 - DOUBLE RAINBOW PROJECT

Experience

Rexford W. Barton, one of the principal owners of Double Rainbow Mines, Inc., has personal knowledge of the property and the various operations that have been conducted on it over a period of many years.

Dr. Edward L. Tullis of the South Dakota School of Mines and Technology Geology Department has been engaged as a consultant. Dr. Tullis came to the School of Mines and Technology in 1935 and is thoroughly familiar with Black Hills geology, particularly that of the Galena area. He has spent several summers mapping the geology of the Double Rainbow property and adjacent areas for the South Dakota Geological Survey and the Bureau of Mines. He has supervised the work of students in the area.

Double Rainbow Mines, Inc. has made arrangements, contingent upon approval of the application for financial assistance, to engage the Homestake Mining Company of Lead, South Dakota, as an independent contractor to do the exploration work. Supervision of the work would be by Donald T. Delicate, manager of mining for the Black Hills Operations of Homestake.

OME APPLICATION - PART 7 - DOUBLE RAINBOW PROJECT

Estimate of Costs

Introduction - Double Rainbow Mines, Inc., through its contractor, proposes to provide all labor, supplies and equipment for the Double Rainbow exploration project. A summary of the estimated total project cost for which assistance is requested is as follows:

Summary of Costs

Type of Work	Size	Footage	Unit Cost	Estimated Total Cost
Sink vertical shaft with clamshell	$11\frac{1}{2}'x10\frac{1}{2}'$	60'	$ 100/ft.	$ 6,000
Sink vertical shaft with hoist	$11\frac{1}{2}'x10\frac{1}{2}'$	200'	195/ft.	39,000
Total shaft sinking	$11\frac{1}{2}'x10\frac{1}{2}'$	260'		$ 45,000
Excavate station & pockets	9,000 cu. ft.	-	$1.50/cu. ft.	$ 13,500
Build & install skip loader				10,500
Total				$ 24,000
Lower contact drifting				
Drive exploration drift (trackless)	8'x10'	1,500'	$52.50/ft.	$ 78,750
Drive exploration drift (slusher)	6'x6'	1,300'	34.04/ft.	44,250
Total lower contact exploration drifting		2,800'		$123,000
Upper contact drifting				
Drive exploration drift (slusher)	6'x6'	1,000'	$30.00/ft.	$ 30,000
Surface diamond drilling	BX	2,000'	$ 6.00/ft.	$ 12,000
U.G. diamond drilling	AX	3,200'	3.375/ft.	10,800
Total diamond drilling		5,200'		$ 22,800
Engineering & geological expense				$ 12,000
Underground equipment				22,000
Total estimated cost for which OME assistance is requested				$278,800

(a) Independent Contractors - The Homestake Mining Company of nearby Lead, South Dakota will be engaged as an independent contractor if the application is approved. All of the work as listed above will be done by the contractor.

(b) Personal Services - The number of employees required for the proposed project and the basic pay rate is shown on the following manpower requirement analysis. The rates shown are basic day rates of pay and do not include overtime, shift differential, other fringe costs or contract bonus payments. The actual underground work and diamond drilling will be done on a contract incentive basis.

Estimate of Costs (continued)

The proposed exploration work will be performed on a 48 hour per week basis. Shaft sinking and station and pocket work will be done on a three shift basis. All other work will be done on a two shift basis.

All labor costs incurred by the contractor for Double Rainbow Mines, Inc. would be included in the unit exploration costs and engineering and geological expense shown in the Summary of Costs.

The cost of consultants will be paid by Double Rainbow Mines, Inc.

MANPOWER REQUIREMENTS - DOUBLE RAINBOW PROJECT

Position		1966 Aug.	Sept.	Oct.	Nov.	Dec.	1967 Jan.	Feb.	Mar.	Apr.	May	June
Mine Superintendent	Rate	-	$800	$800	$800	$800	$800	$800	$800	$800	$800	$800
	No.		1	1	1	1	1	1	1	1	1	1
Shift Boss	Rate	-	-	-	-	-	-	$645	$645	$645	$645	$645
	No.							1	1	1	1	1
Geologist	Rate	-	$650	$650	$650	$650	$650	$650	$650	$650	$650	$650
	No.		1	1	1	1	1	1	1	1	1	1
Engineer	Rate	$650	$650	$650	$650	$650	$650	$150	-	-	-	-
	No.	2	1	1	1	1	1	$\frac{1}{4}$				
Hoistman	Rate	-	-	-	$2.20	$2.20	$2.20	$2.20	$2.20	$2.20	$2.20	$2.20
	No.				3	3	3	2	2	2	2	2
Mechanic	Rate	-	-	-	$2.20	$2.20	$2.20	$2.20	$2.20	$2.20	$2.20	$2.20
	No.				1	1	1	2	2	2	2	2
Heavy Equip. Operator	Rate	-	$2.14	-	-	-	-	-	-	-	-	-
	No.		2									
Truckdriver (Topman)	Rate	-	$1.97	-	$1.97	$1.97	$1.97	$1.97	$1.97	$1.97	$1.97	$1.97
	No.		1		1	1	1	1	1	1	1	1
Surface Laborer	Rate	-	-	-	-	-	-	$1.74	$1.74	$1.74	$1.74	$1.74
	No.							1	1	1	1	1
Underground Laborer	Rate	-	-	-	-	-	-	$1.89	$1.89	$1.89	$1.89	$1.89
	No.							2	2	2	2	2
Miner	Rate	-	$2.08	-	$2.08	$2.08	$2.08	$2.08	$2.08	$2.08	$2.08	$2.08
	No.		6		9	9	9	8	8	8	8	8
Diamond Driller	Rate	-	$2.08	$2.08	-	$2.08	$2.08	$2.08	$2.08	-	-	-
	No.		2	2		2	2	2	2			
Dia. Drill Helper	Rate	-	$1.98	$1.98	-	$1.98	$1.98	$1.98	$1.98	-	-	-
	No.		2	2		2	2	2	2			

Note: Rates of pay shown for hourly workers are the base day rates and do not include overtime, shift differentials, other fringes or bonus payments where applicable. Work week is 48 hours.

OME APPLICATION - PART 7 - DOUBLE RAINBOW PROJECT

Estimate of Costs (continued)

(c) Operating materials and supplies - All materials and supplies necessary to perform the proposed exploration work would be included in the unit costs shown in the Summary of Costs.

(d) Operating Equipment - All equipment to carry out the proposed exploration project will be furnished by the contractor for Double Rainbow Mines, Inc. The costs of this equipment will be included in the unit costs shown in the Summary, except for underground equipment totaling $22,000.

contractors equipment cannot be included in a contract HK

The following items of equipment will be purchased for the underground work:

No.	Item	Cost including freight and tax
2	Diesel trucks (5 ton capacity)	$ 16,250
1	Mine Cage	3,250
1	Mine Skip	2,500
Total		$ 22,000

(e) Initial Rehabilitation and Repairs - All initial rehabilitation and repair costs are to be born by Double Rainbow Mines, Inc. and are not part of the proposed OME project.

(f) New buildings, fixtures and installations - All costs in this category will be the sole cost of Double Rainbow Mines, Inc. and are not included in this OME project.

(g) Miscellaneous - All costs in this category which are incurred are included in the unit costs and engineering and geological expense shown in the Summary of Costs.

It is proposed that this project be set up on a unit cost basis for all exploration work as outlined in the Summary of Costs. Participation in the proposed project by the government would be limited to its share of the amount shown.

List of Exhibits to be found in separate folder

Exhibit 1 - Evidence of attempts to obtain credit

Exhibit 2 - Log of Bureau of Mines drill hole No. 2

Exhibit 3 - List of claims

Exhibit 4 - Boreo report

Exhibit 5 - Noble report

Exhibit 6 - Copy of settlement report

Exhibit 7 - Lincoln (and Ewoldt) report

Exhibit 8 - Lincoln and Ewoldt composite sample list

Exhibit 9 - Lincoln and Ewoldt complete sample list

Exhibit 10 - Tullis report

Exhibit 11 - Notes from assayer's book

Exhibit 12 - List of Noble's samples

Exhibit 13 - List of Little Beaver samples

Exhibit 14 - Copies of Little Beaver assay sheets

Exhibit 15 - Copies of Brown Laboratory assay certificates

Exhibit 16 - Notes on Lincoln-Ewoldt sampling

Exhibit 17 - War Minerals report

Exhibit 18 - Ore dressing report, American Cyanamid Company

Exhibit 19 - Ore dressing report, Little Beaver Mining Company

Exhibit 20 - Unsigned report, probably Ewoldt's

United States Department of the Interior

GEOLOGICAL SURVEY
RESTON, VIRGINIA 22092

In Reply Refer To:
Mail Stop 953

January 25, 1979

Memorandum

To: Branch of Financial Reports

From: Chief, Office of Minerals Exploration

Subject: Recording of realized loss under OME contract

Write-off of realized loss on the contract listed is hereby authorized:

Contract	Docket	Operator	Write-off
2233	OME-6558	Double Rainbow Mines, Inc.	$222,703.63

Harold Kirkemo

Harold Kirkemo

United States Department of the Interior

GEOLOGICAL SURVEY
RESTON, VIRGINIA 22092

In Reply Refer To:
Mail Stop 953

January 25, 1979

Mr. Anthony D. Terry
Attorney & Acting President
Double Rainbow Mines, Inc.
Dowdall, Harris, Hull & Terry
250 North Church Avenue
Tuscon, Arizona 85701

Re: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, S. Dakota
Contract 2233

Dear Mr. Terry:

By the terms of OME Contract 2233, as amended, and the Certification of Possible Production dated May 14, 1969, the period during which production was subject to payment of royalty to the Government has now expired. The Government according to its present records retains no claims or lien against the property subject to the contract or any production therefrom. We therefore are closing our books and records on this contract.

Sincerely yours,

Harold Kirkemo

Harold Kirkemo, Chief
Office of Minerals Exploration

Copy to: Olin M. Hart, Chief Geologist
Homestake Mining Co.
Box 875
Lead, South Dakota 57754

United States Department of the Interior

GEOLOGICAL SURVEY
RESTON, VIRGINIA 22092

IN REPLY REFER TO: Office of Minerals Exploration
Mail Stop 953

January 24, 1978

Re: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, S.Dakota
Contract 2233

Mr. Anthony D. Terry
Attorney & Acting President
Double Rainbow Mines, Inc.
Dowdall, Harris, Hull & Terry
250 North Church Avenue
Tucson, Arizona 85701

Dear Mr. Terry:

After the completion of the approved exploration work under the contract identified above, we asked to be informed about changes in the status of the property and production from it during the period of royalty obligation.

To assist you to furnish this information and to assure the accuracy of our records, please answer the questions on the back of this letter and return two copies to this office with copies of any pertinent documents.

Sincerely yours,

Harold Kirkemo

Harold Kirkemo, Chief
Office of Minerals Exploration

Form MME 63
(May 1970)

REQUEST FOR INFORMATION ON CERTIFIED PROJECT OR PROJECT UNDER ROYALTY AGREEMENT

1. Since January 26, 1976, has there been a change in ownership, lease, or sublease? *If yes, please state details of the transaction below and provide a true or signed copy of the pertinent documents, unless they have been provided before.* Yes ☐ No ☐

Is the Agreement, Option to Lease and Lease, dated March 8, 1967 between Double Rainbow Mines, Inc., and Homestake Mining Company still in effect? If not, please explain.

Yes ___ No ___

2. Since January 26, 1976, has there been any production from the land subject to the contract? Yes ☐ No ☐

A. If so and it was shipped, give quantity, value, and name and address of purchaser.

Purchaser *(name and address)*	Quantity	Value

B. If stockpiled awaiting sale, state quantity, grade, and location.

Type	Quantity *(tons)*	Estimated Grade	Location
Ore			
Concentrates			
Other			

3. Since workings *(see* , has any production been transported through *of contract)*? Yes ☐ No ☐

If so, state quantity, value, and disposition of material.

Disposition of Material	Quantity	Value

Submitted by:

Name	*Title*
Address	*Date*

Form MME 63
(May 1970)

REQUEST FOR INFORMATION ON CERTIFIED PROJECT OR PROJECT UNDER ROYALTY AGREEMENT

1. Since January 26, 1976, has there been a change in ownership, lease, or sublease? *If yes, please state details of the transaction below and provide a true or signed copy of the pertinent documents, unless they have been provided before.* Yes ☐ No ☒

Is the Agreement, Option to Lease and Lease, dated March 8, 1967 between Double Rainbow Mines, Inc., and Homestake Mining Company still in effect? If not, please explain.

Yes X No ___

2. Since January 26, 1976, has there been any production from the land subject to the contract? Yes ☐ No ☒

A. If so and it was shipped, give quantity, value, and name and address of purchaser.

Purchaser *(name and address)*	Quantity	Value

B. If stockpiled awaiting sale, state quantity, grade, and location.

Type	Quantity *(tons)*	Estimated Grade	Location
Ore			
Concentrates			
Other			

3. Since workings *(see* , has any production been transported through *of contract)?* Yes ☐ No ☒

If so, state quantity, value, and disposition of material.

Disposition of Material	Quantity	Value

Submitted by:

Name Olin M. Hart	*Title* Chief Geologist
Address Homestake Mining Co.; Box 875; Lead, SD 57754	*Date* May 15, 1978

United States Department of the Interior

GEOLOGICAL SURVEY
RESTON, VIRGINIA 22092

In Reply Refer To:
Mail Stop 953

October 6, 1977

Mr. Anthony D. Terry
Attorney & Acting President
Double Rainbow Mines, Inc.
Dowdall, Harris, Hull & Terry
250 North Church Avenue
Tucson, Arizona 85701

Re: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

Dear Mr. Terry:

Legislation enacted in October 1976 established new requirements concerning unpatented mining claims and affidavits of annual assessment work. Owners of unpatented claims must comply by October 22, 1979, with new procedures described in Section 314, Public Law 94-579, October 21, 1976, and in Federal Register--Title 43, Part IV of January 27, 1977. Copies of these documents are enclosed for your information. Simply stated, the new legislation requires that mining claims be rerecorded by October 22, 1979, and that certain information be filed with affidavits of assessment work.

We bring this matter to your attention so that you may take proper action if you intend to retain these claims after October 22, 1979. The Government's interest in the land and in royalty on possible production therefrom under terms of the subject contract terminate before that date. In the meantime, this interest is protected under provisions cited in the contract.

Sincerely yours,

Harold Kirkemo

Harold Kirkemo, Chief
Office of Minerals Exploration

Enclosures

United States Department of the Interior

GEOLOGICAL SURVEY
RESTON, VIRGINIA 22092

IN REPLY REFER TO: Office of Minerals Exploration

January 23, 1976

Re: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, S. Dakota
Contract 2233

Mr. Anthony D. Terry
Attorney & Acting President
Double Rainbow Mines, Inc.
Dowdall, Harris, Hull & Terry
250 North Church Avenue
Tucson, Arizona 85701

Dear Mr. Terry:

After the completion of the approved exploration work under the contract identified above, we asked to be informed about changes in the status of the property and production from it during the period of royalty obligation.

To assist you to furnish this information and to assure the accuracy of our records, please answer the questions on the back of this letter and return two copies to this office with copies of any pertinent documents.

Sincerely yours,

Harold Kirkemo

Harold Kirkemo, Chief
Office of Minerals Exploration

OFFICIAL COPY
O. M. E.
RECEIVED
JAN 30 1976

INITIALS	CODE
HK	

Form MME 63
(May 1970)

REQUEST FOR INFORMATION ON CERTIFIED PROJECT
OR PROJECT UNDER ROYALTY AGREEMENT

1. Since February 10, 1975, has there been a change in ownership, lease, or sublease? *If yes, please state details of the transaction below and provide a true or signed copy of the pertinent documents, unless they have been provided before.* Yes [ ] No [X]

Is the Agreement, Option to Lease and Lease, dated March 8, 1967 between Double Rainbow Mines, Inc., and Homestake Mining Company, still in effect? If not, please explain. Yes [X] No [ ]

2. Since February 10, 1975, has there been any production from the land subject to the contract? Yes [ ] No [X]

A. If so and it was shipped, give quantity, value, and name and address of purchaser.

Purchaser *(name and address)*	Quantity	Value

B. If stockpiled awaiting sale, state quantity, grade, and location.

Type	Quantity *(tons)*	Estimated Grade	Location
Ore			
Concentrates			
Other			

3. Since workings *(see* , has any production been transported through *of contract)*? Yes [ ] No [ ]

If so, state quantity, value, and disposition of material.

Disposition of Material	Quantity	Value

Submitted by:

Name Anthony D. Terry	*Title* Attorney and Acting President
Address 250 North Church Avenue Tucson, Arizona 85701	*Date* January 26, 1976

J. MERCER JOHNSON
RAYMOND F. HAYES
RICHARD J. DOWDALL
M. V. MORALES, JR.
ANTHONY D. TERRY
JOHN G. STOMPOLY
JOHN R. EVEN
SIDNEY LEX FELKER
DONALD E. GABRIEL
JAMES G. BUSBY
DEE-DEE SAMET

LAW OFFICE
JOHNSON, HAYES & DOWDALL, LTD.
250 NORTH CHURCH AVENUE
TUCSON, ARIZONA 85701

P. O. BOX 591
TUCSON, ARIZONA 85702

JAMES HENDRICK TERRY
RICHARD G. DARROW
OF COUNSEL

TELEPHONE:
(602) 624-8741

CABLE: JURIS

IN REPLY REFER TO:

January 26, 1976

Mr. Harold Kirkemo, Chief
Office of Minerals Exploration
U. S. Dept. of the Interior
Reston, Virginia 22092

Re: Double Rainbow Mine; your # OME-6558 (Silver)
Lawrence County, S. Dakota
Contract 2233

Dear Mr. Kirkemo:

Enclosed is the requested report concerning the Double Rainbow Mine. Again, there is no change in the status of the property and production.

Very truly yours,

Anthony D. Terry

ADT/akw
enc.

J. MERCER JOHNSON
RAYMOND F. HAYES
RICHARD J. DOWDALL
M. V. MORALES, JR.
ANTHONY D. TERRY
JOHN G. STOMPOLY
JOHN R. EVEN
SIDNEY LEX FELKER
WILLIAM N. SHERRILL
DONALD E. GABRIEL
ROBERT A. SCHULER
JAMES G. BUSBY

LAW OFFICES
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250 NORTH CHURCH AVENUE
TUCSON, ARIZONA 85701

P. O. BOX 591
TUCSON, ARIZONA 85702

JAMES HENDRICK TERRY
RICHARD G. DARROW
OF COUNSEL

TELEPHONE:
(602) 624-8741

CABLE: JURIS

IN REPLY REFER TO:

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O. M. E.
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2 13 1975
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February 10, 1975

Mr. Harold Kirkemo, Chief
Office of Minerals Exploration
U. S. Dept. of the Interior
Reston, Virginia 22092

Re: Double Rainbow Mine

Dear Mr. Kirkemo:

Enclosed is the requested report concerning the Double Rainbow Mine. Again, there is no change.

Very truly yours,

Anthony D. Terry

ADT/akw
enc.

United States Department of the Interior

GEOLOGICAL SURVEY
RESTON, VIRGINIA 22092

IN REPLY REFER TO: Office of Minerals Exploration

January ~~24~~ 31, 1975

Re: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, S. Dakota
Contract 2233

Mr. Anthony D. Terry
Attorney & Acting President
Double Rainbow Mines, Inc.
Dowdall, Harris, Hull & Terry
250 North Church Avenue
Tucson, Arizona 85701

Dear Mr. Terry:

After the completion of the approved exploration work under the contract identified above, we asked to be informed about changes in the status of the property and production from it during the period of royalty obligation.

To assist you to furnish this information and to assure the accuracy of our records, please answer the questions on the back of this letter and return two copies to this office with copies of any pertinent documents.

Sincerely yours,

Harold Kirkemo

Harold Kirkemo, Chief
Office of Minerals Exploration

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Copy to R. III

Form MME 63
(May 1970)

REQUEST FOR INFORMATION ON CERTIFIED PROJECT OR PROJECT UNDER ROYALTY AGREEMENT

1. Since February 19, 1974, has there been a change in ownership, lease, or sublease? *If yes, please state details of the transaction below and provide a true or signed copy of the pertinent documents, unless they have been provided before.* Yes ☐ No ☒

Is the Agreement, Option to Lease and Lease, dated March 8, 1967 between Double Rainbow Mines, Inc., and Homstake Mining Company, still in effect? If not, please explain. Yes /x/ No / /

2. Since February 19, 1974, has there been any production from the land subject to the contract? Yes ☐ No ☒

A. If so and it was shipped, give quantity, value, and name and address of purchaser.

Purchaser *(name and address)*	Quantity	Value

B. If stockpiled awaiting sale, state quantity, grade, and location.

Type	Quantity *(tons)*	Estimated Grade	Location
Ore			
Concentrates			
Other			

3. Since workings *(see* , has any production been transported through *of contract)*? Yes ☐ No ☐

If so, state quantity, value, and disposition of material.

Disposition of Material	Quantity	Value

Submitted by:

Name	*Title*
Anthony D. Terry	Attorney and ~~Acting~~ President
Address 250 North Church Ave. Tucson, Arizona 85701	*Date* February 10, 1975

October 18, 1973

Mr. Anthony D. Terry
Johnson, Hayes & Dowdall, Ltd.
250 North Church Avenue
Tucson, Arizona 85701

Re: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

Dear Mr. Terry:

This is in reply to your request of October 11, 1973, for a copy of the "Final Geologic and Engineering Report" on the Double Rainbow Mine.

One or more copies of this report and accompanying maps may be ordered by contacting:

Cooper-Trent Division
Keuffel & Esser Co.
Wilson Boulevard at Danville Street
Arlington, Virginia 22201
Attention: Mr. Marvin Mundy

Cooper-Trent will contact you regarding the cost of reproductions. Upon deciding how many copies you want, send the enclosed copy of this letter to Cooper-Trent with your letter of instructions. All future correspondence relating to procurement of copies of the material should be with Cooper-Trent rather than with this office.

The Operator's final report, dated December 27, 1968, includes the material listed on the enclosed copy of the Table of Contents (2 pages).

Sincerely yours,

Harold Kirkemo

Harold Kirkemo, Chief
Office of Minerals Exploration

Enclosures

Copy to: Mr. Marvin Mundy

HKirkemo/gpw

cc: DRF
MR Rdg.
OME Rdg.
OME Files ✓
Mr. Kirkemo
Region II

OME 6558

J. MERCER JOHNSON
RAYMOND F. HAYES
RICHARD J. DOWDALL
M. V. MORALES, JR.
ANTHONY D. TERRY
JOHN G. STOMPOLY
JOHN R. EVEN
SIDNEY LEX FELKER
WILLIAM N. SHERRILL
DONALD E. GABRIEL
ROBERT A. SCHULER
JAMES G. BUSBY

LAW OFFICES
JOHNSON, HAYES & DOWDALL, LTD.
250 NORTH CHURCH AVENUE
TUCSON, ARIZONA 85701

JAMES HENDRICK TERRY
RICHARD G. DARROW
OF COUNSEL

TELEPHONE:
(602) 624-8741

CABLE: JURIS

IN REPLY REFER TO:

October 11, 1973

Mr. Harold Kirkemo
Chief of Minerals Exploration
U.S. Geological Survey
Washington, D.C. 20242

Dear Mr. Kirkemo:

Would you please send me a copy of the "Final Geologic and Engineering Report" on the Double Rainbow Mine.

Thank you in advance for your courtesy and cooperation.

Sincerely,

Anthony D. Terry/dl

Anthony D. Terry

dl

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A. L. Slaughter
Olin Hart
December 27, 1968

Office of Minerals Exploration
Building 53 Room 28

June 7, 1973

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JUN 11 1973
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HK 120

Mr. J. Ben Carsey, Geologist
1633 Chamber of Commerce Building
Houston, Texas 77002

Re: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mines
Lawrence County, South Dakota
Contract 2233

Dear Mr. Carsey:

Please excuse the delay in answering your request of May 21, 1973 concerning the Double Rainbow Property in Lawrence County, South Dakota.

The prime contractor for the contract referred to above was the Homestake Mining Company. All information provided us under an OME contract is considered company confidential and cannot be released without permission from the operating company, or the present owner of the property.

Your most likely avenue for the receipt of this report is to have Mr. Anthony Terry request a copy of the final geologic and engineering report from Homestake Mining Company as it was they who prepared the report for Double Rainbow Mines, Inc. I trust this will assist you in your request.

Sincerely yours,

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

cc: Chief, OME with copy of incoming letter
OME chron
Mr. Hasler
"e"

J. BEN CARSEY
GEOLOGIST
1633 CHAMBER OF COMMERCE BUILDING
HOUSTON, TEXAS 77002

TELEPHONE:
OFFICE CA 2-6976
HOME SU 2-7397

May 21, 1973

OME Region III
RECEIVED
MAY 23 1973
Denver, Colorado

Office of Minerals Exploration
United States Department of the Interior
Geological Survey
Federal Center
Denver, Colorado 80225

Gentlemen:

Attached is a xerox copy of a letter written May 1, 1969 by your Mr. J. William Hasler concerning the OME-6558 Double Rainbow Mines, Lawrence County, South Dakota, your contract 2233. I have recently visited with Mr. Anthony D. Terry of Tucson, Arizona who is attorney for the Double Rainbow Company and one of its owners. Although the Rainbow Company has extensive files on the mine, we were unable to locate the geologic and engineering report referred to in the last paragraph of the attached letter. If not too much trouble, I would appreciate receiving a copy of this report. Please advise if this is possible and, if there is any cost, about how much this would be.

Thank you.

Yours very truly,

J. Ben Carsey

J. Ben Carsey

JBC:jb

cc: Mr. Anthon D. Terry
Attorney at Law
250 North Church Ave.
Tucson, Arizona 85701

Mr. Wallace E. Pratt
2820 North Torino
Tucson, Arizona 85712

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225

Office of Minerals Exploration
Building 53 Room 200

May 1, 1969

Double Rainbow Mines, Inc.
Lawrence County, South Dakota

% Anthony D. Terry
Dowdall, Harris, Hull and Terry
Attorneys at Law
250 North Church Avenue
Tucson, Arizona 85701

Re: OME-6558 (Silver)
Rexford W. Barton
Double Rainbow Mines
Lawrence County, South Dakota
Contract 2233

Dear Mr. Terry:

Transmitted herewith is a copy of a Report of Review issued in January 1969 on the subject contract. The report was sent to me in February and was then recalled to Washington for inclusion of subsequent data.

I have reviewed the Report of Review and concur in the facts included in this report. I might add, however, that the $182.00 claimed by the Operator in its final voucher (November 1968) for the consulting geologist's services has not been included in the Report of Review. Including the $182.00, claimed and accepted cost total $296,938.17, with the Government contributing 75 percent, or $222,703.63.

If for any reason you do not concur on these costs, your copy of this report should be returned to this office with appropriate comments.

The final geologic and engineering report was most satisfactory. It was a great pleasure and a real satisfaction in working with you on the Double Rainbow project. We shall now hope for a $3.00 price for silver. I feel the project was a successful one in spite of the metallurgical problems encountered.

Sincerely yours,

Office of Minerals Exploration
J. William Hasler

LAW OFFICES
JOHNSON, HAYES & DOWDALL, LTD.
250 NORTH CHURCH AVENUE
TUCSON, ARIZONA 85701

J. MERCER JOHNSON
RAYMOND F. HAYES
RICHARD J. DOWDALL
M. V. MORALES, JR.
ANTHONY D. TERRY
JOHN G. STOMPOLY
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DONALD E. GABRIEL
ROBERT A. SCHULER
JAMES G. BUSBY

JAMES HENDRICK TERRY
RICHARD G. DARROW
OF COUNSEL

TELEPHONE
(602) 624-8741
CABLE: JURIS

3 April 1973

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Mr. Harold Kirkemo, Chief, OME
U. S. Department of the Interior
Geological Survey
Washington, D. C. 20242

Re: OME-6558 (Silver) - Double Rainbow Mines, Inc.
Double Rainbow Mine, Lawrence County,
South Dakota - Contract 2233

Dear Mr. Kirkemo:

Enclosed is the requested report concerning the Double Rainbow Mine. There is, again, no change.

As you can see from the letterhead, we have merged but retain the same address and offices. The resultant confusion has somewhat hindered the orderly course of business.

Sincerely,

Anthony D. Terry

ADT/efd
enclosure
AIR MAIL

United States Department of the Interior

GEOLOGICAL SURVEY
WASHINGTON, D.C. 20242

IN REPLY REFER TO: Office of Minerals Exploration

January 24, 1972

Mr. Anthony D. Terry
Attorney & Acting President
Double Rainbow Mines, Inc.
Dowdall, Harris, Hull & Terry
250 North Church Avenue
Tucson, Arizona 85701

Re: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

Copy to R-III

Dear Mr. Terry:

After the completion of the approved exploration work under the contract identified above, we asked to be informed about changes in the status of the property and production from it during the period of royalty obligation.

To assist you to furnish this information and to assure the accuracy of our records, please answer the questions on the back of this letter and return two copies to this office with copies of any pertinent documents.

Sincerely yours,

Harold Kirkemo

Harold Kirkemo
Chief, Office of
Minerals Exploration

Form MME 63
(May 1970)

REQUEST FOR INFORMATION ON CERTIFIED PROJECT OR PROJECT UNDER ROYALTY AGREEMENT

1. Since April 5, 1971, has there been a change in ownership, lease, or sublease? *If yes, please state details of the transaction below and provide a true or signed copy of the pertinent documents, unless they have been provided before.* Yes ☐ No ☒

Is the Agreement, Option to Lease and Lease, dated March 8, 1967, between Double Rainbow Mines, Inc., and Homestake Mining Company, still in effect? If not, please explain. Yes /X/ No /__/

2. Since April 5, 1971, has there been any production from the land subject to the contract? Yes ☐ No ☒

A. If so and it was shipped, give quantity, value, and name and address of purchaser.

Purchaser *(name and address)*	Quantity	Value

B. If stockpiled awaiting sale, state quantity, grade, and location.

Type	Quantity *(tons)*	Estimated Grade	Location
Ore			
Concentrates			
Other			

3. Since , has any production been transported through workings *(see of contract)*? Yes ☐ No ☐

If so, state quantity, value, and disposition of material.

Disposition of Material	Quantity	Value

Submitted by:

Name Anthony D. Terry	*Title* Attorney and Acting President
Address 250 N. Church Avenue Tucson, Arizona 85701	*Date* 3 April 1973

1/24

DOWDALL, HARRIS, HULL & TERRY
ATTORNEYS AT LAW
250 NORTH CHURCH AVENUE
TUCSON, ARIZONA 85701
[602] 624-8894

RICHARD J. DOWDALL
RICHARD C. HARRIS
NORMAN S. HULL
ANTHONY D. TERRY
SIDNEY LEX FELKER
ROBERT ALLEN SCHULER

JAMES HENDRICK TERRY
OF COUNSEL

550 GRAND STREET
NOGALES, ARIZONA
[602] 287-3681

HARLEY T. MORRIS

8 May 1972

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MAY 10 1972

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Mr. Harold Kirkemo, Chief, OME
U. S. Department of the Interior
Geological Survey
Washington, D. C. 20242

Re: OME-6558 (Silver) - Double Rainbow Mines, Inc.
Double Rainbow Mine, Lawrence County,
South Dakota - Contract 2233

Dear Mr. Kirkemo:

Enclosed is the requested report, from which you will note there is no change in status.

I apologize for the delay in getting this to you.

Sincerely,

DOWDALL, HARRIS, HULL & TERRY

Anthony D. Terry

Anthony D. Terry

ADT/efd
enclosure
AIR MAIL

United States Department of the Interior

GEOLOGICAL SURVEY
WASHINGTON, D.C. 20242

IN REPLY REFER TO: Office of Minerals Exploration

May 3, 1972

Mr. Anthony D. Terry
Attorney & Acting President
Double Rainbow Mines, Inc.
Dowdall, Harris, Hull & Terry
250 North Church Avenue
Tucson, Arizona 85701

Re: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

Dear Mr. Terry:

This has reference to a similar request sent to you on January 24, 1972, which was not completed and returned.

After the completion of the approved exploration work under the contract identified above, we asked to be informed about changes in the status of the property and production from it during the period of royalty obligation.

To assist you to furnish this information and to assure the accuracy of our records, please answer the questions on the back of this letter and return two copies to this office with copies of any pertinent documents.

Sincerely yours,

Harold Kirkemo

Harold Kirkemo
Chief, Office of
Minerals Exploration

Form MME 63
(May 1970)

REQUEST FOR INFORMATION ON CERTIFIED PROJECT OR PROJECT UNDER ROYALTY AGREEMENT

1. Since April 5, 1971, has there been a change in ownership, lease, or sublease? *If yes, please state details of the transaction below and provide a true or signed copy of the pertinent documents, unless they have been provided before.* Yes ☐ No ☒

Is the Agreement, Option to Lease and Lease, dated March 8, 1967, between Double Rainbow Mines, Inc., and Homestake Mining Company, still in effect? If not, please explain. Yes /X/ No /__/

2. Since April 5, 1971, has there been any production from the land subject to the contract? Yes ☐ No ☒

A. If so and it was shipped, give quantity, value, and name and address of purchaser.

Purchaser (*name and address*)	Quantity	Value

B. If stockpiled awaiting sale, state quantity, grade, and location.

Type	Quantity (*tons*)	Estimated Grade	Location
Ore			
Concentrates			
Other			

3. Since , has any production been transported through workings (*see* *of contract*)? Yes ☐ No ☐

If so, state quantity, value, and disposition of material.

Disposition of Material	Quantity	Value

Submitted by:

Name Anthony D. Terry	*Title* Attorney and Acting President
Address 250 N. Church Avenue Tucson, Arizona 85701	*Date* 8 May 1972

Office of Minerals Exploration
Building 53 Room 28

August 26, 1971

Memorandum

To: D. R. Shawe

From: J. W. Hasler

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mines
Lawrence County, South Dakota
Contract 2233

HK 120
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This memorandum is in reply to your telephone request concerning mineral resources of North and South Dakota, that Tom Hendricks referred to you. The U. S. Geological Survey's Office of Minerals Exploration entered into a contract January 24, 1967 to explore for new and undiscovered reserves of silver at the Double Rainbow Mines near Galena, South Dakota. Exploration work under the contract was completed in August 1968, and resulted in a discovery of an estimated 200,000 tons of ore containing silver, gold, lead and zinc having gross value as of December 31, 1969, of $6,430,000. The Government spent a total of $223,704.00, and the total value of the contract was $312,180.00.

There has been no production shipped from the property partly because of the depressed price of silver, coupled with the fact that metallurgical problems prevent the material from being profitable until the price of silver reached $3.00 per ounce. When the price of silver reaches this level the ore will most certainly be mined.

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

cc: Chief, OME
OME-6558
OME chron.
Mr. Hasler
Mr. Emerick
Mr. Hendricks

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225

Office of Minerals Exploration
Building 53 Room 200

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JUL 26 1971

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HK	~~120~~
	220

July 22, 1971

Memorandum

To: Chief, Office of Minerals Exploration

From: Assistant Chief, Office of Minerals Exploration

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mines
Lawrence County, South Dakota
Contract 2233

Transmitted herewith is the final field report on the above-stated OME exploration project.

William L. Emerick

William L. Emerick,
Assistant Chief
Office of Minerals Exploration

Enclosure

FINAL FIELD REPORT - OME EXPLORATION PROJECT

By W. L. Emerick

July 22, 1971

1. OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mines
Lawrence County, South Dakota
Contract 2233

Operator: Double Rainbow Mines, Inc.
2251 Virginia Street
Berkeley, California 94709

Property: Consisted of twenty-nine (29) patented lode mining claims and one (1) unpatented lode mining claim, including all rights pertaining thereto, in secs. 3, 4, 9, and 10, T. 4 N., R. 4 E., Black Hills Meridian, Galena district, Lawrence County, South Dakota. A map showing the area of the claims was attached to the contract.

Ownership: The Operator was the sole owner of all the claims.

2. Purpose of Project: The purpose of the project was to explore by diamond core drilling from surface sites and by shaft sinking, crosscutting, and drifting for silver-bearing ore deposits occurring as replacement bodies associated (1) with three dolomitic zones in the Deadwood formation of Cambrian age, and (2) with sedimentary and metamorphic rocks at the base of the Deadwood formation overlying Precambrian rocks.

3. Contract: Dated January 24, 1967, for a term of 24 months.
Original contract amount - $312,180.00.
Government participation - 75 percent - $234,135.00.

Amendments - No. 1 - April 19, 1967, to revise in Exhibit A the third paragraph under the heading Description of the Work.

No. 2 - January 12, 1968, to revise in Exhibit A the sixth paragraph under the heading Description of the Work.

No. 3 - March 5, 1968, to revise in Exhibit A the second and sixth items under the heading Estimated Costs of the Project, Fixed Unit Costs.

No. 4 - May 16, 1968, to revise in Exhibit A the last two paragraphs under the heading Description of the Work.

FINAL FIELD REPORT

4. Project Work: Started April 1967. Work under OME contract completed in August 1968.

Cost Items	Authorized Units	Authorized Rate	Authorized Amount	Completed Units	Completed Amount
Drilling	6,110 feet	Various	$28,548.00	6,023 feet	$25,337.90
Shaft sinking	260 feet	$220.00/ft.	$57,200.00	253 feet	$56,460.00
Allowance for excess water in shaft sinking	-----	-----	$800.00	-----	-----
Excavate shaft station, sump and loading pocket, including installation of skip loader	9,000 cubic feet	$2.16/ cu. ft.	$19,440.00	9,000 cu. ft.	$19,440.00
Drifting	4,200 feet	Various	$188,250.00 (Rounded)	4,200 feet	$188,254.00
Allowance for excess water in drifting and crosscutting	-----	-----	$10,640.00	-----	$1,504.00
Rock bolting	-----	-----	$4,348.00	-----	$4,350.00
Outside Consultant	30 days	$75.00/day	$2,250.00	18 days	$1,340.63
Per Diem, Outside Consultant	30 days	$16.00/day	$480.00	9.8 days	$156.00
Travel Expense, Outside Consultant	1,825 miles	$0.12/mile	$219.00	797 miles	$95.64
Total Estimated Costs of Project (Rounded)			$312,180.00		$296,938.17
Government Participation at 75 percent			$234,135.00		$222,703.63
Paid to Operator					$222,703.63

The Government retained no equity in any of the materials used.

Effectiveness of the Work - The targets proposed in the OME contract were adequately explored.

Efficiency of Operation - The operation was efficiently performed and supervised.

5. Reports:

Operator's Final Report - An acceptable Final Report was received on January 6, 1969. The report was complete with ample summaries and results of the work performed, drill hole logs, sample analyses, maps, and sections.

Cost Review - A Report of Review was issued by the Office of Survey and Review in January 1969.

Final Audit - A final audit had not been requested as of the date of this report. The final voucher was paid on March 6, 1969.

Royalty Review - There was no production sold and no royalty was due the Government. A Royalty Review was not requested.

6. Project Results:

Discoveries - The project work resulted in the discovery of widespread but erratic sulphide mineralization in the lower zone of the Deadwood formation. Average thickness of the ore is about 3.0 feet but thicknesses of 6 to 8 feet occur in places. Because the deposit is irregular, the Operator conservatively estimated a reserve of about 200,000 tons of ore averaging 10.0 ounces of silver per ton, 0.086 ounces of gold, 2 percent of lead, and 1.5 percent of zinc. Mining of the ore body is dependent upon a sufficient increase in the price of silver.

Certification - Certification was recommended on the basis of the ore discovered by the OME work and a Certificate of Possible Production was issued on May 14, 1969. The Government's lien for payment of royalties expires on January 24, 1979, or until the total amount contributed by the Government under the contract is fully repaid with interest at the rate of 7 percent per annum, whichever occurs first.

Production - About 16,000 tons of mineralized material, averaging 6.40 ounces of silver per ton, 0.07 ounces of gold, 1.4 percent of lead, and 1.3 percent of zinc, was stockpiled at the mine as of the date of this report. Under present metal prices the material is not ore and would not yield a profit if it were shipped.

6. Project Results (Continued):

Royalties - There was no ore or concentrate sold and no royalties were paid or are due the Government.

7. Geologic Summary - The ore deposit occurs in the lower member of the Deadwood formation, which consists of quartz-pebble conglomerate, hematitic sandstone, and quartzite. The deposits are replacement bodies in the quartzite and dolomitic quartzite near the base of the formation. They are irregular in outline and thickness because of complex vertical fracture systems controlling ore deposition, and to the varying susceptibility of the quartzite beds to replacement by the ore minerals. Ore minerals are pyrite, galena, sphalerite, and tetrahedrite. Silver is the chief metal of value and about equal amounts of silver are found in the galena and sphalerite concentrates. Silver rich tetrahedrite is associated with the sphalerite and gold is closely associated with the pyrite. Records of past production from the Double Rainbow property are incomplete. A report written in 1907 stated that the mine was most active from 1880 to 1883 and to some extent in 1891. The records of production for this period, representing about 50,000 tons, showed a net value received of $451,383 from the sale of bullion and ores. Between November 1908 and March 1912 twenty nine shipments of ore were made, ranging in size from 5 to 27 tons and totaling 453 tons. The gold content of the shipments ranged from $1.75 to $41.65 per ton and the silver content from 5.0 to 190.15 ounces per ton. Nineteen of the shipments, totaling 280 tons, averaged 6.54 percent of lead per ton. It is unknown whether the 453 tons represented the entire production for the period.

DOWDALL, HARRIS, HULL & TERRY
ATTORNEYS AT LAW
250 NORTH CHURCH AVENUE
TUCSON, ARIZONA 85701

RICHARD J. DOWDALL
RICHARD C. HARRIS
NORMAN S. HULL
ANTHONY D. TERRY
SIDNEY LEX FELKER

JAMES HENDRICK TERRY
OF COUNSEL

TELEPHONE
AREA CODE 602
624-8894

13 April 1971

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Mr. Harold Kirkemo, Chief
Office of Minerals Exploration
U. S. Department of the Interior
Geological Survey
Washington, D. C. 20242

Re: OME-6558 (Silver) Double Rainbow Mines, Inc.
Double Rainbow Mine, Lawrence County,
South Dakota - Contract 2233

Dear Mr. Kirkemo:

In reply to your letter of April 9th, you are correct in your understanding that the disposition of any stock-piled ore will be governed by market conditions.

Sincerely,

DOWDALL, HARRIS, HULL & TERRY

Anthony D. Terry

ADT/efd

AIR MAIL

copy to: Mr. Donald T. Delicate
Homestake Mining Company
Lead, South Dakota 57754

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
4/9/71		120
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AIRMAIL

Mr. Anthony D. Terry
Attorney and Acting President
Double Rainbow Mines, Inc.
Dowdall, Harris, Hull & Terry
250 North Church Avenue
Tucson, Arizona 85701

APR 9 1971

Re: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

Dear Mr. Terry:

Thank you for your letter of April 6, 1971, and for reporting on the status of the property and production therefrom.

In your report to us dated February 18, 1970, we note that there was a stockpile of about 16,000 tons of low-grade material at the mine. As you did not mention this stockpile in your recent report, we assume that it has not been sold. Mr. Donald T. Delicate in a letter to us dated March 6, 1971, indicated that there had been no activity at the mine and none was contemplated pending a sufficient increase in the price of silver. We expect this situation applies also to sale of the stockpile. Please advise.

Sincerely yours,

Harold Kirkemo gla

Harold Kirkemo
Chief, Office of
Minerals Exploration

cc: Mr. Donald T. Delicate
Manager of Mining
Homestake Mining Company
Lead, South Dakota 57754

cc: Director's Reading File
Mineral Resources
Mr. Kirkemo
130

OME File
OME Reading File
OME Region III w/cy Form MME 63 and transmittal letter 4/6/71

HKirkemo/gla 4-9-71

DOWDALL, HARRIS, HULL & TERRY
ATTORNEYS AT LAW
250 NORTH CHURCH AVENUE
TUCSON, ARIZONA 85701

RICHARD J. DOWDALL
RICHARD C. HARRIS
NORMAN S. HULL
ANTHONY D. TERRY
SIDNEY LEX FELKER

JAMES HENDRICK TERRY
OF COUNSEL

TELEPHONE
AREA CODE 602
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6 April 1971

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Mr. Harold Kirkemo, Chief, OME
U. S. Department of the Interior
Geological Survey
Washington, D. C. 20242

Re: OME-6558 (Silver)-Double Rainbow Mines, Inc.
Double Rainbow Mine, Lawrence County,
South Dakota - Contract 2233

Dear Mr. Kirkemo:

Enclosed, in duplicate, is the report requested in your letter of January 27, 1971, and I am sorry for the delay in getting this to you.

As you can readily see, everyone is waiting for the price of silver to sky-rocket.

Sincerely,

DOWDALL, HARRIS, HULL & TERRY

Anthony D. Terry

Anthony D. Terry

ADT/efd

enclosure

AIR MAIL

United States Department of the Interior

GEOLOGICAL SURVEY
WASHINGTON, D.C. 20242

IN REPLY REFER TO: Office of Minerals Exploration

January 27, 1971

Mr. Anthony D. Terry
Attorney & Acting President
Double Rainbow Mines, Inc.
Dowdall, Harris, Hull & Terry
250 North Church Avenue
Tucson, Arizona 85701

Re: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

Dear Mr. Terry:

After the completion of the approved exploration work under the contract identified above, we asked to be informed about changes in the status of the property and production from it during the period of royalty obligation.

To assist you to furnish this information and to assure the accuracy of our records, please answer the questions on the back of this letter and return two copies to this office with copies of any pertinent documents.

Sincerely yours,

Harold Kirkemo

Harold Kirkemo
Chief, Office of
Minerals Exploration

Form MME 63
(May 1970)

REQUEST FOR INFORMATION ON CERTIFIED PROJECT OR PROJECT UNDER ROYALTY AGREEMENT

1. Since February 18, 1970, has there been a change in ownership, lease, or sublease? *If yes, please state details of the transaction below and provide a true or signed copy of the pertinent documents, unless they have been provided before.* Yes [ ] No [✓]

Is the Agreement, Option to Lease and Lease, dated March 8, 1967, between Double Rainbow Mines, Inc. and Homestake Mining Company, still in effect? If not, please explain Yes [✓] No [ ]

2. Since February 18, 1970, has there been any production from the land subject to the contract? Yes [ ] No [✓]

A. If so and it was shipped, give quantity, value, and name and address of purchaser.

Purchaser (*name and address*)	Quantity	Value

B. If stockpiled awaiting sale, state quantity, grade, and location.

Type	Quantity (*tons*)	Estimated Grade	Location
Ore			
Concentrates			
Other			

3. Since workings (*see* , has any production been transported through *of contract*)? Yes [ ] No [✓]

If so, state quantity, value, and disposition of material.

Disposition of Material	Quantity	Value

Submitted by:

Name Anthony D. Terry	*Title* Attorney and Acting President
Address 250 North Church Avenue Tucson, Arizona 85701	*Date* 5 April 1971

HOMESTAKE MINING COMPANY

LEAD, SOUTH DAKOTA 57754

OFFICIAL COPY
O. M. E.
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March 6, 1971

Mr. Harold Kirkemo
Chief, Office of Minerals Exploration
U. S. Department of the Interior
Geological Survey
Washington, D. C. 20242

Re: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Lawrence County, South Dakota
Contract 2233

Dear Mr. Kirkemo:

Attached are two copies of the U. S. Geological Form MME 63, in which information was requested regarding the Double Rainbow Mines Project. Please be advised that there has been no activity at the mine during the last year; furthermore there is no production contemplated unless there is a sufficient increase in the price of silver.

Sincerely yours,

Donald T. Delicate

Donald T. Delicate
Manager of Mining

DTD:ac
Enclosures (2)
Copy - Olin Hart

United States Department of the Interior

GEOLOGICAL SURVEY
WASHINGTON, D.C. 20242

IN REPLY REFER TO: Office of Minerals Exploration

January 27, 1971

Mr. Joseph McKinley
Homestake Mining Company
650 California Street, 9th Floor
San Francisco, California 94108

Re: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2253

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Dear Mr. McKinley:

After the completion of the approved exploration work under the contract identified above, we asked to be informed about changes in the status of the property and production from it during the period of royalty obligation.

To assist you to furnish this information and to assure the accuracy of our records, please answer the questions on the back of this letter and return two copies to this office with copies of any pertinent documents.

This refers to the Agreement, Option to Lease and Lease, dated March 8, 1967, between Double Rainbow Mines, Inc., and Homestake Mining Company, and the letter from Homestake to Double Rainbow, dated January 6, 1969, exercising the option to lease the premises described in the foregoing instrument.

Sincerely yours,

Harold Kirkemo

Harold Kirkemo
Chief, Office of
Minerals Exploration

Form MME 63
(May 1970)

REQUEST FOR INFORMATION ON CERTIFIED PROJECT OR PROJECT UNDER ROYALTY AGREEMENT

1. Since January 6, 1969, has there been a change in ownership, lease, or sublease? *If yes, please state details of the transaction below and provide a true or signed copy of the pertinent documents, unless they have been provided before.* Yes ☐ No ☒

2. Since January 6, 1969, has there been any production from the land subject to the contract? Yes ☐ No ☒

A. If so and it was shipped, give quantity, value, and name and address of purchaser.

Purchaser *(name and address)*	Quantity	Value

B. If stockpiled awaiting sale, state quantity, grade, and location.

Type	Quantity *(tons)*	Estimated Grade	Location
Ore			
Concentrates			
Other			

3. Since workings *(see* has any production been transported through *of contract)*? Yes ☐ No ☒

If so, state quantity, value, and disposition of material.

Disposition of Material	Quantity	Value

Submitted by:

Name	*Title*
Olin M. Hart	Chief Geologist
Address	*Date*
Lead, South Dakota 57754	March 5, 1971

HOMESTAKE MINING COMPANY

650 CALIFORNIA STREET

SAN FRANCISCO, CALIFORNIA 94108

CABLE: HOMESTAKE
TELEPHONE (415) 981-8150

February 24, 1971

OFFICIAL
COPY
O. M. E.
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Mr. Harold Kirkemo
Chief, Office of Minerals Exploration
U. S. Department of the Interior
Geological Survey
Washington, D. C. 20242

Dear Mr. Kirkemo:

Your request for information regarding OME 6558 (Silver), Double Rainbow Mine, Lawrence County, South Dakota, Contract 2233, has been forwarded to our Lead, South Dakota office for response.

Very truly yours,

Eileen C. Callaghan

Eileen C. Callaghan

cc: J. O. Harder

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225

Office of Minerals Exploration
Building 53 Room 200

May 20, 1970

MAY 22 1970

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Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-~~6288~~ 6558 (Ag)
~~Bulldog Mountain, Inc.~~ Double Rainbow Mines, Inc.
~~Bulldog Mountain Project~~ Double Rainbow Mines
~~Mineral County, Colorado~~ Lawrence County, South Dakota
Contract ~~2166~~ 2233

Transmitted is a copy of a letter from Homestake Mining Company to Double Rainbow Mines, Inc. notifying them of its decision to exercise their "Agreement, Option to Lease" as well as a copy of the "Agreement, Option to Lease" between Homestake Mining Company and Double Rainbow Mines, Inc.

You requested this material be obtained from Homestake Mining Company in a telephone conversation on May 14, 1970.

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225

Office of Minerals Exploration
Building 53 Room 200

IN REPLY REFER TO:

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cy-63 file

May 15, 1970

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mines
Lawrence County, South Dakota
Contract 2233

Yesterday, May 14, 1970 in reply to your request concerning the subject contract I contacted Mr. A. L. Slaughter, Chief Geologist, Homestake Mining Company in the absence of Donald Delicate, Manager of Mines, and asked him to furnish this office with two copies of the instrument by which Homestake Mining exercised their option on the subject property, as they were the prime contractor for the Operator during the time the exploration work was being performed under the subject contract.

Mr. Slaughter informed me that he would send two copies each of the letter informing Double Rainbow Mines, Inc. they would exercise their option with them, as well as the instrument exercising the option.

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

HOMESTAKE MINING COMPANY

LEAD, SOUTH DAKOTA 57754

GME Region III
RECEIVED
MAY 18 1970
Denver, Colorado

May 15, 1970

Mr. J. William Hasler
U.S. Geological Survey
Office of Minerals Exploration
Building 53, Room 200
Denver Federal Center
Denver, Colorado 80225

GME-6558

Dear Bill:

Two copies of the Double Rainbow agreement and two copies of the option letter are enclosed.

The early agreements between Homestake and the Bulldog Mountain people were finalized in San Francisco. The file in Driscoll's office is rather voluminous and he is not sure that he has a copy of the agreement you desire. Our suggestion is that you contact Mr. Joseph McKinley at our San Francisco office, 650 California St., 9th Floor, zip code 94108. The telephone number is (415) 981-8150. He should be able to furnish you with the copies you need.

Best regards.

Sincerely,

Archie

A. L. Slaughter
Chief Geologist

ALS:pe

Enc.

cc: Mr. McKinley

HOMESTAKE MINING COMPANY

LEAD, SOUTH DAKOTA 57754

OME Region III
RECEIVED
MAY 18 1970
Denver, Colorado

January 6, 1969

Double Rainbow Mines, Inc.
2251 Virginia Street
Berkeley, California 94709

Gentlemen:

Pursuant to Article II and paragraph 12 of Article III of that certain "Agreement, Option to Lease and Lease" by and between Double Rainbow Mines, Inc., a South Dakota corporation, and Homestake Mining Company, a California corporation, dated the 8th day of March, 1967, Homestake hereby notifies you that it elects to exercise the option to lease the premises described in the foregoing instrument as of this date.

Yours very truly,

HOMESTAKE MINING COMPANY

By James O. Harder
James O. Harder
Vice President

H:DS

CERTIFIED

OME Region 11
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MAY 18 1970
Denver, Colorado

AGREEMENT, OPTION TO LEASE AND LEASE

This Agreement, Option to Lease and Lease is made this 8th day of March, 1967, between DOUBLE RAINBOW MINES, INC., a South Dakota corporation ("Rainbow"), and HOMESTAKE MINING COMPANY, a California corporation ("Homestake").

W I T N E S S E T H:

WHEREAS, Rainbow is the owner of certain mining claims located in the Black Hills National Forest, Lawrence County, South Dakota, and, more particularly, in Sections 3, 4, 9 and 10, Township 4 North, Range 4 East, Black Hills Meridian, described in Exhibit A hereto (the "Properties");

WHEREAS, Rainbow is entering into a contract with the United States of America, acting through the Department of Interior, U.S. Geological Survey (the "Government"), designated as Contract No. 2233 (the "USGS Contract"), for the exploration of the Properties;

WHEREAS, Rainbow desires to contract with Homestake for the performance required of Rainbow under the USGS Contract; and

WHEREAS, Rainbow desires to grant and Homestake desires to receive an option to lease the Properties on the terms specified herein;

022267

NOW, THEREFORE, in consideration of the premises and the mutual promises hereinafter set forth, it is agreed as follows:

ARTICLE I

THE USGS CONTRACT

1. Homestake hereby assumes, as between itself and Rainbow, all the obligations of Rainbow as the "Operator" under the USGS Contract, but Homestake shall not be required to contribute, except by advances reimbursable by the Government thereunder, more than $78,045 in the performance of the USGS Contract, except for costs required for the exploration project contemplated by the USGS Contract but not allowable thereunder. Homestake shall hold Rainbow harmless from any and all liability with regard to:

(a) Repayment of loans made by the Government pursuant to the USGS Contract to the extent the same fall due during the term of the lease contained in Article III hereof; and

(b) Failure of Homestake to perform the obligations of the "Operator" under the USGS Contract.

2. No amendment to the USGS Contract shall be made without the prior written consent of Homestake.

3. During the term of the option granted in Article II hereof, Homestake shall have all possession of and access to the Properties necessary or convenient to enable it to perform the obligations of the "Operator" under the USGS Contract and such other exploratory work as Homestake shall, in its discretion, desire to perform.

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4. If Homestake shall exercise the option granted in Article II hereof, Homestake shall pay the Government, for Rainbow's account, all royalty required by the USGS Contract which shall become due during the term of the lease. Rainbow shall pay to Homestake all sums received by it from the Government pursuant to the USGS Contract.

ARTICLE II

OPTION

Rainbow hereby grants to Homestake the exclusive option to lease the Properties, upon the terms and conditions set forth in Article III hereof, such option to be exercised by notice in writing sent in the manner provided, and to Rainbow at the address given, in Article III, paragraph 12 hereof, and deposited in the mail not later than January 24, 1969. Such exercise shall be effective upon such deposit and the provisions of Article III of this Agreement shall thereupon become effective.

ARTICLE III

LEASE

By Homestake's exercise of the option granted in Article II hereof, Rainbow shall lease the Properties to Homestake and Homestake shall hire and take the Properties from Rainbow upon the following terms and conditions:

1. The term of the lease shall commence upon the exercise of the option granted in Article II hereof, shall be for a period of ten years commencing upon the exercise of the option and shall be renewable, upon thirty days'

copy from 1/6/69

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notice in writing prior to expiration of the term, for an additional period of ten years and for so long thereafter as minerals are being produced from the Properties or Homestake shall be exploring for minerals thereon.

2. Immediately upon the commencement of the lease, Homestake shall have the exclusive right and privilege, but not the duty, during the term hereof, to enter into and upon the Properties to explore for, extract, remove, mine, treat, ship and sell any ores, minerals or metals or products thereof as are found and contained in the Properties which Homestake may deem profitable, together with the full right, privilege and authority to construct, erect, operate, use and maintain on or in the Properties any and all buildings, structures, machinery, excavations, shafts, openings, ditches, water pipes, disposal areas, roads and other improvements, property and fixtures and stockpiles or ore which, in Homestake's judgment, may be reasonably necessary, convenient or suitable for mining, removing, concentrating, beneficiating, smelting, shipping and selling any of such ores, minerals, metals or products thereof as may be taken from the Properties or any neighboring property, and for any activities incidental thereto. Nothing in this Article III shall be construed or interpreted to require Homestake to develop a separate shaft or shafts on the Properties, or any of them, or to prevent Homestake from developing mines or other operations on the Properties, or any of them, wholly or in part, through or in connection with its operations on or in any nearby property, all as Homestake, in its sole discretion, shall determine.

3. Homestake shall indemnify and hold Rainbow harmless at all times during the term of the lease and after

the termination thereof from and against all claims, demands, suits, judgments, loss, damage, expenses and liabilities resulting from or arising in any manner out of or in connection with Homestake's operations or activities upon the Properties, except as otherwise provided herein.

4. Homestake shall use its best efforts to sell all ore (including concentrates, minerals and metals derived therefrom) mined from the Properties but shall be under no obligation to sell or to otherwise dispose thereof. All decisions concerning methods, procedures and techniques of exploring, extracting, mining, milling or treating said ore, and all decisions concerning any sale or other disposition, including, but not limited to, decisions as to buyers, times of sale and prices, or whether to sell ore, concentrate or refined metals, or a combination of the same, or whether to stockpile for any length of time without selling the same, shall be made by Homestake, in its sole discretion. Except as provided in Article I hereof, Homestake shall not be liable for any failure to commence operations on the Properties or for any cessation of operations, nor shall the lease terminate or be terminable or Homestake be in default hereunder because of any failure to commence or any cessation of operations due to Homestake's determination, in its sole discretion, that, owing to economic, labor or other conditions, minerals or metals derived from the Properties cannot be economically marketed; provided, however, that the term of the lease shall not exceed a total of twenty years unless at the end of such period minerals are being produced from the Properties or Homestake shall be exploring for minerals thereon.

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5. (a) Homestake agrees to pay Rainbow a production royalty based upon the net smelter returns, as hereinafter defined, yielded by all ores (including concentrates, minerals or metals derived therefrom) produced during the term of the lease from the Properties and sold, computed as follows:

(i) For all ore yielding net smelter returns up to and including $10 per dry ton, the royalty shall be 5% of such returns;

(ii) For all ore yielding net smelter returns in excess of $10 per dry ton up to and including $20 per ton, the royalty shall be 1/2 of 1% for each $1 per ton increase in such returns over $10 per ton, in addition to the royalty set forth in paragraph (i), above;

(iii) For all ore yielding net smelter returns in excess of $20 per dry ton, 10% of such returns.

"Net smelter returns" shall mean the amount actually received from the mill, smelter or other purchaser upon the sale of such ores after deducting from the gross returns all treatment, assaying, sampling, milling, concentrating, upgrading, smelting, freight handling, transportation (including hauling or tramming from the mine to the mill and from the mill to the point of shipment) or penalty charges or other costs, whether said charges or costs are made to Homestake by the purchaser or other third party (whether or not Homestake is a part or full owner thereof, directly or indirectly) or incurred by Homestake in its own operations prior to sale; in the event such costs are incurred by Homestake in its own

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operations prior to sale, "costs" shall include such direct or indirect charges as are in accordance with generally accepted accounting principles. If, ~~at any stage in processing~~, ores derived from the ~~Properties~~ are commingled with other ores of Homestake, the grade of ores from the ~~Properties~~ shall be determined by a mutually acceptable sampling procedure ahead of the point of commingling. Metallurgical recovery from such ores shall be determined by mutually acceptable laboratory or pilot plant testing.

(b) Net smelter returns per ton shall be calculated by dividing the net smelter returns received over a calendar quarter year by the number of dry tons of ore to which said net smelter returns are attributable or the number of dry tons of ore yielding the concentrate or bullion to which said net smelter returns are attributable, or both.

(c) All royalties due hereunder shall be paid by check or draft on or before the 20th day of the month following the end of each calendar quarter year. Such payments shall cover all amounts due for said calendar quarter year and shall be accompanied by the royalty calculation, and, upon request, settlement sheets.

6. If at any time during the term of the lease one or more third parties make a claim or claims of ownership of the mineral interests lying in or under any of the Properties, Homestake shall have the right to place any payments which would otherwise be due Rainbow under the terms hereof in escrow in a bank (to the extent Homestake, in its uncontrolled discretion, deems necessary to protect itself in connection with such claim or claims), to remain in escrow until final determination thereof. In the event

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Homestake is required to make any payments to third parties as a result of any such claim or claims, either by way of contract, settlement or compromise, or pursuant to final judgment of any court of record, or otherwise, the amount of such payments, and all legal and other costs incurred by Homestake in connection therewith may, in addition to any other remedy available to Homestake, be deducted from any payments or amounts then due or thereafter becoming due Rainbow under the terms hereof.

7. (a) Homestake shall keep accurate records and books of account, in accordance with generally accepted accounting principles, covering all matters necessary to the proper computation of the royalty provided for in paragraph 5 of this Article III. Said records and books of account may be kept in any location desired by Homestake and shall be open to inspection by Rainbow's duly authorized agents at any reasonable time during normal business hours, provided such inspections do not unduly interfere with or hamper the officers or employees of Homestake in performing their duties. Within sixty days after the end of each of Homestake's fiscal years during the term of this lease, Homestake will furnish to Rainbow an unaudited year-end statement showing the amount of royalty paid Rainbow during said fiscal year and the manner in which such amount was arrived at. All statements so presented shall be conclusively presumed true and correct after the expiration of six months from the date of such presentation, unless within said six months period Rainbow takes written exception thereto, specifying with particularity the items excepted to and the grounds for such exception. Rainbow shall be

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entitled to an annual independent audit of the matters covered by said statement, at its expense, provided it selects for such audit an accounting firm of recognized standing, at least one of whose members is a member of the American Institute of Certified Public Accountants.

(b) Maps, samples and other data in the possession of Homestake concerning the Properties shall be open to inspection by Rainbow's duly authorized agents at any reasonable time during ordinary business hours, provided such inspections do not unduly interfere with or hamper the officers or employees of Homestake in performing their duties. At appropriate intervals Homestake shall submit to Rainbow reports concerning the activities of Homestake upon and in connection with the Properties. The results of any such inspections and the contents of such reports, including supporting data, shall be treated by Rainbow and its agents, officers and employees as strictly confidential and during the term of the lease no part of them shall be divulged to any third party without the written consent of Homestake.

8. Homestake shall prepare and file all necessary tax returns and shall pay before delinquent, unless the same be contested in good faith, all taxes, charges and assessments of every kind which may be levied or assessed, during the term of the lease, on, against or with respect to the Properties, ores, minerals or other materials which may be produced from the Properties or any property, real, personal or mixed, which may at any time be installed or located on the Properties by Homestake, and shall, upon request, provide Rainbow with evidence of the payment thereof; provided, however, that nothing herein contained shall be construed to

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obligate Homestake to pay all or any portion of any income, franchise or other tax measured by the net income of Rainbow or by royalties paid to Rainbow hereunder.

9. (a) Homestake may terminate the lease at any time by giving thirty days' prior written notice of such termination to Rainbow. In the event of termination Homestake shall, except as hereinafter provided in this paragraph, be freed of any and all obligations or liabilities arising out of or because of this Article or Homestake's activities on or in the Properties, except those obligations or liabilities performance of which, by the express terms hereof, has become due prior to such termination, and Rainbow shall be entitled to repossess the Properties without further notice or demand. Nothing contained in this paragraph shall be construed to relieve Homestake of its obligations under Article I hereof except as expressly provided in said Article.

(b) At any time within 180 days from and after the termination of the lease for whatever cause or reason, Homestake shall have the right, at its own expense, to remove from the Properties and sell, or otherwise dispose of, all property in or upon the Properties which shall have been placed thereon by Homestake, whether or not any of said items have been affixed to the realty; and any and all ores, concentrates and other marketable materials which have been mined from the Properties and stockpiled thereon. Upon termination of the lease, Homestake shall surrender possession of the Properties to Rainbow; provided, however, Homestake may maintain thereon such personnel as may be required in the removal of property as aforesaid for the period of 180 days from and after the termination of the lease.

022267

10. If Homestake shall be delayed, interrupted or prevented, wholly or in part, from carrying on work or carrying out obligations under the lease, other than to make payment of amounts due Rainbow hereunder, by act of God, strikes, lockouts, fire, breakage of machinery, interruption of or delays in transportation, or by injunction, governmental demands, regulations or requirements, destruction or damage by the elements, floods, wash-outs, landslides, cave-ins, manpower shortage, or other things beyond Homestake's reasonable control, then the obligations of Homestake so far as they are affected by such cause shall be suspended and the term of the lease extended for a period equal to the continuance of any inability so caused.

11. Either Homestake or Rainbow, in the event of a default under any of the terms of the lease which has not been corrected within sixty days after the non-defaulting party or parties have given specific written notice of such default, may terminate the lease be giving written notice of such termination to the other; provided, however, that any default claimed against Homestake with respect to the payment of money may be cured by deposit of the amount in controversy (not including claimed consequential, special, exemplary or punitive damages, or interest) in escrow in a bank, to remain in escrow until final decision by a court or other agreement of the parties.

12. Any notice required or permitted to be given hereunder shall be considered as having been given properly immediately upon deposit thereof in the United States mail, certified and with postage thereon fully prepaid, addressed,

022267

if to Rainbow, at 2251 Virginia Street, Berkeley, California 94709, and, if to Homestake, at Lead, South Dakota 57754, with copy to Homestake, at 650 California Street, San Francisco, California 94108. The parties hereto may change their addresses for the purpose of this paragraph by giving written notice.

13. Rainbow and Homestake may assign their rights in the lease or any of their interests in the Properties, or both, as they may from time to time exist; provided, however, that should Rainbow or any other person having an interest hereunder make any assignment, the effect of which is to create less than a 10% interest hereunder, then Homestake, at the expense of the person creating such interest, shall have the right, but not the obligation, to establish an escrow at a responsible financial institution for the benefit of all persons with an interest hereunder, and Homestake shall be relieved of all further obligation when the payments required by this Article have been paid into said escrow. The provisions of this Article shall inure to the benefit of and shall be binding upon the successors and assigns of both Rainbow and Homestake.

14. Notwithstanding anything to the contrary herein, the right of the Government to a royalty on production and a lien upon the Properties for the payment thereof, as provided in the USGS Contract, shall be preserved.

022267

IN WITNESS WHEREOF, the parties have executed this instrument as of the day and year first above written.

Attest:

Catherine B. Mayo

Secretary

DOUBLE RAINBOW MINES, INC.

By Rexford W. Barton President

Catherine B. Mayo Secretary

Attest:

Secretary

HOMESTAKE MINING COMPANY

By

President

STATE OF ARIZONA)
) ss
County of Pima)

On this the 8th day of March, 1967, before me, Anthony Denison Terry, the undersigned officer, personally appeared REXFORD W. BARTON and CATHERINE B. MAYO, who acknowledged themselves to be the President and Secretary, respectively, of DOUBLE RAINBOW MINES, INC., a corporation, and that they, as such President and Secretary, being authorized so to do, executed the foregoing instrument for the purposes therein contained, by signing the name of the corporation by themselves as such President and Secretary.

IN WITNESS WHEREOF I hereunto set my hand and official seal.

Anthony Denison Terry

Notary Public in and for the County of Pima, State of Arizona.

My commission expires:

19 September 1968.

022267

STATE OF _____ } ss.
County of _____ }

On this the _____ day of _____, 1967, before me, _____, the undersigned officer, personally appeared _____ who acknowledged himself to be the _____ of DOUBLE RAINBOW MINES, INC., a corporation, and that he, as such _____, being authorized so to do, executed the foregoing instrument for the purposes therein contained, by signing the name of the corporation by himself as _____.

IN WITNESS WHEREOF I hereunto set my hand and official seal.

_____
NOTARY PUBLIC
In and for the County of
_____, State of
_____.

STATE OF CALIFORNIA } ss.
City and County of San Francisco }

On this the 27th day of February, 1967, before me, Barbara Buckley, the undersigned officer, personally appeared J. K. GUSTAFSON who acknowledged himself to be the PRESIDENT of HOMESTAKE MINING COMPANY, a corporation, and that he, as such PRESIDENT, being authorized so to do, executed the foregoing instrument for the purposes therein contained, by signing the name of the corporation by himself as PRESIDENT.

IN WITNESS WHEREOF I hereunto set my hand and official seal.

Barbara Buckley
NOTARY PUBLIC
In and for the City and County of
San Francisco, State of California.

My Commission Expires May 14, 1968

Patented Mining Claims Located in the Black Hills National Forest, Lawrence County, South Dakota, Sections 3, 4, 9 and 10, Township 4 N, Range 4 E, Black Hills Meridian

Merritt No. 1	- M. S. 73	Grand View	- M. S. 365
Merritt No. 2	- M. S. 133	Ora Flamme	- M. S. 384
Florence	- M. S. 163	Sleeper	- M. S. 1980
Chicago	- M. S. 334	George B. McClellan	- M. S. 2031
Sitting Bull	- M. S. 336	German	- M. S. 2031
Richmond	- M. S. 345	Bank of Dakota	- M. S. 1901
Tiger Tail	- M. S. 333	Teddy	- M. S. 1901
Center Fraction	- M. S. 2030	Fissure	- M. S. 1901
Grand View	- M. S.	Bed Rock	- M. S. 1901
Fraction Lode	366	Gulch	- M. S. 1901
Silver Terra	- M. S. 364	Gray Eagle	- M. S. 1901
Mountain	- M. S. 1640	Camillus	- M. S. 1901
Custer	- M. S. 919	Margaret	- M. S. 1901
Rock Hill	- M. S. 1639	Wabash	- M. S. 1901
Savage	- M. S. 372	War Eagle	- M. S. 363

SUBJECT, however, to all surface rights in favor of Esther Allen Borsch, her heirs and assigns, with respect to the surface right in and to that part M. S. No. 73 the Merritt No. 1 Lode Mining Claim contained within the boundaries of the Galena Placer M. S. No. 692, being that portion of M. S. 73 which is in conflict with M. S. 692 and containing approximately 1.80 acres.

Unpatented Mining Claim

Rattle Fraction recorded in the Lawrence County Courthouse, Deadwood, South Dakota, in Book 240, page 286.

EXHIBIT A

OME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
4/1/70		120
4/1	Cae	220

AIRMAIL

APR 1 1970

Mr. Anthony D. Terry
Dowdall, Harris, Hull & Terry
250 North Church Avenue
Tucson, Arizona 85701

Re: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mines
Lawrence County, South Dakota
Contract 2233

Dear Mr. Terry:

Thank you for your letter of March 26, 1970, regarding the estimated value and quantity of material stockpiled at the Double Rainbow mine and the estimates of costs for transportation and smelter treatment.

It is evident from this information that under present metal prices the material is not ore and would not yield a profit if it were shipped. Therefore, any shipments would result in a net loss and there would be no basis for determining a royalty to the Government under provisions of the subject contract.

The purpose of our letter of February 25 was to ascertain if royalty was due the Government on the material which you reported on February 17 as a stockpile. Your response indicates that no royalty is due under present circumstances. We will take into account prevailing metal prices in evaluating your response to our future annual requests for information regarding ownership and production.

Sincerely yours,

Harold Kirkemo (gla)

Harold Kirkemo
Chief, Office of
Minerals Exploration

cc: Director's Reading File
Mineral Resources
OME docket
OME Reading File
OME Region III w/cy incoming letter
Mr. Kirkemo
130

HKirkemo/gla 4-1-70

DOWDALL, HARRIS, HULL & TERRY
ATTORNEYS AT LAW
250 NORTH CHURCH AVENUE
TUCSON, ARIZONA 85701

RICHARD J. DOWDALL
RICHARD C. HARRIS
NORMAN S. HULL
ANTHONY D. TERRY
SIDNEY LEX FELKER

JAMES HENDRICK TERRY
OF COUNSEL

TELEPHONE
AREA CODE 602
624-8894

26 March 1970

OFFICIAL
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O. M. E.
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MAR 31 1970
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Mr. Harold Kirkemo, Chief
Office of Minerals Exploration
U. S. Geological Survey
Washington, D. C. 20242

Re: OME-6558 (Silver) - Double Rainbow Mines, Inc.
Double Rainbow Mines, Lawrence County,
South Dakota - Contract 2233

Dear Mr. Kirkemo:

In response to your letter of February 25th, I requested a reply from Homestake Mining Company which has been doing the exploration work for Double Rainbow. Based on their reply I believe the following information will answer your inquiry.

There are about 16,000 tons of stockpiled material with the following metal content:

Silver	6.40 oz. per ton
Gold	0.07 oz. per ton
Lead	1.4%
Zinc	1.3%

There are no definite plans at present to treat or ship this material. It is hoped that the price of silver will increase to the point which will allow reopening and operation of the mine with the expectation of a reasonable profit. It is further hoped that this would be possible in the not-too-distant future - say one to three years. When and if this comes about it would be possible to concentrate this stockpiled material and perhaps raise it to shipping grade.

Copy to R-III

It is, however, obvious that this material can not be shipped in the untreated state without taking a huge loss, as outlined below:

Payments by smelter:

Silver	- 6.4 oz. - 1 oz. at $1.90 -2-1/2cents =	$10.12
Gold	- 0.07 oz. -.01 oz. at $35.20	2.11
Lead	- no payment if less than 3%	
	Total payment per ton	$12.23

Costs:

Haulage to railroad	$ 1.50	
Rail freight	10.20	
Base smelter charge	16.00	
Total cost per ton		27.70
Loss per ton		$15.47

At present the stockpiled material is not ore and has no market value. We are somewhat puzzled that the OME would request payment of royalty based on representative assays of material that has no real value.

If you would like some further explanation we will be glad to cooperate in any way with you and your Department.

Sincerely,

DOWDALL, HARRIS, HULL & TERRY

Anthony D. Terry

Anthony D. Terry

ADT/efd
AIR MAIL

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
2/24/70		120
		220

FEB 25 1970

AIRMAIL

Mr. Anthony D. Terry
Dowdall, Harris, Hull & Terry
250 North Church Avenue
Tucson, Arizona 85701

Re: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mines
Lawrence County, South Dakota
Contract 2233

Dear Mr. Terry:

We note in your reply, dated February 18, 1970, to our letter of January 23, 1970, that about 16,000 tons of mineralized material is stockpiled at the Double Rainbow Mine. Presumably, this is not of sufficient value to warrant shipment at present market prices. Would you please advise what your plans are regarding this.

Article 7(d) of the contract, referring to Unsold Production, states that the Government at its option may require payment of royalty after the lapse of six months from the date the ore was mined. If you have no plans to ship this material, we would request that royalty be paid to the Government based on the value as determined by representative assays.

Sincerely yours,

Harold Kirkemo (gla)

Harold Kirkemo
Chief, Office of
Minerals Exploration

cc: Director's Reading File
Mineral Resources
OME docket
OME Reading File
OME Region III w/cy Form MME 63 2/18/70
Mr. Kirkemo
130

HKirkemo/gla 2-24-70

DOWDALL, HARRIS, HULL & TERRY
ATTORNEYS AT LAW
250 NORTH CHURCH AVENUE
TUCSON, ARIZONA 85701

RICHARD J. DOWDALL
RICHARD C. HARRIS
NORMAN S. HULL
ANTHONY D. TERRY
SIDNEY LEX FELKER

JAMES HENDRICK TERRY
OF COUNSEL

TELEPHONE
AREA CODE 602
624-8894

February 17, 1970

OFFICIAL COPY
O. M. E.
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FEB 19 1970
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gla | 120
| 120
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| R-20

United States Department of the Interior
Geological Survey
Washington, D. C. 20242

ATTENTION: Harold Kirkemo, Chief
Office of Minerals Exploration

Re: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

Gentlemen:

Enclosed herewith are two copies of Request For Information on Certified Project and Project Under Royalty Agreement.

Very truly yours,

Anthony D. Terry

ADT/jc

Enclosures

Copy 63 to R-III

Stockpile

IN REPLY REFER TO:
Office of Minerals Exploration

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON, D.C. 20242

AIRMAIL

January 23, 1970

Double Rainbow Mines, Inc.
2251 Virginia Street
Berkeley, California 94709

Re: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

Gentlemen:

After the completion of the approved exploration work under the contract identified above, we asked to be informed about changes in the status of the property and production from it during the period of royalty obligation.

To assist you to furnish this information and to assure the accuracy of our records, please answer the questions on the back of this letter and return two copies to this office with copies of any pertinent documents.

Sincerely yours,

Harold Kirkemo

Harold Kirkemo
Chief, Office of
Minerals Exploration

MME Form 63
Revised 7-65

REQUEST FOR INFORMATION ON CERTIFIED PROJECT AND PROJECT UNDER ROYALTY AGREEMENT

1. Since January 24, 1967, has there been a change in ownership, lease, or sublease? If yes, please state details of the transaction below and provide a true or signed copy of the pertinent documents, unless they have been provided before. Yes ☐ No ☑

2. Since January 24, 1967, has there been any production from the land subject to the contract? Yes ☑ No ☐

   A. If so and it was shipped, give quantity, value, and name and address of purchaser.

	Quantity	Value

   B. If stockpiled awaiting sale, state quantity, grade, and location.

Type	Quantity		Estimated Grade	Location
Ore		Tons		
Concentrates		Tons		
Other	16,011	Tons	6.4 oz Ag 0.07 oz Au 1.4% Pb 1.3% Zn	at mine

3. Since , has any production been transported through workings (see of contract)? Yes ☐ No ☐

   If so, state quantity, value, and disposition of material.

Disposition of Material	Quantity	Value

Submitted by:

Name Anthony D. Terry Title attorney and acting president

Address 250 No. Cherrybelle Date 2/18/70

Tucson, Ariz

DOWDALL, HARRIS, HULL & TERRY
ATTORNEYS AT LAW
250 NORTH CHURCH AVENUE
TUCSON, ARIZONA 85701

RICHARD J. DOWDALL
RICHARD C. HARRIS
NORMAN S. HULL
ANTHONY D. TERRY

JAMES HENDRICK TERRY
OF COUNSEL

TELEPHONE
AREA CODE 602
624-8894

26 May 1969

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OME Region III
RECEIVED
MAY 28 1969
Denver, Colorado

Mr. J. William Hasler
Field Officer, Region III
Office of Minerals Exploration
U. S. Department of the Interior
Building 53, Room 200 Federal Center
Denver, Colorado 80225

Re: OME-6558 (Silver) - Double Rainbow Mines
Lawrence County, South Dakota - Contract 2233

Dear Mr. Hasler:

There are no objections to the Report of Review, and the $200 withheld plus 75% of the $182 has since then been paid.

I, too, have thoroughly enjoyed our association on this matter. In order to maintain hopes for the silver market to skyrocket I have ceased to read the current prices in the newspapers!

If you have occasion to be down this way please let me know and perhaps we can get together.

With best personal regards,

Sincerely,

DOWDALL, HARRIS, HULL & TERRY

Tony

Anthony D. Terry

ADT/efd

AIR MAIL

Form 7
(3)

OFFICIAL FILE COPY

Date	Surname	Code
5/6/69		120
5/6	Col	220
		120M

MAY 6 1969

Memorandum

To: Chief, Branch of Budget and Finance

From: Chief, Office of Minerals Exploration

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mines
Lawrence County, South Dakota
Contract 2233

Enclosed is a copy of letter dated May 1, 1969, from the Field Officer, Region III, transmitting to the Operator a copy of the Report of Review issued in January 1969 on the subject contract. A copy of the report also is enclosed for your files.

Harold Kirkemo (gla)
Harold Kirkemo

Enclosures

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

GLAult/a 5-6-69

Office of Minerals Exploration
Building 53 Room 200

May 1, 1969

Double Rainbow Mines, Inc.
Lawrence County, South Dakota

% Anthony D. Terry
Dowdall, Harris, Hull and Terry
Attorneys at Law
250 North Church Avenue
Tucson, Arizona 85701

OFFICIAL COPY
O. M. E.
RECEIVED
MAY 5 1969

INITIALS	CODE
gla	130
hal	120
HK	~~70~~

Re: OME-6558 (Silver)
Rexford W. Barton
Double Rainbow Mines
Lawrence County, South Dakota
Contract 2233

Dear Mr. Terry:

Transmitted herewith is a copy of a Report of Review issued in January 1969 on the subject contract. The report was sent to me in February and was then recalled to Washington for inclusion of subsequent data.

I have reviewed the Report of Review and concur in the facts included in this report. I might add, however, that the $182.00 claimed by the Operator in its final voucher (November 1968) for the consulting geologist's services has not been included in the Report of Review. Including the $182.00, claimed and accepted cost total $296,938.17, with the Government contributing 75 percent, or $222,703.63.

If for any reason you do not concur on these costs, your copy of this report should be returned to this office with appropriate comments.

The final geologic and engineering report was most satisfactory. It was a great pleasure and a real satisfaction in working with you on the Double Rainbow project. We shall now hope for a $3.00 price for silver. I feel the project was a successful one in spite of the metallurgical problems encountered.

Sincerely yours,

J. William Hasler

Office of Minerals Exploration
J. William Hasler
Field Officer, Region III

Enclosures
cc: Chief, OME (2)
OME chron
Mr. Hasler
OME-6558

Office of Minerals Exploration
Building 53 Room 200

OFFICIAL COPY
O. M. E.
RECEIVED
APR 23 1969
INITIALS CODE

April 21, 1969

Mr. D. T. Delicate, Manager of Mines
Homestake Mining Company
Lead, South Dakota 57754

Subject: OME-6558 (Silver)
Rexford W. Barton
Lawrence County, South Dakota
Contract 2233

Dear Mr. Delicate:

Since Homestake Mining Company was the prime contractor on the subject contract, I am transmitting a copy of a Report of Review issued in January 1969 on the subject contract. The Report of Review was sent to me in February and was then recalled to Washington for inclusion of subsequent data.

I have reviewed the Report of Review and concur in the facts included in this report. I might add, however, that the $182.00 claimed by the Operator in its final voucher (November 1968) for the consulting geologist's services has not been included in the Report of Review. Including the $182.00, claimed and accepted cost total $296,938.17, with the Government contributing 75 percent, or $222,703.63.

If for any reason you do not concur on these costs, your copy of this report should be returned to this office with appropriate comments.

The final geologic and engineering report was most satisfactory. It was a great pleasure and a real satisfaction in working with you on the Double Rainbow project. We shall now hope for a $ 3.00 price for silver. I feel the project was a successful one in spite of the metallurgical problems encountered.

Sincerely yours,

J. William Hasler

J. William Hasler
Field Officer, Region III
Office of Minerals Exploration

cc: Chief, OME (2)
OME chron
Mr. Hasler
OME-6558

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
3/27/69		120
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		120M

MAR 28 1969

Memorandum

To: Field Officer, Region III

From: Acting Chief, Office of Minerals Exploration

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

Enclosed are two copies of a Report of Review issued in January 1969 on the subject contract. These are to replace the two copies previously sent you which subsequently were returned at our request.

If you concur in the facts as stated in the report, a copy should be sent to the Operator with any comments you may care to make, and the other copy retained for your files. As evidence of your concurrence, two copies of your letter transmitting the Operator's copy of the report should be furnished this office. If for any reason you do not concur, both copies of the report should be returned to this office with appropriate comments.

The $182.00 claimed by the Operator in its final voucher (November 1968) for the consulting geologists' services has not been included in the Report of Review. Including the $182.00, claimed and accepted costs total $296,938.17, with the Government contributing 75 percent, or $222,703.63. This should be noted in your letter to the Operator.

Harold Kirkemo

Harold Kirkemo

Enclosures

cc: Director's Reading File
Economic Geology File
OME Docket
OME Region Reading File
Mr. Emerick
130

WLEmerick/bsl 3/27/69

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
3/7 69	Emerick	120
3/7	CAC	220
		120N

MAR 7 1969

Memorandum

To: Field Officer, Region III

From: Acting Chief, Office of Minerals Exploration

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

Enclosed are two copies of a Report of Review issued in January 1969 on the subject contract.

If you concur in the facts as stated in the report, a copy should be sent to the Operator with any comments you may care to make, and the other copy retained for your files. As evidence of your concurrence, two copies of your letter transmitting the Operator's copy of the report should be furnished this office. If for any reason you do not concur, both copies of the report should be returned to this office with appropriate comments.

The $182.00 claimed by the Operator in its final voucher (November 1968) for the consulting geologists' services has not been included in the Report of Review. Including the $182.00, claimed and accepted costs total $290,252.00, with the Government contributing 75 percent, or $222,703.63. This should be noted in your letter to the Operator.

William L. Emerick (gla)

W. L. Emerick
For: Harold Kirkemo
Acting Chief

Enclosures

cc: Director's Reading File
Economic Geology File
OME docket
OME Reading File
Mr. Kirkemo
130

GLAult/a 3-7-69

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
2/24/69	Emerick	120E
2/25/69	Kirkham	120
		110
		220
		120M

FEB 25 1969

Memorandum

To: Chief, Branch of Budget and Finance

From: Chief, Office of Minerals Exploration

Subject: OME-6558 (Silver)
~~Rexford W. Barton~~ Double Rainbow Mines, Inc.
Double Rainbow Mines
Lawrence County, South Dakota
Contract 2233

As the Operator under the subject contract has now submitted an acceptable final report, the $200.00 withheld from August 1968 voucher may now be paid to the Operator.

FRANK E. JOHNSON (fa)

Frank E. Johnson

Enclosures (Nov. '68 Voucher)

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

BSLong/1 2/24/69

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON, D.C. 20242

FEB 25 1969

Memorandum

To: Chief, Branch of Budget and Finance

From: Chief, Office of Minerals Exploration

Subject: OME-6558 (Silver)
Rexford W. Barton
Double Rainbow Mines
Lawrence County, South Dakota
Contract 2233

As the Operator under the subject contract has now submitted an acceptable final report, the $200.00 withheld from August 1968 voucher may now be paid to the Operator.

Frank E. Johnson

Frank E. Johnson

Enclosures (Nov. '68 Voucher)

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225

Office of Minerals Exploration
Building 53 Room 200

OFFICIAL COPY
O. M. E.
RECEIVED
JAN 13 1969

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	140
	120

January 10, 1968

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6558 (Silver)
Rexford W. Barton
Double Rainbow Mines
Lawrence County, South Dakota
Contract 2233

Transmitted herewith is the original final geologic and engineering report on the subject contract submitted by the Operator. The final report was received in this office January 6, 1969.

I have reviewed the detailed and very well prepared final report and concur with the Operator's results. The Operator has documented and detailed in summary the essential results of the exploration work completed under the subject contract. He has also included in the Appendix of the final report a detailed cost of the entire Double Rainbow project from its very beginning, prior to the signing of the OME contract. I requested this documentation as a matter of interest insofaras the project as a whole is concerned. Also included in the Appendix is a mineralogic report by Dr. David Garske, Professor, Department of Geology and Geological Engineering, South Dakota School of Mines and Technology, of ore collected from the Lower Contact. Additional data includes Sample Tables, Analysis of Double Rainbow Ore, Lower Contact; a Metallurgical Report by the Galigher Company, Salt Lake City, Utah; and a Net Smelter Return and Cost Analysis by Mr. Donald Delicate of the Homestake Mining Company, the prime contractor for the Operator.

Periodic interim examinations were made by Mr. J. William Hasler, Field Officer, Region III during the course of the exploration project, especially at the beginning and at the conclusion of the

various stages of work completed. The Operator complied with all the specifications stated in the contract and where changes in specifications were needed, or when geologic conditions indicated a major change the contract was amended to judiciously complete the work. The prime contractor efficiently completed all aspects of the exploration work specified in the contract and expended additional funds on his own account to more thoroughly test, explore, and experiment on the ore discovered in the Lower Contact, in an effort to ascertain the economics of the deposit.

In summary, exploration work in the Upper Contact, Richmond-Sitting Bull workings was disappointing, although some ore was found. The ore found in the Upper contact is oxidized and would require a completely different type of treatment for recovery of the metals than that required for the unoxidized ore discovered in the Lower Contact, thus requiring an increasingly higher mill cost. Any mining in the Upper Contact would of necessity have to be done in conjunction with a more extensive operation in the Lower Contact area. Exploration and subsequent experimental stoping in the Lower Contact area discovered widespread but erratic sulphide mineralized material. Average thickness of the ore is about 3.0 feet. From sampling results in drifting and experimental stoping the Operator obtained an overall average grade of 10.0 oz. Ag, 0.086 oz. Au ($30.00 to $35.00/oz.) per ton, 2.0% Pb, and 1.5% Zn, that could possibly be mined. Due to the irregularity of the deposits no firm ore reserve calculation can be made; however, because of the pervasive nature of the mineralization, and the area remaining to be explored, it is not unreasonable to assume that some 200,000 tons of mineralized material could be mined.

Experimental stoping proved that very selective mining will be required to mine the ore at a profit because of high dilution, and the nature and occurrence of the high grade pods and ore channels. Subsequent metallurgical testing has indicated that good recoveries of silver and lead can be attained by selective flotation followed by smelting. Gold recovery was only about 40%, and zinc is not considered to add any value to the ore. The net return from the smelter from Lower Contact ore would not yield a profit based on $2.00/oz. silver. The silver price would need to be nearer $3.00/oz. before a worthwhile profit could be realized.

Even though ore reserve calculation are problematical, as well as metallurgical and smelting processes, it is the opinion of the Field Officer that the Operator could develop some 200,000 tons of ore having the average grade shown above, in a similar sized area in the Lower Contact within the Operator's block of ground. It

Operator estimates net smelter return of $16.55/ton
HR

is therefore recommended that a certification of discovery be made as a result of the exploration work completed under the subject contract.

According to my records, as of December 1, 1968 the Operator has expended a total of $296,938.17 out of the total allowable cost of $312,180.00 less $200.00 suspended pending submittal of a final geologic and engineering report. The final report transmitted is most satisfactory and I recommend that the $200.00 presently being withheld now be paid the Operator. There should now be a balance of funds remaining totalling $15,241.83. The government's contribution through October 7, 1968 according to my records of paid vouchers totals $222,367.13.

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Enclosure

OPERATOR"S FINAL REPORT - See expansion folder

Operator's Final Report

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225

Office of Minerals Exploration
Building 53 Room 203

November 25, 1968

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6558 (Silver)
Rexford W. Barton
Double Rainbow Mines
Lawrence County, South Dakota
Contract 2233

No

The attached Homestake Mining Company Inter-Department Communications were obtained during my interim or final inspection of the property November 19, 1968.

The Operator's contractor was informed that the Office of Minerals Exploration must be notified when they exercise their option on the property with the Operator possibly in January, and that copies of the instrument of option be sent to this office and Washington.

The two communications explained the reason for closing the Double Rainbow workings until such time as higher silver prices ($2.50 or $3.00/oz) will permit economic mining of the property.

During a conference with Mr. Donald T. Delicate, Manager of Mines, Homestake Mining Company in company with Dr. Paul Gries, Consulting Geologist for the Operator, and Mr. A. L. Slaughter I inquired as to the total amount of money expended for the Double Rainbow property by all parties involved. Total costs expended were $522,933.00 between April 4, 1967 through September 30, 1968. A copy of all costs, both Government and private will be submitted as part of the Operator's final report, which may be completed by January, 1969.

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

HALS

HOMESTAKE MINING COMPANY

INTER-DEPARTMENT COMMUNICATIONS

TO Mr. J. O. Harder

FROM D. T. Delicate

REFERENCE

DATE 10/30/1968

SUBJECT DOUBLE RAINBOW PROJECT
Estimated Grade
Net Smelter Return Value &
Operating Costs

The following appraisal was prepared to assist in making decisions regarding future work at the Double Rainbow Mine near Galena, South Dakota.

The Geology Department has submitted the following estimate of stoping grade based on a study of known sample data and ore occurences. A daily production rate of 75 tons is estimated.

Metal	Mine Grade
Ag	10 oz./ton
Au	$3.00/ton (@ $35.00/oz.)
Pb	2%
Zn	1.5%

This head grade may be somewhat high for devlopment ore.

HOMESTAKE MINING COMPANY

INTER-DEPARTMENT COMMUNICATIONS

TO Mr. J. O. Harder

DATE October 30, 1968

FROM D. T. Delicate

SUBJECT DOUBLE RAINBOW PROJECT
Estimated Grade
Net Smelter Return Value &
Operating Costs

REFERENCE

The net smelter return per ton of ore as calculated below is based on the following metal prices, the Galigher metallurgical test work, and the recent A S & R smelter schedule offered at Creede.

Metal	% Recovery	Price
Ag	90	$ 2.00/oz.
Au	43	$39.00/0z.
Pb	96	.11/lb.

Estimated ratio of concentration is 7 to 1.

Concentrate Grade

Ag	10 oz. x 7 x .90 =	63 oz/ton
Au	.086 oz. x 7 x .43 =	.26 oz/ton
Pb	2% x 20 lb. x 7 x .96 =	268.8 #/ton

Payments

Ag Value
63 x 95% x $2.00 - $0.025 = $118.20/ton

Au Value
0.26 oz x 92.6% x $39.00 = 9.36/ton

Pb Value
(268.8 lbs. - 30 lbs.) x (90%) x (11¢-2.6¢/lb)
(238.8) x(.9) x (.084) $18.05/ton

Total Payment	=	$145.61
Less Treatment & Penalties	=	17.84
Less Freight ($ 10.71 @ 10% Moisture	=	11.90
Net Smelter Value per ton Concentrate	=	$115.87/ton

16 55 / ton

HOMESTAKE MINING COMPANY

INTER-DEPARTMENT COMMUNICATIONS

TO	Mr. J. O. Harder	DATE	October 30, 1968
FROM	D. T. Delicate	SUBJECT	DOUBLE RAINBOW PROJECT Estimated Grade Net Smelter Return & Value Operating Costs
REFERENCE			

Net Smelter Value per Ton Ore = $16.55

At $2.50/oz. Ag price the net smelter return per ton of ore would be: $20.83

At $3.00/oz. Ag. price the net smelter return per ton of ore would be: $25.10

Estimated costs of operation assuming that a mill circuit was built in Lead and crushing was done by Homestake Mining Company are as follows:

Item of Cost	@$ 2.00/oz. Ag	@$ 2.50/oz. Ag	@$ 3.00/oz. Ag
Mining	11.00	11.00	11.00
Milling	3.50	3.50	3.50
A & G (Incl. taxes)	1.60	1.60	1.60
Haulage	0.82	0.82	0.82
Royalty	0.73	1.40	2.07
Total Cost	$ 17.65	$ 18.32	$ 18.99

Estimated cash flow per ton to pay off the O M E loan and HM Co. investment would be as follows:

@$ 2.00/oz. Ag. price	$ (1.10) per ton
@ 2.50/oz. Ag. price	$ 2.51 per ton
@ 3.00/Oz. Ag. price	$ 6.11 per ton

It appears to me that the silver price would have to increase to nearly $3.00 per oz. before there would be justification to continue with this project. This is at the ore grades suggested by the Geology department.

Submitted by:
Donald T. Delicate
Donald T. Delicate

DTD:mb

HOMESTAKE MINING COMPANY

INTER-DEPARTMENT COMMUNICATIONS

OME Region III
RECEIVED
NOV 22 1968
Denver, Colorado

TO Mr. J. O. Harder

FROM A. L. Slaughter

REFERENCE

DATE October 31, 1968

SUBJECT Double Rainbow No. 1 Stope Sampling

A comparison is made between the tonnage and grade of ore mined and stockpiled from No. 1 Stope and the tonnage and grade of the ore bed as based on channel samples before and after stoping.

The tonnage of the ore bed was determined by using a factor of 9 cubic feet per ton in place. This assumes approximately 60% pyrite in the ore and 10% vugs.

The factor used for broken ore and which was used in figuring ore stoped is 12.3 cubic feet per ton or 2.4 tons per skip. This factor is based on the weight of two truckloads of ore (11 skips). The grades of stoped ore are those obtained from the large bulk sample from the stockpile.

A rather wide discrepancy appears between the amount of dilution calculated by, 1) the increase in tonnage mined over calculated tons in the ore bed and, 2) by the decrease in the silver value in the ore mined over that in the ore bed. The increase from 358 to 547 in the tons calls for a silver content of 13.3 ozs. per ton and the 8.8 oz. silver content would call for a tonnage dilution of 140% or a total of 859 tons mined.

If we assume that the stockpile bulk sample of 8.8 oz. of silver is correct, the channel sampling is considerably in error, or the tonnage factors used are wrong.

No. 1 Stope is the highest grade area stoped. None of the other 3 stopes could be expected to show sample averages as high as No. 1

A. L. S.

A. L. Slaughter

G090

DOUBLE RAINBOW MINE

Nº I STOPE SAMPLING

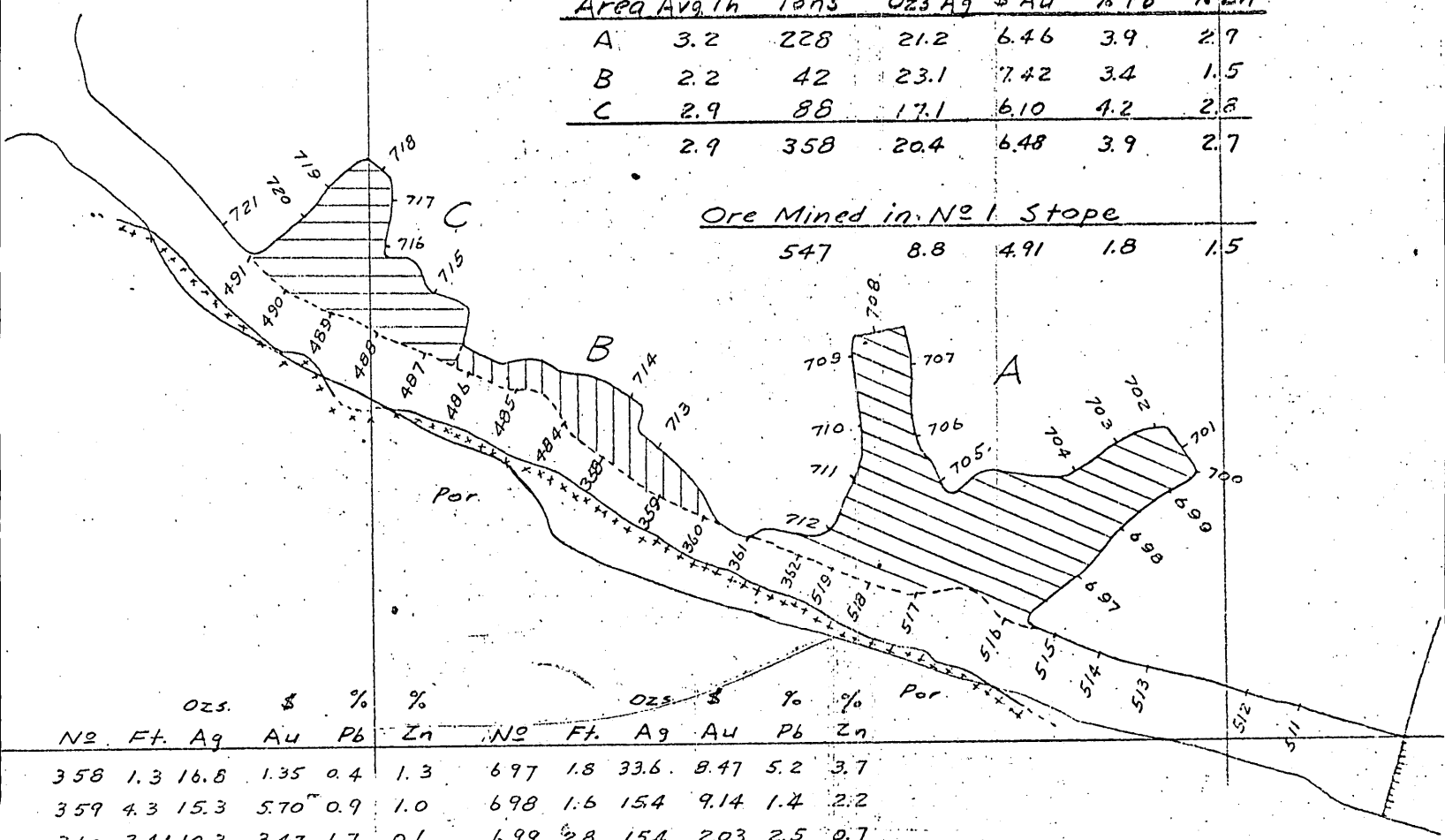
1" = 20' Oct. 30, 1968

Tons & Grade in Ore Bed

Area	Avg. Th	Tons	Ozs Ag	$ Au	% Pb	% Zn
A	3.2	228	21.2	6.46	3.9	2.7
B	2.2	42	23.1	7.42	3.4	1.5
C	2.9	88	17.1	6.10	4.2	2.8
	2.9	358	20.4	6.48	3.9	2.7

Ore Mined in Nº 1 Stope

547 8.8 4.91 1.8 1.5



Nº	Ft.	Ozs. Ag	$ Au	% Pb	% Zn
358	1.3	16.8	1.35	0.4	1.3
359	4.3	15.3	5.70	0.9	1.0
360	3.4	10.3	3.47	1.7	0.6
361	1.5	6.6	4.23	1.7	0.6
362	3.6	11.4	6.27	0.9	1.4
484	2.6	18.4	6.27	0.7	2.0
485	2.7	36.6	14.05	8.2	1.7
486	2.9	28.0	13.21	5.0	1.7
487	1.8	45.7	6.94	16.1	2.1
488	4.6	9.2	5.03	1.4	1.0
489	1.5	19.4	6.94	9.4	2.2
490	5.6	22.2	5.55	5.9	2.8
491	2.3	7.6	3.56	0.9	1.9
511	3.1	22.6	5.42	2.2	3.6
512	1.6	14.0	6.94	3.2	4.6
513	1.8	4.0	4.23		
514	8.0	21.2	9.53	3.6	2.8
515	2.4	52.3	19.14	12.8	5.4
516	7.6	4.7	7.40	1.4	4.0
517	7.0	23.8	5.30	6.5	1.9
518	5.6	10.8	4.76	1.0	2.7
519	4.8	10.8	4.23	0.9	1.8

Nº	Ft.	Ozs Ag	$ Au	% Pb	% Zn
697	1.8	33.6	8.47	5.2	3.7
698	1.6	15.4	9.14	1.4	2.2
699	2.8	15.4	2.03	2.5	0.7
700	1.8	11.2	7.62	4.5	3.0
701	1.3	73.8	9.82	6.3	5.4
702	2.1	24.2	11.85	3.2	1.7
703	3.4	16.2	6.94	3.3	2.3
704	3.1	30.7	6.94	14.8	3.8
705	1.8	23.8	16.09	2.9	3.6
706	1.1	11.8	4.91	1.8	1.6
707	3.1	17.0	4.23	1.3	3.2
708	1.7	39.3	4.23	11.7	4.2
709	3.0	30.2	9.82	3.0	4.9
710	3.0	28.2	6.94	3.4	1.3
711	3.9	52.0	12.53	8.2	6.0
712	2.9	22.0	11.85	3.2	3.2
713	1.8	23.1	7.62	5.2	1.3
714	1.9	73.4	7.62	7.0	3.4
715	2.6	12.8	10.50	1.4	5.5
716	2.4	19.8	6.94	6.2	3.2
717	2.3	5.2	6.94	0.8	4.2
718	1.7	12.8	10.50	1.4	5.5

Nº	Ft.	Ozs. Ag	$ Au	% Pb	% Zn
719	3.0	23.4	4.91	3.0	3.0
720	4.4	16.1	4.23	4.4	1.5
721	2.3	16.3	7.62	5.0	6.3

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225
Office of Minerals Exploration
Building 53 Room 203

October 31, 1968

NOV 4

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6558 (Silver)
Rexford W. Barton
Double Rainbow Mines
Lawrence County, South Dakota
Contract 2233

An interim inspection of the Double Rainbow Mine was made on October 16, 1968 by the Field Officer in company with Mr. A. L. Slaughter, Dr. Paul Gries, and Mr. Gordon Mathisrud representing the Operator. The exploration work allowed under the subject OME contract has been essentially completed, however, the Operator's final report is now being prepared and should be submitted to this office during the month of November as indicated by the Operator.

The total advance in the slusher drifts during September was 72 feet, and 128.5 feet of advance was made in two trackless drifts. All of the work was on company account. Stope sampling of the experimental stopes appears to indicate considerable dilution, either due to the lack of selective mining, or due to the fact that the major sulphides tend to break into the finer fraction of the stoped material, as indicated in the bulk sample from the No. 4 stope on the third page of the included report.

The Operator plans to drift southwest for 100 feet from the face in the No. 4 slusher drift then drive southeasterly for 300 feet to explore for extensions of the southwest trending mineralized structures. They also plan to explore the far downward extension of the ore offset which is located adjacent to the porphyry below the main haulage level. This will be done by driving 65 feet northeast from the face (as of 10/15/68) of the No. 7 slusher drift, then 200 feet at right angles, in a northeast direction, on an incline, to reach the ore zone 20 feet below the main Lower Contact haulage drift (shown in dashed lines on the accompanying map).

J. William Hasler, mc

J. William Hasler, Field Officer, Region III
Office of Minerals Exploration

Double Rainbow, Lower Contact Sept. 1968

Drifting Advance

Total advance in slusher drifts for September was 72 feet. 128.5 feet of advance was made in two trackless drifts. Drift advance is listed below:

Drift	September Advance	Advance to Date
Slusher Drift No. 1	0.0	410.5
" " No. 2	0.0	26.0
" " No. 3	0.0	37.0
" " No. 4	26.0	225.0
" " No. 4 - 1N	0.0	24.0
" " No. 4 - 1S	0.0	47.0
" " No. 4 - 2N	0.0	14.0
" " No. 4 - 2S	0.0	73.0
" " No. 4 - 2SA	0.0	91.0
" " No. 5	0.0	19.0
" " No. 6	0.0	125.0
" " No. 6A	0.0	80.5
" " No. 6B	42.0	42.0
" " No. 7	4.0	96.0
" " No. 7A	0.0	27.0
" " No. 8	0.0	68.0
" " No. 9	0.0	108.5
Total Slusher Drifts	72.0	1,513.5
Extension of North Drift	76.0	121.0
Southwest Subsill Drift	52.5	100.5
Total Trackless Drifts	128.5	221.5

Slusher Drifts

No. 4 - Slusher Drift is being extended 200 feet to the west at which point a crosscut will be driven south crosscutting the westward projection of the present known ore trend. A new zone of thin pyritization with galena (0.5 to 1.0 feet thick) in the quartzite-dolomite contact was exposed at about the third round. Truck samples to date average 3.0 oz. Ag and $3.91 Au.

No. 6 Slusher Drift - Truck samples average 7.3 oz. Ag and $3.36 Au. thickness of ore is 2.0 to 3.0 feet.

No. 7 Slusher Drift will be extended about 200 feet eastward and a cross-cut driven under the Main Drift. Only one round was shot this month and water flow is causing considerable difficulty.

Trackless Drifts

North Drift was extended 76.0 feet in September for a total advance of 121.0 feet. The drift followed the quartzite-dolomite contact and only one round showed a small 0.5 foot band of pyritic mineralization. The last round crossed a contact into Tertiary porphyry and the drift was stopped.

Southwest Subsill Drift driven from the North Drift, advanced 52.5 feet for a total of 100.5 feet. A strong fracture zone was encountered beneath No. 4 Slusher Drift and the back caved through to No. 4. Pyrite replacement and solution cavitation in the fractures produced a soft vein fill extending downward from the contact approximately 15 feet, where the vein joins the top of an altered Tertiary porphyry. This is thought to be a typical feeder course of mineral entry to the contact and is clearly connected with the porphyry. A sample 3 feet wide across the best part of the zone assayed 12.4 oz. Ag and $12.53 in Au. When sample returns from the stoping were proving to be disappointing the work in this drift was stopped.

Stoping

The major effort in September was in stoping. Ore was stoped in Nos. 1, 4, and 9 Slusher Drifts, 4 separate stopes. Two sets of samples were taken of the stoped rock, one by the foreman and his men from the pile and trucks underground, and one by the geologist from each truckload on the stockpiles on the

surface. Because of disparities between these two sets of samples a large bulk sample of approximately 60 tons was taken from the stope stockpiles. This was crushed through 3/4 inch at the County crusher. About 10% of the crushed ore was cut from the discharge conveyor, then worked down by the metallurgy department and assayed. Results of the sampling are summarized below, Ag in oz., Au at $35.00/oz.

Type of Sampling	No. 1 Stope		No. 9 Stope		No. 4 Stope		No. 1W Stope	
	Ag	Au	Ag	Au	Ag	Au	Ag	Au
Special bulk	8.8	4.91	7.4	4.91	4.0	3.50	7.8	4.91
Stockpile	9.9	4.65	7.0	4.01	6.6	3.72	6.9	4.70
Underground	20.0	6.56	7.3	3.50	8.0	4.19	7.8	4.38

Stopes 9 and 1W compare reasonably close, stopes 1 and 4 show disparity. Bulk sample for No. 4 Stope is thought to have been disproportionate in percentage of coarse rock, predominately quartzite, relative to fines, dominately sulphides. Stope No. 1 shows reasonable comparison between special bulk and stockpile samples, but of much lower grade than the underground or mine sampling.

Stoping has been stopped except in Slusher Drift 4-2SA where we are trying to locate the high grade diamond drill hole, N1.

A.L.S.
10-1-68

Stockpiles

Type	Tons	Oz. Ag	$35.00 Au	% Pb	% Zn
Dev. ore through July 1968	11,329	6.2	2.03	1.4	1.3
Dev. ore through Aug. 1968	1,082	7.2	3.29	1.9	1.3
Dev. ore through Sept. 1968	499	6.4	2.54	1.5	1.3 (est)
Dev. ore through Sept. 1968	12,910	6.3	2.16	1.4	1.3
No. 1 Stope Total	547	8.8	4.91	1.8	1.5
No. 9 " "	262	7.4	4.91	0.8	1.0
No. 4 " "	216	4.0	3.50	3.1	2.6
No. 1W " "	348	7.8	4.91	1.3	1.3
Stope Stockpiles	1,373	7.5	4.67	1.7	1.5
Total Stockpiles	14,283	6.4	2.40	1.4	1.3

Double Rainbow Maps

1. Lower Contact development map 1" = 50'

A. L. Slaughter OMH.

A. L. Slaughter

Office of Minerals Exploration
Building 53 Room 203

October 8, 1968

OFFICIAL
COPY
O. M. E.
OCT 11

Dr. J. P. Gries, Chairman
Department of Geology
South Dakota School of Mines and Technology
Rapid City, South Dakota 57701

Re: OME-6558 (Silver)
Rexford W. Barton
Double Rainbow Mines
Lawrence County, South Dakota
Contract 2233

Dear Dr. Gries:

This is in reply to your letter dated September 31 (?), 1968, which we received in this office today.

I shall plan to arrive in Rapid City the afternoon of October 14th, at about 2:00 P.M. on Frontier Flight 708.

It would be my opinion that you should remain as Agent for Rexford W. Barton until after the transmittal of the final report, and or until the contract is officially terminated by Washington..

Would you want me to discuss the Office of Minerals Exploration program at a Seminar with you/Geology students on the afternoon of the 14th or should we schedule a session at a later date? I could probably be better prepared later on after a discussion with you as to the manner and material you think I should discuss with them.

Sincerely yours,

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

cc: Chief, OME
OME-6558
OME chron
Mr. Hasler

SOUTH DAKOTA
SCHOOL OF MINES
AND TECHNOLOGY

RAPID CITY, SOUTH DAKOTA 57701

DIVISION OF GRADUATE STUDIES

September 31, 1968

OME Region III
RECEIVED
OCT 8 - 1968
Denver, Colorado

Mr. J. William Hasler
Office of Mineral Exploration
U. S. Geological Survey
Building 53, Room 203
Federal Center
Denver, Colorado 80225

Dear Bill:

The date of October 15th is fine by Archie Slaughter for a final inspection at Double Rainbow.

I presume that you will arrive in the afternoon of the 14th. We can drive up to Lead that evening in either your car or mine. I will make reservations at the Gold run for the night of the 14th.

I'm not sure of my status as Agent for Double Rainbow. Did it expire when Homestake ceased to operate on OME funds, or does the appointment continue until they thrun in their final report? I want to accompany you on the final inspection in either case.

Sincerely,

Jack

J. P. Gries, Agent
Double Rainbow Mines, Inc.

JPG/mo

OFFICIAL COPY
O. M. E.
RECEIVED
SEP 27 1968

INITIALS	CODE
	~~130~~
bal	120M
JH	~~110~~
HK	~~130~~

Office of Minerals Exploration
Building 53 Room 203

September ~~25, 1968~~

Mr. John Paul Gries
South Dakota School of Mines and Technology
Rapid City, South Dakota 57701

Subject: OME-6558 (Silver)
Rexford W. Barton
Double Rainbow Mines
Lawrence County, South Dakota
Contract 2233

Dear Mr. Gries:

Reference is made to your recent letter. Tuesday the 15th of October will be fine for me, and I will look forward to seeing you then.

Sincerely yours,

J. William Hasler
mc

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

cc: Chief, OME
OME chron
Mr. Hasler
OME-6558

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

FEDERAL CENTER, DENVER, COLORADO 80225
Office of Minerals Exploration
Building 53 Room 203

July 26, 1968

OFFICIAL COPY
O. M. E.
RECEIVED
JUL 29 1968

INITIALS	CODE
	130
	120
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Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: Interim Inspection
OME-6558 (Silver)
Rexford W. Barton
Double Rainbow Mines
Lawrence County, South Dakota

Two interim inspections were made on the subject property, one on June 19 and 20, 1968 and a more recent one on July 22 and 23, 1968. An Interim Inspection report was not made after the June 19 and 20th, due to the usual heavy work load, however, a telephone report was made shortly after the June inspection to the effect that the exploration work on the Lower Contact was progressing very satisfactorily.

A number of potential ore-bearing zones have been roughly outlined during the driving from north to south of the Trackless drift on the "Lower Contact" level.

Detailed geologic mapping has been done by the contractor's geologist and this excellent work has been used as a guide to exploring along "verticals" and accompanying shear zones, as well as to test the effect of the several porphyry silk with respect to the mineralized zones. As a result of this geologic mapping and accompanying assay data as well as several of the mineralized zones have been explored by slusher drift, both along the strike of the mineralized zone and across the one zone to explore the possible thickness of the mineralized zone.

During June, 1968 a total footage of 434.0 feet of slusher drifts were driven along mineralized zones in slusher drifts 1,2,4,6,7,7A,8 and 9, and drifts 4W-1N, 4W-1S were driven to explore the width of the mineralized zone penetrated by Slusher Drift No. 4.

During July 1968, up to the time of the field examination on July 23, 1968 a total of some 358 feet of slusher drifts were driven in Slusher Drifts Nos. 1, 3, 4, 4W-1S, 4W-2S, 5, 6, and 7-A. (See figure attached). To date a total of some 1,060 feet of slusher drifts have been driven on the Lower Contact, leaving some 240 feet of the 1300 feet of slush drift specified in the contract yet to be driven.

Recommendations were for the operator to complete Slusher Drift No. 1, and to join 4W-2S slusher drift with the No. 1 slusher drift to complete our objective of exploring the area between drill holes N-6 and N-1.

Slusher Drifts No. 1, 4, 4W-1S., and 4W-2S, showed considerable mineralized material. The mineralized material is lower in zinc content and more highly pyritized in the southern part of the work to date than in the northern portion.

The work will probably be completed some time in August or early September and an interim or a final examination will be made in middle or late September.

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Enclosure

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225

Office of Minerals Exploration
Building 53 Room 203

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July 22, 1968

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6558 (Silver)
Rexford W. Barton
Double Rainbow Mines
Lawrence County, South Dakota
Contract 2233

Transmitted herewith are the original and two copies of the MME Form 60 (Operator's Monthly Report), MME Form 61 (Operator's Progress Report) and narrative with supporting documents for the month of June, 1968 on the above-captioned subject.

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

To B + F. 7/29/68

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225

Office of Minerals Exploration
Building 53 Room 203

June 18, 1968

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JUN 1968
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To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6558 (Silver)
Rexford W. Barton
Double Rainbow Mines, Inc.
Lawrence County, South Dakota
Contract 2233

Transmitted herewith are the original and two copies of MME ~~Form~~ 60 (Operator's Monthly Voucher) and MME Form 61 ((Operator's Monthly Voucher) for the month of May, 1968 on the above-stated subject.

Attached is a suspension statement, No. 85709 in the amount of $6,687.06 dated March 1968, which was sent to the Denver OME office in a letter of June 5, 1968. A copy of this letter was forwarded to Washington June 11, 1968.

J. William Hasler
Field Officer, Region III
Office of Minerals Exploration

6558

OME Region III
RECEIVED
JUN 19 1968
Denver, Colorado

June 17, 1968

Gold Run Inn
Lead, South Dakota

Gentlemen:

Please reserve rooms for the night of June 24th for:

J. William Hasler, Denver, Colorado
J. P. Gries, Rapid City, S. D.

Whatever type of accomodations you have given Mr. Hasler and Dr. Edward Tullis in previous months will be entirely satisfactory. We will arrive by 6:00 PM or notify you to the contrary.

Yours very truly,

J. P. Gries

JPG/me

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JUN 25 1968

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SOUTH DAKOTA
SCHOOL OF MINES
AND TECHNOLOGY

RAPID CITY, SOUTH DAKOTA 57701

DIVISION OF GRADUATE STUDIES

June 17, 1968

OME Region III
RECEIVED
JUN 19 1968
Denver, Colorado

Mr. William Hasler
Office of Mineral Exploration
Room 203, Building 53
FEDERAL CENTER
Denver, Colorado 80225

Subject: OME-6558 (Silver)
Rexford W. Barton
Double Rainbow Mines
Lawrence County, S. Dak.
Contract 2233

Dear Bill:

I will keep Tuesday, June 25th, free for an inspection trip at Galena.

If you care to come straight to my office in the Mineral Industries Building, we can kick things around a bit before driving on up to Lead.

Sincerely,

J. P. Gries
Agent

JPG/me

OFFICIAL
COPY
O. M. E.
RECEIVED
JUN 25 1968

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~~RV~~	~~110~~
HK	~~120~~

SOUTH DAKOTA
SCHOOL OF MINES
AND TECHNOLOGY

RAPID CITY, SOUTH DAKOTA 57701

DIVISION OF GRADUATE STUDIES

OME Region III
RECEIVED
JUN 13 1968
Denver, Colorado

June 11, 1968

Re: OME-6558 (Silver) Double Rainbow Mines, Inc., Double Rainbow Mine, Lawrence County, South Dakota
Contract 2233

Mr. J. William Hasler
Field Officer, Region III, OME
U. S. Geological Survey
Federal Center
Denver, Colorado 80225

Dear Mr. Hasler:

Enclosed please find an original and four carbon copies of the OME-Double Rainbow Report for May 1968, duely signed by me as the new agent. Each report consists of the items enumerated in Archie Slaughter's covering letter dated June 10th, 1968.

Sincerely,

J. P. Gries, Agent

JPG/me

SOUTH DAKOTA
SCHOOL OF MINES
AND TECHNOLOGY

RAPID CITY, SOUTH DAKOTA 57701

DIVISION OF GRADUATE STUDIES

OME Region III
RECEIVED
JUN 13 1968
Denver, Colorado

June 11, 1968

Re: OME-6558 (Silver) Double Rainbow Mines, Inc., Double Rainbow Mine, Lawrence County, South Dakota
Contract 2233

Mr. J. William Hasler
Field Officer, Region III, OME
U. S. Geological Survey
Federal Center
Denver, Colorado 80225

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Sincerely,

J. P. Gries, Agent

JPG/me

HOMESTAKE MINING COMPANY

LEAD, SOUTH DAKOTA 57754

June 10, 1968

Dr. J. P. Gries
238 St. Charles St.
Rapid City, South Dakota 57701

Dear Dr. Gries:

Attached are the original and five copies of the OME - Double Rainbow Report for May, 1968. One of the copies is for your files. Each report consists of the following parts:

1 page - MME Form 60
1 page - MME Form 61
3 pages - Operator's Narrative Report

A. 13 pages - Assay results of Lower Contact Truck, Channel and Face samples, Ag and Au.

8 pages - Assay results, Pb and Zn.

B. 7 pages - Tables of sample information, Slusher Drifts.

C. 1 map - Lower Contact assay map.

D. 1 map - Upper Contact assay map showing to Lower Contact Drifts.

The voucher and progress report, MME form 60 and MME form 61 will need your signature before being forwarded to Hasler's OME office at Denver.

Sincerely yours,

A. L. Slaughter

A. L. Slaughter
Chief Geologist

ALS:pe

Enc.

HOMESTAKE MINING COMPANY

LEAD, SOUTH DAKOTA 57754

OME Region III
RECEIVED
JUN 13 1968
Denver, Colorado

June 10, 1968

Dr. J. P. Gries
238 St. Charles St.
Rapid City, South Dakota 57701

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8 pages - Assay results, Pb and Zn.

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C. 1 map - Lower Contact assay map.

D. 1 map - Upper Contact assay map showing to Lower Contact Drifts.

The voucher and progress report, MME form 60 and MME form 61 will need your signature before being forwarded to Hasler's OME office at Denver.

Sincerely yours,

A. L. Slaughter

A. L. Slaughter
Chief Geologist

ALS:pe

Enc.

HOMESTAKE MINING COMPANY

LEAD, SOUTH DAKOTA 57754

OME Region III
RECEIVED
JUN 13 1968
Denver, Colorado

June 10, 1968

Dr. J. P. Gries
238 St. Charles St.
Rapid City, South Dakota 57701

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1 page - MME Form 61
3 pages - Operator's Narrative Report

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8 pages - Assay results, Pb and Zn.

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C. 1 map - Lower Contact assay map.

D. 1 map - Upper Contact assay map showing to Lower Contact Drifts.

The voucher and progress report, MME form 60 and MME form 61 will need your signature before being forwarded to Hasler's OME office at Denver.

Sincerely yours,

A. L. Slaughter

A. L. Slaughter
Chief Geologist

ALS:pe

Enc.

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225

Office of Minerals Exploration
Building 53 Room 203

OFFICIAL COPY
O. M. E.
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May 31, 1968

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6558 (Silver)
Rexford W. Barton
Double Rainbow Mines, Inc.
Lawrence County, South Dakota
Contract 2233

Transmitted herewith are the original and two copies of the MME Form 60 (Operator's Monthly Voucher), the MME Form 61 (Operator's Progress Report) and narrative for April, 1968 on the above-stated subject.

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
6/21/68	Kirkemo	120
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JUN 21 1968

Memorandum

To: Chief, Branch of Budget and Finance

From: Chief, Office of Minerals Exploration

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

Enclosed are three copies of the Operator's voucher for May 1968 with accompanying reports and data, and the original copy of Suspension Statement 86709 with a letter from the Operator to the Field Officer, Region III, requesting payment of the sum withheld.

We recommend approval of the claim for payment of $6,687.06, from the Operator's voucher for April 1968. Amendment No. 4 to the contract authorizing the work for which payment is claimed has been executed, and the work was completed as specified.

The Operator had not received the Suspension Statement before the voucher for May 1968 was prepared, and, therefore, the voucher does not include a separate item to claim the amount withheld from the April voucher. However, the amount suspended is included in the totals for the item "Lower Contact 9x9" under "Previously Reported", and "Totals to Date."

In summary, we concur in the Field Officer's approval of the Operator's voucher for May 1968, and recommendation for payment of the amount withheld on Suspension Statement 86709.

FRANK E. JOHNSON

Frank E. Johnson

Enclosures

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

HKirkemo/bsl 6/21/68

Office of Minerals Exploration
Building 53 Room 203

OFFICIAL COPY
O. M. E.
RECEIVED
JUN 18 1968

INITIALS	CODE
	120
GCP	120
	110
HK	120

June 13, 1968

Dr. John Paul Cries
c/o Geology Department
South Dakota School of Mines & Technology
Rapid City, South Dakota 57701

Subject: OME-6558 (Silver)
Rexford W. Barton
Double Rainbow Mines
Lawrence County, South Dakota
Contract 2233

Dear Dr. Cries:

My present plans are to take Frontier Air Lines Flight 610, June 24, 1968 leaving Denver, Colorado 1:40 PM, arriving Rapid City, South Dakota 2:49 PM. If this is satisfactory to you, I will get a National Car and we can proceed to Lead that afternoon. I will make an interim inspection on the above-stated property Tuesday, June 25.

Will you please inform me if these plans suit your convenience, and if so, will you please make a reservation at the Gold Run Inn in Lead, South Dakota for the night of June 24, and so inform me?

Sincerely yours,

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

cc: Mrs. Catherine Mayo
Mr. Archie L. Slaughter
Chief, OME ✓
OME chron
Mr. Hasler
OME-6558

RICHARD J. DOWDALL
RICHARD C. HARRIS
NORMAN S. HULL
ANTHONY D. TERRY

JAMES HENDRICK TERRY
OF COUNSEL

DOWDALL, HARRIS, HULL & TERRY
ATTORNEYS AT LAW
250 NORTH CHURCH AVENUE
TUCSON, ARIZONA 85701

TELEPHONE
AREA CODE 602
624-8894

Denver, Colorado
JUN 3 - 1968
OME Region III
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31 May 1968

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Mr. J. William Hasler
Field Officer, Region III, OME
U. S. Department of Interior
Geological Survey
Federal Center
Denver, Colorado 80225

Re: OME-6558 (Silver) - Double Rainbow Mines, Inc., Double Rainbow Mine, Lawrence County, South Dakota - Contract 2233

Copy to B+F
" " Legal

Dear Mr. Hasler:

Enclosed please find original and executed copy of Power of Attorney from Double Rainbow Mines, Inc. to John Paul Gries of 238 Saint Charles Street, Rapid City, South Dakota 57701.

We are also forwarding an executed copy of this instrument to Doctor Gries. The resolution of Double Rainbow Mines, Inc., which is still in effect, authorizes any two officers or directors to execute any documents which may be required in connection with the captioned contract. We trust you will find this satisfactory.

Sincerely,

DOWDALL, HARRIS, HULL & TERRY

Anthony D. Terry

Anthony D. Terry

ADT/efd
enclosure
AIR MAIL
cc-Dr. John Paul Gries
Mr. A. L. Slaughter, Homestake
R. E. Driscoll, Jr., Esquire

Power of Attorney
Left Land
see 5/31/68
file

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225

Office of Minerals Exploration
Building 53 Room 203

May 28, 1968

OFFICIAL COPY
O. M. E.
RECEIVED
MAY 31 1968

INITIALS	CODE
6/5 gla	150
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Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6558 (Silver)
Rexford W. Barton
Double Rainbow Mines
Lawrence County, South Dakota
Contract 2233

Transmitted herewith are the "Government's Copy" and the "Budget and Finance's Copy" of Amendment No. 4 on the above-stated subject, signed for the Government and by the Operator. The Operator has retained the "Operator's Copy" and the "Field Office Copy" and "Extra Copy for Field Use" have been retained for the Region III field office files.

J. William Hasler mc.

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225

Office of Minerals Exploration
Building 53 Room 203

May 20, 1968

OFFICIAL COPY
O. M. E.
RECEIVED
MAY 22 1968

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Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6558 (Silver)
Rexford W. Barton
Double Rainbow Mines
Lawrence County, South Dakota
Contract 2233

An interim inspection was made on the subject property on May 6 and 7th in company with Dr. Edward L. Tullis, Consulting Geologist, and Mr. A. L. Slaughter, Olin Hart, and A. J. Kelly of Homestake Mining Company, the Operator's Contractor.

The northwest trending Trackless drift had reached a point some 465 feet from the main haulage level along the strike of the Lower contact ore zone. Five northeast trending zones of mineralized material have been penetrated that range in width from 12 - 21 feet and ranging in values of 1.2 oz. to as much as 56.0 oz silver per ton, and from $0.60 to as much as $13.21 in gold. The ore zones as outlined on the attached map consist of a series of essentially vertical fractures containing lenses and pods of galena, pyrite, arsenopyrite, siderite and sphalerite. The dolomite immediately overlying the quartzite also contains bands of well mineralized material, strongly-suggestive replacement along bedding as well as along the vertical feeder channels. Many of the higher gold values are found in the pyritic zones.

The Trackless drift was driven south from the main haulage drift a total of 340 feet along the strike of the Lower Contact zone, where a porphyry sill or dike was penetrated and the beds appear to steepen rapidly in the face. Samples showed somewhat lesser values, except in the in the zone near the Newmont drill hole N-6. Values ranged from

from 1.1 oz. to as much as 23.2 oz. silver per ton; and from $0.68 Au to as much as $12.53 in gold. The mineralized material in the south drift appeared to contain greater amounts of pyrite, arsenopyrite than galena. Mapping of the south drift had not been completed, but one prominant northeast trending mineralized zone was penetrated as shown on the enclosed map. A porphyry sill or pod was penetrated along the west wall, and appears as though the southeast trending fault indicated from drill holes 6-U, and 8-U may be having some structural effect on the Lower Contact ore zone.

A two (2) ton sample of mineralized material was sent to the South Dakota School of Mines and Technology, for metallurgical testing assayed as follows:

Sample No.	Ag/oz	Au$	Pb%	Zn%	Cu%
1	13.8	2.71	3.84	2.72	0.1008
2	14.8	2.71	3.96	2.91	0.1009
Average	14.3	2.71	3.90	2.81	0.10

This material will gross an estimated $56.00 at current prices. A report on the mineralogy of the Lower Contact ore zone of the Double Rainbow Mine, Galena, South Dakota by David Garske, Professor of Mineralogy, South Dakota School of Mines and Technology is enclosed with this report.

The possible location of slusher drifts was discussed during the interim inspection, as the operator's contractor desires to proceed immediately with the slusher drifts and run them concurrently, along at least four mineralized zones to further explore both the updip and downdip extensions of the Lower Contact zone. It was determined to explore the ore zones as numbered on the enclosed map, however geologic or operational problems may alter the sequence somewhat, the slusher drifts are numbered as follows:

Drift No.	Estimated Length	Objective
1	400'	Explore between holes N-6 and N-1.
2	150'	SW from south drift.
3	150'	SW toward drill hole U-3.
4	300'	SW along most northerly zone.
5	300'	NE along zone, downdip (This has now been abandoned 5/17/68 due to possible operational problems.
6 (Alternate)		SW along mineralized zone.
7 (Alternate)		NE down dip along contact zone.

Enclosed also is an assay map of the Lower Contact on a scale of 1" = 20°.

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Enclosures

April 29, 1968

MINERALOGY OF THE LOWER CONTACT ZONE OF THE DOUBLE RAINBOW MINE, GALENA, SOUTH DAKOTA

By David Garske (S. D. School of Mines & Technology)

The samples which were studied were collected from the dump in March, and underground on April 8, 1968. Most of the specimens are portions of cavity walls and represent a bias in the results given below.

MINERALS PRESENT:

ARSENOPYRITE; This was identified by color, crystallography, and x-ray powder diffraction. It occurs usually as crystals which are dull grey on the outside, and tin white when broken. It is rarely found in the massive ore. Larger crystals often are hollow, with centers containing crystals of arsenopyrite, sphalerite, and pyrite. Measurements of one crystal apparently a centimeter thick showed a wall only 50 microns thick, but uniform in thickness around the crystal. Often the crystals are coated with micro second stage galena crystals, which is going to cause problems with arsenic contamination of the lead due to arsenopyrite floating off with the galena. Also the crystals are occasionally coated with an extremely thin layer of pyrite, which may also affect flotation.

The grain size of the crystals ranges from about 40 microns to over a centimeter, with the large majority of the crystals being above 200 microns.

CHALCOPYRITE; It was identified by color. It is probably the least abundant sulfide, although small amounts of it mixed with pyrite would be very hard to detect without polished sections. In the only specimen noted the mineral occured as a vein filling in pyrite which was about 1-2 mm thick.

The individual crystals of the mineral averaged 20-50 microns in size.

GALENA: It is easily identified by visual means, and the second generation was identified by x-ray powder diffraction. It is quite abundant as cavity fillings and is rarely found in the massive ore. The first stage of crystals occur as twinned cubes and octahedrons up to 3 cm across, and the second stage occurs as extremely small crystals coating the octahedral faces of the primary galena, and as thin coatings on arsenopyrite crystals.

Some of the galena could be silver bearing, and possibly part of the second stage of galena could be a silver sulfide or sulfosalt.

The first stage of galena crystals range from 500 microns to 3+ cm in size. Although the second stage crystals are minor in relative abundance, they may be important due to their coating other minerals. The crystal

size ranges from about 2-20 microns, and some of the coatings on the first stage galena crystals are up to 50 microns thick.

KAOLINITE; It was tenatively identified visually, and can be checked by x-ray techniques if necessary. It occurs rarely in the quartzite and with some small secondary quartz crystals.

PYRITE, It was identified by color and crystallography. The first stage of pyrite crystals was the first mineral to replace the quartzite, and is the most abundant sulfide in the deposit. The mineral ranges from traces in quartzite to essentially pure pyrite bodies. It replaces quartz grains, fills fractures, and coats the inside of cavities in the quartzite. The second stage of crystals were about the last crystals to form, and coat and replace almost all of the other minerals in small amounts. The first stage crystals are cubes straited parallel to pyritohedron faces, and the second stage crystals, when large enough to see, are octahedrons

The first stage crystals range from below visual in size to about 1 mm. Probably greater than 95% are larger than 100 microns. Since the pyrite may contain gold,crushing to the proposed size of -70 microns should liberate all recoverable pyrite without crushing to an extremely fine mesh size. The second stage pyrite crystals average 5-20 microns, but occasionally form in crusts up to 2 mm thick coating other minerals.

SIDERITE: Identified visually, and by chemical, optical, and x-ray diffraction techniques. It was one of the last minerals to form, and apparently crystallized in at least two stages. In some areas small siderite crystals are coated with a second stage of the same sized crystals which do not show a crystallographic relationship to the first crystals. There often is a small gap between the two ages of crystals, and this gap is shaped like the lower crystals, as if part of the crystals have been dissolved after the second stage has formed. Some of the larger crystals contain micro pyrite crystals and also cavities which may be equal to 50 % of the volume of the crystal. These cavities probably are growth phenomena rather than due to solution, as they show excellent crystal faces. There is a very thin coating of a possible third age of siderite or another carbonate on some of the larger crystals.

The crystals range in size from 250 microns to 3 cm.

SPHALERITE: It was identified visually. Sphalerite is locally abundant mixed with the massive pyrite, and probably represents a significant ore of zinc. Some of the material is found in the centers of tetrahedrite crystals. A very small amount of second stage sphalerite was noted on some of the galena crystals. Sphalerite is the only sulfide other than pyrite which appears to be abundant in the massive ore.

Crystals in the massive ore vary from 100 to 400 microns in size, and occasional crystals in cavities range up to 2 mm.

TETRAHEDRITE; The tetrahedrite, which probably is silver rich, was identified by x-ray diffraction. It was only noted as crystals

associated with sphalerite and arsenopyrite. The crystals are usually tarnished yellow, red, or blue, and may possibly be mistaken for tarnished chalcopyrite or sphalerite crystals. If it does occur in the massive ore it would be very hard to visually identify without polished sections. The x-ray diffraction pattern matched with a high silver tetrahedrite (fribergite) from Canada. Some problems may be had with flotation because of its intimate occurence with sphalerite and arsenopyrite. Also whatever is causing the surface tarnish may not be amendable to flotation.

The crystals range from 200 microns to 2 mm in size.

PARAGENESIS:

```
Quartzite------
Pyrite          ------                                  - - - -
Kaolinite?  - - - - -
Quartz                 -----
Chalcopyrite           - - - - -?
Arsenopyrite                 ----------
Sphalerite                          -------
Tetrahedrite                              ------
Galena                                          ------ - --
Siderite                                                  --- -- -
```

Youngest minerals to right of diagram.
There was possibly some solution during and after the formation of the galena.

RECOMMENDATIONS FOR POSSIBLE FURTHER STUDY;

Chemical analysis of each of these minerals, SULFIDES and for those which occur in more than one age, an analysis of each age.

Check the ratio of iron/zinc in sphalerite as a means of determining the temperature of formation of this deposit.

Map the crystal coatings in place in the mine, to possibly determine flow direction(s) of ore solutions.

cc: Delicate
Slaughter
Ting
Tullis

Standard Form No. 65
November 1961
General Services Administration
FPMR (41 CFR) 101-11.6

U.S. Government Messenger Envelope

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65-107

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Office of Minerals Exploration
Building 53 Room 203

May 20, 1968

OFFICIAL COPY
O. M. E.
RECEIVED
MAY 22 1968

INITIALS	CODE
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Gal	120
	110
HK	~~120~~

Mr. Anthony D. Terry
DOWDALL, HARRIS, HULL & TERRY
Attorneys at Law
250 North Church Avenue
Tucson, Arizona 85701

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

Dear Mr. Terry:

Enclosed are the original and 3 copies of proposed Amendment No. 4 (two pages) and one map (Figure 4) to the subject contract, signed for the Government.

If the proposed amendment is satisfactory, all four copies should be signed by an authorized representative of the Operator, then please retain the Operator's Copy and return the other copies to this office.

If any part of the proposed amendment does not have the Operator's approval, the original and both copies are to be returned to this office together with the proposed changes for consideration.

Sincerely yours,

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Enclosures

cc: Chief, OME
cc: OME-6558
OME chron
Mr. Hasler

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225

Office of Minerals Exploration
Building 53 Room 203

OFFICIAL COPY
O. M. E.
RECEIVED
MAY 20 1968

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[illegible]	120
HK	130

cy to B + F.

May 15, 1968

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6558 (Silver)
Rexford W. Barton
Double Rainbow Mines
Lawrence County, South Dakota

I was notified this afternoon by Mr. A. L. Slaughter, the Operator's contractor, that Mr. Edward L. Tullis, the Operator's consulting geologist and agent passed away this morning (May 15, 1968). Mr. Tullis had been suffering with a heart ailment the past year.

I informed Mr. Slaughter that the operator would be required to execute a "power of attorney" for the consultant and/or agent they select to replace Mr. Tullis.

During my last interim inspection on May 6th and 7th in company with Mr. Tullis, I was aware of the fact that he was not feeling too well even though he did not mention it to me.

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
5/14/68	Kirkemo	120
"	Johnson	110
5/15	Powers	
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MAY 1 6 1968

AIRMAIL

Memorandum

To: Field Officer, Region III

From: Chief, Office of Minerals Exploration

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

Enclosed are the original and three copies of proposed Amendment No. 4 (two pages) and one map (Figure 4) to the subject contract, signed for the Government. An extra copy of the amendment is enclosed for field use.

If the proposed amendment is satisfactory to you and the Operator, all four copies should be signed by an authorized representative of the Operator and distributed as usual.

If any part of the proposed amendment does not have your approval or that of the Operator, the original and all copies are to be returned to this office together with the proposed changes for consideration.

FRANK E. JOHNSON

Frank E. Johnson

Enclosures

cc: Director's Reading File
Economic Geology File
OME Docket
OME Reading File
Mr. Kirkemo
130

HKirkemo/bsl 5/14/68

REFERENCE SLIP

OFFICE OF MINERALS EXPLORATION

TO:	DATE	INITIALS
1. Assoc. Sol.--MR, Room 6554 (Through Room 6042)		
2. Mr. Kirkemo, Room 4459		
3.		
4.		
5.		
FROM:		

SOLICITOR

MAY 7 1968

E-68-2040.3192

INTERIOR DEPT.

FOR: Check items for action desired

____ Action ____ Reply for signature of _____

____ Approval ____ Investigate ____ Surname

____ Comment ____ Recommendations ____ Signature

____ Conference ____ Rewrite ____ File

____ Instructions ____ Your information

REMARKS:

Please return to

FROM SOLICITOR

RECEIVED

MAY 7 1968

Division of Mineral Resources
and General Legal Services

FOR SIGNATURE

INT.-DUP. SEC., WASH., D.C. M56300-62

To Legal 5/7

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DRAFT 5/6/68
HKirkemo/gla

EXPLORATION CONTRACT
DOUBLE RAINBOW MINES, INC.
OME-6558

AMENDMENT NO. ~~3~~ 4

It is agreed this _____ day of _____, 1968, between the United States of America, acting through the Department of the Interior, U. S. Geological Survey, hereinafter called the "Government," and Double Rainbow Mines, Inc., hereinafter called the "Operator," that Exploration Contract No. 2233 (OME-6550), dated January 24, 1967, as amended, is further amended effective March 1, 1968, as follows:

1. In Exhibit A, under the heading Description of the Work, the last paragraph beginning on page 4 and continuing on page 5, and the first full paragraph on page 5 are revised to read as follows:

"Starting from the shaft station established for the Lower contact workings, a drift shall be driven southwesterly approximately 700 feet, thence about 800 feet in drifts extending in southerly and northerly directions using trackless loading and hauling equipment to explore the Lower contact as indicated on Figure 4, entitled "Proposed Trackless Drifts on Lower Contact, Double Rainbow Mine, Lawrence County, South Dakota," which is attached hereto and made part hereof.

"About five slusher drifts totalling about 1,300 feet shall be driven to explore mineralized zones in the Lower contact from positions selected in the trackless drifts. The location, bearing, and length of individual drifts will be determined by the geological and operational factors encountered."

This amendment shall not be construed to increase the total estimated cost of the contract, the aggregate amount which the Government may be required to contribute, the amount of any item designated as maximum, nor the fixed unit cost of any item of work.

Executed in quadruplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By_____
Chief, Office of Minerals Exploration
U. S. Geological Survey

DOUBLE RAINBOW MINES, INC.

By_____

Title_____

SOUTH DAKOTA
SCHOOL OF MINES
AND TECHNOLOGY

RAPID CITY, SOUTH DAKOTA 57701

DEPARTMENT OF GEOLOGY
AND GEOLOGICAL ENGINEERING

April 23, 1968

OME Region III
RECEIVED
APR 24 1968
Denver, Colorado

AIRMAIL

Mr. J. William Hasler, Field Officer, Region III
Office of Minerals Exploration
U. S. Geological Survey
Denver Federal Center - Building 53 - Room 203
Denver, Colorado 80225

Dear Bill:

We have planned to go to Lead on the afternoon of Monday, May 6. However, I have a Departmental Seminar that lasts from 4:15 to about 5:05 that I should attend. There will be a 20 minute talk by a senior on Glacial Drainage in Eastern South Dakota, and another by a graduate student on the Geology of the Port Coldwell Complex - Marathon Ontario. You are welcome to attend the Seminar if you wish.

I will be free to leave as soon as it is over.

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O. M. E.
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MAY 3 1968
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Sincerely yours,

Edward L. Tullis, Chairman
Department of Geology and
Geological Engineering

ELT:lo

Office of Minerals Exploration
Building 53 Room 203

April 25, 1968

Dr. Edward L. Tullis
223 Saint Charles Street
Rapid City, South Dakota 57701

Subject: OME-6558 (Silver)
Rexford W. Barton
Double Rainbow Mines, Inc.
Lawrence County, South Dakota
Contract 2233

Dear Ed:

I shall plan to attend the Departmental Seminar on May 6, 1968 you referred to in your letter of April 23, 1968. We can proceed to Lead together after the Seminar.

Sincerely yours,

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

cc: Mr. Delicate
Mr. Slaughter
Chief, Office of Minerals Exploration
OME chron
Mr. Hasler
OME-6558

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225

Office of Minerals Exploration
Building 53 Room 203

OFFICIAL COPY
April 4, 1968
O. M. E.
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APR 10 1968

INITIALS	CODE
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Gep	120
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Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6558 (Silver)
Rexford W. Barton
Double Rainbow Mines
Lawrence County, South Dakota
Contract 2233

The Operator's contractor in a letter dated March 16, 1968 requested a change in direction and location of some 300 feet of trackless drift to be driven northwestward along the "lower contact," as shown on the accompanying map.

Drilling has shown the lower contact ore horizon to be offset downward in part of the area under the old Richmond-Sitting Bull workings. This problem was discussed with the applicant's consulting geologist, Dr. Edward Tullis, and Mr. A. L. Slaughter, contractor's geologist, during my interim inspection March 12, 1968. I recommended that the operator submit a proposed plan to change the location of both trackless and slusher drifts that would better explore the lower contact ore horizon, in light of the downthrown block of ground, as presently known. I agree that it is not practical to extend the Trackless drift southward the full proposed 800 feet as shown on the accompanying map, and therefore recommend only 500 feet of trackless drift be driven southward as requested by the operator. A slusher drift trending N. 70° W. was originally proposed to test the northernmost block of ground from a point some 500 feet from the shaft. The newly proposed 300 feet of trackless drift trending N. 12° W. from a point of 600 feet from the shaft will explore the same block of ground as originally planned. It is therefore recommended that this change also be made.

The proposed changes in location and direction of the trackless and slusher drifts on the lower contact should not require an amendment to the contract, and I therefore request permission to give the

operator approval to proceed with the exploratory work on the lower contact as herein outlined and shown on the accompanying map. The trackless drift footage as shown will utilize all footage allowed in the contract for that type work on the lower contact, and will leave 900 feet of slusher drift footage with which to explore the lower contact ore horizon. These slusher drifts will be relocated as work progresses and additional geological information is obtained.

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225

Office of Minerals Exploration
Building 53 Room 203

OFFICIAL COPY
O. M. E.
RECEIVED
APR 25 1968

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April 23, 1968

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6558 (Silver)
Rexford W. Barton
The Double Rainbow Mines, Inc.
Lawrence County, South Dakota
Contract 2233

This is in reply to your memorandum of April 11, 1968 concerning a request dated March 16, 1968 from the operator to drive 300 feet of trackless drift on the Lower contact level northerly from a point about 600 feet southwest of the shaft, and to limit the drift southerly from the vicinity of DDH 6 to about 500 feet instead of the 800 feet as originally planned.

Additional data and further explanation was received, pursuant to a telephone conversation with Mr. A. L. Slaughter, Chief Geologist, for the contractor in which he further discusses, and I feel justifies the request for the changes in exploration on the Lower contact level as requested in their letter of March 16, 1968.

It may be pertinent to note that the location for the proposed trackless and slusher drifts, on the lower contact level were superimposed upon the map showing the workings of the Upper contact level, with the possible indication that the "verticals" in the Upper contact may also occur in comparable position in the lower contact, however, this was pure conjecture. Because of the unknown nature or position of the Lower Contact, verticals or pods of mineralized material the relocation of some of the slusher drifts, and also the trackless drift must be considered. The slusher drifts shown on Figure 3, were rather tentative locations, based upon geological data known at the time of the application. For instance, the 250 foot slusher drift

shown starting from the trackless drift between the shaft and drill hole N-6, could not be started at that point because the trackless drift had not yet penetrated the ore bearing horizon. Also, the faulting of the Lower contact beds were not known until additional drilling had been completed. Some of the better ore shoots have been found in this area and it was deemed advisable to proceed northward with the trackless drift and run a slusher off the trackless drift when mineralized material warrants further exploration. The operator is desirous to complete the full amount of trackless drift prescribed in the contract, in order to have as wide a choice as possible for the selection of slusher drift locations. The trackless drifts follow the contact at a slight up-grade for drainage. If the ore horizon changes strike or dip the drift must change direction in order to maintain the proper position relative to the ore horizon. The trackless drifts are limited in the degree of inclination on which they can be driven by the operating limitation of the equipment used. The slusher drifts can be driven at steeper angles, but must be relatively straight. They cannot be driven efficiently to lengths much over 400 feet. The trackless drift to the south is presently being driven and will be continued as far south as it is geologically sound to do so, in order to allow for as much exploration east and west along any new ore zones that may be intersected with the trackless drift, this may be as much as 500 feet to the south.

In order to take advantage of available equipment and to better facilitate underground exploration it is advisable to work as many headings as possible. I indicated in a telephone conversation with Mr. Kirkemo that some of the reason for driving trackless drift northward, as well as southward was of an operational nature, as is brought out in Mr. Slaughter's letter dated April 11, 1968 of which you have a copy.

I recommend that an amendment be executed to provide for the driving of 300 feet of trackless drift northward in order to adequately explore for silver along the Lower contact level in the Double Rainbow Mine, as shown in the applicant's request dated March 16, 1968 and further justified in a letter dated April 11, 1968.

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225

Office of Minerals Exploration
Building 53 Room 203

OFFICIAL COPY
O. M. E.
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APR 22 1968

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April 19, 1968

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6558 (Silver)
Rexford W. Barton
Double Rainbow Mines, Inc.
Lawrence County, South Dakota
Contract 2233

3 cys voucher to B.& F. 4/29/68

Transmitted herewith are the original and two copies of the March, 1968 monthly report consisting of MME Form 60 "Operator's Monthly Voucher", MME Form 61 "Operator's Progress Report" and narrative with substantiating documents on the above-stated subject.

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Enclosures

Copy to Washington 4-22-68 Copy to B&F

DOWDALL, HARRIS, HULL & TERRY

RICHARD J. DOWDALL
RICHARD C. HARRIS
NORMAN S. HULL
ANTHONY D. TERRY

JAMES HENDRICK TERRY
OF COUNSEL

ATTORNEYS AT LAW
250 NORTH CHURCH AVENUE
TUCSON, ARIZONA 85701

TELEPHONE
AREA CODE 602
624-8894

OFFICIAL COPY
O. M. E.
RECEIVED
APR 22 1968

INITIALS	CODE
Jla	120
Jbal	120
JH	110
HK	120

OME Region III
RECEIVED
APR 16 1968
Denver, Colorado

15 April 1968

Doctor Edward L. Tullis
223 St. Charles Street
Rapid City, South Dakota 57701

Re: Double Rainbow Mines, Inc. - OME-6558 (Silver)
Contract 2233 - Double Rainbow Mines,
Lawrence County, South Dakota

Dear Doctor Tullis:

Enclosed herewith please find Treasury check numbered 87,505,489 payable to Double Rainbow Mines, Inc., in the amount of $10,294.55.

By copy of this letter to Mr. Hasler and Mr. Driscoll we are requesting that the address be changed so that in the future these checks will be mailed to the corporation in care of Anthony D. Terry, Attorney, 250 North Church Avenue, Tucson, Arizona 85701. If there is some other office we should notify we would appreciate being so advised.

I'm afraid it takes a little time for this sort of information to sift down to the government computers.

Sincerely,

DOWDALL, HARRIS, HULL & TERRY

ADT

Anthony D. Terry

ADT/efd
cc-as above
cc-Mrs. Rexford W. Barton
2251 Virginia Street
Berkeley, California 94709

COPY

Office of Minerals Exploration
Building 53 Room 203

OFFICIAL COPY
O. M. E.
RECEIVED
APR 12 1968

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Oz	120
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HK	120

April 11, 1968

Dr. Edward L. Tullis, Consulting Geologist
223 St. Charles Street
Rapid City, South Dakota 87701

Subject: OME-6558 (Silver)
Roxford W. Barton
The Double Rainbow Mines, Inc.
Lawrence County, South Dakota
Contract 2233

Dear Dr. Tullis:

Thank you for your letter of April 8, 1968. It will suit my convenience to arrive in Rapid City, South Dakota on Monday afternoon, May 6, and Tuesday May 7, to be in Lead and Galena for an interim inspection on the above-stated contract.

I have reservations on Frontier Flight 610 leaving Denver, Colorado 1:40 PM, arriving Rapid City, South Dakota 2:49 PM, and for a vehicle from National Car Company which I will pick at the airport. If it is agreeable with you, we can proceed to Lead South Dakota that afternoon just as we did last time. Yesterday, I talked with Archie Slaughter concerning an amendment for Trackless Drift work northward from hole N-6. Archie said he would make reservations for you and me at the Gold Run Inn in Lead for May 6th. He reports even more mineralized material since I talked with him a week or so ago.

Sincerely yours,

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

cc: Mr. Donald T. Dellente
Mr. Archie L. Slaughter
Chief, OME ✓ OME chron Mr. Hasler OME-6558

EDWARD L. TULLIS
Consulting Geologist
223 ST. CHARLES STREET
RAPID CITY, SOUTH DAKOTA 57701
PHONE 605/342-3733

OME Region III
RECEIVED
April 10 1968
Denver, Colorado

April 8, 1968

Mr. J. William Hasler
Field Officer, Region III
Office of Minerals Exploration
U. S. Geological Survey
Denver Federal Center - Building 53 - Room 203
Denver, Colorado 80225

Dear Bill:

Today I talked to Archie Slaughter on the phone and we agreed that it would be good to have you come back early in May. I believe that you told me the last time you were here that you would like to come back in about a month but it has not been possible to work that out.

If it would suit your convenience, Monday afternoon or evening May 6 would be a good day to arrive and Tuesday, May 7 to be in Lead and Galena. This date is all right with Archie and suits my convenience best because it is getting near the end of the semester and I do not like to miss Monday - Wednesday - Friday morning classes.

Sincerely yours,

Edward L. Tullis

ELT:ek
cc: Don Delicate
Archie Slaughter

Form 7
(3)

OFFICIAL FILE COPY

Date	Surname	Code
4/11/68	Kirkemo	120
		110
4/11	Cal	220
		120M

AIRMAIL

APR 11 1968

Memorandum

To: Field Officer, Region III

From: Chief, Office of Minerals Exploration

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

This is in reply to your memorandum of April 4, 1968, concerning a request dated March 16, 1968, from the Operator to drive 300 feet of trackless drift on the Lower contact level northerly from a point about 600 feet southwest of the shaft, and to limit the drift southerly from the vicinity of DDH6 to about 500 feet instead of the 800 feet originally planned. We understand the latter change is advisable because a fault discovered by drilling displaces the Lower contact zone about 25 feet, and the contact could not be followed south beyond the fault.

An amendment will have to be prepared to provide for the proposed northerly segment of trackless drift because the contract under Exhibit A, Description of the Work states as follows, "Starting from the shaft station established for the Lower contact workings, a drift shall be driven southwesterly approximately 700 feet, thence southerly approximately 800 feet using trackless loading and hauling equipment to explore the Lower contact as indicated on Figure 3."

Before we prepare an amendment to allow drifting in a northerly direction, we suggest that the Operator consider completing the 500-foot extension of the trackless drift southerly from the vicinity of DDH6. Geologic conditions encountered in this segment of the work may indicate that more information would be obtained by exploring elsewhere with a 300-foot drift.

The proposed 300-foot northerly extension of trackless drift would explore the same general area as the slusher drift already planned would explore from a point about 500 feet from the shaft. The starting point for the slusher drift may be changed in view of the geology exposed in the trackless drift but the objective would remain unchanged. It also would be more economical to explore this area with a slusher drift than with a trackless drift.

FRANK E. JOHNSON

Frank E. Johnson

cc: Dir. Reading File
Division File
Econ. Geology File
OME File
OME Reading File
Mr. Kirkemo
130

HKirkemo/gla 4-11-68

HOMESTAKE MINING COMPANY

LEAD, SOUTH DAKOTA 57754

OME Region III RECEIVED APR 15 1968 Denver, Colorado

OFFICIAL COPY O. M. E. RECEIVED APR 18 1968

INITIALS	CODE
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AIRMAIL

April 11, 1968

Mr. J. William Hasler
U.S.G.S. - Federal Center
Bldg. 53, Rm. 203
Denver, Colorado 80225

OME - 6558 (Silver)
Contract No. 2233
Double Rainbow Mines

Dear Bill:

In line with our telephone conversation of yesterday, I will try to set down a more complete explanation of the reasons behind our recommendation for a change in the exploration plans in the lower contact ore horizon at Double Rainbow. Reference is made to my letter of March 16 with the accompanying maps.

At the time that the Double Rainbow application for assistance was made only a limited amount of drilling had been done and the 6 Newmont holes were concentrated in a small part of the area. The position and attitude of the lower contact ore horizon were not well enough known to allow a complete and definite exploration plan of the lower contact to be made. Intrusion of porphyry sills into the lower part of the Cambrian Deadwood formation causes offsets in the lower contact ore horizon which are not reflected in the upper contact horizon. This possibility was recognized, but it was hoped that the work suggested in the application could be accomplished without encountering serious offsets in the lower horizon. However, the underground holes drilled by Double Rainbow from the old Richmond-Sitting Bull workings proved that offsets of the lower horizon were present. These offsets restrict the area of the lower horizon which can be explored without driving incline drifts and sinking winzes.

The case in point is that the proposed 800 feet of trackless drift to the south cannot be driven more than about 500 feet without encountering such an offset. (See 50 ft. scale map). Beyond this point the drift would need to be inclined until the lower horizon was again reached.

The incline portion, which would have to be at least 150 feet in length in order to maintain a reasonable grade, would be in higher beds and consequently of no exploration value. It is therefore recommended that part (approximately 300 ft.) of this trackless drift footage be used in a northerly direction. It is believed that better use of this footage can thus be made.

It is desirous to complete the full amount of trackless drift called for in the contract if possible, in order to have as wide a choice as possible for the selection of slusher drift locations. The trackless drifts follow the contact at a slight up-grade for drainage. If the ore horizon changes strike or dip the drift must change direction in order to maintain the proper position relative to the ore horizon. The trackless drifts are limited in the degree of inclination on which they can be driven by the operating limitation of the equipment used. The slusher drifts can be driven at steeper angles, but must be relatively straight. They cannot be driven efficiently to lengths much over 400 feet.

The exploration plan calls for intersection of ore shoots by the trackless drifts. Slusher drifts are then driven on the ore shoots to determine their size, length and metal content. These factors, together with the density, or number of the ore shoots will determine whether or not the property can be made into a successful operation. No. 1 Slusher Drift (see 50 ft. scale map) is an exception, it will be driven to an objective, a surface drill hole which intersected high-grade silver ore.

The OME - Double Rainbow contract states, "From positions selected in the trackless drifts, about five slusher drifts totalling about 1300 feet shall be driven to explore mineralized zones in the lower contact as indicated on Figure 3". The slusher drifts shown on Figure 3, with the exception noted above, had to be shown at tentative locations at the time the application was made. For instance, the 250-foot slusher drift, shown starting from the trackless drift between the shaft and drill hole N 6, could not be started at that point because the trackless drift had not yet encountered the ore horizon. In place of this a slusher drift could be driven from the proposed trackless drift to the north.

As can be seen from the map, the trackless drift has been driven some distance to the north. Some of the better ore shoots have been found here, some of which will justify exploration by slusher drifts.

A copy of the last monthly report which describes mineralization and ore in the lower contact is enclosed.

Two maps are enclosed, 1) a map showing the workings at both levels and, 2) a copy of the original map showing proposed work on the lower contact.

I hope this information helps to clarify matters and that an amendment to the contract might be allowed.

Sincerely,

A. L. Slaughter

A. L. Slaughter
Chief Geologist

ALS/m

xc - Mr. E. L. Tullis
Mr. D. T. Delicate

Enc. - Maps
- Monthly Report

Double Rainbow

Upper Contact

No. 4 Slusher Drift - Some additional channel sampling was done in the extension of this drift. Several ore grade assays were obtained over 1.5 ft. to 2.5 ft. widths, the best 1.7 ft. of 24.9 ozs. Ag, $37.42 Au, 9.5% Pb, 1.6% Zn.

No. 5 Slusher Drift - This extension of the Bad Air Drift was channel sampled. The best samples contained 4 to 6 ozs. Ag. The Bad Air Drift north of No. 4 Drift was re-sampled. A zone of high lead was found. A 3.0 ft. thickness contains 6 to 11 ozs. Ag, $1.70 to $5.08 Au, and 10 to 16.5% Pb (no Zn analysis due to failure of apparatus).

Lower Contact

The plan for exploration of the lower contact, approved by OME, is to drive two strike drifts (slight up-grade for drainage), one north and one south, and a slusher drift up dip from the end of the Main drift toward Newmont drill hole No. 1. The two strike drifts are being driven with trackless equipment. The North drift can be driven only about 300 ft. because of the property boundary. We hope to drive the South drift 500 ft. which would make up the total allowable footage of 1500 ft., of trackless drifts but may be stopped before reaching this distance because of a downward offset in the contact. The slusher drift to Newmont drill hole No. 1 is expected to be about 400 ft. in length, leaving 900 ft. of this type of drifting to be done at places to be determined later.

Geology - Pods and lenses of Ag - Au - Pb - Zn ore have been found over an area of about 100 ft. by 200 ft. by the work done in March. Spectacular galena-pyrite mineralization occurs as lining in vugs ranging up to 1.0 ft. in diameter and 4 ft. in length. Other minerals occur in some of the vugs. A preliminary paragenesis is; pyrite, quartz, sphalerite, arsenopyrite (?), galena, chalcopyrite and marcasite. The minerals, particularly pyrite, are disseminated around the vugs. The favored

horizon for the mineralization is the top 3 to 4 ft. of basal quartzite at the contact with the dolomite, but ore mineralization does occur in the bottom 2 to 3 ft. of the dolomite. An different type of occurence is as narrow veins, up to one inch, along vertical fractures in both dolomite and quartzite. The mineralization in vugs can be seen in some instances to be related to fractures or fracture zones.

Verticals and mineralization are being mapped on a scale of 1" = 20'. The walls are being mapped on section at a scale of 1" = 10' as a basis for systematic sampling, and in order to get a better picture of the density and size of the ore shoots. No attempt has been made to follow any of the ore shoots.

Sampling - Truck samples of about 50 pounds have been taken from each round since ore mineralization was encountered. The trackless drifts are about 10' x 10' in cross section. The usual thickness of ore is 2 ft. to 4 ft. and the ore in some cases does not extend for the full width of the drift. There is, then considerable dilution in the truck samples. The high truck sample is 18.8 ozs. Ag, $5.08 Au and 4.3% Pb. Another has 13.5 ozs. Ag, $3.56 Au and 6.8% Pb. Six, 6 ft. rounds in the North drift average 8 ozs. Ag, $2.25 Au.

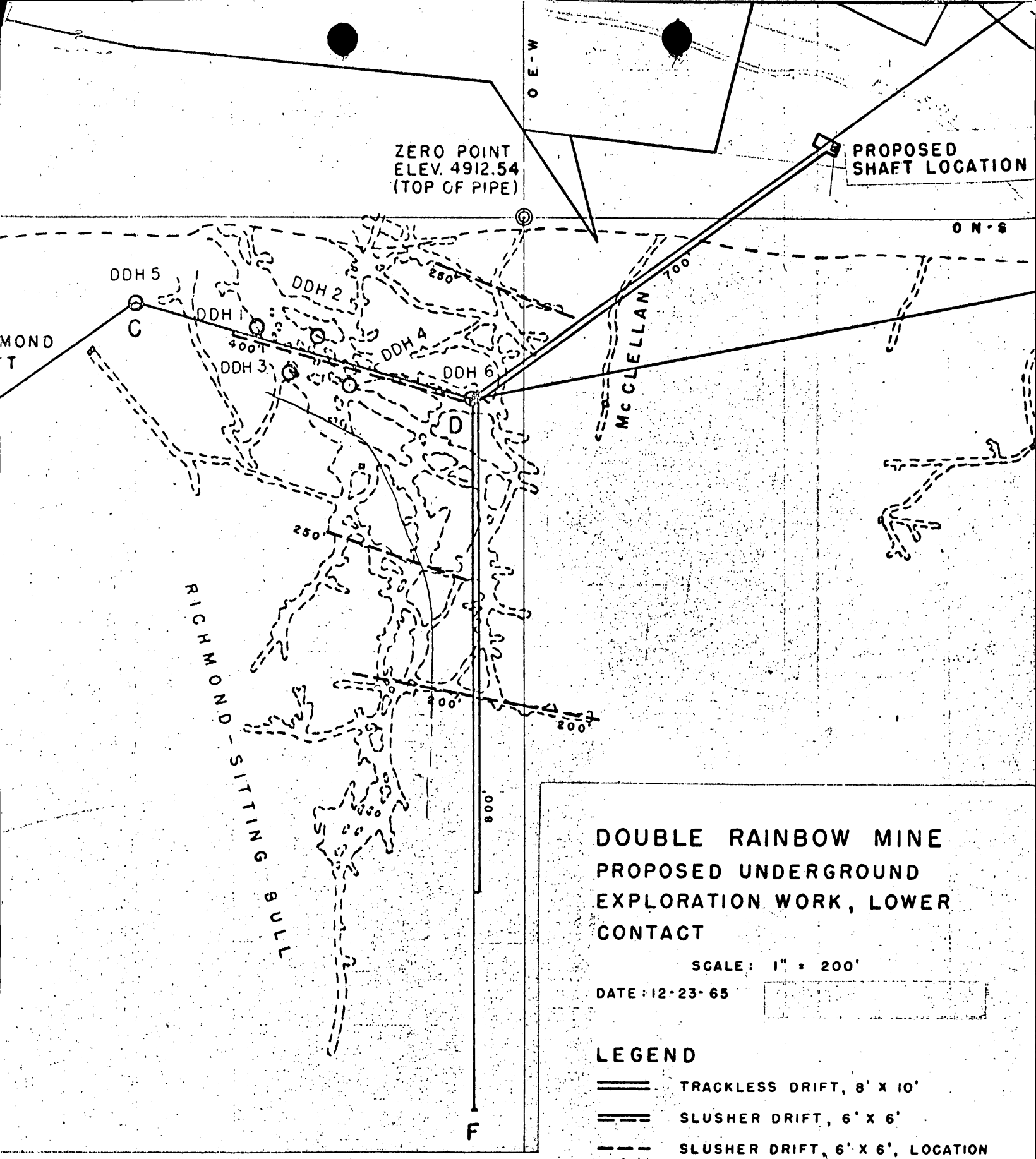
A sample for metallurgical testing from the South Drift was composited from 2, 6 ft. vertical channels, 3 ft. apart. It contained 23.2 ozs. Ag, $6.27 Au. The upper 2.0 ft. was cut in dolomite, the lower 4.0 ft. in quartzite. A 6 ft. x 6 ft. face in the start of No. 1 Slusher Drift averaged 13.3 ozs. Ag, $4.40 Au. A 3.8 ft. band of ore extending across the 10 ft. wide face of the North Drift averaged 55.8 ozs. of Ag, $11.50 Au.

Twelve samples have been assayed for copper. They range from 0.03% for ore containing 5.7 ozs. of silver to 0.16% for ore containing 46.9 ozs. of silver.

Ore Stockpile - Rock judged to contain 3 ozs. of silver or more per ton is being put in an ore stockpile. As of the first of April 1749 tons, containing 6.0 ozs. silver, $2.00 gold and about 1% lead have been stockpiled.

A. L. Slaughter

A. L. Slaughter



DOUBLE RAINBOW MINE

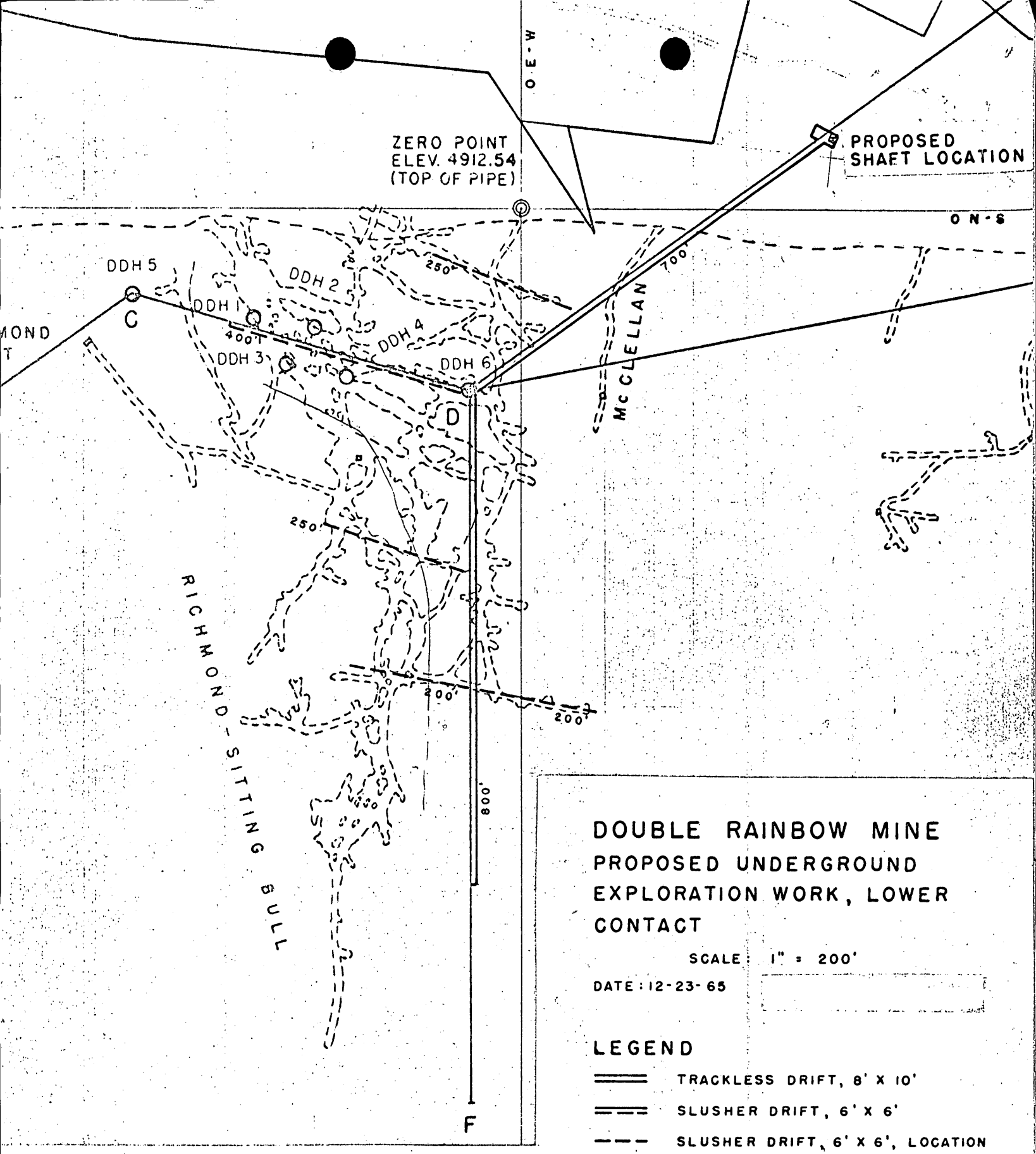
PROPOSED UNDERGROUND EXPLORATION WORK, LOWER CONTACT

SCALE: 1" = 200'

DATE: 12-23-65

LEGEND

- TRACKLESS DRIFT, 8' X 10'
- SLUSHER DRIFT, 6' X 6'
- SLUSHER DRIFT, 6' X 6', LOCATION DEPENDS UPON POSITION OF ORE INTERCEPTS ALONG TRACKLESS DRIFT



DOUBLE RAINBOW MINE

PROPOSED UNDERGROUND EXPLORATION WORK, LOWER CONTACT

SCALE: 1" = 200'

DATE: 12-23-65

LEGEND

- TRACKLESS DRIFT, 8' X 10'
- SLUSHER DRIFT, 6' X 6'
- SLUSHER DRIFT, 6' X 6', LOCATION DEPENDS UPON POSITION OF ORE INTERCEPTS ALONG TRACKLESS DRIFT

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225
Office of Minerals Exploration

March 28, 1968

OFFICIAL COPY
O. M. E.
RECEIVED
APR 1 1968

INITIALS	CODE
gla	130
Jbf	120
HK	120

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6558 (Silver)
Rexford W. Barton
Double Rainbow Mines, Inc.
Lawrence County, South Dakota

INTERIM EXAMINATION

The Double Rainbow Richmond-Sitting Bull property was the subject of an interim examination made March 12 and 13, 1968, pertaining to the above-captioned contract. The Field Officer was accompanied on the examination by Dr. Edward L. Tullis, the Operator's Consulting Geologist and Agent, Donald T. Delicate, Archie L. Slaughter, H. A. Kelley, Project Engineer and Olin Hart representing the Operator's contractor.

Both the Upper and Lower Contact areas were examined. A total of 1,400 feet of slusher drift in five areas were completed, in exploring for silver along and across a series of fractures, locally known as "verticals" that have contained mineralized material and are thought to have been instrumental in the forming of silver-bearing ore bodies where the "verticals" intersect favorable dolomite, limestone, sandstone and quartzite members of the Deadwood formation of Cambrian age. The total of 1400 feet of slusher drifts allowed in the contract have been completed in the Upper Contact area, thus completing the total footage allowed under the contract.

All but 87 feet of the diamond drilling footage allowed under the contract has been utilized in four surface holes and 9 underground drill holes. Each of the diamond drill holes reached the desired objective, all of which were to penetrate the Lower Contact, four holes were to penetrate at least twenty-five (25) feet into the underlying Precambrian rocks, and the four surface holes were designed to penetrate both the Upper Contact, and Lower Contact target areas. A total of 6,023 feet have been drilled at a total cost of $26,470.20.

Results of the exploratory work in the Upper Contact was not too encouraging.

"During January 46 samples, representing 24 sample lines, were taken in drift No. 4. Several ore zones have been outlined. The top left face has 2.2 feet of 11.3 ounces of silver. In most places the better ore is only about two feet thick. Thicker ore has been found in the walls at two places; 4.6 feet containing 12.8 ounces of silver and $2.29 in gold, 5.3 feet containing 15.8 ounces of silver and $8.64 in gold. The best assay obtained is from a sample near the face, 2.0 feet of 43.2 ounces of silver, $6.10 in gold, 6.4% lead, and 0.98% zinc."

Feb. vouchers - June from Jan. vouchers

"Total slusher drift advance for February was 206 feet, making a total advance to date of 1,410 feet. The cost of mining an additional 10 feet beyond the contracted distance will be absorbed by the operator. All contracted drifting on the upper contact now has been completed."

"Slusher drift No. 2 advanced 11 feet, to a total distance of 358-1/2 feet. No significant truck samples were obtained, and no ore-type mineralization was noted."

"Slusher drift No. 3 progressed 76-1/2 feet, to a total distance of 183 feet. Several splits in the structure were intersected, and for the last several round the verticals were very weak. Silver values decreased to less than one ounce in the best parts of the faces. With verbal approval of the OME, the remaining 117 feet scheduled for drift No. 3 was used for an extension of drift No. 4, and an extension of the Bad Air drift, called drift No. 5."

"Slusher drift No. 4 was extended 49 feet. Mineralization was similar to that found previously in this drift. Truck samples ranged from 1.7 ounces to 2.4 ounces of silver."

"Drift No. 5 was driven 69-1/2 feet west, following a strong vertical from the west end of the Bad Air drift. Some cross verticals were intersected and abundant mineralization was noted. Face samples were all under 2.0 ounces of silver. The last truck sample contained 4.0 ounces of silver."

The shaft was sunk a total of 221 feet, the shaft station was completed and the Trackless drift was driven from the shaft station for approximately 685 feet, to a point some twenty-five feet from drill hole N-6 (see attached figure).

A steeply dipping mineralized fault that strikes N. 15° W. containing from 0" - 6" of gouge was intersected that was sampled and contained the following:

6" gouge 41.2 oz. Ag., $1.02 Au, 6.08% Pb, 8.19% Zn

4" gouge 23.6 oz. Ag., $1.02 Au.

The Lower Contact was penetrated some 97 feet beyond the fault and abundant pods, and lenses containing galena, sphalerite, and pyrite were penetrated 157 feet from the fault, and the mineralized material continued to the face of the drift, at the time of the examination. The quartzite immediately below the dolomite appears to contain the bulk of the mineralized material.

Selected samples as shown on the accompanying sketch assayed:

24.05 oz. Ag., $13.55 Au

9.80 oz. Ag., $5.08 Au, 8.46% Pb, 1.22% Zn

A 6-foot channel sample assayed: 6.3 oz. Ag., $2.37 Au, 2.19% Pb, 3.46% Zn. A 3-foot sample assayed: 46.9 oz. Ag., $4.06 Au. Fourteen truck samples averaged 4.5 oz. Ag., and $1.41 Au in a 10'x 10' drift, and a series of four channel samples averaging 4.5' contained an average of 30.12 oz. Ag., $7.87 Au, 0.048% Pb, and 0.076% Zn. At the time of the interim examination an area roughly 85' x 30' x 2.5' is well mineralized. Mr. Olin Hart indicated the 2.5 foot thickness of mineralized material as a good estimate, rather than the average sample thickness of 4.5 feet.

At the time of this writing 3/27/68 the north slusher drift had been driven for some 40 feet from the main drift, the south drift has been driven 71 feet, and the main drift was a few feet beyond N-6 drill hole. All faces were in well mineralized material. A bulk sample of about 100 pounds of material taken from the south drift for metallurgical testing assayed 23.0 oz. Ag and $6.27 Au. Truck samples assayed 18.0 oz. Ag, and $7.00 Au. An 11 foot sampled area from the north face, 30 feet from the main drift showed the following assays:

Description	Ag. oz.	$Au
2.1' dolomite	2.0	$0.34
3.8' dolomite	1.5	0.34
1.9' quartzite	56.0	$13.21
1.9' quartzite	55.6	9.82
1.5' quartzite	4.5	0.34

A numerical average of the 11 foot sampled area is 23.92 oz. Ag, and $4.80 Au. At current prices of $2.25 oz. Au, and $35.00 gold this material will gross $58.62 per ton. To date the area of well mineralized material will extend for a length of approximately 120 feet, by 100

feet by 4.0 feet. The structures containing some of the mineralized material was also contributing additional flows of water, although the flow is not excessive.

J. William Hasler

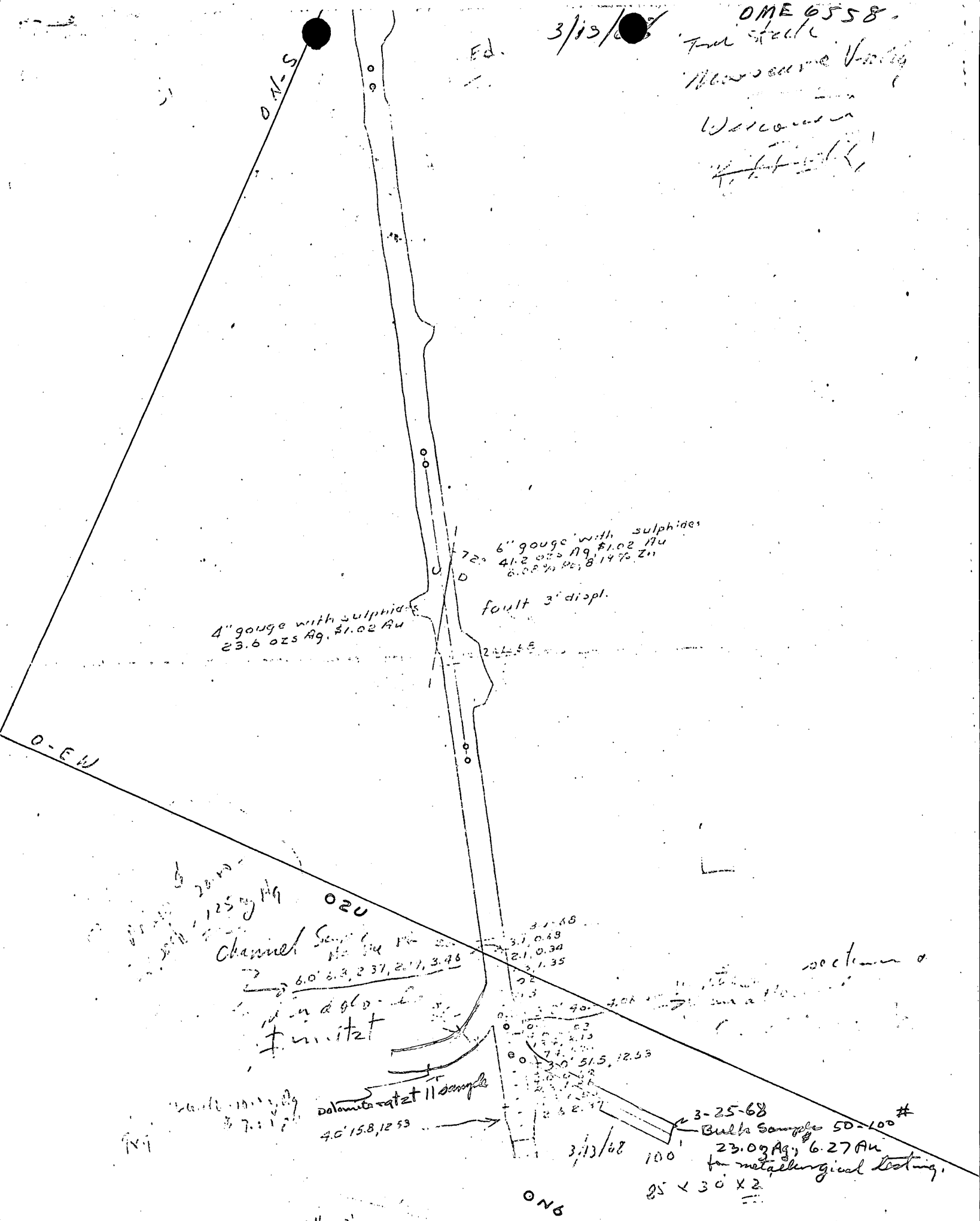
J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

OME 6558.

3/13/68

Ed.

Fed. State
Menominee Valley
Wisconsin



IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225
Office of Minerals Exploration

March 28, 1968

OFFICIAL COPY
O. M. E.
RECEIVED
MAR 29 1968
INITIALS | CODE
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HK | 120 K

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6558
Rexford W. Barton
Double Rainbow Mines, Inc.
Lawrence County, South Dakota
Contract 2233

Transmitted herewith are the original and two copies of MME Form 60 (Operator's Monthly Voucher), MME Form 61 (Operator's Progress Report) and narrative with substantiating documents for the month of February, 1968 on the above-captioned subject.

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
U. S. Geological Survey
Denver Federal Center -- Building 53 -- Room 203
Denver, Colorado 80225

OFFICIAL COPY
O. M. E.
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MAR 1968
INITIALS | CODE
HK | 126

March 22, 1968

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6558 (Silver)
The Double Rainbow Mines, Inc.
Lawrence County, South Dakota
Contract 2233

Transmitted herewith are the "Government's Copy" and the "Budget and Finance's Copy" of Amendment No. 3 on the above-stated subject. Both have been signed on behalf of the Government and by the Secretary and Director of the applicant company. A copy of a letter pertaining to the same docket is also enclosed.

James L. Gualtieri
for J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Enclosure

Copy to B+J

DOWDALL, HARRIS, HULL & TERRY
ATTORNEYS AT LAW
250 NORTH CHURCH AVENUE
TUCSON, ARIZONA 85701

RICHARD J. DOWDALL
RICHARD C. HARRIS
NORMAN S. HULL
ANTHONY D. TERRY

JAMES HENDRICK TERRY
OF COUNSEL

OFFICIAL COPY
TELEPHONE
AREA CODE 602
624-8884
RECEIVED
APR 22 1968
INITIALS | CODE
gla 120
120m
HK 120

20 March 1968

Mr. J. William Hasler, Field Officer, Region III
Office of Minerals Exploration, U. S. Geological Survey
Denver Federal Center, Building 53, Room 203
Denver, Colorado 80225

Re: OME-6558 (Silver) Double Rainbow Mines., Inc.
Double Rainbow Mine, Lawrence County,
South Dakota - Contract 2233

Dear Mr. Hasler:

Enclosed please find the original and two copies of Amendment No. 3 to the above contract, which have been signed by Catherine B. Mayo as secretary. We have retained the "operator's copy".

In view of the death of Rexford W. Barton, we would suggest that all correspondence to Double Rainbow be addressed to Mrs. Mayo as secretary, in care of this office.

See subsequent change as of April 15, '68 in letter Terry to Dr. Tullis.

Sincerely,

DOWDALL, HARRIS, HULL & TERRY

Tony

Anthony D. Terry

ADT/efd
enclosure
AIR MAIL
cc-R. E. Driscoll, Jr., Esquire

HOMESTAKE MINING COMPANY

LEAD, SOUTH DAKOTA 57754

March 16, 1968

Mr. William Hasler
U.S.G.S. Federal Center
Bldg. 53, Rm. 203
Denver, Colorado 80225

OME - 6558 (Silver)
Contract No. 2233
Double Rainbow Mines

Dear Bill:

We were happy to have been able to show you some ore in the lower contact drift at Double Rainbow during your recent visit. Ed Tullis had some identification work done on some of the specimens he collected and reported the following minerals in order of deposition (subject to further work).

pyrite
quartz
sphalerite
arsenopyrite
galena
chalcopyrite (not sure of position)
siderite
pyrite or possibly marcasite

In line with our conversation regarding changes in the exploration plans for the lower contact, I am enclosing a 200 ft. scale map showing the work completed and the work proposed. For comparison, a copy of the original map submitted with the application is included.

The 700 foot length of trackless drift from the shaft to drill hole N6 (called DDH6 on the older map) has been driven. Drilling has shown the lower contact ore horizon to be offset downward in part of the area under the old Richmond-Sitting Bull workings. (see larger map) It is not, therefore, practical to follow the contact more than about 500 feet to the south and very likely less as the exact location of the 25 foot offset is not known. It is proposed then, that the remaining 300 feet of trackless drift be driven to the north as shown. This is judged to be good prospecting ground.

The slusher drift from drill hole N6 to hole N1 (DDH1 on older map) will be driven as originally proposed. The remaining footage of slusher drift (the contract allows a total of 1300 feet) will be driven at places determined later.

Locations will be decided by results of the work in the trackless drifts and the slusher drift to N1. Slusher drifts to the west or up dip except for the drift to N1 will be limited in length by the downward offset of the lower contact. Plans can not be firm at this time but must be flexible as new information is obtained.

I recommend that we procede with the work as proposed.

Sincerely,

A. L. Slaughter

A. L. Slaughter
Chief Geologist

Enc.

ALS:pe

DOWDALL, HARRIS, HULL & TERRY
ATTORNEYS AT LAW
250 NORTH CHURCH AVENUE
TUCSON, ARIZONA 85701

RICHARD J. DOWDALL
RICHARD C. HARRIS
NORMAN S. HULL
ANTHONY D. TERRY

JAMES HENDRICK TERRY
OF COUNSEL

TELEPHONE
AREA CODE 602
624-8894

20 March 1968

Mr. J. William Hasler, Field Officer, Region III
Office of Minerals Exploration, U. S. Geological Survey
Denver Federal Center, Building 53, Room 203
Denver, Colorado 80225

Re: OME-6558 (Silver) Double Rainbow Mines., Inc.
Double Rainbow Mine, Lawrence County,
South Dakota - Contract 2233

Dear Mr. Hasler:

Enclosed please find the original and two copies of Amendment No. 3 to the above contract, which have been signed by Catherine B. Mayo as secretary. We have retained the "operator's copy".

In view of the death of Rexford W. Barton, we would suggest that all correspondence to Double Rainbow be addressed to Mrs. Mayo as secretary, in care of this office.

Sincerely,

DOWDALL, HARRIS, HULL & TERRY

Tony

Anthony D. Terry

ADT/efd
enclosure
AIR MAIL
cc-R. E. Driscoll, Jr., Esquire

File OME-6558

EDWARD L. TULLIS
Consulting Geologist
223 ST. CHARLES STREET
RAPID CITY, SOUTH DAKOTA 57701
PHONE 605/342-3733

MAR 20 1968
Denver, Colorado

March 19, 1968

Mr. J. William Hasler
Field Officer, Region III
Office of Minerals Exploration
U.S. Geological Survey
Denver Federal Center-Building 53 - Room 203
Denver, Colorado 80225

Dear Bill:

I have received a carbon of your letter to Don Delicate dated March 18 and I am interested in the mineralogic work.

Our mineralogist, Professor David Garske, worked on the specimens that I brought home from the lower contact. He identified the following minerals listed in paragenetic sequence.

pyrite
quartz
sphalerite
arsenopyrite
galena
chalcopyrite (belongs here or elsewhere in sequence)
siderite
pyrite or possibly marcasite.

The mineral that he calls siderite is the one that you have listed as ankerite or some other iron-rich carbonate. In the specimen that I have it is found as a thin layer between arsenopyrite (with a small amount of galena) inside and a coating of pyrite or marcasite on the outside. In this particular specimen the bulk of the material in the interior of the specimen is arsenopyrite. Don and I were speculating as to whether the gold is in the pyrite. Another possibility is that the gold is in arsenopyrite.

Identification and paragenesis were made using a binocular microscope and some simple chemical tests.

I am interested in the white mineral from the upper contact identified as cerussite. I hope that I can obtain some of this material from Archie for my Galena collection and will be interested to learn anything more that you find out.

Sincerely yours,

Edward L. Tullis

ELT:ek
cc: Archie Slaughter

Office of Minerals Exploration
Building 53 Room 203

OFFICIAL
COPY
O. M. E.
RECEIVED
R 19 1968
MINERALS CODE
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HR ~~130~~

March 18, 1968

Mr. Don Delicate, Manager of Mines
Homestake Mining Company
Lead, South Dakota 57754

Subject: OME-6558 (Silver)
The Double Rainbow Mines, Inc.
Lawrence County, South Dakota
Contract 2233

Dear Don:

Enclosed is a copy of Amendment No. 3 to the subject contract. You will note that the amendment provides for payment of excess water in drifting and crosscutting for the lower contact level. You will be allowed to charge for the excess water flow in excess of 250 gallons per minute while drifting and crosscutting on this level as provided in the amendment. Although the amendment was dated March 5 I assume that water included in excess of 250 gallons per minute may be billed at $4.00 per foot not to exceed 2,660 feet.

The tan or cream colored mineral coating much of the galena from the lower contact specimens is ankerite or some other iron rich carbonate.

The white mineral in oxidized material that Archie and I collected from the upper contact that usually carries the high silver content is cerussite. An emission spectrograph shows that this material has strong molybdenum lines. It might be interesting for you to look further on this matter. I have sent both types of specimens for X-ray analyses.

Thank you kindly for your fine hospitality during my interim examination. It is a good feeling to see that the project is most encouraging.

Sincerely yours,

J. William Hasler

J. William Hasler
Field Officer, Region III
Office of Minerals Exploration

cc: Mr. Slaughter
Mr. Tullis
Chief, OME
OME chron
OME-6558
Mr. Hasler

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225
Office of Minerals Exploration
Building 53 Room 203

March 14, 1968

OFFICIAL COPY
O. M. E.
RECEIVED
MAR 18 1968

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HR	120

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6558 (Silver)
The Double Rainbow Mines
Lawrence County, South Dakota
Contract 2233

Transmitted herewith are the Government's Copy and Budget and Finance's Copy of Amendment No. 2 on the above-stated contract, signed on behalf of the Government and by a representative of the company.

J. William Hasler
J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Enclosures

Copy to Washington
3-13-68

JWH

DOWDALL, HARRIS, HULL & TERRY
ATTORNEYS AT LAW
250 NORTH CHURCH AVENUE
TUCSON, ARIZONA 85701

RICHARD J. DOWDALL
RICHARD C. HARRIS
NORMAN S. HULL
ANTHONY D. TERRY

JAMES HENDRICK TERRY
OF COUNSEL

TELEPHONE
AREA CODE 602
624-8894

7 March 1968

OME Region III
RECEIVED
MAR 8 - 1968
Denver, Colorado

Mr. J. William Hasler, Field Officer, Region III
Office of Minerals Exploration, U.S. Geological Survey
Denver Federal Center, Building 53, Room 203
Denver, Colorado 80225

Re: OME-6558 (Silver) Double Rainbow Mines, Inc.
Double Rainbow Mine, Lawrence County,
South Dakota, Contract 2233

Dear Mr. Hasler:

Enclosed please find the original and two copies of Amendment No. 2 to the above contract, which have been signed by Catherine B. Mayo as Secretary in accordance with our telephone conversation. We have extracted the "operator's copy" which was also signed by Mrs. Mayo.

I apologize for the delay in getting these to you.

Sincerely,

DOWDALL, HARRIS, HULL & TERRY

Tony

Anthony D. Terry

ADT/efd
enclosure
AIR MAIL
cc-R. E. Driscoll, Jr., Esquire

8WH

EDWARD L. TULLIS
Consulting Geologist
223 ST. CHARLES STREET
RAPID CITY, SOUTH DAKOTA 57701
PHONE 605/342-3733

March 1, 1968

OME, Region III
RECEIVED
MAR 4 - 1968
Denver, Colorado

Mr. J. William Hasler
Field Officer, Region III
Office of Minerals Exploration
U.S. Geological Survey
Denver Federal Center-Building 53 - Room 203
Denver, Colorado 80225

6558 Double Rainbow

MAR 8 1968
INITIALS
HR
gla

Dear Bill:

In accordance with our recent telephone conversations you will arrive in Rapid City in the early afternoon of Tuesday, March 12, will spend the night at the Gold Run Inn in Lead, will be in the office at Homestake on Wednesday morning, March 13 and will then go to the mine at Galena. You will return to Rapid City on Wednesday evening and stay at the Tip Top Motel.

I saw my physician last week and will see him again on Monday, March 11, when he will let me know whether I can go with you to Lead and Galena. If I cannot I will plan to review developments at Galena based on the monthly reports during the afternoon of March 12. I suppose that you will pick up a car at the airport and you may wish to come directly to my office which is in room 305 of the Mineral Industries Building on the campus. If you have not had lunch we can take care of it then. I will make reservations at both the Gold Run Inn and the Tip Top.

~~Sincerely yours,~~

Edward L. Tullis

ELT:ek
cc: Archie Slaughter

Office of Minerals Exploration
Building 53 Room 203

OFFICIAL COPY
O. M. E.
RECEIVED
MAR 11 1968
INITIALS | CODE
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gla 120
~~OMI~~ 110
HK ~~130~~

March 7, 1968

Mr. Rexford W. Barton, President
Double Rainbow Mines
c/o Mr. Anthony B. Terry
DOWDALL, HARRIS, HULL & TERRY
Attorneys at Law
250 North Church Avenue
Tucson, Arizona 85701

Subject: OME-6558 (Silver)
Rexford W. Barton
Double Rainbow Mines, Inc.
Lawrence County, South Dakota
Contract 2233

Dear Mr. Barton:

Enclosed are the original and three copies of proposed Amendment No. 3 (one page), to the subject contract, signed for the Government.

If the proposed amendment is satisfactory, please have Mrs. Catherine B. Mayo, Secretary and Director of the applicant company, sign as an authorized official, retain the "Operator's Copy" and return the rest of the copies to this office.

If any part of the proposed amendment does not have her approval, the original and all copies are to be returned to this office together with the proposed changes for consideration.

Sincerely yours,

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Enclosure

cc: Chief, Office of Minerals Exploration
OME chron
Mr. Hasler
OME-6558

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
2/29/68	[illegible]	120
	(on leave)	120
2/29	Johnson	110
3/1	[illegible]	220
3/5	[illegible]	220
		120M

AIRMAIL

Memorandum

MAR 5 1968

To: Field Officer, Region III

From: Chief, Office of Minerals Exploration

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

Enclosed are the original and three copies of proposed Amendment No. 3 (one page), to the subject contract, signed for the Government. An extra copy of the amendment is also enclosed for field use.

If the proposed amendment is satisfactory to you and the Operator, all four copies should be signed by the Operator and distributed in the usual manner.

If any part of the proposed amendment does not have your approval or that of the Operator, the original and all copies are to be returned to this office together with the proposed changes for consideration.

FRANK E. JOHNSON

Frank E. Johnson

Enclosures

cc: Director's Reading File
Division File
Economic Geology File
OME Docket
OME Reading File
Mr. Kirkemo
130

BLong/1 2/29/68

Office of Minerals Exploration
Building 53 Room 203

OFFICIAL COPY
O. M. E.
RECEIVED
February 28, 1968

INITIALS	CODE
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HK	~~120~~

120m

Dr. Edward L. Tullis
223 Saint Charles Street
Rapid City, South Dakota 57701

Subject: OME-6558 (Silver)
The Double Rainbow Mines, Inc.
Lawrence County, South Dakota
Contract 2233

Dear Dr. Tullis:

My present plans are to leave Denver, Colorado on March 12, 1968 Frontier Air Lines Flight 610 at 1:40 PM, arriving in Rapid City, South Dakota 2:49 PM. I will contact you after I pick up a vehicle at the National Car Company, and we can proceed to Lead, South Dakota. I would like to make an interim examination on the subject property the next day, March 13. Would you please make reservations for my overnight lodging March 12 and so inform me?

Sincerely yours,

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

cc: Mr. Archie Slaughter

Chief, OME
OME-6558
OME chron
Mr. Hasler

REFERENCE SLIP

DEFENSE MINERALS EXPLORATION ADMINISTRATION

	INITIALS	DATE
Mr. Sol. Fink, Room 6054 (Through Room 6042)		
2. Mr. Kirkemo, Room 4459		
3.		
4.		
5.		
FROM:		

RECEIVED
FEB 27 1968
Division of Mineral Resources
General Legal Services

FOR: Check items for action desired

____ Action ____ Reply for signature of _____

____ Approval ____ Investigate ____ Surname

____ Comment ____ Recommendations ____ Signature

____ Conference ____ Rewrite ____ File

____ Instructions ____ Your information

REMARKS:

INTERIOR DEPT.
A-68-2055.3192
FEB 26 1968 FROM SOLICITOR

SOLICITOR

FOR SIGNATURE

INT.-DUP. SEC., WASH., D.C. M25803

To Legal 2/23/68

HK 2/23/68
JEF "

EXPLORATION CONTRACT
DOUBLE RAINBOW MINES, INC.
OME-6558

AMENDMENT NO. 3

It is agreed this _____ day of _____, 1968, between the United States of America, acting through the Department of the Interior, U. S. Geological Survey, hereinafter called the "Government," and Double Rainbow Mines, Inc., hereinafter called the "Operator," that Exploration Contract No. 2233 (OME-6558), dated January 24, 1967, as amended, is further amended effective January 1, 1968 as follows:

1. In EXHIBIT A under the heading Estimated Costs of the Project, Fixed Unit Costs. -

A - The second item is revised to read as follows:

"Allowance for excess water in shaft sinking $ 800.00*

B - A sixth fifth item is added to read as follows:

"Allowance for excess water in drifting and crosscutting on Lower contact level $ 10,640.00*

If water flow in excess of 250 gallons per minute is encountered while drifting and crosscutting on the Lower contact level, an increase of $4.00 per foot of drift or crosscut, advanced thereafter, not exceeding 2,660 feet, is allowed."

*Maximum

This amendment shall not be construed to increase the estimated total cost of the contract, the aggregate amount which the Government may be required to contribute, the amount of any item designated as maximum, nor the fixed unit cost of any item of work.

Executed in quadruplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By_____
Chief, Office of Minerals Exploration
U. S. Geological Survey

DOUBLE RAINBOW MINES, INC.

By_____

Title_____

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225

Office of Minerals Exploration
Building 53 Room 203

February 21, 1968

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	130
HK	~~120~~

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6558 (Silver)
Rexford W. Barton
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

The operator, in a letter dated February 15, 1968 through its contractor requested that exploration work in the Slusher drift No. 3 (Havens Drift) be terminated and that part of the remaining footage specified in the contract for Upper Contact exploration be used to explore an additional 50 feet in the No. 4 Slusher drift, and 67 feet in the Bad Air Drift.

The contractor's Chief Geologist indicated, by telephone on February 14, 1968 that the "verticals" remained strong in the No. 3 (Havens Drift) to within 50 feet from the present face then weakened and split into several very thin fractures containing very low values in silver and showed no gold. (See accompanying map).

They proposed to continue exploring the No. 4 Slusher drift for another 50 feet that contained a strong "vertical", and showed good values in silver and gold for a distance of about 85 feet back from the present face, plus the fact that a number of other verticals trend toward the No. 4 Slusher Drift area from the south drift. (See accompanying map). Some 31 channel samples cut over a distance of 85 feet along the slusher drift had an average thickness of 2.37 feet and averaged 6.12 oz. Ag per ton, and $4.13 in gold at $35.00 per ounce. The operator also proposes to extend the Bad Air Drift for a distance of 67 feet nearly due west along a strong vertical, to its intersection with a vertical trending S. 35° W. from the West Drift. (See accompanying map).

Samples along the Bad Air Drift as shown on the Operator's sample map accompanying the original application showed material that ranged from 1.21 oz. Ag to as much as 20.00 oz. Ag per ton and averaged 5.80 oz. Ag per ton as well as $3.67 in gold at $35.00 per ounce. Samples along the West Drift as shown on the Operator's sample map accompanying the original application showed material that ranged from 1.10 oz. Ag per ton to 6.00 oz. Ag per ton, and averaged 3.22 oz. Ag per ton and $1.56 in gold at $35.00 per ounce.

The weakening and subsequent splitting of the verticals in the No. 3 Slusher Drift, and the decrease in values of silver for the last 65 feet, indicates that further exploration here is not justified, and since the last 85 feet of ground in the No. 4 Slusher Drift shows strongly mineralized structures it is deemed advisable to explore an additional 50 feet in this area. The Bad Air Drift (Slusher Drift No. 5) shows good values, as do the structures in the West Drift to the north. It seems advisable to explore the vertical westward 67 feet from a present face of the Bad Air Drift to its possible intersection with the verticals trending S. 35° W. from the West Drift. The total footage remaining for Slusher Drifts in the Upper Contact is 117 feet. This will essentially terminate exploration by way of Slusher Drifts in the Upper Contact area at this time.

OME Region III
RECEIVED
FEB 20 1968
Denver, Colorado

February 15, 1968

Mr. William Hasler
U.S.G.S. Federal Center
Bldg. 53, Rm. 203
Denver, Colorado 80225

Re: OME 6558 (Silver)
Contract No. 2233

COPY

Dear Bill:

This is a follow-up of our telephone conversation of yesterday in which we discussed some changes in the upper contact drifting at Double Rainbow. As you pointed out, the contract calls for a total of 1400 feet of slusher drifts in the upper contact drifting and does not specify just where this should be done. The suggested changes will, then, not require an amendment to the contract, but only verbal approvement from OME.

The No. 3 drift was stopped as of yesterday, leaving 117 feet of drifting to be done to fulfill the 1400 feet allowable. We have followed fairly strong structures in No. 3 until the last 50 feet or so. There have been some splits and we have had to make decisions as to which vertical should be followed. The last few rounds have shown only weak hairline fractures and low values (see map). It is our opinion that the remaining footage can be used to better advantage in other places.

Of the remaining 117 feet we propose to use 50 feet advancing the face of No. 4 Slusher Drift and 67 feet advancing the face of the Bad Air Drift which we have designated Slusher Drift No. 5.

The present face of No. 4 is part ore with a strong vertical coming in from the east side. We also have a chance to intersect other verticals present in the old South Drift

The present face of the Bad Air Drift has a strong vertical structure which we will try to follow with the extension, hoping to pick up intersections with verticals showing in the old West Drift.

I hope this information covers the situation, together with the map, so that you will have no difficulty explaining to Washington.

Sincerely,

A. L. S.

A. L. Slaughter
Chief Geologist

ALS:pe

Enc.

cc - Mr. D. T. Delicate
Dr. E. L. Tullis

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COPY
O. M. E.
RECEIVED
FEB 15 1968
INITIALS | CODE
HK | 120

Office of Minerals Exploration
Building 53 Room 203

February 14, 1968

Mr. Rexford W. Barton, President
Double Rainbow Mines
2251 Virginia Street
Berkeley, California 94709

Subject: OME-6558 (Silver)
Rexford W. Barton
Double Rainbow Mines
Lawrence County, South Dakota
Contract 2233

Dear Mr. Barton:

In a letter dated December 18, 1967 Mr. Archie Slaughter requested that the excess footage drilled in the underground footage category be allowed as drilling costs to date are less than the total allowable drilling costs under the current contract.

There is a balance of 2,033 feet of surface drilling footage left under the contract, however 525 feet more have been drilled than is allowed in the underground footage.

May I cite a portion of the contract 2233, Exhibit A, Description of the Work, Geological Targets, Page 4, paragraph 2, "Unused footage remaining from the above described drilling program may be used as warranted within the limits of available drilling funds."

Your Operator's Progress Report MMB Form 61, for the month of December, 1967 requested payment of 3,990.0 feet of underground, AX-size drilling, and 2,033 feet of surface, BX-size drilling. I recommended payment of the total amount of footage shown, as allowed in the terms of the contract quoted above.

Sincerely yours,

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

cc: Mr. A. L. Slaughter
Mr. D. T. Delicate
Chief, OME
OME-6558
Mr. Hasler
OME chron

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FEB 19 1968
INITIALS | CODE
HK | 2/12

Office of Minerals Exploration
Building 53 Room 203

February 15, 1968

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6558 (Silver)
Rexford W. Barton
Double Rainbow Mines
Lawrence County, South Dakota
Contract 2233

This office was informed by Mr. Anthony B. Terry, Attorney at Law, for Mr. Rexford W. Barton, that Mr. Barton suffered a massive stroke Sunday, February 11, 1968 and is presently near death.

Mrs. Catherine B. Mayo, Secretary and Director of the subject operator is a sister to Mr. Barton. The proposed Amendment No. 2 was received by Mrs. Barton on February 10, 1968, and Mrs. Mayo then mailed the proposed Amendment No. 2 unsigned, to Mr. Terry. Mr. Terry inquired as to the possibility of having Mr. James Hendricks Terry, a director of Double Rainbow Mines who resides in Tucson, sign the proposed amendment.

I advised Mr. Anthony Terry that I had no record in my file showing that Mr. James Hendrick Terry was a director of the company, and that it would be better to possibly wait a week or two, then return the amendment to Mrs. Mayo for her signature as Secretary and Director, or at a time soon, when Mr. Barton's condition is either improved or at a less crucial time than the family is now experiencing. Mr. Kirkemo agreed with this recommendation and I so informed Mr. Anthony B. Terry this morning by telephone.

cc: Chief, OME ✓
OME-6558
OME chron
Mr. Hasler

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Mr Kirkemo requested we send an extra copy of this, so he can send it to Budget and Finance -

2-23-68

suggested for use if the next number arrives before the Amendment is signed and if a claim is submitted a draft or warrant of the size stated in the amendment.

Mary C.

Kirkemo

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225

Office of Minerals Exploration
Building 53 Room 203

February 15, 1968

OFFICIAL COPY
O. M. E.
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JSD	110
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	130
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Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6558 (Silver)
Rexford W. Barton
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

The operator in a letter dated January 31, 1968, which arrived in this office on February 6, 1968, requested consideration, by amendment to the contract, to utilize a balance of $10,640.00 out of an original maximum allowance of $11,440.00 for payment of costs for excessive water flow in the shaft sinking operations, to defray costs of excessive water flow in the Lower Contact drift that are amounting to 450 gpm.

The operator requests that the water allowance be at the rate of $4.00 per foot for a total footage of 2,654 feet, or a total cost of $10,616.00. It is not allowable for the Government to participate in the costs for an estimated normal flow of water in any operation, consequently it is recommended that the Government participate in costs for a flow of water in excess of 250 gpm encountered in the Lower Contact crosscuts and drifts. A telephone conversation with the operator today (2-14-68) disclosed the fact that water flows in excess of 600 gpm have been encountered in the Lower Contact crosscut and that work had to be stopped while installation of a new sump pump and pump column were completed. Drill holes in the face had to be plugged to prevent complete flooding of the lower level. The operator hopes to complete the work within another six months consequently the water flow may remain high as additional area is opened up, however the water flow will undoubtedly fluctuate considerably.

11,440
- 800 32 @ 25
$ 10,640
balance of excess water allowance

I suggested to the operator that the government allow $4.00 per foot for a water flow in excess of 450 gpm, however the operator recommended that this figure was possibly too high and would prefer a maximum of 250 gpm, as this is a quantity of water that can be handled without excessive additional costs.

It is therefore recommended that if during the driving of the Trackless and slusher drifts in the Lower Contact area, the water flow is in excess of 250 gpm, that the government will allow an additional $4.00 per foot of advance. The Government will not participate in costs totalling more than the maximum of $11,440.00 stated in the subject contract under the item of "Allowance for excess water in shaft sinking." Also, that the amendment shall not be construed to increase the total estimated cost of the contract, the aggregate amount which the Government may be required to contribute, the amount of any item designated as maximum, nor the fixed unit cost of any item of work.

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225

Office of Minerals Exploration
Building 53 Room 203

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FEB 19 1968

INITIALS	CODE
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	120
	130
	130

February 15, 1968

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6558 (Silver)
Rexford W. Barton
Double Rainbow Mines
Lawrence County, South Dakota
Contract 2233

This office was informed by Mr. Anthony B. Terry, Attorney at Law, for Mr. Rexford W. Barton, that Mr. Barton suffered a massive stroke Sunday, February 11, 1968 and is presently near death.

Mrs. Catherine B. Mayo, Secretary and Director of the subject operator is a sister to Mr. Barton. The proposed Amendment No. 2 was received by Mrs. Barton on February 10, 1968, and Mrs. Mayo then mailed the proposed Amendment No. 2 unsigned, to Mr. Terry. Mr. Terry inquired as to the possibility of having Mr. James Hendricks Terry, a director of Double Rainbow Mines who resides in Tucson, sign the proposed amendment.

I advised Mr. Anthony Terry that I had no record in my file showing that Mr. James Hendrick Terry was a director of the company, and that it would be better to possibly wait a week or two, then return the amendment to Mrs. Mayo for her signature as Secretary and Director, or at a time soon, when Mr. Barton's condition is either improved or at a less crucial time than the family is now experiencing. Mr. Kirkemo agreed with this recommendation and I so informed Mr. Anthony B. Terry this morning by telephone.

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

DOUBLE RAINBOW MINES, INC.
2251 VIRGINIA STREET
BERKELEY, CALIFORNIA 94709

OME Region III
RECEIVED
FEB 8 - 1968
Denver, Colorado

January 31, 1967

Mr. J. William Hasler
Field Officer, Region III
Office of Minerals Exploration
U.S. Geological Survey
Denver Federal Center - Building 53, Room 203
Denver, Colorado 80225

OFFICIAL COPY
O. M. E.
RECEIVED
FEB 8 1968

INITIALS	CODE
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bal	120 m
Jg	~~110~~
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Dear Mr. Hasler:

Subject: OME-6558 (Silver)
Double Rainbow Project
Lawrence County, South Dakota
Contract 2233

Since the first of January, the crews advancing the lower contact drift from the shaft at the Double Rainbow property have encountered heavy water flows. As of this date, flows of approximately 500 gpm have been encountered while drifting. Various fractures have been intersected which are water bearing. The substantial increase in water flow has resulted in a very adverse effect on the drifting costs in the lower contact workings. Power costs alone will exceed $900 per month at 450 gpm. It is anticipated that over $5,000 will be spent on pump repair and maintenance between the first of January and the completion date of the OME contract work. In addition to these costs, there are numerous delays to the crews resulting from the inflow of water in the drill holes, thus causing difficulties in blasting drift rounds. Between the first of January and the present time, four days have been lost due to heavy inflow of water.

It is requested that an amendment be made to the contract which would permit the use of the unspent balance in the shaft water allowance account. As of January 1, 1968 there was an unspent balance of $10,640 out of an original allowance of $11,440. It is suggested that the remaining balance in the water allowance account be allowed at the rate of $4.00 per foot of advance for all footage driven in the lower contact after January 1, 1968. As of that date, there were approximately 2,654 feet to be driven in the lower contact. ?

Your prompt consideration of this request will be appreciated greatly. It is understood that the original contract specified that the water allowance was for shaft sinking only. Should this requested amendment be granted, it would be helpful in offsetting a very adverse cost element in the lower contact drift work.

Sincerely yours,

DOUBLE RAINBOW MINES, INC.

Edward L. Tullis

Edward L. Tullis
Consulting Geologist

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225

Office of Minerals Exploration
Building 53 Room 203

January 30, 1968

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6558 (Silver)
The Double Rainbow Mines, Inc.
Lawrence County, South Dakota
Contract 2233

Transmitted herewith are the original and two copies of the MME Form 60 (Operator's Monthly Voucher), MME Form 61 (Operator's Progress Report) and narrative for the month of December, 1967 on the above-stated contract.

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

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HR 120

Office of Minerals Exploration
Building 53 Room 203

January 25, 1968

OFFICIAL COPY
O. M. E.
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HK	180

REGISTERED MAIL
RETURN RECEIPT REQUESTED

Mr. Rexford W. Barton, President
Double Rainbow Mines, Inc.
2551 Virginia Street
Berkeley, California 94709

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

Dear Mr. Barton:

Enclosed are the original and three copies of proposed Amendment No. 2 (one page) to the subject contract, signed for the Government.

If the proposed amendment is satisfactory, all four copies should be signed by an authorized representative of your company, retain the "Operator's Copy" and return the other copies to:

Mr. J. William Hasler, Field Officer, Region III
Office of Minerals Exploration -- U. S. Geological Survey
Denver Federal Center -- Building 53 -- Room 203
Denver, Colorado 80225

If any part of the proposed amendment does not have your approval the original and all copies are to be returned to this office together with the proposed changes for consideration.

Sincerely yours,

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Enclosures
cc: Mr. Anthony D. Terry with copy of Amendment No. 2

Chief, OME OME-6558 OME chron Mr. Hasler

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225
Office of Minerals Exploration
Building 53 Room 203

OFFICIAL COPY
O. M. E.
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INITIALS | CODE
HR | 120

January 18, 1968

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: Report of interim inspection on: OME-6558 (Silver)
Rexford W. Barton
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

An interim inspection was made November 27 and 28, 1967 at the Double Rainbow Mine, Lawrence County, South Dakota with Dr. Edward Tullis, Consulting Geologist, A. L. Slaughter, Chief Geologist, Homestake Mining Company, Olin Hart, Staff Geologist, Homestake Mining Company assigned to the Double Rainbow property and Mr. A. L. Kelly, Project Manager, Double Rainbow. A general discussion concerning exploration work under the OME contract and inspection of diamond drill cores from underground Drill Hole 8-U recently completed to a depth of 405 feet, were made the morning of November 28th. Some galena and pyrite was observed at 376 feet, and some sphalerite was observed between 400 - 405 feet in Diamond Drill Hole 8-U.

In the afternoon of November 28th, I inspected No. 1 slusher drift (upper contact) which is now essentially completed. The operator discussed the possible extension to the south where some reported high grade samples were taken in the face along an E-W trending vertical fault shown on an old map. Fourteen inches of material reportedly assayed 593 oz. Ag, 10% Pb, and .80 cents in Au. By extending the No. 1 slusher drift for 50 feet an extension of the structure may be intersected. The No. 1 slusher drift may be driven south at a later date, but only if there is other slusher drift footage available. The stub drift east of the survey station HD 4 is being pumped out and cleaned so it can be more thoroughly mapped, and possibly sampled to ascertain the possible values in the face.

The No. 2 slusher drift was being prepared for drifting operations at the time of this inspection.

No work on No. 3 slusher drift has been done to date.

Upper contact X-cut No. 4 had been driven some 300 feet at the time of this inspection and some grab or car samples between 105' and 227' showed several silver assays of 1.0 oz. to as high as 5.8 oz. per ton. A face sample from an area 4' x 7' assayed 12.0 oz./ton, this is the same area as sample G-106 that assayed 5.8 oz. Ag/ton.

Excavation of the shaft has progressed sufficiently to permit installation of shaft timber at the station and slusher trench levels. Shaft bearing beams were concreted in place at the base of the slusher trench level. Station excavation was about 70 percent completed at the time of the inspection.

The preliminary work for the crosscut to the lower contact level from the shaft station was being completed at the time of the interim examination.

Mr. A. J. Kelly, project manager, informed me that mucking machines to be used in the drifts and crosscuts intended for passage of trackless loading and hauling equipment will require a cross sectional area of 9' x 9' instead of the 8' x 10' cross sectional area specified in the contract, Exhibit A, General Provisions, page 2, paragraph 6, and requested that they be granted permission to construct the above-mentioned drifts and crosscuts in a 9' x 9' cross-section at no additional cost to the government. Since the cross sectional area is nearly the same I gave them verbal approval, but recommended that the request be made in writing. The contract states that "drifts and crosscuts shall not be less than 8 x 10 feet in cross section". Even though the 9' x 9' cross section will be somewhat larger the costs will remain the same as specified in the contract under the fixed unit costs, for trackless drift lower contact, which allows 1,500 feet at $56.67 per foot. Upon receipt of their request I will give them formal approval to drive a 9' x 9' trackless drift, should it meet with your approval.

I discussed the request in Mr. A. L. Slaughter's letter dated November 15, 1967 concerning a possible amendment to exchange AX drilling footage for drilling BX footage.

The overall project is progressing very well even though the results to date are not too encouraging. The Operator's detailed geologic mapping will undoubtedly add considerably to the geologic picture as the work progresses.

All specifications and terms of the contract under Exhibit A, General Provisions are being met in a most adequate and efficient manner.

for N. L. Gaverick

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Office of Minerals Exploration
Building 53 Room 203

January 16, 1968

OFFICIAL COPY
O. M. E.
RECEIVED
JAN 18 1968

INITIALS	CODE
BLR	120
FEJ	140
HK	420

Mr. Rexford W. Barton, President
Double Rainbow Mines, Inc.
2251 Virginia Street
Berkeley, California 94709

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

Dear Mr. Barton:

Enclosed are the original and three copies of proposed Amendment No. 2 (one page) to the subject contract, signed for the Government.

If the proposed amendment is satisfactory, all four copies should be signed by an authorized representative of your company, retain the "Operator's Copy" and return the other copies to:

Mr. J. William Hasler, Field Officer, Region III
Office of Minerals Exploration -- U. S. Geological Survey
Denver Federal Center -- Building 53 -- Room 203
Denver, Colorado 80225

If any part of the proposed amendment does not have your approval the original and all copies are to be returned to this office together with the proposed changes for consideration.

Sincerely yours,

J. William Hasler
mc

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Enclosures

cc: Chief, OME OME-6558 OME chron Mr. Hasler

120 Kirkemo 1/11/68
110 Johnson "
Wagner 1/11

220
120M

AIRMAIL

Memorandum

To: Field Officer, Region III

From: Chief, Office of Minerals Exploration

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

Enclosed are the original and three copies of proposed Amendment No. 2 (one page) to the subject contract, signed for the Government. An extra copy of the amendment is also enclosed for field use.

If the proposed amendment is satisfactory to you and the Operator, all four copies should be signed by an authorized representative of the Operator and distributed in the usual manner.

If any part of the proposed amendment does not have your approval or that of the Operator, the original and all copies are to be returned to this office together with the proposed changes for consideration.

FRANK E. JOHNSON /fjb

Frank E. Johnson

Enclosures

cc: Director's Reading File
Division File
Economic Geology File
OME File
OME Reading File
Mr. Kirkemo
130

HKirkemo/bsl 1/11/68

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225

Office of Minerals Exploration
Building 53 Room 203

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December 20, 1967

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

Transmitted herewith are the original and two copies of the November monthly report on the above-stated voucher.

I certify that the foregoing is correct and just; and recommend that payment be made.

J. William Hasler
mc.

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Enclosures

1 Copy to Washington
Dec. 21, 1967

EDWARD L. TULLIS
Consulting Geologist
223 ST. CHARLES STREET
RAPID CITY, SOUTH DAKOTA 57701
PHONE 605/342-3733

RECEIVED

December 18, 1967

Mr. J. Wm. Hasler, Field Officer,
Region III
Office of Minerals Exploration
U. S. Geological Survey
Denver Federal Center - Bldg. 53
Room 203
Denver, Colorado 80225

OME-6558 (Silver)
Subject: Double Rainbow Mines, Inc.
Double Rainbow Mine Lawrence County, So. Dak.
Contract 2233

Dear Mr. Hasler:

Enclosed are the original and 4 copies of the Double Rainbow Report for November, 1967. Each report consists of the following:

	1 page	- MME Form 60
	1 page	- MME Form 61
	3 pages	- Operator's Narrative Report
	1 page	- Statement of Consulting Geologist
A.	2 pages	- Descriptive log of diamond drill hole 6U.
	1 page	- Assay reports - diamond drill hole 6U.
B.	2 pages	- Descriptive log of diamond drill hole 8U.
	1 page	- Assay reports - diamond drill hole 8U.
C.	3 pages	- Assay reports - truck samples - silver & gold.
D.	1 page	- Assay reports - lead & zinc.
E.	1 page	- Assay reports - channel samples - silver & gold.
F.	1 drawing	- Section with graphic log through drill holes 8U, 6U, 4U, N6, 2U.
G.	1 map	- Plan of Richmond-Sitting Bull Mine, showing drift advances, sample, & drill hole locations.
H.	1 map	- Plan of Richmond-Sitting Bull Mine, showing geologic fracture mapping to date.

You will note that the $5.05, South Dakota State Service Tax, has been deleted from the costs to date, as suggested by Mr. Frank E. Johnson.

Sincerely yours,

Edward L. Tullis

Edward L. Tullis, Agent
Double Rainbow Mines, Inc.

ELT:ek

To Legal 1/3/68

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EXPLORATION CONTRACT
DOUBLE RAINBOW MINES, INC.
OME-6558

AMENDMENT NO. 2

It is agreed this _____ day of _____, 1968 between the United States of America, acting through the Department of the Interior, U. S. Geological Survey, hereinafter called the "Government," and Double Rainbow Mines, Inc., hereinafter called the "Operator," that Exploration Contract No. 2233 (OME-6558), dated January 24, 1967, as amended, is amended further effective December 1, 1967 as follows:

1. In EXHIBIT A under General Provisions the sixth paragraph on page 2 is revised to read as follows:

"Drifts and crosscuts intended for passage of trackless loading and hauling equipment shall be about 9 by 9 feet in cross section. Drifts and crosscuts wherein slusher equipment is used shall be about 6 by 6 feet in cross section".

This amendment shall not be construed to increase the total estimated cost of the contract, the aggregate amount which the Government may be required to contribute, the amount of any item designated as maximum, nor the fixed unit cost of any item of work.

Executed in quadruplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By_____
Chief, Office of Minerals Exploration
U. S. Geological Survey

DOUBLE RAINBOW MINES, INC.

By_____

Title_____

HOMESTAKE MINING COMPANY

LEAD, SOUTH DAKOTA 57754

HK ✓
JY
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120M

December 28, 1967

Mr. Harold Kirkemo
Assistant Chief
Office of Minerals Exploration
U. S. Geological Survey
Washington, D. C.

Dear Harold:

OME 6558 (Silver)
Contract No. 2233

As I explained to you on the phone yesterday, we have run into excessive dips in the No. 2 Slusher Drift, upper contact, at the Double Rainbow. This makes it impractical to continue the drift on the same line and we therefore request permission to change the course of the drift 25 degrees to the southwest at a point 166 feet from survey point HD3. This new direction will be close to the strike of the beds and the drift should remain fairly level. This will also put us closer to the old workings, but not too close (closest point about 140 feet) and will be a better prospecting position than the original plan.

With best wishes for the New Year.

Sincerely,

A L Slaughter ACM

A. L. Slaughter
Chief Geologist

ALS:pe

cc: J. William Hasler
D. T. Delicate
E. L. Tullis

AFTER FIVE DAYS, RETURN TO

HOMESTAKE MINING COMPANY
P. O. BOX 875
LEAD, SOUTH DAKOTA 57754

SOUND MONEY
SECURITY of SAVINGS
STABLE ECONOMY

DEC 28 '67

U.S. POSTAGE

VIA AIR MAIL
CORREO AEREO
PAR AVION

Mr. Harold Kirkemo
Assistant Chief
Office of Minerals Exploration
U. S. Geological Survey
Washington, D. C. 20000

P. O. Box 875
Lead, South Dakota 57754
December 4, 1967

OME Region III
RECEIVED
DEC
Denver, Colorado

Mr. J. William Hasler, Field Officer, Region III
Office of Minerals Exploration
U. S. Geological Survey
Denver Federal Center - Building 53 - Room 203
Denver, Colorado 80225

Re: Double Rainbow Mines, Inc.
Lawrence County, South Dakota
Docket No. OME-6558
Contract No. 2233

COPY

Dear Mr. Hasler:

As we discussed during your visit on November 28, I am notifying you in writing of the necessity of modifying the dimensions of the lower contact haulage drift at the Double Rainbow Mine.

The OME contract specifies that the drift cross section should be 8 feet by 10 feet. However, our mining equipment requires an operating height of 9 feet. We propose to change the dimensions of this drift to 9 feet by 9 feet, at no increase in cost. Reduction of the width by one foot will not restrict the operation of our equipment, and still allows enough space for compressed air pipe, water pipe, and ventilation line. The cross-sectional area of the drift and the volume of rock to be excavated will not be decreased.

It is requested that permission be granted to proceed with the drift with a 9 x 9 foot cross section.

Yours truly,

HAKelly

H. A. Kelly
Project Engineer

HAK/g

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MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
12/27/67		120
12/28	cal	220
		120M

AIRMAIL

DEC 28 1967

Dr. Edward L. Tullis
Consulting Geologist
223 St. Charles Street
Rapid City, South Dakota 57701

Re: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

Dear Dr. Tullis:

This refers to our discussions with Mr. A. L. Slaughter by phone on December 26 and 27, 1967, regarding his request to change the course of No. 2 slusher drift.

We understand that No. 2 slusher drift in the Upper contact has been advanced 161 feet south from Haven's drift, and that a steep flexure in the enclosing rocks makes further advance impossible on the same course within the Upper contact. However, by continuing the drift on a course about 25 degrees southwestward from the initial course, the drift can be confined to the Upper contact and perhaps completed to its planned length of about 350 feet.

We agree that this is a practical solution to the problem, and this letter will confirm our authorization by telephone on December 27 to Mr. Slaughter to change the course of No. 2 slusher drift as described above.

Maps of the Upper contact workings show that a similar situation may have been encountered in the old drift about 180 feet west of and parallel to No. 2 slusher drift. At about the same distance south of Haven's drift as the present face of No. 2 slusher drift, the original southerly course of the drift was changed about 25 degrees to the southwest, continued on that course for 75 to 80 feet, then redirected on a southerly course. The geologic map shows faults in the area of the first change in course. In addition to a change in dip, perhaps the same situation prevails in the area where the course of No. 2 slusher drift will be changed.

If it becomes necessary to redirect No. 2 slusher drift in order to remain within the target horizon as apparently was done in the old drift, we would approve such a change so long as the new drift is no

23263

less than 100 feet from previous workings. Any work closer than that would be more in the nature of development work than exploration.

Sincerely yours,

Harold Kirkemo (gla)

Harold Kirkemo
Assistant Chief
Office of Minerals Exploration

Copy to: Mr. A. L. Slaughter (Airmail)
Chief Geologist
Homestake Mining Company
Lead, South Dakota 57754

NOTE on distribution copies only:

This problem was discussed with Mr. Hasler by phone on December 27, 1967. He would recommend that the course of No. 2 slusher drift be changed as requested by the Operator.

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

HKirkemo/gla 12-27-67

Office of Minerals Exploration
Building 53 Room 203

OFFICIAL COPY
C. M. R.
RECEIVED
DEC 11 1967

gha 130
120 M
~~110~~
HR 120

December 7, 1967

Mr. A. L. Slaughter, Chief Geologist
Homestake Mining Company
Lead, South Dakota 57754

Subject: OME-6558 (Silver)
Rexford W. Barton
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

Dear Archie:

Thank you for returning the map I left in your office the other day and may I express my appreciation to you for your fine hospitality. It is always a pleasure to visit in your area.

I wish to tell you that I am very pleased with the manner in which the work is progressing on the Double Rainbow OME project, and I am extremely interested in the work Mr. Hart is doing relative to the geologic mapping and subsequent studies concerning the mineralization and ore deposits in the Deadwood formation at Galena.

It is possible to obtain copies of open file reports by writing to Mr. Francis Rizzari, Topographic Division, U. S. Geological Survey, Room 2409 - Building 25 - Denver Federal Center, Denver, Colorado 80225, asking for a copy of the publication to be made, and then of course pay for the cost of reproduction. I checked on the open file publication you asked about the other day and it will cost $15.00 to reproduce and send to you. The Preliminary Report on the Geology and Ore Deposits of the Minturn Quadrangle, Colorado, by T. S. Lovering and O. L. Tweto, 1944, consists of 115 pages, plus maps, and tables. It may be less expensive to have a look at the report in our library when one of you are in the Denver area sometime soon.

Sincerely yours,

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

cc: Chief, OME
Hasler chron
OME chron
OME-6558 (Silver)

Office of Minerals Exploration
Building 53 Room 203

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GH | 120 M
JB | 110
HK | 730

November 20, 1967

Dr. Edward L. Tullis
223 St. Charles Street
Rapid City, South Dakota 57701

Subject: OME-6558 (Silver)
The Double Rainbow Mines, Inc.
Lawrence County, South Dakota
Contract 2233

Dear Ed:

Reference is made to your letter of November 16, 1967, and your offer to have me accompany you to Lead for the night of November 27.

My present plans are to leave Denver on Frontier Flight No. 510 at 6 PM November 27, 1967, arriving in Rapid City, South Dakota at 7:09 PM. I will pick up a rental vehicle at National Car Company and pick you up at your residence shortly after 7:30 PM. We can then proceed to Lead where I have a reservation at the Gold Run Inn for the night.

I am scheduled out of Rapid City, South Dakota on November 29th, Frontier flight No. 591 leaving at 7:56 AM, arriving Denver, Colorado at 9:07.

Sincerely yours,

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

cc: Chief, OME
Hasler chron
OME chron
OME-6558

Copy to Washington 11/20/67

EDWARD L. TULLIS
Consulting Geologist
223 ST. CHARLES STREET
RAPID CITY, SOUTH DAKOTA 57701
PHONE 605/342-3733

OME Region III
RECEIVED
NOV 13 1967
Denver, Colorado

November 10, 1967

Mr. J. Wm. Hasler
Field Officer, Region III
Office of Minerals Exploration
Geological Survey
Federal Center
Denver, Colorado 80225

Dear Bill:

I would like to extend an invitation to come up to see us some time if it is convenient for you. On Tuesday, November 28, I am planning to go to Lead to look at the cores and to Galena to look at the progress on the mining. By that time the shaft should be completed and the drift toward the "lower contact" started.

Olin Hart is doing a fine job of mapping contacts, verticals and rock alteration on the "upper contact" in the vicinity of the current drifting.

Normally I go about every other Tuesday if my schedule in Rapid City permits. On November 21, which would be the normal Tuesday, I will be at the GSA in New Orleans.

Sincerely yours,

Edward L. Tullis, Agent
Double Rainbow Mines, Inc.

ELT:ek
cc: H. A. Kelly
Archie Slaughter

Office of Minerals Exploration
Building 53 Room 203

November 20, 1967

Mr. A. L. Slaughter, Chief Geologist
Homestake Mining Company
Lead, South Dakota 57754

Re: OME-6558 (Silver)
Rexford W. Barton
The Double Rainbow Mines, Inc.
Lawrence County, South Dakota
Contract 2233

Dear Archie:

This letter is in reply to your letter to me dated November 15, 1967.

My present plans are to make an interim inspection of the Double Rainbow project along with Dr. Edward Tullis on November 28, 1967, and we can discuss the various problems concerning the project at that time. I will pick Ed up at his residence the evening of November 27th and proceed to Lead. I presently have reservations at the Gold Run Inn.

I am sorry for not having visited the project at an earlier date but a heavy workload has prevented me from doing so. It will be a pleasure to visit the property with you next week, as Ed informed me that Olin Hart is doing an outstanding job in mapping the upper contact verticals, and rock alteration.

Sincerely yours,

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

cc: Chief, OME
Hasler chron
OME chron
OME-6558

Copy to Washington 11/20/67

HOMESTAKE MINING COMPANY

LEAD, SOUTH DAKOTA 57754

OME Region III
RECEIVED
NOV 17 1967
Denver, Colorado

November 15, 1967

Mr. J. W. Hasler
Field Officer - Region III
Office of Minerals Exploration
U. S. Geological Survey
Federal Center
Denver, Colorado 80225

Dear Bill:

Drilling at Double Rainbow is moving along. Unfortunately, we have had no exciting results to date. Hole No. 6U has just been completed and it doesn't look any better.

Several of the underground holes reached greater depths than anticipated because of the downward displacement of the lower contact ore horizon below a thick porphyry sill. Total underground footage to date with 8U and 9U still to be drilled is 3085. Estimating 430 for 8U and 650 for 9U, total footage would be 4165 which is 690 feet over the amount for AX drilling as stated in the contract (3475). However, we did not use all of the BX footage in the surface drilling by 662 feet and the rate per foot for BX is about double that for AX. The unused funds from the surface drilling will give us enough leeway, I am sure, to finish the planned number of underground holes (see page 4 of contract). ?

We thought that this matter should be called to your attention.

We hope you find it possible to visit us sometime in the near future.

Sincerely,

Archie

A. L. Slaughter

ALS/m

cc: Mr. D. T. Delicate

OFFICIAL FILE COPY

Date	Surname	Code
11/22/67	Kirkpatrick	120
		120
		110
		220
		120M

NOV 22 1967

AIRMAIL

Dr. Edward L. Tullis
Consulting Geologist
223 St. Charles Street
Rapid City, South Dakota 57701

Re: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

Dear Dr. Tullis:

This will acknowledge receipt of your request of November 9, 1967 to Mr. J. D. McAlister for payment of $849.23 disallowed from your voucher for August 1967.

Payment of the voucher for September 1967 has in effect cleared this obligation as is explained below.

The claim in August for payment for 335 feet of drilling on Hole 7U was disallowed by the Government in accordance with Exhibit A, General Provisions, of the contract, which states in part that the Government will not participate in the costs incurred for incomplete drill holes. Therefore, payment of a claim for drilling only a portion of Hole 7U could not be made because the hole was not completed. Claim for payment for the total length of Hole 7U would have to be made after the hole was completed.

In September 1967 you claimed payment for 816 feet of drilling on the basis of drilling completed and incompleted drill holes. The table in the narrative report summarizing the claim, and a summary of allowable footages for September are as follows:

	Operator's Summary	Allowable Footage
	Hole 7U, 110 feet (portion of hole completed in September)	Hole 7U, 445 feet (335' in August, 110' in September)
	Hole 2U, 411 feet (Completed Hole)	Hole 2U, 411 feet
	Hole 4U, 295 feet (Incomplete hole)	
Totals	816 feet	856 feet

23263

Payment cannot be made for all of the allowable drilling (856 feet) completed in Holes 7U and 2U in September until the claim for the balance of 40 feet (856 feet less 816 feet) is included later on a Voucher Form MMK 60, and noted on MMK Form 61 under Operator's Remarks.

We hope this will explain why disallowances have been made with respect to claims for drilling.

We enclose the original copy of Administrative Suspension Statement No. 82672 inasmuch as we believe the above explanation eliminates the need for it.

We suggest that the claim for $5.05 for payment of the South Dakota State service tax on the consultant's salary for April, May and June, 1967 be deleted from the total costs to date. The Operator, in a letter to us dated August 25, 1967 stated that the cost of this tax would be absorbed outside of the contract.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

Enclosure

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

HKirkemo/bsl 11/22/67

Date Answer

EDWARD L. TULLIS
Consulting Geologist
223 ST. CHARLES STREET
RAPID CITY, SOUTH DAKOTA 57701
PHONE 605/342-3735

November 9, 1967

Mr. J. D. McAlister
Branch of Budget and Finance
U.S. Geological Survey
Department of the Interior
Washington, D.C. 20242

Dear Mr. McAlister:

OME Docket #6558
Contract #2233

Following your receipt of the August report of work done for Double Rainbow Mines, Inc., an amount of $1,132.30 was disallowed because DD Hole 7U had not been completed that month.

In the report for workdone during September, sent to Mr. J. Wm. Hasler in Denver on October 16, the completion of the bottom 110 feet of DD Hole 7U was reported and the cost of that 110 feet at $3.38 was included in the costs listed on MME Forms 60 and 61.

In accordance with your instructions on the enclosed Administrative Suspension Statement I am requesting the payment of $849.23 which is 75% of the $1,132.30 listed in the Administrative Suspension Statement.

Sincerely yours,

Edward L. Tullis

Edward L. Tullis, Agent
Double Rainbow Mines, Inc.

ELT:ek
cc: Donald T. Delicate

EDWARD L. TULLIS
Consulting Geologist
223 ST. CHARLES STREET
RAPID CITY, SOUTH DAKOTA 57701

RAPID CITY, SD
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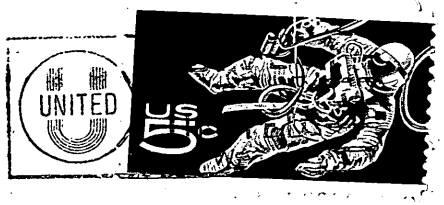

Mr. J. D. McAlister
Branch of Budget and Finance
U.S. Geological Survey
Department of the Interior
Washington, D.C. 20242

Office of Minerals Exploration

OFFICIAL COPY
O. M. E.
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NOV 16 1967
INITIALS CODE
120
120

November 14, 1967

Professor Edward L. Tullis
Consulting Geologist
223 St. Charles Street
Rapid City, South Dakota 57701

Subject: OME-6558 (Silver)
Rexford W. Barton
Double Rainbow
Lawrence County, South Dakota
Contract 2233

Dear Ed:

This letter is in reply to your request, dated November 10, 1967, to make an interim inspection with you on Tuesday, November 28, 1967. I shall be happy to accompany you on the 28th and have scheduled a trip into Rapid City the evening of November 27, 1967. My present plans are to stay at the Gold Run Inn at Lead, South Dakota the night of November 27th, and to return to Rapid City the night of November 28th after our inspection trip, then return to Denver, Colorado the morning of the 29th. I'm sorry to have been so long in visiting the project but an exceedingly heavy workload has prevented me from scheduling anything up your way before this time.

Your attention is invited to our change of address:

Mr. J. William Hasler, Field Officer, Region III
Office of Minerals Exploration --
U. S. Geological Survey
Denver Federal Center-Building 53 - Room 203
Denver, Colorado 80225.

The inclusion of the Building No. and Room No. are especially important. Our telephone extensions remain unchanged: 8598 or 8731.

cc: Chief, OME
Hasler chron
OME chron
OME-6558

Sincerely yours,

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

EDWARD L. TULLIS
Consulting Geologist
223 ST. CHARLES STREET
RAPID CITY, SOUTH DAKOTA 57701
PHONE 605/342-3733

OME Region III
RECEIVED
NOV 13 1967
Denver, Colorado

November 10, 1967

Mr. J. Wm. Hasler
Field Officer, Region III
Office of Minerals Exploration
Geological Survey
Federal Center
Denver, Colorado 80225

Dear Bill:

I would like to extend an invitation to come up to see us some time if it is convenient for you. On Tuesday, November 28, I am planning to go to Lead to look at the cores and to Galena to look at the progress on the mining. By that time the shaft should be completed and the drift toward the "lower contact" started.

Olin Hart is doing a fine job of mapping contacts, verticals and rock alteration on the "upper contact" in the vicinity of the current drifting.

Normally I go about every other Tuesday if my schedule in Rapid City permits. On November 21, which would be the normal Tuesday, I will be at the GSA in New Orleans.

Sincerely yours,

Edward L. Tullis, Agent
Double Rainbow Mines, Inc.

ELT:ek
cc: H. A. Kelly
Archie Slaughter

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225

Office of Minerals Exploration

October 20, 1967

OFFICIAL COPY
O. M. E.
RECEIVED
OCT 23 1967

INITIALS	CODE
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Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

Transmitted herewith are the original and two copies of the September monthly voucher on the above-stated subject.

I certify that the foregoing is correct and just; and recommend that payment be made.

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Enclosures

See folder #2

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
11/1/67		120
"	Johnson	110
11/1	Cal	220
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NOV 1

Memorandum

To: Field Officer, Region III

From: Assistant Chief, Office of Minerals Exploration

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

As discussed with you by phone on October 30, 1967 I reinstated the Operator's claim for 816 feet of drilling in September 1967, as shown by Footnote No. 2 on the enclosed copy of the Operator's MME Form 61 for September 1967. The voucher is being forwarded today to the Branch of Budget and Finance for processing and payment.

The Operator continues to claim payment of the South Dakota State service tax on the consultant's salary for April, May, and June. This is claimed despite Mr. Barton's letter to us dated August 25, 1967 informing us that an amendment for such a small amount ($5.05) was not warranted and would not be charged to the contract. Perhaps at your first opportunity you could suggest to Dr. Tullis that the claim for the item should be deleted from the total shown by the Operator for Outside Consultant.

I note in the Operator's narrative for September 1967 that the flow of water into the shaft exceeded the 50 gallon-per-minute rate considered in the basic per-foot cost for shaft sinking. We need not be concerned this month with payment for this item as provided in the contract because the Operator did not claim payment on the voucher.

Harold Kirkemo (gba)

Harold Kirkemo

Enclosure

cc: Director's Reading File
Division File
Economic Geology File
OME File
OME Reading File
Mr. Kirkemo
130
Budget and Finance

HKirkemo/bsl 11/1/67

23263

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225
Office of Minerals Exploration

September 19, 1967

OFFICIAL COPY O. M. E. RECEIVED SEP 20 1967	
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Memorandum

To: Chief, OME

From: Field Officer, Region III

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

Transmitted herewith are the August vouchers on the above-stated subject.

I certify that this account is correct and proper for payment and recommend that payment be made.

J. William Hasler
J. William Hasler, mc.
Field Officer, Region III
Office of Minerals Exploration

Enclosures

See folder #2

Copy sent to Washington 9-19-67

EDWARD L. TULLIS
Consulting Geologist
223 ST. CHARLES STREET
RAPID CITY, SOUTH DAKOTA 57701
PHONE 605/342-3733

OME Region III
RECEIVED
SEP 18 1967
Denver, Colorado

September 15, 1967

Mr. J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration
U.S. Department of the Interior
Geological Survey
Federal Center
Denver, Colorado 80225

Dear Mr. Hasler:

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

Enclosed are the original and four copies of the Double Rainbow report for August, 1967. Each report consists of the following parts:

1 page - MME Form 60
1 page - MME Form 61
1 page - Operator's Narrative Report.

Before commencing the OME development work on the upper contact, time is being taken to insulate water pipes, improve the main haulage roads and otherwise prepare for winter.

This month it is planned to start about 80 feet of drift east of the main haulageway to provide access to the starting point of Slusher Drift Number I. This access drift is unscheduled and will not be billed to OME. It was decided that it is more practical to make a new access rather than attempt to re-open the McClellan Tunnel.

Sincerely yours,

Edward L. Tullis

Edward L. Tullis

ELT:ek
Enclosures

Copy to Washington 9-19-67 - RHA

EDWARD L. TULLIS
Consulting Geologist
223 ST. CHARLES STREET
RAPID CITY, SOUTH DAKOTA 57701
PHONE 605/342-3733

OME Region III
RECEIVED
SEP 23 1967
Denver, Colorado

September 15, 1967

OFFICIAL COPY
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Mr. J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration
U.S. Department of the Interior
Geological Survey
Federal Center
Denver, Colorado 80225

Dear Mr. Hasler:

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

Thank you for your letter of August 14, concerning the state service tax. Don Delicate has said that he believes that it is not worth the time and trouble to revise the contract to permit collection of three-fourths of the tax. He said that the company would pay all of it and that we will not bill OME in the future.

Sincerely yours,

Edward L. Tullis

Edward L. Tullis

ELT:ek

Copy made for Budget & Finance, sent 9/27/67 (gla)

Rexford W. Barton
2251 Virginia Street
Berkeley 9, California

25 August 1967

OFFICIAL
COPY
O. M. E.
RECEIVED
AUG 30 1967

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JFB	110
RMB	120 S
HK	120

Mr. Frank E. Johnson
Chief, Office of Minerals Exploration
U. S. Department of the Interior
Washington 25, D. C.

Re: OME-6558 (Silver) - Double Rainbow Mines, Inc.
Double Rainbow Mine, Lawrence County,
South Dakota - Contract 2233

Dear Mr. Johnson:

I regret the delay in replying to your letter of July 28, 1967, regarding amendment of the above contract to include the South Dakota service tax.

We appreciate your willingness to amend the contract to cover this item, but all parties are agreed that in view of the small amount involved such amendment is not warranted and the cost of the tax will be absorbed outside of the contract.

Thank you for your attention to this matter.

Sincerely,

DOUBLE RAINBOW MINES, INC.

Rexford W. Barton

Rexford W. Barton, President

RWB/d

AIR MAIL

Cy to Budget & Finance
and OME-P-III

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225

Office of Minerals Exploration

August 14, 1967

Memorandum

To: Chief, OME

From: Field Officer, Region III

Subject: OME-6558 (Silver)
The Double Rainbow Mines, Inc.
Lawrence County, South Dakota
Contract 2233

Transmitted herewith are the original and two copies of MME Form 60 (Operator's Monthly Voucher), MME Form 61 (Operator's Progress Report) and Narrative vouchers with supporting documents for the month of July, 1967 on the above-stated subject.

I certify that the information is complete and accurate to the best of my knowledge and belief, and recommend that payment be made.

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Enclosures

Office of Minerals Exploration

OFFICIAL COPY
O. M. E.
RECEIVED
AUG 16 1967
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JHR | 120

August 14, 1967

Dr. Edward L. Tullis
223 Saint Charles Street
Rapid City, South Dakota 57701

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

Dear Dr. Tullis:

Your inqiry and the July vouchers on the above-stated subject arrived this morning. Regarding the state service tax in connection with your salary, please find a copy of a letter of July 28, 1967 from Mr. Frank Johnson, Chief, Office of Minerals Exploration to Mr. Rexford W. Barton which we believe is self-explanatory.

Your July vouchers are being forwarded to Washington this afternoon and you should be hearing from them in the near future.

Sincerely yours,

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Enclosure

cc: Chief, OME
Hasler chron
OME chron
2233

Copy sent to Washington 8-14-67

EDWARD L. TULLIS
Consulting Geologist
223 ST. CHARLES STREET
RAPID CITY, SOUTH DAKOTA 57701
PHONE 605/342-3733

OFFICIAL COPY
O. M. E.
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August 11, 1967

OME Region III
RECEIVED
AUG 14 1967
Denver, Colorado

Mr. J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration, Geological Survey
Federal Center
Denver, Colorado 80225

Dear Bill:

Has anything been decided about the 3% South Dakota service tax that I have been charging?

I forgot to turn in my July time to Homestake early this month so I will send it to Homestake along with my August time early in September.

Sincerely yours,

Edward L. Tullis

ELT:ek

Copy sent to Washington 8-14-67

EDWARD L. TULLIS
Consulting Geologist
223 ST. CHARLES STREET
RAPID CITY, SOUTH DAKOTA 57701
PHONE 605/342-3733

August 11, 1967

OME Region III
RECEIVED
AUG 14 1967
Denver, Colorado

Mr. J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration, Geological Survey
Federal Center
Denver, Colorado 80225

Dear Mr. Hasler:

Enclosed are five copies of the report on Double Rainbow Mines, Inc. exploration program for July, 1967.

Each report consists of three parts:

1 page	- MME Form 60
1 page	- MME Form 61
1 page	- Operator's Narrative Report

It is hoped that all of the underground diamond drilling sites will be prepared by August 31, with the intention of resuming diamond drilling in September. It is expected that the shaft will be finished about the end of September so that the results of the diamond drilling will be available before the lower contact drift nears the tentative target area.

Sincerely yours,

Edward L. Tullis

Edward L. Tullis

ELT:ek
Enclosures (5)

ME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
7/28/67	Kirkemo	120
		110
		220
		120M

AIRMAIL

JUL 28 1967

Mr. Rexford W. Barton
President and Director
Double Rainbow Mines, Inc.
2251 Virginia Street
Berkeley, California 94709

Re: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

Dear Mr. Barton:

Claims totaling $5.05 were made on vouchers for April, May, and June 1967 for payment of state service tax in connection with the salary of Dr. Edward L. Tullis on the subject contract. These claims were disallowed by the Government pending determination whether such costs were allowable.

South Dakota State Tax Rule 14 indicates that technical services such as those rendered by Dr. Tullis under terms of the contract are subject to sales tax. Therefore, the tax is a proper item for payment if included under Category (7) Miscellaneous, of Article 6 of the contract.

An amendment to the contract is required to provide funds for payment of this tax, such funds being derived either from an increase to the total estimated cost of the project, or from a transfer of funds presently allowed for an item, such as drilling, in the contract. The estimated total liability for this tax is $67.50 (3 percent of $2,250.00 - the estimated total salary under Category 2).

We will be glad to prepare an amendment providing funds and allowing payment of this tax if you so request. If your decision is to

23263

request an amendment, please suggest how you wish the funds ($67.50) to be provided--by increasing the total estimated cost of the project, or by transferring them from the funds allowed for an item now in the contract.

Sincerely yours,

FRANK E. JOHNSON (gla)

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's Reading File
Division File
Econ. Geol. File
Branch of Budget & Finance
OME Docket
OME Reading File
OME Region III
Mr. Kirkemo

HKirkemo/gla 7-28-67

IN REPLY REFER TO:
K-66-2129.11

-11.0
120

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

July 25, 1967

Memorandum

To: Chief, Office of Minerals Exploration

From: Assistant Solicitor, Oil and Gas and Minerals Exploration

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

This will respond to your request of June 27, 1967 for advice regarding the Operator's claim for payment of South Dakota state service tax in connection with the salary of a consultant.

After reviewing the copy of "South Dakota Sales and Use Tax Rules" transmitted with the Field Officer's memorandum of July 14, 1967, it appears from Rule 14 that this tax is a state sales tax. Accordingly, as such it would have been a proper item for payment if included under Category (7) Miscellaneous, of Article 6 of the Contract.

Robert W. Long
Robert W. Long
Assistant Solicitor
Oil and Gas and Minerals Exploration

Enclosures

OFFICIAL COPY
O. M. E.
RECEIVED
JUL 24 1967

INITIALS	CODE
glg	110
HR	120

OME Region III
RECEIVED
JUL 13 1967
Denver, Colorado

Edward L. Tullis
Consulting Geologist
223 St. Charles
Rapid City, South Dakota 57701

July 12, 1967

Mr. J. Wm. Hasler,
Field Officer, Region III
Office of Minerals Exploration
United States Department of the Interior
Geological Survey
Federal Center
Denver, Colorado 80225

Dear Mr. Hasler:

Enclosed are five copies of the report on Double Rainbow Mines, Inc. exploration program for June, 1967.

Each report consists of the following parts:

1 - page - MME Form 60
1 - page - MME Form 61
1 - page - Operator's narrative report
1 - page - Statement of consulting geologist
2 - pages - DDH 1U - Drill hole log
2 - pages - DDH 1U - Assay reports

You will note that hole 1U was drilled from the surface. This was because of dangerous underground conditions. The additional 37 feet of drilling required by this change of plan is not billed to OME. The actual depth of the hole is 454 feet of which 417 feet is submitted to OME. ??

not claimed — allow this footage. JWH

Sincerely yours,

Edward L. Tullis

Edward L. Tullis

ELT:ek
Enclosures

See folder #2

Sales tax
Regory
Cg.

Voucher (3 copies) to B+F 7/27/67

OME Region III
RECEIVED
JUL 1 2 1967
Denver, Colorado

Edward L. Tullis
Consulting Geologist
223 St. Charles
Rapid City, South Dakota 57701

July 10, 1967

Mr. J. Wm. Hasler,
Field Officer, Region III
Office of Minerals Exploration
United States Department of the Interior
Geological Survey
Federal Center
Denver, Colorado 80225

Dear Mr. Hasler:

Your letter of July 5, concerning South Dakota State Service Tax has been received.

I have obtained from the Rapid City office of the South Dakota Division of Taxation the enclosed pamphlet. It appears that sentence two of Rule 14 on page 8 applies to me unless it can be interpreted that the present work is for a tax exempt entity. If the work were being done directly for the U.S. Government the exemption would apply but since the work is being done for Double Rainbow I doubt if the exemption applies.

In accordance with the law I obtained a license under which I am authorized to collect service tax dated October 1, 1965. My license states that it is issued under the provisions of Section 57.3301, South Dakota Code of 1939 and any amendments thereof.

The Rapid City office of the South Dakota Division of Taxation was uncertain as to the numbers of the amendments but gave me the following information which may be helpful. There was a 1960 capital supplement 27-0401. In addition South Dakota Code 40.02021 and Section 5 of South Dakota Code 57.31 were mentioned. In any event, the amendment which applies to me was passed March 18, 1965 and became effective July 1, 1965. Mimeographed instructions were issued in June, 1965 and the enclosed pamphlet was published January 1, 1966.

Sincerely yours,

ELT:ek

Edward L. Tullis

ELT:ek
Enclosure

OME Region III
RECEIVED
JUL 19 1967
Denver, Colorado

EDWARD L. TULLIS
CONSULTING GEOLOGIST
223 St. Charles
Rapid City, South Dakota 57701
July 17, 1967

OFFICIAL COPY
O. M. E.
RECEIVED
JUL 24 1967

INITIALS	CODE
gla	120
JW	110
HK	120

Mr. Donald T. Delicate
Homestake Mining Company
Lead, South Dakota

Dear Don:

Enclosed is a check for $3,376.14. If my service tax of $3.38 is subtracted from the total expenses for May of $4,504.90 as submitted in the May report, the enclosed check is 75% of the cost.

Sincerely yours,

Edward L. Tullis

ELT:ek
cc: Wm. Hasler

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225

Office of Minerals Exploration

July 14, 1967

ORIGINAL COPY
O. M. E.
RECEIVED
JUL 17 1967
INITIALS | CODE
gla | 120
120

Memorandum

To: Chief, OME

From: Field Officer, Region III

Subject: OME-6558 (Silver)
The Double Rainbow Mines, Inc.
Lawrence County, South Dakota
Contract 2233

Enclosed herewith is the booklet received from Dr. Edward L. Tullis concerning the Sales and Use Tax Rules for the State of South Dakota, also enclosed is a copy of his letter referring to Rule 14 on page 8.

J. William Hasler
J. William Hasler
Field Officer, Region III
Office of Minerals Exploration

Enclosures

BULLETIN NO. 66 JAN. 1, 1966

South Dakota

Sales and Use Tax

RULES

Issued By
DEPARTMENT OF REVENUE
Pierre, South Dakota

Mitchell Pub. Co., Mitchell, S. D.

BULLETIN NO. 66 JAN. 1, 1966

South Dakota

Sales and Use Tax

RULES

Issued By
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SALES TAX RULES

RULE 1. SALES TAX RATE.

The South Dakota sales tax rate is 3% except that the sales of farm machinery are taxable at 2%. It is unlawful for a retailer to advertise or hold out to the consumer that the tax will be assumed or absorbed by him and is not considered as an element in the price to the consumer. The schedule, as provided by law whereby the retailer may add the 3% sales tax is as follows:

$ .01 to $ .14	None	$1.75 to $2.14	$ .06
.15 to .44	$ .01	2.15 to 2.44	.07
.45 to .74	.02	2.45 to 2.74	.08
.75 to 1.14	.03	2.75 to 3.14	.09
1.15 to 1.44	.04	3.15 to 3.44	.10
1.45 to 1.74	.05	Etc. for each additional dollar	

The South Dakota sales tax must be computed and paid to the State on the taxable receipts even though such receipts include single sales under 15¢ on which no tax can be charged to the consumer.

RULE 2. LICENSES.

Every person desiring to engage as a retailer in this state must obtain a retail sales tax license from the Department of Revenue. Application blanks for this purpose are furnished free of charge to all persons who desire to operate as a retailer. After the application blank is received properly filled out and with the remittance fee of 50¢, the license is issued. This license contains the retailer's identification number. The first number on the blank is the county number and the next number is the retailer's individual number. The license also contains the business classification of the retailer.

After the license is issued the retail sales tax blanks are sent to the retailer each quarter on which he is to report and remit his sales tax to the Department of Revenue. All remittances must be made payable to the State Treasurer and report and remittance mailed to the Department of Revenue on or before the 15th day of the month following the end of the quarter in which the tax liability incurred.

A retail sales tax license is not transferable and is valid only for the person in whose name it is issued and for the transaction of business at the place designated therein. It is the duty of the retailer to conspicuously display this license as this is his authority for the collection of the sales tax from his customers. The license need never be renewed and is valid and effective without further payment therefor until otherwise revoked or cancelled by the Department of Revenue.

Agents, salesmen, solicitors, canvassers, or representatives representing out-of-state dealers registered under either the retail sales tax or use tax laws must, if traveling from place to place, carry a license card as proof they are representing such out-of-state dealer. Extra cards will be furnished for such representatives upon a request to the Department of Revenue.

Retailers must have a sales tax license for each place of business within the state. Whether they are in the same county or same town is immaterial.

Any person engaged in the business of selling tangible personal property at retail or rendering taxable service within the State of South Dakota who fails to secure and hold a retail sales tax license is guilty of a misdemeanor and in case of failure to make the sales tax returns and reports on or before the time required by law or in case the retailer wilfully violates any of the provisions of the sales tax law or any of the rules and regulations as herein set out, will be grounds for cancellation of the retail sales tax license as provided in the law.

RULE 3. TAXABLE SALES AND RECEIPTS

The sales tax law imposes a tax on the receipts of the following sales, services or businesses.

Sales of tangible personal property, gas, electricity, water and communication including gas, electricity and communication services by a municipality. Receipts from and admissions to places of amusement and athletic events, pin ball machines and other mechanical devices for amusement, mechanical phonograph, shooting galleries, bowling alleys, pool and billiard tables.

Receipts of lodging establishments from transient guests.

Fees and retainers from professional, technical or scientific services except doctors and veterinarians.

The business or services of abstractors, accountants, architects, barbers, beauty shops, blacksmith shops, car washing, dry cleaning, dyeing, exterminators, garage and service stations, garment alteration, cleaning and pressing, janitorial services, laundry and laundromats, linen and towel supply, photography, photo developing and enlarging, tire recapping, welding and all repair services.

RULE 4. EXEMPT SALES.

Sales to the United States, State of South Dakota and Sub-divisions such as cities, towns, counties, townships and school districts.

Admission to state, county, district and local fairs and community operated celebrations or shows sponsored by Chambers of Commerce or similar associations.

Receipts from educational, religious, benevolent, fraternal or charitable activities where the entire amount of such receipts are expended for educational, religious, benevolent, fraternal or charitable purposes and which receipts are not the result of a continuous engaging in a business or occupation otherwise taxable.

Gasoline, motor fuel and use fuel subject to motor fuel tax. Alcoholic beverages, butter substitute and cigarettes already taxed.

Sales and charges to religious educational institutions and non profit charitable hospitals provided payment is made from funds of the institution and purchases are not made for the personal use of officials, members or employees. (churches not exempt)

Sales of used farm machinery taken in trade on the sale of new farm machinery subject to sales tax.

Receipts from exchange of processed agriculture products for unprocessed agriculture products of a like kind.

Sales of motor fuel, including kerosene, tractor fuel, distillate and liquified gas when used for agricultural purposes. (Fuel for heating farm homes not exempt)

Feed, seed in lots of 25 lbs. or more and fertilizer in quantities of 500 lbs. or more for agricultural use.

Sales for resale which includes merchandise sold to a retailer for resale and materials or products which by manufacturing or processing are a product or become a part of a product ultimately sold at retail.

RULE 5. RETURN AND PAYMENT.

All sales and use tax returns are due quarterly unless the taxpayer is given permission or is required to file on a different basis. Tax returns are mailed to licensees during the last week of each quarter and become delinquent if they are not filed and the tax paid on or before the 15th of the month following the quarter.

The return is in duplicate and the original, which is the one on which the licensees name is printed, must be mailed to the Department of Revenue, Pierre, South Dakota. If a blank form is used or correspondance is conducted the sales tax license number should appear on the return or correspondence.

The tax return is a combination sales and use tax report. Sales must be reported under gross receipts and withdrawals from stock or purchases for own use or contract use must be reported at cost as a use tax item. Deductible receipts are listed on the tax return and if other deductions are claimed they may be listed provided an explanation is attached.

RULE 6. ABSTRACTORS

The gross receipts from charges for abstracts are subject to sales tax. Supplies and equipment purchased for preparing abstracts may not be purchased exempt from sales tax because an abstractor does not purchase such items for resale but consumes them in rendering his service.

Other receipts of an abstractor such as insurance commissions or appraisors fees, are not subject to sales tax unless the receipts are taxable under another provision of the Sales Tax Law.

RULE 7. ACCOUNTANTS AND BOOKKEEPERS

The gross receipts of persons engaged in the business of bookkeeping or accounting are subject to sales tax. The taxable receipts are those received from services that are usually related or attributed to accounting or bookkeeping work and does not include receipts from salaries or other non-taxable activities. Where an individual keeps records for one or two individuals he is considered an employee of such persons and is not in the bookkeeping or accounting business.

Where work is done outside the state for a non-resident client the receipts from such client are not taxable because they constitute business outside the state. If no work is done outside the state for a non-resident client then the receipts from such client are subject to sales tax as business done within the state. If a non-resident accountant or bookkeeper comes into the state and does work for a client he is doing business in the State of South Dakota and the receipts from such client are subject to sales tax.

The taxable receipts are only those received for the accounting or bookkeeping service and do not include reimbursable costs such as mileage when billed as a separate charge to a client.

RULE 8. ADVERTISING, NEWSPAPERS, MAGAZINES.

Charges for advertising in newspapers or magazines are not taxable. Likewise, charges made by advertising agencies for preparing and placing advertising in advertising media are charges for service and therefore not taxable.

However, the tax applies to gross receipts from sales of tangible personal property to advertisers, advertising agencies or newspapers for use and consumption in preparing advertisements. For example, the tax applies to the following; Paper, ink, paint, tools, office supplies, type, etc., art work purchased from independent artists, compositor's charges for setting copy in type and art work plate in form, engraver's charges for making metal plates, electortyper's charges for making electrotypes or matrices, charges by printers for production of pamphlets, booklets, brochures, and other materials printed by them.

Gross receipts from the sale of newspapers may be considered a sale of service, and such receipts exempt from sales or use tax. Publishers of newspapers which can qualify as legal newspapers, who supplement their issues with Sunday editions, pictorials and tabloids, and include the sale of such supplements in the subscription rate or retail sales price of such newspaper, may treat the total sales of same as exempt from retail sales tax. This exemption will not apply where such supplements are not included in the sales price or subscription rate, and are sold separately.

The State of South Dakota, the counties and other political subdivisions of the State are required in many instances to publish official notices in legal newspapers. Section 65.0508 SDC, 1939, defines a legal newspaper in which official notices are to be published, and designates as an official newspaper, if a daily, a paper published five days or more each week, and having a bona fide circulation of two hundred copies daily; if a weekly newspaper it must have a bona fide circulation of two hundred copies weekly.

The gross receipts from the sale of all publications and magazines not falling in the class of newspapers shall be subject to the retail occupational sales tax.

RULE 9. AGRICULTURAL PRODUCTS.

Sales of farm products to merchants, elevators, creameries or packing houses by a farmer are sales of tangible personal property for resale and are not subject to sales tax. In all cases where a farmer holds himself out to the public as a place where consumers can buy cream, milk, butter, eggs, vegetables or other farm products and makes regular sales, such farmer is in a retail business and must have a sales tax license and report sales tax on such sales. A farmer making occasional sales of cream, eggs or other farm products to consumers is not required to have a sales tax license and report sales tax on his sales.

RULE 10. UNPROCESSED AGRICULTURAL PRODUCTS TRADED FOR PROCESSED AGRICULTURAL PRODUCTS.

The gross receipts from the exchange of processed agricultural products for agricultural products, of a kind required for such processing when such exchange is between the producer and processor and provided such articles are for consumption by the producer's family, household or employees are exempt.

This exemption applies only to wheat raised by a farmer, exchanged for flour directly to the miller who milled the flour or such other grain as a farmer may raise exchanged with a mill for processed grain of a like kind and provided the grain was raised by the farmer himself and the processed grain will be consumed by the farmer, his family and employees only. Thus, wheat may be traded for flour at a mill, corn for corn meal, oats for oatmeal, grain for ground feed, provided the ground feed is made up of a like kind of grain.

The exemption also applies to butterfat traded to a creamery for butter, hogs traded direct to a packing house for bacon, hams or pork meat; and cattle traded to a packing house for dressed beef. The trade must be between the producer and the person who actually processes the unprocessed product into the finished product. Thus butterfat traded for flour is not exempt. Hogs traded for butter or flour are not exempt.

This exemption in no manner exempts eggs traded for groceries. The retailer must collect and remit the tax in such case on the full purchase price of the groceries or other merchandise. The eggs must be accounted for the same as cash receipts by the retailer.

RULE 11. AMUSEMENTS AND ATHLETIC CONTESTS.

The act provides that the sales tax shall apply to sales of tickets or admissions to places of amusement or athletic contests. Places of amusement include dance halls, concerts, moving picture houses, theatrical performances, circuses, carnivals, side shows, exhibitions of curiosities or freaks, race tracks, roller skating rinks, ice skating rinks, shooting galleries and all other places or establishments where a ticket or admission fee is required for admission to the enclosure or a part thereof.

Athletic contests, exhibitions and events including boxing, wrestling, football, baseball, basketball, golf matches, all types of races and all other games or sports for which an admission fee is charged are taxable.

Admissions to state, county, district and municipal Fairs are exempt from tax. Admission charges to occasional amusements or athletic contests conducted by educational, religious, benevolent, fraternal or charitable organizations are exempt, provided the entire proceeds are expended for educational, religious, benevolent, fraternal or charitable purposes.

It will be noted that three requirements are necessary to qualify for exemption.

1st. The organiaztion must qualify as one of those named as entitled to exemption.

2nd. The event must be of an occasional nature.

3rd. The entire proceeds must be expended for educational, religious, benevolent, fraternal or charitable purposes.

For example a church organization may conduct a bazaar, bake food sale or entertainment where everything has been donated by the members. This would be tax exempt. On the other hand they may serve a series of meals, using some of the proceeds for purchase of groceries or payment of rent and help. This would become taxable.

RULE 12. MECHANICAL AMUSEMENT DEVICES.

The gross receipts derived from the operation of all forms of amusement devices and commercial amusement enterprises, such as Music Boxes, Weighing Machines, Pin Ball Machines, and other coin operated devices used for commercial purposes are subject to the retail sales tax. Receipts from the sale of merchandise through vending machines are also subject to the tax.

Frequently persons who own vending machines, vending merchandise by coin operation or otherwise, as well as persons who own coin-operated amusement machines and devices, place them on locations throughout the State in places of business belonging to and operated by others, giving to the owner of the place of business a share of the receipts the device takes in for the privilege of operating the machine at that location. These persons are called operators.

The operators of machines and devices which are out on location as before described are retailers for the purpose of the Retail Sales Tax law and are required to hold a Retail Sales Tax Permit and report the entire gross receipts received from the operation of such machines and devices and remit the sales tax thereon. The operator, who has machines out on locations belonging to others, shall hold a regular Retail Sales Tax Permit for his principal place of business, whether the same is located in the State of South Dakota or outside the State of South Dakota, and shall file a quarterly return which will include all gross receipts from all such machines or devices operated by him in South Dakota during the quarterly period covered by the return.

RULE 13. ARCHITECTS.

The gross receipts from services of an architect are subject to sales tax unless performed for an exempt entity. If a South Dakota architect does work outside the state relative to construction outside the state the receipts from the project are not subject to sales tax because the activity is out of state business. If a non-resident architect does work relating to a project within the state such non-resident architect is doing business in the State of South Dakota and the receipts from such project are subject to sales tax.

The taxable receipts are only those received for architect fees and do not include reimbursable costs, such as mileage, when billed as a separate charge to a client.

RULE 14. ATTORNEYS, PHYSICISTS, METEOROLOGISTS, GEOLOGISTS, CHEMISTS, ENGINEERS AND SURVEYORS.

The above enumerated are considered rendering a professional, scientific or technical service subject to sales tax. Fees and retainers from such services are subject to sales tax unless the service is performed for a tax exempt entity. Salaries and reimbursable costs, such as mileage and filing fees, itemized to a client, are not taxable. Receipts from an unrelated non-taxable activity should not be included in the taxable receipts. For example an attorney may have receipts from building rentals which would not be taxable.

If services are performed outside the state for a non-resident client the receipts from the client are not taxable because they are out of state business. If services are performed within the state for a non-resident or resident client such services are taxable.

If services are performed within the state by a non-resident for both a resident or non-resident client such receipts are taxable.

RULE 15. AUCTIONEERS AND AGENTS.

Every auctioneer or agent acting for an unknown or undisclosed principal, or entrusted with possession of any bill of lading, custom house permit or warehouseman's receipt for delivery of any tangible personal property, or entrusted with the possession of any such personal property for the purpose of sale, shall be deemed to be the owner thereof, and upon the sale of such property shall be required to file a return of the receipts of sale and pay a tax with respect thereto. A sale by such auctioneer or agent when acting for a known or disclosed principal shall be taxable to the principal, provided the principal is engaged in the business of selling such tangible personal property at retail. The same rule applies to lienors such as storage men and pawn brokers.

For purposes of this rule, a principal shall be deemed to be disclosed to a purchaser for use or consumption only when the name and address of such principal is made known to such purchaser at or before the time of sale, and appears upon the books and records of the auctioneer or agent.

The above rule does not apply to owners and operators of second-hand stores where the owner of such store receives second-hand merchandise for sale on behalf of some person. The second-hand store operator must in this case collect sales tax on all merchandise that he sells.

RULE 16. BAD DEBT DEDUCTION.

On the 4th quarterly return of each year a deduction may be taken for bad debts actually charged off during the year for income tax purposes provided, such bad debt was a charge on which sales tax was paid to the State. The portion of the bad debt on which sales tax was paid may be taken as a deduction or receive tax credit and if later recovered the sale tax must be reported on such receipts.

RULE 17. BARBER AND BEAUTY SHOPS.

The gross receipts of Barber and Beauty shops are subject to the South Dakota sales tax. The taxable gross receipts will include items of merchandise sold to customers and the service performed for a customer. Generally the tax will be on the entire gross receipts of a barber and beauty shop.

Each shop should have one license and each beautician or barber in a shop should not apply for a sales tax license. At the end of each quarter a sales tax return will be mailed and only one sales tax return should be filed for each shop.

Barber and beauty shops are the consumers of supplies and equipment which are consumed or used by them in rendering their services. If the sales tax on such items is not paid to a South Dakota licensed supplier when purchased, then

the cost of such items must be reported as a use tax item on the quarterly sales tax return. Such items include clippers, shampoos, rinses and other items consumed on the premises by the barber or beauty shop. Items sold to customers for his use off the premises may be purchased from suppliers exempt from sales tax because they are purchases for resale.

RULE 18. BLACKSMITHS AND WELDERS.

Blacksmiths and welders sell tangible personal property and also render services. They are liable for tax on their receipts from the sale of tangible personal property and their services.

Where a blacksmith makes or fabricates and sells a new article to a customer he is liable for tax measured by his total gross receipts from the sale of this article, with no deduction for cost of production from the selling price.

Persons selling tangible personal property to blacksmiths and welders such as iron, steel and metal for soldering for use either in manufacture of tangible personal property or in connection with repair work, are making sales for the purpose of resale on which no tax liability attaches. However, persons selling oxygen, acetylene, blacksmith's coal or electrical energy, must charge and collect the tax thereon from the blacksmith. Unless the merchandise sold becomes an integral part in the manufacture or repair of personal property, the seller to the blacksmith must charge the sales tax. If South Dakota sales tax has not been paid to a licensed vendor on supplies which do not become an integral part of the manufactured or repaired property the cost of such must be entered as a use tax item on the sales tax return.

RULE 19. BOOTBLACKS.

Persons engaged in the business of shoe shining or polishing perform a service and the gross receipts from such service are not taxable. Gross receipts from sales of shoe polish and other materials sold to bootblacks to be used in the performance of this service are taxable. Sales of shoe laces, shoe polish, and other such items by bootblacks are retail sales and the gross receipts there-from are taxable.

RULE 20. BOWLING ALLEYS, POOL AND BILLARD TABLES.

The sales tax law imposes a tax on the gross receipts derived from bowling alleys, pool and billiard tables. Receipts from sales of other tangible personal property must be reported on the quarterly returns of the operator. Use tax must be paid to the State on supplies and equipment if South Dakota sales tax has not been paid to a licensed vendor.

RULE 21. CARNIVALS, CIRCUSES, SHOW TROUPES AND SIMILAR ORGANIZATIONS.

All concessionaires operating under the auspices of carnivals, circuses, show troupes and similar organizations shall, for the purpose of reporting and payment of sales and use tax, be considered as agents of the operator, and shall at the close of each place of operation, report their gross receipts and the tax thereon to the operator. The operator shall maintain a record of the gross receipts and tax of each concessionair, which record shall be available to taxation agents, and shall remit the tax to the Department of Revenue or its agents at the same time and place as his own payments are made.

RULE 22. CARPENTERS.

Carpenters are primarily engaged in building new structures, remodeling or renovating existing structures and building additions. The charges for such services are not subject to sales tax. The materials purchased for such purpose are taxable. Re-shingling, re-roofing or re-siding structures are realty improvements and are not considered repair services, only the materials purchased are taxable.

Fixing a hole in a roof, replacing a broken siding or glass and making other minor restorations are repair services. If a carpenter occasionally performs such services with his regular carpenter work he is not required to have a sales tax license and report tax on his services. If he regularly performs such repair services then he must apply for a sales tax license and report tax on his repair services.

RULE 23. CAR WASHING.

The gross receipts from the business of car washing or providing car washing service are subject to sales tax. If a business does the car washing such business is the consumer of the supplies and must pay sales or use tax on the cost of the supplies in addition to reporting sales tax on the gross receipts from washing cars. If only a car washing service is provided and the customer washes his own car the receipts for the use of the facility are subject to sales tax in addition to the receipts from supplies dispensed to a customer in a vending machine. Supplies which are sold to a customer through a vending machine may be purchased exempt from sales tax by the car wash as a resale item.

RULE 24. CLEANERS, DYERS, AND LAUNDRIES.

The gross receipts from cleaning and pressing, dry cleaning, dyeing and laundry services are subject to sales tax. The gross receipts from such services are subject to sales tax whether coin operated or otherwise. No deduction may be taken for items expended by an operator in providing the service.

Cleaning and pressing establishments must pay South Dakota sales tax to suppliers or use tax to the state on their solvents, cleaning fluids, equipment and other supplies which are consumed by them in rendering their service. Bags and hangers which ultimately pass to a customer as part of the taxable charge may be purchased exempt from tax when purchased by the cleaning establishment.

Laundries whether coin operated or otherwise are the consumers of electricity and other tangible supplies or equipment which they purchase for providing their service and must pay South Dakota sales tax to their suppliers on such items or use tax to the state. Soap which is dispensed to a customer and a charge made to the customer may be purchased exempt from tax as an item for resale, however the gross receipts from items of tangible property dispensed by a laundry are subject to sales tax.

RULE 25. CIGARETTES, CIGARS AND TOBACCO

The sale of cigarettes carries a special state tax, and therefore, the proceeds are exempt from retail sales tax.

The gross receipts from the sale of cigars and all other kinds of tobarco are subject to retail sales tax. The proceeds from the sale of all tobacco products shall be listed in the gross receipts on the tax report form, and the gross receipts from the sale of cigarettes shall be listed as a deduction in the item designated for that purpose.

RULE 26. COMMUNICATION SERVICE

The term "communication service" is construed to refer to the transmission of a voice or message from one person to another. It includes charges for telephone service both toll and local, telegraph messages, and messenger service. The provisions for the collection of the tax, are applicable to charges for communication service.

Charges for connection, re-connection, moving or installation of telephones are deemed to be preparatory to the furnishing of communication service and are not taxable. Charges for directory advertising bold face listing, and for listing in the directory classified section are not within the act.

Each company is responsible for the payment of the tax upon billings to their subscribers or customers. Where a telephone company operating an exchange performs switching service for a rural line, the company operating the exchange shall pay the tax on all toll calls charged against such switched stations. The association or company operating the rural lines shall pay the tax on all switching charges as well as any other charges made against its subscribers for furnishing exchange service. The tax is applicable to both billings which are made on a fixed rate or assessment basis. No tax need be collected from the consumer on calls made from the unattended coin box stations, but the tax must be paid on gross receipts from such stations. The general rules regarding exemption of sales to governmental agencies are applicable to sales of communication service.

Radio stations are deemed to be primarily engaged in selling advertising services and gross receipts from such sales are not within the act. However, charges for transmission of radio messages from person to person are subject to tax.

RULE 27. CONSIGNMENT SALES.

Where retailers receive articles of tangible personal property on consignment from others and the consigned merchandise is sold in the ordinary course of business along with other merchandise owned by the retailer, such retailers or consignees are held to be making sales at retail. In such cases, the returns shall be filed and the tax remitted to the state by the consignees, along with their remittances and returns of gross receipts from the sale of other merchandise.

Where a person operates a place of business for the purpose of selling property for others, such person is deemed to be a retailer and shall procure a retail sales tax permit for each place so operated and shall be liable for the retail sales tax, the same as if the property sold had belonged to him.

RULE 28. CONTAINERS—INCLUDING PACKING CASES, SHIPPING CASES, WRAPPING MATERIAL, ETC.

Receipts from the sale of containers, labels, cartons, packing cases, wrapping paper, wrapping twine, bags, bottles, shipping cases, and similar articles and receptacles sold to manufacturers, producers, wholesalers, retailers, or jobbers, which are used by the groups last mentioned as containers which hold or encompass the tangible personal property which they are engaged in selling, either for resale or at retail, provided the charge made for the property sold included the container and the title to the container passes to the purchaser with the merchandise sold, are not subject to the sales tax.

The receipts from the sale of containers as hereinbefore described are subject to the retail sales tax when such containers are sold to persons who use such containers in connection with the sale of tangible personal property where such person retains the title to the container. In many such cases the seller at retail of tangible personal property purchasing containers makes a deposit charge to insure the return of the container.

Sales of containers, cartons, packing cases, wrapping paper, bags, and similar articles and receptacles sold to other than manufacturers, producers, wholesalers, and jobbers, may be divided into two groups, as follows:

(a) Those which ordinarly are delivered with the merchandise sold to the final buyer or ultimate consumer where no separate charge is made therefor. This class includes such items as boxes, cartons, paper bags, wrapping paper and wrapping twine, in which purchases are delivered to customers. The sale of such containers is not taxable except in the case of such containers and supplies sold to one whose gross receipts are not taxable by reason of being a service which is not subject to sales tax.

(b) Containers which are used for the purpose of delivering tangible personal property sold to customers, which are to be, or may be, returned to the seller of the tangible personal property. This class included such containers as milk bottles,

carboys, drums, and many others, the title to which remains in the seller and which are ordinarily used by him in making other deliveries. He consumes or uses them in his business and the sale to him of such containers is taxable. Such tax liability is not avoided if a deposit is made by, or required of the customer, to secure the redelivery of the container.

RULE 29. CONTRACTORS.

Contractors generally have one of four types of contracts as follows: Those in which he agrees to furnish materials and labor or services for a lump sum; those in which he agrees to furnish materials and labor or services on a cost plus basis; those in which he agrees to furnish the materials and labor or services on a time and material basis with an upset which may not be exceeded; those in which he agrees to sell the materials at an agreed price and render labor or services for an agreed price on the basis of time consumed.

All contractors or subcontractors, regardless of the kind of contract, engaged in construction work, erecting buildings, building highways or realty improvements are the consumers of materials and suplies purchased by them for use in their contract work. Suppliers who are licensed under the South Dakota Sales and Use Tax Law must pay sales or use tax to the state on sales of materials and supplies to contractors. If the South Dakota sales or use tax is not paid to a supplier the use tax on the cost of such materials and supplies must be paid to the South Dakota Department of Revenue. The contracts referred to herein are those which do not constitute a sale of tangible personal property. Since they are not sales of tangible personal property the contractor cannot purchase for resale supplies and materials and must pay sales or use tax on his purchases. If the contract is a mixed contract in which some tangible personal property is furnished the contractor is considered the consumer of all property.

A contractor, by separate contract, furnishing equipment which is not essential to the realty improvement or structure and is not permanently attached to the realty is considered as making sales of tangible personal property. The sales of such equipment are subject to sales or use tax unless sold to a tax exempt entity. Examples of such items are: furniture, portable machines, kitchen and laundry appliances which are not permanently built in, manufacturing equipment, counters, showcases and other moveable equipment.

Contractors who have contracts with the United States, the State of South Dakota and governmental subdivisions have the same sales or use tax liability on their purchases of supplies and materials as contractors have with private concerns. They are not entitled to any refund of any South Dakota sales or use tax which they may have paid. Where the contractor does not buy in his own right but is the purchasing agent for the government with title passing directly from the seller to the government, such sales or purchases are not subject to sales or use tax.

If equipment is purchased or brought into the state for use during construction such equipment is subject to the South Dakota sales or use tax. If new equipment is purchased for construction use the South Dakota sales tax must be paid to a licensed vendor or the use tax paid to the Department of Revenue on the cost. If used equipment is brought into the state a use tax must be paid on the fair market value when brought into the state unless the South Dakota sales or use tax has been previously paid.

RULE 30. CREDIT TRANSACTIONS.

"Gross Receipts" are defined so as to include amount received in money, credits, property or other moneys worth in consideration of sales at retail within this State. Accordingly when tangible personal property is sold on credit the transaction must be treated identically the same as a cash transaction and the whole amount of the sale price is taxable and the sales tax must be paid thereon on or before the 15th day of the month following quarter in which the transaction or sale took place. If

an account is charged off as a bad debt for income tax purposes during a year the taxable portion of such uncollected account may be deducted for sales tax purposes in the last quarterly return for the year.

Lease contracts of sale shall be considered the same as conditional sales contracts. Where sales are made under conditional sales contract, lease contracts of sale or under other forms of sale wherein the payment of the principal sum thereunder is extended over a period longer than sixty days from the date of sales thereof, only such portion of the sale amount thereof shall be accounted for, for the purpose of imposition of tax imposed by the Act as has actually been received in cash by the retailer during each quarterly period. The whole amount of the contract price is taxable unless the retailer keeps adequate and complete records to show the sale price of the tangible personal property, the insurance, interest, finance, carrying and other charges made in the contract. If such records are kept by the retailer, the insurance, interest, finance and carrying charges may be deducted from the contract price. The whole amount of the contract price being taxable, no portion of the sales tax due thereon may be abated in case the conditional sale or lease contract or other evidence of indebtedness is transferred at a discount.

In cases where conditional sales contracts are assigned or negotiated by the retailer to a finance company a sales tax must be paid thereon on or before the 15th day of the month following such quarter by the retailer on the full amount of the purchase price under the contract. In the event that repossession becomes necessary by the finance company, the retailer may deduct as a bad debt on the return filed in January that portion of the tax previously paid thereon provided that in the liquidation of the repossessed merchandise he has actually suffered a loss and his gross receipts prove to be less than at first anticipated under the original contract price.

If the merchandise repossessed is later sold by the retailer to a consumer, the tax applies to the second sale identically the same as it did to the first sale. The reason for this is that the tax is levied upon the retailer's gross receipts and not upon the property that is being sold.

RULE 31. DECORATORS, PAINTERS, AND PAPERHANGERS.

This class is primarily engaged in rendering services and their charges to property owners are not taxable. Sales to them of paint, wall paper, and other materials or supplies and equipment are taxable sales.

RULE 32. DEFECTIVE MERCHANDISE.

If merchandise is sold to a customer who finds a defect in the goods and secures an allowance on the purchase price, the seller may deduct from gross receipts the amount allowed for defects.

RULE 33. DEMONSTRATORS.

Items temporarily withdrawn from stock for demonstration purposes are not subject to tax at the time of withdrawal from stock. When such items are sold for resale the tax applies on the retail sale.

Property withdrawn for purposes other than demonstration, such as for personal use, leasing or other commercial use, is subject to use tax when withdrawn and if later sold at retail, subject to sales tax on the sale price without any deduction for use tax paid.

RULE 34. DENTISTS, DENTAL LABORATORIES, AND DENTAL SUPPLY HOUSES.

Dentists render a service to their patients and the gross receipts derived from this source are not subject to sales tax. If a dentist regularly sells tangible personal property such as mouth-washes, tooth brushes and the like he must have a

sales tax license and report tax on his sales of such tangible personal property. Dentists who maintain laboratories and fabricate dentures or items for their patients are considered the consumers of the materials used in fabrication.

Dental laboratories are retailors of tangible personal property and render a repair or technical service to dentists. Dental laboratories must have a sales tax license and report tax on their receipts from dentists for services, dentures and the like. Dental laboratories that sell equipment, instruments, furniture or dental supplies to a dentist must report tax on such sales.

Dental supply houses must have a sales tax license and report sales tax on sales of dental supplies to dentists. Dental laboratories do not pay tax to suppliers on materials which become a part of a fabricated item furnished to a dentist. If a dentist has a sales tax license and buys items for resale, such as toothbrushes, he may purchase them exempt from sales tax.

RULE 35. DRUGS.

Drugs, patent medicines, and similar prepartions are tangible personal property and sales thereof to consumers are subject to tax. Sales of drugs to doctors are retail sales unless resold to patients independent of the charges for professional services by a doctor who has a sales tax license for the purpose of reporting sales tax on such sales.

RULE 36. ELECTRIC ENERGY AND NATURAL OR ARTIFICIAL GAS.

The sale of electric energy and natural or artificial gas is taxable by specific provisions of the act when sold to consumers or users. Sales to other distributing companies or municipalities who are resellers are not within the act. Sales by municipalities are taxable. Sales of materials, supplies, and equipment to utility companies are subject to tax. The general rules providing for licensing, measure of the tax, adding the tax, and the manner of reporting and paying the same are applicable to municipalities and private companies selling the class of property or service embraced in this rule. Charges for connection or reconnection of the service are not within the act.

RULE 37. ELECTRICIANS.

Electricians having a retail store should have a retail sales tax license and collect the sales tax on all electrical appliances, fixtures and accessories that are sold to the consumer or user at retail. Electricians who maintain a retail store and are also engaged in contracting their services of installation and sale of electrical equipment may make purchases of such electrical equipment from wholesale houses, jobbers or manufacturers and sign a resale certificate therefor and on all items used in the performance of a contract must pay the use tax as a withdrawal from stock. The use tax on materials used in contract work must be paid on the cost of such materials.

Charges for repair services are subject to sales tax. Rewiring an old building, replacing fixtures and moving or adding electrical outlets are not considered repair services subject to sales tax. Charges for installing electrical equipment are not taxable when segregated from the charge for the equipment. Fixing damaged circuits, appliances and electrical equipment are repair services and such services are subject to sales tax.

RULE 38. EXEMPTION CERTIFICATES.

Retailers purchasing for resale must furnish the supplier with an exemption certificate. Processors and manufacturers must furnish their suppliers of tax exempt items with an exemption certificate. Religious educational institutions and nonprofit charitable hospitals must also furnish exemption certificates when making purchases.

The vendor in order to protect himself must require such exemption certificates since the burden is on him to prove that a sale is exempt from sales tax. Where sales of the same nature are continuous a blanket exemption certificate may be accepted for a stated period of time, however, such period of time may not be for more than one year.

Recommended forms are found in the back of this book. The forms are not supplied by the Department of Revenue. Those who are required to furnish exemption certificates must prepare their own forms.

RULE 39. EXTERMINATORS.

The gross receipts of an exterminator are subject to sales tax unless performed for an exempt entity. Persons that fall within this taxable classification are those engaged in the business of exterminating insects, rodents and other pests.

Exterminators are the consumers of the disinfectants, chemicals and supplies used in their service. As a consumer the exterminator must pay the South Dakota Sales Tax to a licensed venor on purchases of supplies. If supplies are purchased without having paid the South Dakota Sales Tax the use tax on the cost of such supplies must be paid to the State.

RULE 40. FARM MACHINERY.

Sales of new farm machinery and taxable used farm machinery are subject to a 2% sales tax instead of 3%. A farm machine is a mechanical unit used for agricultural purposes and includes those items commonly and usually referred to as farm machinery. Machinery which has the special tax rate is machinery for dairy farms, preparation, seeding or cultivation of soil for growing agricultural crops, harvesting, threshing and marketing agricultural products, exclusive of motor vehicles.

If the machinery is sold for other than agricultural use it is subject to the 3% rate. Tires and parts of machines which are not complete units are taxable at the 3% rate because they are not a machine. Grain bins, feed bunks and other farm supplies and equipment which are not a mechanical device and which are not commonly thought of as farm machinery in the ordinary use of the term farm machinery are taxable at 3%.

RULE 41. USED FARM MACHINERY

Used farm machinery sold by a licensed retailer shall be exempt from the retail sales tax if such machinery originally came into the possession of the seller as part of the purchase price of a new farm machine subject to sales tax.

For illustration, a farmer purchases a new tractor from an implement dealer for $1,000.00. The farmer pays $700.00 in cash and a used tractor for the balance. The dealer must report tax on $1,000.00. When the used tractor is resold no tax is collected on the sale. The sale of the used tractor taken in trade is exempt but the full purchase price of the new tractor is taxable.

Second-hand or used farm machinery must have been taken in trade on a new farm machine to be exempt when resold. Thus, if a dealer buys second-hand machinery outright and resells it the tax must be collected by the implement dealer. The implement dealer must keep a full set of books, invoices, bills of lading and records separating the sale of used farm machinery from the sale of new machinery. On each used machine sold the implement dealer must be able to show from whom and for how much trade-in allowance each used machine was obtained and that the full amount of tax was collected on the new machine sold at the time the used machine was taken in trade. If such records are not maintained no deduction for the sale of used machinery will be allowed by the Department of Revenue.

In all cases where an implement dealer sells a used tractor or farm machine which is exempt from sales tax due to a prior transaction and receives as part of the purchase price another used farm machine, the sale of the second used farm

machine is subject to sales tax because it was not traded in on a taxed new machine. Repossessed farm machinery is subject to sales tax when resold because it was not traded in on a taxed new machine.

Farm machinery includes the following: Milking machinery on dairy farms, machinery used for the preparation, seeding or cultivation of the soil for growing agricultural crops usually grown in South Dakota, the machinery used for harvesting, threshing and marketing of agricultural products, exclusive of motor vehicles used for such purpose that are required to be otherwise licensed for the use of the highways.

RULE 42. FEDERAL MANUFACTURERS EXCISE TAXES.

Federal Manufacturer's excise taxes paid by the retailer, to the manufacturer are not deductible from gross sales. Such tax is part of the purchase price of the merchandise sold by the retailer to the consumer and the retail sales tax must be computed upon such full selling price and be included in Item No. 1 in the sales tax report blank. It is immaterial whether the federal excise tax is invoiced or added as a separate item. when the merchandise is sold by the retailer for use and consumption, the sales tax must be collected on the total sales price which includes the federal excise tax.

In all cases where the manufacturer is also the retailer of the merchandise that is subject to the federal manufacturer's excise tax, the retail sales tax is not to be computed upon the amount of the federal excise tax so collected because the incidence of the Federal tax occurs simultaneous with the sales tax.

RULE 43. FEEDS.

Gross receipts from the sale of feed to persons engaged in the business of selling dairy, poultry and livestock products are not taxable. If, however, the purchaser is not engaged in the business of selling dairy, poultry and livestock products, the gross receipts from the sales of the feed to him are taxable.

Feed supplements, cod-liver oil, salt, bone meal, calcium carbonate, double purpose lime stone granulars and oyster shells, used by poultry and livestock producers are regarded as feed, and, consequently, the tax will not apply to receipts from the sale of such commodities to persons engaged in the business of selling poultry and livestock products.

The tax will apply, however, to the gross receipts from the sale of sand, charcoal and granite grit, because they are not directly assimilated by the animal consuming the same.

The tax will apply to the receipts from the sale of medicine, antibiotics and sulphur given to calves and other livestock, inasmuch as their use in this way is regarded as medicine and not as feed.

RULE 44. FIRE DEPARTMENTS.

Municipal and Volunteer fire departments are governmental functions. Sales to or purchases by a municipal or volunteer fire department are exempt from sales or use tax provided the items purchased are for use by the fire department and title retained by such fire department.

A fire department selling admissions to entertainment or selling tangible personal property must pay sales tax on their receipts the same as any other person or organization engaged in such an activity.

RULE 45. FLORISTS AND NURSERYMEN.

Florists and nurserymen selling flowers, wreaths, plants, shrubs, roots, bulbs, trees, seeds and other tangible personal property at retail are liable for tax on their gross sales, notwithstanding the fact that such merchandise shall have been produced by the seller. Where shrubbery, young trees and similar items are sold, and as part of the transaction the seller transplants them for the purchaser for a lump sum or flat rate, the entire receipts from the transaction are subject to the tax.

In cases where a South Dakota florist receives an order pursuant to which he sends instructions to a second florist for delivery of flowers to a point outside South Dakota, tax will be owing with respect to the total receipts of the sending florist from the customer who placed the order.

In cases where South Dakota Florists receive telegraphic instructions from other florists located either within or outside of South Dakota for the delivery of flowers, the receiving florist will not be held liable for tax with respect to any receipts which he may realize from the transaction. In this instance, if the order originated in South Dakota, the tax will be due from and payable by the South Dakota florist who first received the order and gave telegraphic instructions to the second florist.

RULE 46. FREIGHT, DELIVERY AND OTHER TRANSPORTATION CHARGES.

Charges paid by the retailer for transporting tangible personal property from the source of supply to the retailer's place of business are not exempt from the sales tax, and when such property is sold at retail, becames part of the sales price upon which the sales tax is computed.

Where the tangible personal property is sold f.o.b. destination or delivered price, no charges for transportation shall be deducted from the gross receipts upon which retail tax is computed regardless of the manner in which the transportation or delivery is made and notwithstanding the fact that the purchaser pays the cost of transportation and receives credit therefor.

Where the seller does not supply the tangible personal property sold from stock but orders it shipped from source of supply to the customer or user, any charges for transportation become part of the purchase price upon which the sales tax is computed, when the seller quotes at a delivered price, notwithstanding the fact that transportation charges may be paid by the customer or user and subsequently deducted from the seller's invoice when remitting in payment of the same.

Where tangible personal property is sold f.o.b. the source of supply, charges for transportation or delivery to purchaser do not become a part of the selling price, providing such service is not rendered by the seller, and the charges are paid by the consumer or user, or are paid by the seller and are billed separately from the charge for the property sold. However, when the transportation or delivery service is rendered by the seller or someone hired by him and an additional charge made for such service, even if billed separately from the charge for the property sold, the sales tax must be computed upon the entire cost to the consumer or user.

RULE 47. FRATERNAL, RELIGIOUS, BENEVOLENT ORGANIZATIONS.

Sales by educational, religious, benevolent, fraternal or charitable organizations are exempt from sales tax where the entire amount of the receipts from such sales are expended for educational, religious, benevolent, fraternal or charitable purposes and when such sales do not amount to a continuous engaging in a business or occupation, such organization does not need a retail sales tax license and the receipts from such sales are not taxable. Therefore, sales made by such organizations in the form of occasional entertainments such as dances, theatrical performance, church dinners, bazaars, and similar activities would be classified as isolated or casual and are not taxable, provided the entire gross receipts from such activities will be used and expended for educational, religious, benevolent, fraternal and charitable purposes.

There is nothing in the retail sales tax law that in any manner exempts such organizations from the payment of the retail sales tax or use tax when such organization is the purchaser at retail of merchandise of which it will be the consumer or user thereof. The constitutional exemption on taxation covering this type of organization does not apply to the retail sales tax or use tax but applies only to the ad valorem taxes. Accordingly retailers must charge the retail sales tax or use tax on all sales of merchandise sold to religious, fraternal, benevolent, charitable or private educational institutions.

RULE 48. FUNERAL DIRECTORS, UNDERTAKERS AND MORTICIANS.

Persons in this class are engaged in a taxable business to the extent of their sales of caskets, grave vaults, clothing and similar articles. Charges for conducting funerals, embalming, and like services are not within the act. If the bill rendered to the customer separates the charges for sale of property from the charges for services rendered, the tax is payable only upon the former. If the charge is made in a lump sum covering both property and service, it will be assumed that the taxable sale is seventy-five per cent (75%) of the total bill and the tax is payable on that basis.

RULE 49. FURS AND FURRIERS.

Sales of furs to customers are taxable. Receipts from repairing, altering or cleaning fur garments are subject to sales tax. Charges for storing furs are not taxable.

RULE 50. GARAGE AND SERVICE STATIONS.

Garage and service stations must report sales tax on their gross receipts which are usually attributable to such a business operation except receipts from the sale of motor fuel subject to motor fuel tax and beer or cigarettes if sold by the establishment. Some of the taxable charges are: repair work, car washing, towing, greasing, tire patching, storage and any other services normally and usually performed in a garage or service station. If a garage or service station employes a second garage or service station to perform services for a customer the one making the charge to the customer should report the tax to the state.

Garages and service stations may purchase from suppliers exempt from sales tax such items which in their course of business pass to the customers. Such items are purchased for resale and examples are repair parts, tire patches and grease. Supplies which are consumed by a garage or service station and equipment are subject to sales tax when purchased from a supplier and if the South Dakota sales tax is not paid to a licensed supplier the use tax must be paid on the cost of such items.

RULE 51. GROSS RECEIPTS.

Gross receipts means the amount received in money, credits, property or other money's worth in consideration of sales at retail within the state. No deduction is allowed on account of the cost of property sold, cost of materials used, the cost of labor or services purchased, amounts paid for interest or discounts, or any other expenses incurred by the retailer. Discounts allowed and taken on a retail sale shall not be included as gross receipts.

RULE 52. HOSPITALS: NON-PROFIT, CHARITABLE, PRIVATE.

Non-profit, charitable hospitals are specifically exempt from paying sales on their purchases for use by the institution. The law does not exempt purchases for the personal use of officials, members or employees of the institution. Hospitals render both a service that is not taxable and make charges for tangible personal property which are taxable. If the charges are billed to the United States, State or Political subdivision or paid directly to the hospital by the United States, State or Political subdivision none of such receipts are taxable.

Hospitals must have a sales tax license and file special returns. When the supply of special tax forms is exhausted an additional supply must be requested. Hospitals are supplied with special instructions describing the items of tangible property which are subject to tax.

Private hospitals must pay the South Dakota Sales or Use Tax on purchases of all taxable services and tangible personal property except such personal property purchased for resale. A private hospital must have a sales tax license and report quarterly sales tax on charges for tangible items on a special form the same as a non-profit or charitable hospital. These special forms must be requested when the taxpayers supply is exhausted.

RULE 53. HOTELS, MOTELS AND TOURIST HOMES.

An establishment furnishing lodging in two or more rooms to transient guests must have a sales tax license and the receipts from transient guests are subject to sales tax. A transient guest is one who rents a room less than 28 consecutive days. If a room is rented to the same party for 28 consecutive days or more such receipts are not taxable.

Sales of supplies and equipment to a lodging establishment are taxable. Charges by a laundry, linen or towel supply company are taxable. A lodging establishment does not retail such items but purchases them or uses the services for the purpose of providing the sleeping accomodations.

Lodging establishments are not considered as being in the business of furnishing communications or dry cleaning for guests. The switching charges by a motel or hotel are not taxable, however, the telephone company furnishing the communication service must report tax on its taxable charges. Laundry and dry cleaning establishments must report tax on their charges for services to hotel or motel guests even though payment is received from the hotel or motel. The hotel and motel is considered the agent for a laundry and dry cleaning establishment and does not report tax to the Department on such receipts which are collected for a laundry or dry cleaner.

RULE 54. ICE.

Ice is tangible personal property and sales thereof are within the Act. Retail sales of ice include sales for household use as well as for commercial refrigeration purposes.

RULE 55. INTERSTATE SALES.

A. ORIGINATING IN SOUTH DAKOTA.

Where tangible personal property is located within the State of South Dakota at the time of sale and pursuant to and as part of the sales does not leave the State, the entire sale and delivery of the merchandise having taken place in South Dakota whether the purchaser is a non-resident of the State or not, the sale is within the retailer's occupational sales tax, irrespective of where the parties to the contract to sell are located or the place where the contract was made or accepted or the purchase price paid. It is immaterial that the purchaser may, subsequent to the sale, transport the property out of the State or use it in the conduct of inter-state commerce.

The tax does not extend to the gross receipts from sales in which the seller is obligated under the terms of the agreement to make physical delivery of the goods sold from a point in the State to a point outside the State not to be returned to a point with in the State. Written evidence of the contract of sale should be retained by the retailer so that he may prove his deduction and the terms of the agreement to make the physical delivery of the goods sold. The tax does not apply to receipts from a sale where the seller, by carrier or mail, delivers the goods sold from a point in this State to a point outside the State on order of the buyer not to be returned to a point within the State. It is immaterial whether the goods are sold f.o.b. origin or f.o.b. destination. To establish that gross receipts from any given sale are exempt because the tangible personal property is delivered to a purchaser outside the State the seller will be required to retain in his records to support the deductions taken from his tax returns, proof of bona-fide delivery outside the State, satisfactory to the Department of Revenue. The most acceptable proof thereof will be: (1) a bill of lading or weight bill made out to the seller's order and calling for delivery or (2) an insurance receipt or registry issued by the United States Postal Department, or a postoffice department receipt or (3) a receipt of delivery signed by the seller's delivery agent and showing the signature and address of the person outside this State who received the goods delivered.

B. ORIGINATING IN OTHER STATES.

Tax liability is incurred under the retail occupational sales tax when the sale at retail is made for use or consumption in the State of South Dakota, even though the property sold is transported directly to the buyer from a point outside this State, when-

ever the seller is engaged in the business of selling tangible personal property in this State, and whenever possession of such property is transferred to the buyer in South Dakota. It is immaterial whether the purchase or contract precedes or follows the interstate shipment or whether the shipment is made f.o.b. point of origin or f.o.b. destination. All retailers doing business in South Dakota and maintaining a business office in this State, or maintaining agents, solicitors, or doing business through independent order takers are subject to the retail sales tax on all sales at retail when such sales of merchandise are made for use and consumption in the State of South Dakota. Contracts or agreements purporting to require shipment of the property outside of South Dakota will not exempt sellers where the tax would otherwise apply. The sales tax will apply regardless whether the sales are made through solicitation or through mail order catalogues.

RULE 56. SALES NOT CONSIDERED IN INTERSTATE COMMERCE.

The South Dakota sales tax applies to the total gross receipts of South Dakota retailers from all sales of tangible personal property to consumers or users in South Dakota, notwithstanding the fact that shipment of the tangible personal property is made direct to consumers or users in South Dakota from a point outside of the State of South Dakota. The South Dakota retailers freight costs may not be deducted in arriving at the net taxable amount.

RULE 57. JANITORIAL SERVICES.

The gross receipts of persons engaged in a janitorial business are subject to sales tax. A janitorial business is one which holds itself out to the public as providing janitorial service under its own direction and uses its own supplies and equipment. Such janitorial business is the consumer of supplies and equipment and must pay the South Dakota Sales or Use Tax on the cost of such items.

A person who does not hold himself out to the public as being in the janitorial business and who has one or two buildings or rooms which he cleans under the proprietors direction and uses supplies and equipment of the proprietor is not in a janitorial business subject to sales tax. Such a person is considered an employee and is not engaged in a business.

RULE 58. JEWELERS AND WATCH REPAIR.

The gross receipts from the retail sales of jewelry and other merchandise by a jewelry store are subject to sales tax. Charges for repair services by a jeweler or watch repairman are also subject to sales tax. Parts which become a part of a repaired item may be purchased by a jeweler or watch repairman exempt from sales tax because they are resold to the customer. A jeweler or watch repairman must pay use tax on the cost of equipment and supplies which he consumes unless the South Dakota sales tax has been paid to a licensed supplier.

RULE 59. LABELS, NAME PLATES, ETC.

Sales of these articles are taxable when made to the consumer or user. When sold to manufacturers or tailors the property becomes a part of the property intended for resale and is not subject to tax.

RULE 60. LINEN AND TOWEL SUPPLY.

The Sales Tax Law imposes a tax on the gross receipts of a linen and towel supply business. Taxable receipts include those received from the sale of products and charges for rental or use of supplies. The charges to cafes and others for uniforms, towels used by barbers and linens used by motels and hotels are examples of taxable receipts.

The linen and towel supply businesses are the consumers of merchandise which they purchase for providing their service. The South Dakota Sales or Use Tax must be paid on purchases of merchandise or supplies which are purchased for use in rendering the service and which are not purchased for resale.

RULE 61. LIVE POULTRY AND LIVESTOCK

Gross receipts from sales of livestock and live poultry are exempt from retail sales or use tax until the final retail sale to the ultimate consumer.

For example: the sale of baby chicks, poults, pigs and other meat producing stock to growers and feeders would be exempt.

The sale of livestock and live poultry by farmers, feeders, dealers and produce houses to persons to slaughter for their own use will be classed the same as sales of dressed meat and subject to sales or use tax.

RULE 62. MACHINE WORK.

The tax applies to the charges of machine shops and other similar businesses for the fabrication of tangible personal property for consumers.

Fabrication includes any operation which results in the creation or production of an article or which is a step in a process or series of operations resulting in the creation or production of an article, as, for example, the operations of casting, forging, forming, framing, cutting, drilling, surfacing, machining processing, constructing, building, erecting and assembling.

The tax applies to the gross receipts of machine works from retail sales of tangible personal property and from repair services.

RULE 63. MACHINERY AND SUPPLIES SOLD TO MANUFACTURERS AND OTHERS.

Gross receipts from sales of machinery, tools, bolts, and other equipment to a manufacturer, producer or contractor, and gross receipts from sales of furniture, fixtures, supplies, stationery, equipment, appliances, instruments and tools, to stores, shops, business establishments, offices and professional people for use in carrying on their business or professional activities are taxable. Such sales are to final buyers or ultimate consumers and are not sales for resale.

Purchases of tangible personal property, which by manufacture, compounding or fabrication, becomes an integral part of other tangible personal property intended to be sold ultimately at retail are not subject to the retail sales or use tax. In such case the seller must require from the purchaser a resale certificate.

RULE 64. MANUFACTURERS, PRODUCERS OR PROCESSORS.

Gross receipts from sales to manufacturers, producers or processors including flour mills, bakeries, or creameries of tangible personal property of any kind which includes gas, fuel, electricity, tools or other property which is consumed by such manufacturers in manufacturing, producing or processing and does not become an ingredient or component part of the tangible personal property manufactured, produced or processed, are taxable. The manufacturer, producer or processor in such case is the final buyer or ultimate consumer of such tangible personal property and does not purchase it for resale. Such tangible personal property so purchased is not purchased by the manufacturer for the purpose of resale but for the operation of his business.

Gross receipts from sales to manufacturers, producers, or processors of tangible personal property which enters into and becomes an ingredient or component part of the tangible personal property which they manufacture, produce or process are not taxable. The fact that the article manufactured, produced or processed is in a different form or of a different character is immaterial. Thus, the sale of flour to a bakery which is used in baking bread or other merchandise that the baker has for sale is not taxable, likewise the sale of wheat to a flour mill that will be milled into flour is not taxable.

RULE 65. MATTRESS RE - BUILDING.

Mattress re-building is a repair service subject to sales tax because it restores tangible personal property to or near its former condition. The entire charge for rebuilding a mattress is subject to sales tax. Materials which become part of the mattress may be purchased exempt from tax by the mattress rebuilder because they pass ultimately to his customer. On other equipment and supplies purchased by a mattress re-builder the South Dakota sales tax must be paid directly to a licensed vendor or else the use tax must be paid directly to the Department of Revenue.

RULE 66. MEALS.

Gross receipts from meals furnished by restaurants, hotels and boarding houses are taxable. Where meals are furnished by the proprietors of cafe, restaurants, or boarding houses to employees and a separate charge made therefor, the employers must pay the tax on the meals. Where the meals are furnished to the employees as a part consideration of the working arrangement between employer and employees, the restaurant, cafe or boarding house will be liable for the tax upon the cost of the meals so furnished to the employees.

RULE 67. MEMORIAL DEALERS.

Memorial dealers are retailers of the tombstones, markers, and other memorials sold by them and also are retailers of the materials, such as cement, used in setting the memorial in the cemetery.

If the memorial dealer agrees to furnish a memorial and set it in the cemetery for a lump sum, the tax applies to the entire amount charged. If a separate charge is made for the memorial and the materials used in connection with setting the memorial in the cemetery and an additional charge is made for the labor of setting the memorial in the cemetery, the tax does not apply to the charge for the labor of setting the memorial in the cemetery. However, no deduction may be made for the charges for cutting, shaping polishing or lettering the memorial or for transporting the memorial to the cemetery.

When cemeteries construct the foundations upon which the memorial dealers place the memorials, and collect the charges for the foundations from the memorial dealers and the memorial dealers either collect that amount from their customers or include it within the charge made to the customers for furnishing the memorials, the memorial dealers are the retailers of the foundations, or the materials used therein, and must pay the tax to the State on the charges made therefor as well as on the charge for the memorials. The cemeteries are in this case deemed to be acting as the agents of the memorial dealers in constructing the foundations.

When the cemeteries collect the charges for the foundations directly from the customers of the memorial dealers, the cemeteries are the retailers of the foundations and must pay the tax to the State on the charges made therefor, or, if separate charges are made for the materials and labor furnished, on the selling price of the materials.

RULE 68. SALES TO OR BY THE UNITED STATES ARMY AND ITS INSTRUMENTALITIES UPON MILITARY RESERVATION.

The retail sales tax does not apply to service organizations operating exclusively within a Federal area over which the State of South Dakota has ceded to the United States Government all jurisdiction, or to or by the Post exchanges and their concessionaires, officers' clubs, officers' mess, and non-commissioned officers' clubs and all other voluntary un-incorporated organizations of Army personnel authorized by the Secretary of War or to sales made by such organizations to any authorized purchaser. The term "authorized purchaser" as used herein, means and includes those persons who are permitted to purchase from such organizations under regulations issued by the Secretary of War.

The term "Army of the United States" shall include sales to or by members of the Marine Corps or Navy if applicable.

Sales to persons in the Army of the United States, including civilian employees in such service are not exempt from the retail sales tax, except where such sales are made to them as authorized purchaser by a service organization operating exclusively within a United States Military Reservation and authorized by the Secretary of War.

The exemption from the collection or the payment of sales and use tax does not cover individuals or organizations operating on a military reservation in their own right. See (4 U.S.C.A.A.P.P. Section 13) commonly known as the "Buck Act." This section provides:

"(a) No person shall be relieved from liability for payment of, collection of, or accounting for any sales or use tax levied by any State, or by any duly constituted taxing authority therein, having jurisdiction to levy such a tax, on the ground that the sale or use, with respect to which such tax is levied, occurred in whole or in part within a Federal area; and such State or taxing authority shall have full jurisdiction and power to levy and collect any such tax in any Federal area within such State to the same extent and with the same effect as though such area were not a Federal area."

This same rule applies equally to any Federal area or Military Reservation within the boundaries of the State of South Dakota.

RULE 69. MINING COMPANIES.

Mining companies are the consumers of all materials and supplies purchased for their mining operations except property which becomes a component part of the product produced for resale.

Sales to mining companies are subject to sales tax unless the item becomes a part of the product which is resold in which event the mining company must give the supplier a certificate of resale stating that the purchase is for resale because it becomes a part of the product which is resold by them. If the South Dakota sales tax is not paid to a licensed supplier the mining company must pay the use tax.

RULE 70. MOTOR FUEL.

Sales of motor fuel which is subject to motor fuel tax are exempt from sales tax. The Law specifically exempts motor fuel from sales tax if it is subject to motor fuel or use fuel tax. Sales of motor fuel which includes kerosene, tractor fuel, distillate and L. P. gas are exempt from sales tax when used for agriculture purposes. Agriculture purposes does not include lighting or heating a farm residence. Sales of fuel or motor fuel which is not subject to the motor fuel tax or which is not used for agriculture purposes are subject to sales tax.

RULE 71. MOTOR VEHICLES.

Motor vehicles are exempted from the South Dakota sales tax because they are subject to a registration tax on their first registration. Trailers used on the highway are also subject to the registration tax if the South Dakota sales tax has no been paid to a dealer having a sales tax license.

All dealers in home and factory built trailers will be required to collect and pay the sales tax on all such sales. Purchasers of trailers from non-registered dealers, will be required to pay the use tax on all purchases. In all cases the dealer shall furnish a receipt to the purchaser and advise such purchaser that such receipt must be submitted to the County Treasurer if the vehicle is licensed for use on the highway.

All County Treasurers will be required to collect the registration tax on home and factory built trailers, except where the applicant furnishes a receipt from the dealer showing that the retail sales or use tax has been paid. Such receipt must

be attached to the collection form and submitted to the Department of Revenue when Registration Tax report is made to that office. In no case should the County Treasurer waive collecting the registration tax unless sales or use tax receipt is furnished.

RULE 72. ISOLATED OR CASUAL SALES.

Isolated or casual sales are exempted from the tax. This means that a person may sell his tractor, a merchant may sell his store fixtures, or a farmer may sell a horse or cow, without securing a license and remitting the tax. This exemption does not apply to persons who are regularly engaged in the business of selling tangible personal property at retail, such as a farmer who at regular intervals delivers his milk, cream, eggs and poultry to city customers, and persons who continually engage in the business or occupation of selling property, which they acquire or produce, to consumers. Disposal of retail inventory for purposes of liquidation by executors, trustees, or receivers are deemed to be taxable sales and are not exempt, also in cases where such officers continue to conduct a taxable business.

Sales made to consumers by the State or its sub-divisions are taxable unless the sale be a single or an isolated transaction and unless the article or product sold be included in the exemptions listed in this rule.

RULE 73.. OCULISTS, OPTOMETRISTS AND OPTICIANS.

OCULISTS: Oculists and ophthalmologists, being medical doctors, primarily render professional services to the eyes of their patients, their professional services are ordinarily confined to examination, surgery and treatment of the eyes. The services of an oculist are not subject to sales tax.

OPTOMETRISTS: Optometrists examine eyes for the purpose of prescribing visual care by mechanical means, such as lenses used for correction or treatment or the employment of orthoptics. To be recognized as an optometrist under this designation the optometrist must hold and have a license to practice optometery under the laws of the State of South Dakota and his services are not subject to sales tax.

OPTICIANS: The optician is the maker and seller of eye glasses. He does not examine eyes but merely fills prescriptions supplied by the oculist or optometrist and must pay the tax on all sales by him to persons who are to use the eye glasses, including opticians, optometrists, ophthalmologists, and all others.

Oculists and optometrists who do not sell at retail tangible personal property other than property which is incidentally consumed by them in rendering such professional services, are not considered as being retailers of such property within the meaning of the occupational retail sales tax law and are, therefore, not required to hold retail sales tax permits. To illustrate, lenses or eye glasses which they may prescribe for patients, are considered as being property which is incidentally consumed by the oculists or optometrists in rendering professional services. In the event oculists or optometrists, in addition to rendering professional services, actually sell at retail tangible personal property which is not directly incident to and a necessary part of the professional services rendered to patients, they are liable for sales tax upon the gross receipts from such sales and required to hold retail sales tax permits.

The optical supply house or optician is primarily engaged in the business of processing and selling tangible personal property, consisting of eye glasses and other optical merchandise and supplies to oculists or ophthalmologists and optometrists and others. They are, therefore, responsible for the collection of the sales tax upon their selling price of such tangible personal property sold to oculists, ophthalmologists, optometrists and others. In order to facilitate the collecting and remitting of the tax, optical supply houses and opticians are required to collect the retail sales tax on their selling price of all tangible personal property consisting of eye glasses, lenses, optical merchandise and supplies sold by them to oculists, ophthalmologists, optometrists and others in the State of South Dakota.

This rule has no application to the retail stores in the State of South Dakota which sell eye glasses or other optical goods at retail where such eye glasses or other optical goods are not prescribed by licensed refractionists. All sales by all persons whether opticians, optometrists or otherwise such as sun glasses, solution for cleaning eye glasses, barometers, telescopes, binoculars, opera glasses, etc., are required to have a retail sales tax license and collect the sales tax upon the sale of such items of merchandise to the consumer or user thereof.

RULE 74. PHOTOGRAPHERS, PHOTO DEVELOPERS AND FINISHERS

The entire receipts from photography, photo developing, finishing and tinting are taxable. Sales of photostat copies by a photostat producer, frames, films and other articles at retail are sales of tangible property subject to sales tax. Sales of photographs by commercial or portrait photographers are taxable. Sales of lithographs and photo engravings to others for use in printing advertising matter are taxable. Sales of equipment to a photographer and supplies which do not become part of the product ultimately passing to a customer are subject to sales tax and if the South Dakota sales tax is not paid to a supplier the use tax on the cost must be reported on the quarterly return.

RULE 75. PHYSICIANS AND SURGEONS

Physicians and surgeons are primarily engaged in the business of rendering professional services and charges for such service are not taxable. Provided, that in cases where physicians, surgeons, medical doctors, chiropractors or osteopaths fill their own prescriptions for drugs or for diets, such person must have a retail sales tax license and collect the sales tax upon such sales.

Sales of tangible personal property to physicians and osteopaths in the form of drugs, medicines, bandages, dressings, tonics, biologics, anaesthetics and similar items of merchandise by South Dakota drug or medical supply houses are deemed to be a sale to the consumer and subject to tax. However, if such articles of drugs or medicine are purchased by the doctor for resale either in the original container or in bulk, or by processing under a prescription which the doctor has written himself. the sale to the doctor would be exempt on the part of the medical supply house as this is a sale for resale provided the doctor has a sales tax license in which event the doctor must report sales tax on his sale.

The purchase of X-Ray equipment, operating room furniture and fixtures and all other tangible personal property used or consumed is subject to retail sales tax if purchased from a licensed dealer, or subject to the use tax if purchased from a non licensed dealer.

RULE 76. PIANO TUNERS.

Piano tuners restore personal property to or near its original form or useful purpose. Their services are repair services subject to sales tax. The entire charge for tuning a piano and parts is taxable. Repair parts may be purchased by a piano tuner exempt from tax because they eventually become the property of his customers.

RULE 77. PLUMBERS AND PLUMBING CONTRACTORS.

All plumbers maintaining a retail store where plumbing parts, materials, supplies and accessories are sold across the counter at retail, may purchase all plumbing merchandise from jobbers, wholesalers or manufacturers and give a resale certificate therefor. If the plumber is also engaged in plumbing contracting and makes withdrawals from stock for the performance of such contracts he must pay the state use tax on the cost of such material withdrawn from his stock for the completion of such contracts.

If a plumber does installation work on a labor and material basis and makes a separate charge to the customer for the materials the sales tax applies to the material charges only. Repair services of a plumber are taxable. Labor charges for fixing damaged plumbing such as leaks in water lines, replacing worn parts in fix-

tures and the like are subject to sales tax. Receipts from cleaning cesspools and sewer lines and replacing or fixing broken water mains are not considered repair service and therefore not subject to sales tax.

RULE 78. PREMIUMS AND GIFTS.

Donors of tangible personal property are regarded as consumers thereof, and the tax applies to the gross receipts from the sale of the property to them. Gross receipts from the sale of goods which are to be given away for advertising purposes are taxable. Where goods purchased by a retailer for the purpose of resale are subsequently given away for advertising purposes the retailer must include, under value of merchandise taken from stock for your own and family use and use of your employees, the cost of the goods to the retailer and pay use tax thereon.

When a retailer in making sales of tangible personal property gives a premium together with the tangible personal property sold, the transaction is regarded as a sale of both articles to the purchaser, provided the obtaining of such premium by the purchaser is certain and does not depend upon chance.

Purchasers of property to be awarded as prizes, the winning of which depends upon chance or skill, are regarded as the consumers thereof, and the tax applies to the gross receipts from the sale of such property to them.

The operator of a game of skill, or a game of chance, is the consumer of the property used in connection with such operations, and the tax applies to the gross receipts from sales of tangible personal property to the operator.

RULE 79. VENDORS OF TANGIBLE PERSONAL PROPERTY USED FOR PREMIUMS, ADVERTISING, PRIZES, ETC.

Persons engaged in the business of selling tangible personal property to purchasers who give such property away in the advertising of their business or products or who give such property away as premiums in connection with the sale of any other property, or as prizes, or for any other reason, are engaged in the business of selling such tangible personal property for use or consumption and not for resale. Such vendors must have a retail sales tax license and collect the retail sales tax on all such items used for advertising purposes, premiums or prizes. Such property is usually in the form of thermometers, pencils, mirrors, notebooks, brief cases, wallets, calendars, pictures, toys, paper weights, pens, rulers, and other similar articles.

RULE 80. PRINTERS, ENGRAVERS, MULTIGRAPHERS, MIMEOGRAPHERS, ETC.

Printers, engravers, multigraphers, mimeographers, etc., must pay the tax on the full charges made by them for their work unless the work is done for resale. An exception is made in cases in which paper or other materials are furnished by the persons or firms for whom the work is done. Thus, the tax applies to charges for printing books, pamphlets, brochures, etc., to charges for setting copy in type and assembling art work plate in form; to engravers' charges for making metal plates; and to electrotypers' charges for making electrotypes or matrices.

Where stamped envelopes or government postals are purchased and the customer is charged therefor, the charges for postage may be deducted from gross receipts. No deduction, however, may be made for the charges for envelopes.

If the mimeographers, multigraphers, and printers make a single charge for the "complete process" of preparing and mailing letters, the tax will apply to the entire charge. If, however, separate charges are shown in the bills to the customers and in the books or records of the mimeographers, multigraphers, and printers for mimeographing, multigraphing or printing and for such services as addressing, folding, enclosing and sealing, the tax will apply only to the charge for the mimeographing, multigraphing or printing and not to the charges for the services of addressing, etc.

The purchase of raw newsprint is specifically exempt in the use tax law. All other purchases of material such as type and printing equipment are subject to sales or use tax except such items which are purchased for resale.

RULE 81. EXCHANGE OF RECONDITIONED PARTS.

An exchange of reconditioned parts for worn parts, together with removal of the worn parts and installation of the reconditioned parts, constitutes an integral transaction, and the tax applies to the total charge for making the exchange without deduction on account of charges for removal of the worn parts or installation of the reconditioned parts.

For example: A garage installs a new generator, taking the old one in exchange. The value of the new one installed is $25.00 and the tax must be paid on such amount even though an allowance is made on the purchase price by taking in the old generator on the exchange.

RULE 82. RECORDS.

Each retailer must keep adequate and complete records showing:

1. All sales of tangible personal property made within the State of South Dakota, irrespective of whether the retailer regards the receipts from the sales as taxable or nontaxable.
2. All deductions allowed by law and claimed in filing sales tax returns.
3. A purchase ledger should be maintained by all retailers in which ledger must be the purchases from wholesale houses, jobbers or manufacturers listed with the name and address of the place of business and in addition to such ledger all bills, receipts and invoices covering all purchases of tangible personal property for sale or consumption in South Dakota should be retained.

Such records must be preserved for a period of at least two years, unless the Department of Revenue in writing, should authorize their destruction at an earlier date.

Retailers must either maintain a set of records in this State in accordance with the requirements set forth above, or must defray the additional expense which will be incurred in making an audit at the out-of-state location of the retailer. Retailers desiring to follow the latter method must make suitable arrangements with the Department of Revenue.

RULE 83. REFUNDS TO CONSUMERS.

Where a retailer allows a refund or credit to a customer and the refund or credit is deductible from the retailer's gross receipts, the retailer must return to, or credit the customer with, the amount of "tax" passed on to the customer on the amount of deductible gross receipts. Refunds on merchandise, the sales of which were included in the gross taxable receipts may be entered in the tax return as a deduction on the line provided for such purpose.

RULE 84. RELIEF AGENCIES.

The sales tax law exempts from sales tax the gross receipts from sales to Relief Agencies. Sales to the Government, State, and its political subdivisions engaged in actual relief work are exempt. Sales to the American Red Cross are exempt for the reason this organization is chartered by Congress at a National Relief Agency. Many religious and fraternal organizations also carry on relief programs, however, they do not qualify as "Relief Agencies" and sales to such groups are not exempt from sales or use tax.

RULE 85. EDUCATIONAL INSTITUTIONS, RELIGIOUS.

A religious educational institution is defined as a school sponsored, financed and operated by a religious society, and qualify under South Dakota law as an educational institution. Gross receipts from services and sales of tangible personal property to such institutions are exempt from sales tax. The exemption does not extend to purchases for the personal use of officials, members and employees or to be used in the operation of a taxable business.

Such institutions operating cafes, dining rooms, book stores or vending other merchandise must secure a sales tax license and report sales tax on their receipts from such operations. Items which are resold by the institution to members, students and others may be purchased tax exempt as resale items, by giving the suppliers a resale certificate with their sales tax license number.

RULE 86. RENTALS.

Gross receipts representing payments for rental of real or personal property are not within the act. One exception to this rule, however, is in a case where tangible personal property is delivered to a customer or user under an agreement whereby the so-called rental payment may at the option of the customer be applied on the purchase price. The use of rental contracts which are in reality conditional sales contracts will not be permitted to defeat collection of the tax on transactions involving tangible personal property.

A person who acquires tangible personal property and rents or leases such property, the receipts of which are not subject to sales tax, must pay the use tax on the cost of such property unless the South Dakota sales or use tax has been paid to a licensed vendor.

RULE 87. REPAIR SERVICES.

In addition to the repair services specifically referred to in rules all other charges for repair services are subject to sales tax. Repair of personal property is a service in which property is restored to or near its former condition or usefulness. A person engaged in such a business must have a sales tax license and report tax on such receipts.

Items purchased by a repairman and which become part of the repaired property may be purchased exempt from sales tax by the repairman. The charge for the parts and service are taxable. Tools, equipment and supplies consumed by a repairman are subject to the South Dakota Sales Tax when purchased by him and if the South Dakota Sales Tax is not paid to a supplier the use tax on the cost of such items must be paid by the repairman.

If a person occasionally does some repair work and does not hold himself out to the public as doing repair work he is not considered as being in a repair business subject to sales tax.

RULE 88. RETIREMENT HOMES.

Retirement homes or homes for the aged are not engaged in a retail business subject to sales tax. Retailers engaged in selling tangible property such as food, equipment, furniture and supplies must remit sales tax on sales to retirement homes. Retailers rendering taxable services must report tax on their charges to th homes. If purchases are made from vendors who are not licensed to collect the South Dakota sales tax the use tax on such purchases must be paid to the South Dakota Department of Revenue by the home.

RULE 89. SCHOOL LUNCHES.

Sales of groceries and supplies to a school for the operation of a school lunch program are exempt from sales tax. A school providing lunches to students under the school lunch program is not required to remit tax on receipts from the school lunch program.

RULE 90. SEED.

Sales of seeds to a person who plants them in soil for growing agricultural products are exempt from sales tax when sold in quantities of 25 pounds or more. The exemption includes all seed such as corn, wheat, alfalfa seed, grass seed, grain seeds, or legume seeds.

RULE 91. SHOE REPAIRMEN.

The gross receipts from repair services of shoe repairmen are subject to sales tax. Repair of shoes and any other repair services are taxable. If shoes or other merchandise are sold such items are also subject to sales tax. Repair supplies such as soles and heels may be purchased exempt from sales tax by the shoe repairman because they ultimately pass to his customer and become part of the taxable charge. A shoe repairman must pay use tax on the cost of equipment and supplies, which do not become part of items repaired, unless the South Dakota sales tax has been paid to a licensed supplier.

RULE 92. SIGN PAINTERS.

Signs are tangible personal property and the sale of completed signs are subject to the tax. No tax is payable upon charges made for painting signs upon buildings or other property owned by persons other than the sign painters.

For example: The gross receipts from the sale of "No hunting" signs are subject to sales tax, as this is a sale of a completed article. Where sign painters paint signs on windows, sign boards, buildings, etc. the painter is the user or consumer and dealers selling material to the painter should collect and pay the sales tax. If the painter purchases his material from non-registered dealers he must pay use tax on all material consumed in his service painting.

RULE 93. SIGNS.

Persons engaged in selling to users or consumers illuminated signs, bulletins or other stationary signs, whether manufactured by themselves or by others, are selling tangible personal property at retail, the receipts from which are taxable, even where the purchase price of the sign includes a charge for maintenance or repair service in addition to the charge for the sign. If a separate charge is made for the installation of sign such charge is not subject to sales tax. Any subsequent maintenance charges are subject to sales tax as repair services.

RULE 94. STUDENT SORORITIES AND FRATERNITIES.

Student sororities and fraternities are deemed to be the user or consumer of merchandise they purchase and are not considered as re-sellers. Such organizations, therefore, do not need a retail sales tax license but must pay the tax when making purchases from the grocers and wholesale grocery companies.

RULE 95. TIRE RE - TREADING.

The gross receipts from tire re-treading are subject to sales tax. Where tire re-treading operators purchase second-hand tires and re-tread them, the sale of such tires are taxable. Where the customer furnishes the tire, the entire charge for re-treading such tire is subject to sales tax.

Materials which become a part of a re-tread tire may be purchased exempt from tax by the tire shop. Equipment and supplies which do not become a part of a re-tread tire are subject to sales tax when purchased from a licensed vendor by a tire shop. If the tire shop has not paid the South Dakota sales or use tax, on equipment or supplies which do not become part of a re-tread tire, to a licensed vendor, the cost of such items must be entered as use tax on the quarterly return.

RULE 96. TRADE - INS.

"Gross receipts" includes not only cash or money received but also the value in money of any property of any kind or nature received in trade or exchange. For example, if a new radio is sold for $50.00 and a credit of $10.00 is allowed on an old radio taken in in trade, the tax applies to the $50.00 even though only $40.00 was paid in cash. When the old radio taken in in trade is subsequently sold at retail, the tax applies to the gross receipts from the sale of the old radio. That is if the old radio taken in trade for $10.00 is subsequently sold for $10.00 the tax must be collected

upon the $10.00 transaction. This is like-wise true in the case of any trade-ins except the resale of used farm machinery taken in trade on the purchase price of new machinery. Unprocessed agricultural products traded for processed agricultural products of a kind are exempt. No other exemptions on trade-ins are allowed by the law.

When a merchant takes eggs in trade for groceries, the tax must be charged upon the full amount of the sale price of the groceries and the merchant must treat the eggs as a cash item in his gross receipts.

RULE 97. SALES TO THE UNITED STATES, THE STATE OF SOUTH DAKOTA AND SUB - DIVISIONS THEREOF.

Sales to the United States or to any agency or instrumentality of the United States or of the State of South Dakota are exempted under the act. Also exempted are sales to any county, city, town, school district or township within the State. Before such purchases by the government or its sub-divisions are exempted by the Department of Revenue, proof may be required from the retailer that such sales were actually paid out of the funds of the county, city, town, school district or township. Any organization connected with the school making a purchase of merchandise is not exempted from the payment of the tax. The test is whether the merchandise purchased is paid out of funds of an organization connected with the sub-division or out of funds of the school district itself. The law also includes in the exemption most sales to any relief agency but limits the exemption to agencies which are engaged in actual relief work. This provision is construed to refer to relief agencies of the state, county or city government as well as to such societies as the American National Red Cross. It would also include sales to any federal relief agency engaged in relief work.

No special exemption certificate is necessary when making sales to the United States, State of South Dakota and sub-divisions thereof if the billing or invoices indicate such sales and the records show that payment was received from the exempt governmental entity.

State boards and commissions created by statute or law are exempt from sales or use tax. Such boards and commissions created by a Legislative Act are part of State Government and sales to them are sales to the State exempt from tax. Voluntary organizations which use the word "State" or "National" in their title are not exempt.

RULE 98. UPHOLSTERERS.

Persons engaged in re-upholstering furniture belonging to others are engaged in a repair service subject to sales tax. An upholsterer must report tax on his receipts from customers for his service and materials. An upholsterer may purchase tax exempt materials which become a part of the repaired furniture. He must pay the South Dakota Sales Tax to his suppliers or use tax to the State on the cost of supplies expended by him and on equipment.

RULE 99. VENDING MACHINES.

An operator of vending machines must obtain a permit to engage in the business of selling tangible personal property at retail and must pay sales tax on the gross receipts from the operation of such machines. One permit is sufficient for all machines of one operator.

Adequate and complete records must be kept by the operator showing the location or locations of each machine operated by him during each quarterly period, the serial number thereof, if any, and the gross receipts derived from the operation of each machine during each period.

If the South Dakota sales tax has not been paid to a licensed retailer on the purchase of any vending machine, the use tax must be paid on the cost of machines originally purchased for use in South Dakota and on the fair market value of machines not originally purchased for use in this State, but thereafter brought into the State.

RULE 100. VETERINARIANS, SALES TO OR BY.

Veterinarians are primarily engaged in the business of rendering professional services to the owners of domestic animals, through care, medication and treatment of such animals which services are not subject to sales tax. They are users and consumers of all such items of tangible personal property as drugs, medicines, bandages and dressings, serums, tonics and the like, which are used by them in connection with the performance of such services. Persons selling such items to veterinarians for use in the performance of professional services become liable for the sales tax or use tax, whichever the case may be.

Where veterinarians maintain a stock of tangible person property and sell to consumers separately and apart from the rendering of personal services, they must have a sales tax license and report sales tax on such sales. Such veterinarians may purchase, exempt from sales tax, from suppliers the stock which they sell to consumers and do not use in their services. If supplies are withdrawn from such stock for use in the veterinarians' service, the use tax must be paid on the cost of such items.

RULE 101. WATER, SALES OF.

Sales of water to consumers or users are subject to tax by specific provision of the act when sold by individuals, firms or private corporations. Sales of water by municipal corporations are not taxable and municipalities need not secure a license for the privilege of furnishing water.

RULE 102. WATER AND GRAVEL HAULERS.

Operators of gravel pits are retailers of gravel subject to tax and the haulers of water are engaged in making taxable sales. Where the customer takes delivery of the gravel at the pit, or the water at the source of supply, the charge is subject to tax. If a customer employs a trucker who is a licensed carrier for hire to haul the gravel or water the seller must report tax on his charge for the gravel or water.

Where the operator of a gravel pit or the seller of water delivers with his own truck or employs someone to deliver for him to a place designated by the buyer, the entire charge, including the cost of delivery, is subject to the sales tax.

RULE 103. WELL DRILLERS.

Well drillers are primarily engaged in making realty improvements. The rules relating to contractors are applicable to well drillers. Well drillers are the consumers of materials used in drilling wells and must pay the South Dakota Sales or Use Tax on the cost of all supplies and materials purchased.

Repair services of a well driller are taxable and include the charges for replacing a broken rod, coupling, fixing a pump or similar charges. Recasing a well or slushing a well do not constitute repair services.

If the South Dakota Sales Tax has not been paid on the purchase of a drilling rig the use tax must be paid on the cost of a rig originally purchased for use in South Dakota and on the fair market value when brought into the state on a rig which was not originally purchased for use in this state. The Use Tax Law exempts from the tax drilling rigs equipped to penetrate at depths greater than 3,000 feet and used for exploring or locating natural resources. The exemption does not extend to rigs used for drilling productive, oil, water or other wells.

RULE 104. RETAIL TRANSACTIONS BY JOBBERS AND WHOLESALE HOUSES SELLING GROCERIES, PAPER STOCK AND OTHER TANGIBLE PERSONAL PROPERTY FOR USE AND CONSUMPTION.

Sales for use and consumption by the purchaser are sales at retail under the definition of "Retail Sale,". The quantity or price of the property sold is immaterial and such sales are taxable. A transaction is not considered as "wholesale" unless

the sale is strictly for the purpose of resale. The burden of proving that sales are for resale is placed on the seller and he must protect himself by obtaining a certificate of resale showing the buyer's retail sales tax license number. If a purchaser from a jobber or wholesale house does not have a sales tax license, except manufacturers or processors, the sale is presumed to be a retail transaction and taxable.

All sales made to the following types of business by wholesale grocery companies or wholesale paper companies are taxable as such businesses, although they may have a sales tax license, are not reselling the merchandise of a kind sold by the wholesale house: theatres, churches, lodges, attorneys, clinics, cleaners and dyers, laundries, filling stations, hotels (exclusive of dining room), optometrists, physicians, photographers, office buildings, agricultural implements, clubs (not operating a cafe or lunch room under a sales tax license), bowling alleys and such other types of businesses.

Sales made to grocery stores, department stores, and meat markets are exempt from tax, except sales to them of sales books or other specialty printed matter such as dodgers, sales promotion literature, sales bills, printed advertising matter, news flashes, calendars and paper for their own stationery and envelopes for the same purpose.

Paper towels, toilet tissue, checks, soap, cleaners, matches and similar articles sold to establishments, such as cafes, hotels and other businesses who do not retail such items, are taxable sales.

Wrapping paper, bags and twine sold to licensed retailers which ultimately pass to customers of the retailer with other taxable merchandise or services are exempt from sales tax when purchased by such retailer.

RULE 105. WHOLESALERS AND JOBBERS OF AUTOMOTIVE SUPPLIES.

Wholesalers and jobbers of automotive supplies are liable for the retail sales tax on their receipts from sales of auto shop equipment, welding shop equipment, wash rack supplies, hand tools, grinding compounds, sandpaper, wiping rags, brushes, soap, paint remover, tape and other material and equipment which is not resold by a garage, service station or body shop or which is consumed by them in rendering their service.

Automotive parts, paints, lacquers, greases, lubricants, tire patches, cement and items which become part of a motor vehicle may be sold to a service station, garage or body shop exempt from sales tax. Such items are considered purchases for resale by the service station, garage or body shop.

In instances where it is impractical for a buyer to know whether particular merchandise is purchased for use or for resale, the seller will be permitted to accept and the buyer to give a certificate of resale according to the general character of the buyer's disposition of such merchandise. If the buyer buys the merchandise primarily for resale within the meaning of this rule, then he may give a certificate covering all such merchandise purchased. If the buyer thereafter uses a certain part of such merchandise, he will then be held accountable with respect to the cost to him of such merchandise as is used by him under the use tax act.

RULE 106. TANGIBLE PERSONAL PROPERTY INCIDENTALLY USED OR CONSUMED BY PURCHASER.

Persons engaged in the business of selling tangible personal property to purchasers for use or consumption frequently take varying amounts of such merchandise from their stocks for personal consumption or for gifts. For instance, a retail grocer may take out of his stock small fractional parts of groceries, for his own and family's consumption. Similarly, a retailer of clothing may take out of his stock a suit of clothes and other articles for personal use or for gifts.

In all such like cases and in the above instances, retailers are permitted to consider their entire purchases as being made for resale purposes, and will accordingly be held liable for the tax as to such items as they themselves use or consume under

the use tax law. Sellers to such retailers liable for the tax will not be required to pay the tax with respect to receipts therefrom. The retailers must enter on their books as sales, the amount of the cost of all such property as they removed from stock for personal consumption for gifts, and must pay the use tax thereon, measured by the amount of cost to them of such tangible personal property.

USE TAX RULES

RULE UT1. PURPOSE OF THE USE TAX LAW.

It is the purpose of the Use Tax to place a non-discriminatory tax at the same rate of per cent as the retail sales tax on property which has not been subject to the State of South Dakota retail sales tax. The entire purpose of the Use Tax is to compensate the retail sales tax and to equalize the burden of taxation between retailers who must collect the sales tax on their sales and non-resident sellers, who are not legally required to collect the sales tax but can be required to collect use tax. If property is acquired from a non-resident seller who is not licensed to collect use tax then the buyer must pay use tax directly to the Department of Revneue when the property is brought into the state.

The rate of this tax is the same as the sales tax and the returns and remittance of use tax shall be made on the same basis as the retail sales tax; that is, that the return for the payment of use tax must be made on or before the 15th day of the month following the end of each quarter.

RULE UT2. IMPOSITION OF TAX.

An excise tax is imposed on the privilege of the use, storage and consumption in this state of tangible personal property purchased for use in this state at the same rate of per cent of the purchase price of said property as is imposed under the Sales Tax law.

An excise tax is imposed on the privilege of the use, storage and consumption in this state of tangible personal property not originally purchased for use in this state, but thereafter used, stored and consumed in this state, at the same rate of per cent of the fair market value of said property as is imposed under the Sales Tax Law.

In addition, said tax is imposed upon every person using, storing, or otherwise consuming such property within this state until such tax has been paid to a retailer or the Department of Revenue.

RULE UT3. RETAILERS USE TAX.

The Use Tax Law defines a retailer as every person engaged in the business of selling tangible personal property. Maintaining a place of business in the state is defined as having a subsidiary, an office, distribution house, sales house, warehouse, or agents, temporarily or permanently. A salesman, canvasser, representative, solicitor or independent order taker is considered an agent.

Every retailer selling tangible personal property and maintaining a place of business in the state, as defined, must be registered with the Department of Revenue and remit quarterly use tax on sales where delivery or shipment is made into the State of South Dakota. The fact that the sale or delivery was in interstate commerce does not exempt the vendor from collecting and reporting the use tax.

Retailers making sales of tangible personal property, the storage, use or consumption which are not specifically exempted by the Use Tax Law and the gross receipts from the sales of which are not subject to the retail sales tax must reg-

ister with the Department of Revenue on a form prescribed by the department. After a permit has been issued the retailer will receive a report form at the end of each quarter which must be filed by the 15th of the month following the quarter. Any books, papers and records shall be made available within this state for such examination upon reasonable notice when the Department of Revenue shall deem it advisable and shall so order.

RULE UT4. CONSUMER USE TAX.

The consumer should at the time of the sale pay a licensed vendor the South Dakota Use Tax and obtain a receipt or invoice from the vendor showing payment of the tax. The receipt should be retained by the consumer for his own protection to prove that the use tax has been paid on the purchase price of the property purchased. If the South Dakota Sales or Use Tax has been paid once such property is never again subject to use tax.

If the consumer has not paid the use tax to a licensed vendor on personal property purchased for use, storage or consumption in this state or brought into the state then he must make a consumers use tax return to the Department of Revenue within fifteen days after the end of the quarter. The returns are to be made on forms prescribed by the Department of Revenue.

Failure of the consumer to file a report and pay any use tax as provided herein shall subject such person to the statutory penalty. Any person violating the provisions of the Use Tax Law is guilty of a misdeameanor subject to a fine up to $100.00 or up to thirty days imprisonment, or both.

RULE UT5. EXEMPTIONS.

(a) Tangible personal property, the receipts from which are taxable under retail sales tax law of South Dakota. Thus, if the South Dakota sales tax is paid at the time of purchase of the property, no use tax liability occurs.

(b) Motor vehicles subject to the registration tax at time of first registration, which tax is payable to the County Treasurer. Any motor vehicle not subject to the license fee by the laws of this state is subject to use tax if not registered as provided by law and if not otherwise exempt.

(c) Tangible personal property, the storage, use or consumption of which the State is prohibited from taxing under the constitution or laws of the United States or under the constitution of this State. Sales to the United States, the State or any subdivisions of the State Government.

(d) Gasoline, motor fuel and use fuel subject to tax under the Use Fuel Tax Law, beer, liquor, butter substitutes and cigarettes because these items are subject to a special State excise tax.

(e) Articles of tangible personal property brought into the State by a non-resident individual for his or her personal use or enjoyment while within the State. This exemption applies to personal effects and household furniture. It does not apply to tangible personal property brought into the State by a non-resident individual for use while engaged in the performance of a contract, or the establishment of a business, within the State of South Dakota.

(f) Newspaper print used in the printing and publishing of newspapers. To qualify for the exemption the publication must fall within the definition of a legal newspaper.

(g) Tangible personal property including containers which shall, by means of fabrication, compounding or manufacturing, become an integral or component part of other tangible personal property intended to be sold ultimately at retail and which will be at the time of such sale subject to the retail sales tax. Containers are exempted from the use tax when they are used to contain property that is subject to the retail sales tax as such containers are ultimately sold to the consumer. How-

ever, if containers are used to contain property that is not subject to the sales tax or used by a service establishment in performing the service of their business such containers are deemed to be used or consumed by the operator of such business and not by the consumer and in such cases the tax applies.

(h) The gross receipts from sales of tangible personal property and the gross receipts from sales, furnishing, or service of gas, electricity, water and communication services to and for use by religious educational institutions and non-profit, charitable hospitals when purchases are made by authorized officials, payment made from the institutions funds, and title to the property retained in the name of such institutions. This exemption will not extend to sales to or purchases of tangible personal property for the personal use of officials, members or employees of such institution.

(i) Drilling rigs equipped to penetrate the earth's surface at depths greater than 3,000 feet which are used for the purpose of exploring for and determining the location of South Dakota natural resources.

(j) Fuel of any kind which is used in creating power, light or heat or for manufacturing steam or gas, and also natural gas which is used for manufacturing or industrial purposes.

RULE UT6. STORAGE OF PROPERTY.

The tax does not apply to the sale price of tangible personal property held or stored in this State for sale in the regular course of business. The use tax does not apply to the sale price of tangible personal property purchased for use in other States, shipped to this State and remaining here temporarily pending reshipment to such other States and actually used solely outside this State.

RULE UT7. PROPERTY SOLD HERE USED IN INTERSTATE COMMERCE.

The fact that tangible personal property is purchased in interstate or foreign commerce does not exempt from the tax the storage, use or other consumption of such property in this State after the shipment of property in interstate commerce has ended. After such property has come into the hands of the purchaser thereof for use, storage or other consumption in this State, the interstate commerce has ceased and such property may be taxed accordingly for the privilege of using, storing or consuming the same in this State.

RULE UT8. RENTAL OF PROPERTY.

Where tangible personal property is leased or rented in this State the rental receipts are not subject to the South Dakota Sales or Use Tax. The lessor who is the person owning the property must pay use tax on the purchase price of property purchased for leasing in this State or pay use tax on the fair market value of property not originally purchased for use in this State, unless the South Dakota Sales or Use Tax has been paid to a licensed vendor on such property.

RULE UT9. NO REFUND OF MOTOR FUEL TAX WHEN USE OR SALES TAX IS NOT PAID.

In all cases where farm machinery, tractors or other property are purchased outside the State of South Dakota and the use tax or sales tax is not paid thereon, such purchaser will be denied any refunds of motor fuel tax until full payment of either the sales tax or use tax by said purchaser is made either to a registered or licensed dealer or directly to the Department of Revenue.

RULE UT10. DELIVERY AND TRANSPORATION CHARGES.

(Same as Sales Tax Rule)

RULE UT11. CONTRACTORS.

(Same as Sales Tax Rule)

RULE UT12 EXEMPTION CERTIFICATES.

(Same as Sales Tax Rule)

RULE UT13. SALES TAX RULES.

All sales tax rules making reference to use tax are herein incorporated into the use tax rules.

EXEMPTION CERTIFICATE FORMS

The following are recommended exemption certificate forms which may be used by purchasers who are entitled to buy exempt from the South Dakota Sales or Use Tax. These forms are not supplied by the Department of Revenue, but instead, must be prepared by the purchaser and given to the supplier.

Purchase for resale

CERTIFICATE OF RESALE

The undersigned certifies that the property this day purchased or ordered herewith was for the purpose of resale.

Description of purchase.....

.....

....

Sales Tax License No. of purchaser. Signature of Purchaser

....

Date Address

Manufacturers and Processors

CERTIFICATE OF EXEMPTION

The undersigned certifies that the following described property covered in this purchase will, by manufacture, compounding, fabrication or processing, become an integral part of other property intended for resale.

Description of purchase.....

.....

....

Date of purchase Purchaser

.....

Address

Non - profit charitable hospitals, schools, state and subdivisions

CERTIFICATE OF EXEMPTION

The undersigned certifies that its purchases are exempt from the South Dakota Sales or Use Tax and none of the purchases of tangible property are for personal use of a member or employee.

Description of purchase.....

.....

....

Date Name of Institution or organization

.....

Signature and title of authorized official

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MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
6/27/67	Kirkemo	120
		110
		220
		120M

JUN 27 1967

Memorandum

To: Associate Solicitor
Division of Mineral Resources

From: Chief, Office of Minerals Exploration

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

The enclosed copy of our memorandum dated May 31, 1967, to the Chief, Branch of Budget and Finance, explains the problem with respect to a South Dakota state service tax on the salary of a consultant. The enclosed copy of the consultant's letter dated June 21, 1967, to the OME Field Officer, Region III, explains the nature of the tax.

A claim by the Operator for $1.13 for payment of this tax in April 1967 was disallowed, and disallowance of a claim for $3.38 in May was recommended by the Field Officer pending clarification of the question whether the tax is an allowable cost under the contract.

We would appreciate your advice as to whether or not the tax may be considered a sales tax and payable under terms of the contract.

Frank E. Johnson

Enclosures

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

HKirkemo/gla 6-27-67

23263

Washington copy
6-26-67

EDWARD L. TULLIS
Consulting Geologist
223 St. Charles
Rapid City, South Dakota

OFFICIAL COPY
U. S. E.
JUN 27 1967
110
HK 120
220

OME Region III
RECEIVED
JUNE 26 1967
Denver, Colorado

June 22, 1967

Mr. Donald T. Delicate
Homestake Mining Company
Lead, South Dakota

Dear Don:

I had a session with my physician this afternoon. Wednesday afternoon June 28, I am entering the hospital to have my gall bladder out the next morning.

He said that I will be out within four to seven days and will be able to do almost anything except lift things within two to three weeks after the operation. It will be six weeks before I can lift things. This means that I will be able to do the paper work on the June report by the time it reaches me and should be able to go to Galena by the time the shaft is completed.

I believe that this will cause us no real problems. I asked for the operation at the earliest possible date and got it.

Enclosed is a statement of my time for June.

Sincerely yours,

Edward L. Tullis

ELT:ek
cc: H.A. Kelly
J. Wm. Hasler

OFFICIAL
COPY
O. M. E.
RECEIVED
JUN 26 1967
MINERALS CODE
gla 170 m
HK 420

Office of Minerals Exploration

June 23, 1967

Dr. Edward L. Tullis, Consulting Geologist
223 St. Charles
Rapid City, South Dakota 57701

Subject: OME-6558 (Silver)
The Double Rainbow Mines, Inc.
Lawrence County, South Dakota
Contract 2233

Dear Ed:

I received your letter of June 23, 1967 concerning the above-stated project.

A copy of your letter is being sent to the Washington Office for their consideration and subsequent action.

Sincerely yours,

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

cc: Chief, OME
Hasler chron
OME chron
2233

Washington copy

EDWARD L. TULLIS
Consulting Geologist
223 St. Charles
Rapid City, South Dakota

June 21, 1967

Mr. J. Wm. Hasler,
Field Officer, Region III
Office of Minerals Exploration
United States Department of the Interior
Geological Survey
Federal Center,
Denver, Colorado 80225

Dear Bill:

Thank you for your letter of June 16, concerning the work at Double Rainbow.

Today I received from Rexford W. Barton a U.S. check for $6,506.10 which is 75% of the cost of the work done in April. He noted that there was an attachment of "Administrative Suspension Statement" which he did not understand but which represents the Service Tax for my work during April. I have explained this to him. This tax was the main concern of your letter of June 16. It is a legal service tax in South Dakota, the same rate as the sales tax, and is required of all professional people such as engineers, geologists, architects and barbers. It is to be added to the cost of the service and I send the money to the State Taxation Office in Pierre quarterly.

I presume that the best thing to do is to modify the contract to allow for this. You know better than I do how this should be done. The charge is made only on fees, not on per diem or travel.

Sincerely yours,

E L T

Edward L. Tullis

ELT:ek
cc: Donald T. Delicate

OFFICIAL COPY
U. M. E
RECEIVED
19
INITIALS CODE
Ga 120 M
HR 120

Office of Minerals Exploration

June 16, 1967

Dr. Edward L. Tullis, Consulting Geologist
223 St. Charles Street
Rapid City, South Dakota 57701

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2231

Dear Ed:

We note in MME Form 60, under Category 2, Personal Services, that the operator's claim for April, 1967 for Outside Consultants totals $38.65, and includes professional services of $37.50, and South Dakota State service tax at 3 percent or $1.15. Allowance for this tax either in this category or in category 7, was not included in the contract.

The amount of $1.15 was suspended from the operator's monthly progress report for the month of April since the item mentioned in the above paragraph was not included in the contract. Would you please inform us whether or not the South Dakota State Service Tax should have been included under Category 7, Miscellaneous, in the contract. Is this a tax required by all geologic or engineering consultants in the State of South Dakota? If it should have, it will be necessary to amend the contract to allow for the South Dakota State Service Tax at 3 percent to be claimed under the contract.

Under Category 2, Personal Services, subcategory sub(a) Supervision and Technical Services allows for an outside geological consultant for 30 days at $75.00 per day and consultant's per diem 30 days at $16.00 and consultant's travel expenses: 1855 miles at .012 cents per mile. There is no category allowing for the charges for the South Dakota State Service Tax at 3 percent and if this is a legal fee required by consulting geologists the contract should be made to include this amount. We shall await your reply to this inquiry. The Double Rainbow Voucher for May has been processed by this office, approved for payment except the South Dakota State Service Tax, in the amount of $3.38.

Enclosed is a clipping from the Denver Post concerning the untimely death of Andrew J. Lang, Jr., whom I'm certain you knew.

Sincerely yours,

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

cc: Chief, OME
Hasler chron
OME chron
2231

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225
Office of Minerals Exploration

OFFICIAL COPY
O. M. E.
RECEIVED
JUN 5 1967

INITIALS	CODE
gla	120
KJ	~~110~~
	~~120~~
	120

June 2, 1967

Memorandum

To: Chief, OME

From: Field Officer, Region III

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Lawrence County, South Dakota
Contract 2233

During an interim examination on the subject property, May 25, 1967, it was ascertained that the operator is presently employing ten people to carry on the work under the subject contract. Of the ten employees, there are no members of any of the minority groups: Indian, Latin, Oriental or Negro. This complies with the Survey's responsibilities pertaining to the Equal Opportunity Act in contracting. The discrimination posters are prominently displayed in the field office of the operations at the Double Rainbow property.

J. William Hasler
J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

6/5/67
Phoned Mrs. Bunevich 6/5/67 and read this memo to her. No copy of memo necessary for her purposes.
H. Kikemo

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225
Office of Minerals Exploration

OFFICIAL COPY
O. M. E.
RECEIVED
JUN 16 1967
INITIALS/CODE

June 14, 1967

Memorandum

To: Chief, OME

From: Field Officer, Region III

Subject: OME-6558 (Silver)
Rexford W. Barton
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

Transmitted herewith are the original and two copies of MME Form 60 (Operator's Monthly Voucher), MME Form 61 (Operator's Progress Report) and Narrative vouchers with supporting documents for the month of May, 1967.

I certify that the information is complete and accurate to the best of my knowledge and belief, and recommend that payment be made.

J. William Hasler
J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Enclosures

See folder #2

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
5/31/67	Kirkemo	120
		110
		220
		120M

May 31, 1967

Memorandum

To: Chief, Branch of Budget and Finance

From: Chief, Office of Minerals Exploration

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

We note in MME Form 60, under Category 2, Personal Services, that the Operator's claim for April 1967 for Outside Consultants totals $38.63 and includes professional services of $37.50 and South Dakota State Service Tax at 3 percent of $1.13. Allowance for this tax, either in this category or in Category 7, was not included in the contract.

By a copy of this memorandum we are asking the Field Officer, Region III, to determine if this is a state payroll tax which should have been included under Category 7, Miscellaneous, in the contract. If so, it seems that a mutual error has been made and an amendment will have to be prepared to allow payment for this item. On the other hand, perhaps it is similar to a state sales tax.

FRANK E. JOHNSON

Frank E. Johnson

Enclosures

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

HKirkemo/gla 5-31-67

23263

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225

Office of Minerals Exploration

May 19, 1967

OFFICIAL COPY
O. M. E.
RECEIVED
MAY 25 1967
INITIALS CODE
120 M
JEJ 110
HKJ 20 E

Memorandum

To: Chief, OME

From: Field Officer, Region III

Subject: OME-6558 (Silver)
The Double Rainbow Mines, Inc.
Lawrence County, South Dakota
Contract 2233

Transmitted herewith are the original and two copies of the MME Form 60 (Operator's Monthly Voucher), MME Form 61 (Operator's Progress Report) and narrative report for April, 1967 on the above-stated contract.

I certify that, to the best of my knowledge and belief, the foregoing are correct and just and recommend that payment be made.

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

See folder #2

OME- 6558

copy to Washington 6-2-67

OME Region III
RECEIVED
JUN 2 - 1967
Denver, Colorado

OFFICIAL COPY
O. M. E.
RECEIVED
JUN 5 1967

INITIALS	CODE
JJ	110
HR	120

EDWARD L. TULLIS
Consulting Geologist

223 St. Charles Street
Rapid City, South Dakota
57701

May 29, 1967

Mr. Gordon C. Mathiesrud
Geological Department
Homestake Mining Company
Lead, South Dakota

Dear Gordon:

Bill Hasler and I were pleased that we had the chance to look at the cores in Lead last Thursday. Afterward we discussed some of the things that we noted. If I remember correctly Bill suggested that some time it would be helpful to have some sections made similar to those accompanying the original proposal.

From my point of view it would be even more helpful to have certain information entered possibly beside the sections which show the strip logs such as the section which extends from DDH 3S through DDH 6, DDH 1 to DDH 5. I realize that three of these were holes logged by Sheldon but I believe that complete information on these holes is included in copies of Sheldon's logs that I have provided Archie or that Archie or someone in your Geology Department has made. The information that I have in mind showing beside the strip logs is the presence of pyrite, galena and sphalerite which perhaps could be indicated respectively by p, g, s, at the appropriate places where the minerals have been observed in both the igneous and sedimentary rocks. Similarly it might be helpful to have alteration,,which I am sure is hydrothermal, shown by some sort of symbol entered beside the porphyries in the strip logs. It might be possible to work out some sort of multiple symbols that would indicate the degree of alteration.

My thinking back of all of this is that such information entered so that we can readily see it may be a clue to what should be done following the drilling program.

When we were looking at one of the cores the other day we commented on the sparsely disseminated sulphides. Bill mentioned that he wondered whether we were looking at a halo that surrounded an ore body or whether we were looking at generally disseminated mineralization. Either might be of significance particularly if the latter is shown to be restricted to a particular stratigraphic horizon.

I realize that it probably is too late to follow these suggestions for the report that goes in about June 1. Also, you may have some objection or modifications to suggest for the future. If so, please phone me.

Sincerely yours,

Edward L. Tullis

ELT:ek
cc: Donald T. Delicate
F. Wm. Hasler
Archie Slaughter

Office of Minerals Exploration

May 11, 1967

Dr. Edward L. Tullis, Consulting Geologist
223 St. Charles Street
Rapid City, South Dakota 57701

Subject: OME-6558 (Silver)
Rexford W. Barton
Double Rainbow Project
Lawrence County, South Dakota
Contract 2253

Dear Dr. Tullis:

I have received the Operator's monthly voucher, MME Form 60, and the Operator's progress report, MME Form 61 with the accompanying maps and required data for the month of April, 1967 concerning the subject docket on May 10, 1967. I also received your included letter, dated May 8, concerning my proposed trip to the project area for an interim inspection during the week of May 15th.

You stated in your letter of May 8, that any date from May 18 through May 24 inclusive, would be all right with you, and that May 25 through June 2 includes the last day of classes, final examination week and commencement, and that during that period you could not arrange to be absent from school except on May 25 and June 1 and 2, but you prefer not to be.

Last evening in your telephone conversation with me at the Holland House Motor Hotel in Golden you stated that the date of May 25 would be a satisfactory date for you to meet me at the property.

Yesterday, Mr. Fillmore of Spearfish, South Dakota was in my office and we had tentatively arranged a date of examination of May 25, 1967 in view of the fact that the May 24th date would be all right with you as stated in your letter of May 8. However, since the 25th of May will now be more suitable to you, I will make arrangements to meet Mr. Fillmore on the 24th of May and be ready to make an interim examination on the Double Rainbow property with you on May 25th.

I am looking forward to an examination of the Double Rainbow Project as it is to me a most interesting one and we hope that we can have favorable results from the exploration work presently in the process of being completed.

Sincerely yours,

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

cc: Mr. Don Delicate

cc: Chief, OME w/copy of incoming letter of May 8, 1967
Hasler chron
OME chron
2233

EDWARD L. TULLIS
Consulting Geologist

223 St. Charles Street
Rapid City, South Dakota
57701

OME Region III
RECEIVED
MAY 10 1967
Denver, Colorado

May 8, 1967

Mr. William Hassler, Field Officer
Denver Federal Center
Office of Minerals Exploration
U. S. Geological Survey
Denver, Colorado 80225

Dear Bill:

Al Kelley has informed me that tentatively you are planning to be in the area on May 16 to inspect the Double Rainbow Project. The Homestake people would like me present as the agent for Double Rainbow.

Unfortunately, for more than a year we have been preparing for an accreditation inspection by North Central Association at about this time of year. About two months ago the South Dakota Regents of Education gave our Department of Geology and Geological Engineering approval for granting a Ph.D. and North Central is going to make the preliminary inspection on May 15, 16 and 17. I must be here then.

Any dates from May 18 through 24 inclusive would be all right with me. May 25 through June 2 includes the last days of classes, final examination week and commencement. During that period I might be able to arrange to be absent except on May 25 and June 1 and 2, but would prefer not to be.

I will be staying at the Holland House Motor Hotel in Golden from the evening of May 10, through the night of May 12. On Thursday afternoon May 11, I will be co-chairman of the earthquake session in Guggenheim Auditorium. If you are going to be at the GSA Meeting perhaps we could discuss the problem there.

I am looking forward to seeing you whenever that may be.

Attached is the April report for the Double Rainbow contract at Galena, South Dakota.

Sincerely yours,

Edward L. Tullis

Edward L. Tullis

ELT:ek
Enclosure

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225
Office of Minerals Exploration

OFFICIAL COPY
O. M. E.
RECEIVED
MAY 12 1967

INITIALS	CODE
	120
JED	110
HR	

May 9, 1967

Memorandum

To: Chief, OME

From: Field Officer, Region III

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Lawrence County, South Dakota
Contract 2233

Transmitted herewith are the "Government's Copy" and the "Budget and Finance's copy" of Amendment No. 1 of the subject contract. Both copies have been executed by the Government and the Operator. The operator retained the Operator's copy, and the Field Office copy and the Extra Copy for Field Use are being retained in the Region III files.

J. William Hasler
J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Enclosures: 2
Copy of incoming letter, dated 5 May 1967

2251 Virginia Street
Berkeley 9, California

5 May 1967

OME Region III
RECEIVED
MAY X 8 1967
Denver, Colorado

Mr. J. William Hasler
Field Officer, Region III
Office of Minerals Exploration
U. S. Department of the Interior
Geological Survey
Federal Center
Denver, Colorado 80225

Re: OME-6558 (Silver) - Double Rainbow Mines, Inc.
Lawrence County, South Dakota - Contract 2233

Dear Mr. Hasler:

In accordance with your letter of April 26, 1967, I now enclose Amendment No. 1 to the above contract, which I have executed on behalf of Double Rainbow Mines, Inc., as president thereof. I have retained the operator's copy.

Very truly yours,

DOUBLE RAINBOW MINES, INC.

Rexford W. Barton

Rexford W. Barton, President

RWB/d
enclosure
AIR MAIL

Office of Minerals Exploration

April 26, 1968

Mr. Rexford W. Barton
c/o Dowdall, Harris, Hull & Terry
Attorneys at Law
250 North Church Avenue
Tucson, Arizona 85701

Subject: OME-6558 (Silver)
The Double Rainbow Mines, Inc.
Lawrence County, South Dakota
Contract 2233

Dear Mr. Barton:

Enclosed are the original and three copies of proposed Amendment No. 1 (1 page) to the subject contract signed for the Government.

If the proposed Amendment is satisfactory to you, all four copies should be signed by an authorized representative of the operator.

If the proposed Amendment does not have your approval the original and all copies are to be returned to this office together with the proposed changes for consideration.

Sincerely yours,

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

cc: Chief, OME
Hasler chron
OME chron
2233

DOWDALL, HARRIS, HULL & TERRY
ATTORNEYS AT LAW
250 NORTH CHURCH AVENUE
TUCSON, ARIZONA 85701

RICHARD J. DOWDALL
RICHARD C. HARRIS
NORMAN S. HULL
ANTHONY D. TERRY

JAMES HENDRICK TERRY
OF COUNSEL

TELEPHONE
AREA CODE 602
624-8894

6 April 1967

OFFICIAL COPY
O. M. E.
RECEIVED
APR 11 1967
INITIALS | CODE
RWL 140
APR 13 1967

3192

K66-2129.11

INTERIOR DEPT.
APR 13 1967
SOLICITOR

Mr. Frank E. Johnson, Chief
Office of Minerals Exploration
U. S. Department of the Interior
Washington 25, D. C.

Re: OME-6558 (Silver) Double Rainbow Mines, Inc.
Double Rainbow Mine, Lawrence County,
South Dakota - Contract 2233

Dear Mr. Johnson:

Reference is made to your letter of March 22nd to Mr. Rexford W. Barton, President and Director of Double Rainbow Mines, Inc. In accordance therewith, we now enclose Power of Attorney executed in duplicate by the officers of the corporation who executed the contract.

We trust that you will find this in order.

Sincerely,

RECEIVED
APR 13 1967
Division of Minerals
General Legal

DOWDALL, HARRIS, HULL & TERRY

Anthony D. Terry

Anthony D. Terry

ADT/efd
enclosure
cc-w/enclosure: Mr. Edward L. Tullis
223 Saint Charles Street
Rapid City, South Dakota

R. E. Driscoll, Jr., Esquire
Kellar & Kellar & Driscoll
Lead, South Dakota 57754

Copy of ltr to P.A. to B & F. 4/18/67

FROM SOLICITOR
APR 14 1967
FOR SIGNATURE

Copy of ltr only to PD III 4/20/67

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS:

That DOUBLE RAINBOW MINES, INC., a South Dakota corporation, by its officers and Directors thereunto duly authorized, does hereby constitute and appoint EDWARD L. TULLIS, presently of 223 Saint Charles Street, Rapid City, South Dakota, as and to be its true and lawful attorney in all matters arising out of that certain Exploration Contract numbered 2233 between the said Double Rainbow Mines, Inc., and the United States of America, Department of the Interior, U. S. Geological Survey, and in that connection to execute all vouchers for and on behalf of said corporation, receipt for funds received from any source for and on behalf of said corporation, and execute any other documents necessary or convenient to the performance of the Operator's obligations under said Exploration Contract, SAVE AND EXCEPT ONLY amendments or alterations to the terms of said Exploration Contract as it is now executed; and the said DOUBLE RAINBOW MINES, INC., a South Dakota corporation, through us, its duly authorized officers and Directors, hereby ratifies and confirms all and whatsoever the said EDWARD L. TULLIS may lwfully do in the premises by virtue of these presents.

IN WITNESS WHEREOF, Double Rainbow Mines, Inc., has caused this instrument to be executed by its duly authorized officers and Directors this 29 day of March, 1967.

DOUBLE RAINBOW MINES, INC., a
South Dakota corporation,

By Rexford W. Barton
Rexford W. Barton, President
and Director

Catherine B. Mayo
Catherine B. Mayo, Secretary
and Director

STATE OF CALIFORNIA)
) ss
County of Alameda)

On this the 29 day of March, 1967, before me, the undersigned officer, personally appeared REXFORD W. BARTON who acknowledged himself to be the President and a Director of

DOUBLE RAINBOW MINES, INC., a South Dakota corporation, and that he, as such President and Director, executed the foregoing POWER OF ATTORNEY for the purposes therein contained, by signing the name of the corporation by himself as President and Director.

FRANK J. PEGGS
Notary Public
Alameda County
State of California

Notary Public

My commission expires:
FRANK J. PEGGS, Notary Public Alameda County
My Commission Expires July 6, 1969

STATE OF ARIZONA)
) ss
County of Pima)

On this the 4th day of April, 1967, before me, the undersigned officer, personally appeared CATHERINE B. MAYO who acknowledged herself to be the Secretary and a Director of DOUBLE RAINBOW MINES, INC., a South Dakota corporation, and that she, as such Secretary and Director, executed the foregoing POWER OF ATTORNEY for the purposes therein contained, by signing the name of the corporation by herself as Secretary and Director.

Notary Public

My commission expires:
Sept 19, 1968

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
4/14/67	Kirkemo	
"	Johnson	
4/18	Ridgeard	
4/19	Zuleta	
		KM

AIRMAIL

Memorandum

To: Field Officer, Region III

From: Chief, Office of Minerals Exploration

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contracts 2233

Enclosed are the original and three copies of proposed Amendment No 1 (1 page) to the subject contract, signed for the Government. Also enclosed is an extra copy for field use.

If the proposed amendment is satisfactory to you and the Operator, all four copies should be signed by an authorized representative of the Operator. Thereafter, please distribute the copies in the usual manner.

If the proposed amendment does not have your approval or that of the Operator, the original and all copies are to be returned to this office together with the proposed changes for consideration.

FRANK E. JOHNSON

Frank E. Johnson

Enclosures

cc: Director's Reading File
Division File
Econ. Geol. File
OME Docket
OME Reading File
130

MMerrithew/mm (4/14/67)

23263

DRAFT 4/11/67
HKirkemo/gla

To Legal 4/11

120 HK 4/11/67

110

120M

EXPLORATION CONTRACT
DOUBLE RAINBOW MINES, INC.
OME-6558

AMENDMENT NO. 1

It is agreed this _____ day of _____, 1967, between the United States of America, acting through the Department of the Interior, U. S. Geological Survey, hereinafter called the "Government," and Double Rainbow Mines, Inc., hereinafter called the "Operator," that Exploration Contract No. 2233 (OME-6558), dated January 24, 1967, is amended effective the date of the contract as follows:

In Exhibit A, under the heading Description of the Work, page 4, the third paragraph is revised to read as follows:

"Based on geological and engineering information obtained from diamond drilling and underground work completed prior to execution of this contract, a site for a vertical shaft shall be selected which will provide access for underground workings to be driven from the shaft on the Lower contact. The approximate location of the shaft is indicated on Figures 2 and 3. The approximate total depth of the shaft is 260 feet."

This amendment shall not be construed to increase the total estimated cost of the contract, the aggregate amount which the Government may be required to contribute, the amount of any item designated as maximum, nor the fixed unit cost of any item of work.

MME FORM 6 REFERENCE SLIP

REV. 2-59 OFFICE OF MINERALS EXPLORATION

TO:	DATE	INITIALS
1. Associate Solicitor 6042		
2. Harold Kirkemo 4450		
3.		
4.		
5.		
FROM: F. E. Johnson	4/11/67	

FOR: Check items for action desired

X Action ____ Reply for signature of ____

X Approval ____ Investigate ____ Surname

____ Comment ____ Recommendations ____ Signature

____ Conference ____ Rewrite ____ File

____ Instructions ____ Your information

REMARKS: 3192 K-66-2129.11

RECEIVED INTERIOR DEPT. APR 11 1967

APR 11 1967 SOLICITOR

Division of Mineral Resources General Legal Services

FROM SOLICITOR 4-13-67 FOR SIGNATURE

INT.-DUP. SEC., WASH., D.C. M56300-62

Executed in quadruplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By_____
Chief, Office of Minerals Exploration
U. S. Geological Survey

DOUBLE RAINBOW MINES, INC.

By_____

Title_____

HOMESTAKE MINING COMPANY

LEAD, SOUTH DAKOTA

April 4, 1967

OFFICIAL COPY
O. M. E.
RECEIVED
APR 7 1967
INITIALS | CODE
120M
110
120K

Mr. William Hassler
Denver Federal Center
Office of Minerals Exploration
U.S. Geological Survey
Denver, Colorado 80225

Dear Mr. Hassler:

Re: Contract No. 2233
Docket No. OME-6558
Double Rainbow Mines - Lawrence County, South Dakota

As per your request during our phone conversation on April 4, I am preparing this letter setting out our interpretation of Par. 3 on Page 4 of Exhibit A for the above-mentioned contract. The entire project which has been proposed and finalized by Double Rainbow Mines and Homestake is predicated on a plan to proceed with shaft sinking upon the completion of the surface drill hole No. 3-S at the proposed shaft site.

It is our feeling that the surface and underground drill holes will be useful in determining the elevation at which the station will be excavated in the shaft. Information obtained from drill holes will make it possible to determine accurately the dip of the beds and the location of the favorable horizons which are to be explored. The orientation and inclination of the trackless drift to be driven from the shaft to the favorable horizon can be established accurately when the surface drill holes are completed. Information obtained from the underground drill holes will be used primarily to guide underground drifting and delineate possible targets for the trackless and slusher drifts. In our judgement, the location of the shaft is not dependent on the information obtained from the surface or underground drilling.

I wish to point out that we have very little leeway in the selection of a shaft location unless we are willing to increase the total shaft depth or the length of access drift from the shaft to the favorable horizon. The shaft as it is located presently is boxed-in by foreign property on the up-stream side; a creek on the north; and an extremely steep slope on the south. The only direction for relocation of the shaft which would be available to us would be up the hill or down the valley. Any relocation up the hill would add substantially to the total depth of the shaft, and any relocation down the valley would increase greatly the length of access drift from the shaft to the favorable bed. Agreed-upon maximum footages for the shaft and trackless drifting would be inadequate if either of these changes were made.

Enclosed is a topographic map showing the position of the proposed shaft and the surface drill holes with property lines indicated.

It is requested that permission be granted to proceed with the shaft as scheduled at the shaft site proposed originally.

Your prompt attention to this matter will be appreciated greatly.

Sincerely,

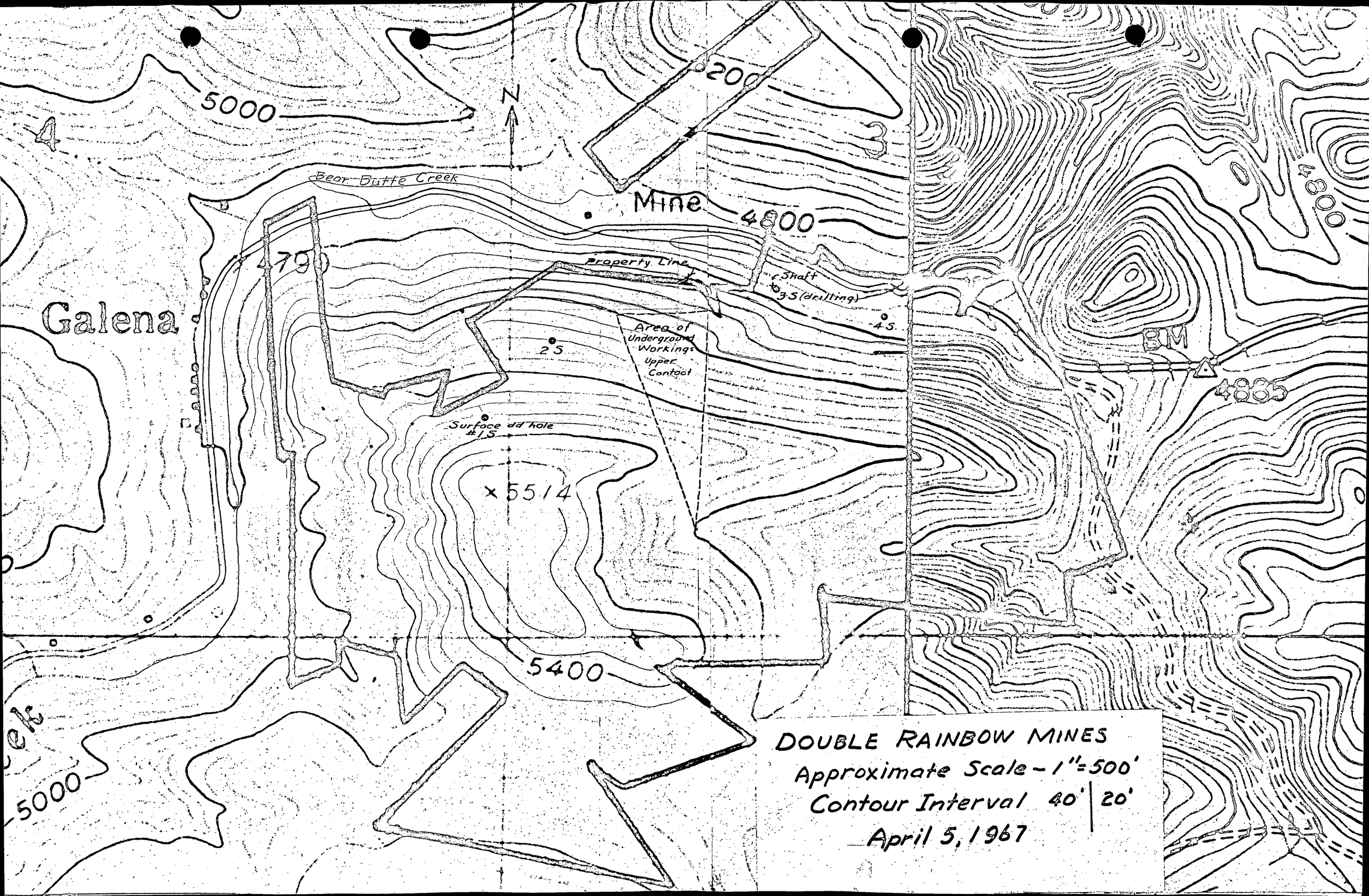
HOMESTAKE MINING COMPANY

Donald T. Delicate

Donald T. Delicate
Manager of Mining

DTD:k

Copy - Mr. Frank Johnson
Washington, D. C.


5000
4
N
20
3
Bear Butte Creek
Mine
4800
4800
790
Property Line
Shaft
3S (drilling)
4S
Galena
Area of Underground Workings Upper Contact
2S
BM
4865
Surface dd hole #1S
x 5514
5400
5000
DOUBLE RAINBOW MINES
Approximate Scale - 1" = 500'
Contour Interval 40' | 20'
April 5, 1967

Copy to Washington 4/4/67

HOMESTAKE MINING COMPANY

LEAD, SOUTH DAKOTA

OME Region III
RECEIVED
APR 3 X 1967
Denver, Colorado

March 30, 1967

OFFICIAL COPY
O. M. E.
RECEIVED
APR 5 1967

INITIALS	CODE
	120M
Yed	110
	120K

Mr. William Hassler
Denver Federal Center
Office of Minerals Exploration
U. S. Geological Survey
Denver, Colorado 80225

Dear Mr. Hassler:

Effective March 29, 1967 work was started under the terms of U.S. Geological Survey Exploration Contract No. 2233 - Docket No. OME-6558.

The initial work under this project involves the drilling of a BX diamond drill hole near the proposed shaft site. Within a few days excavation of the shaft collar will start.

Check enclosed

Sincerely,

HOMESTAKE MINING COMPANY

Donald T. Delicate

Donald T. Delicate
Manager of Mining

DTD:k

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225
Office of Minerals Exploration

OFFICIAL COPY
C. L. E.
RECEIVED
APR 30 1967
INITIALS | CODE
JKA | 110
HK | 120K

March 27, 1967

Memorandum

To: Chief, OME

From: Field Officer, Region III

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine,
Lawrence County, South Dakota
Contract 2233

4/3/67 Hasler will check with Delicate about shaft preparation prior to completion of Drill Hole S-3 Kirkham

Mr. Donald Delicate, of the contracting company for the subject operator, informed us today that diamond drilling on the subject contract will probably begin the latter part of the week of March 27th, and that shaft sinking operations may begin the first week in April 1967. /?

The operator will notify the Field Officer, Region III, of the beginning date of work under the contract.

The diamond drill hole near the site of the proposed shaft (Hole S-3) will be the first hole drilled. This is one of the four holes designed to penetrate the precambrian rocks. Total depth is estimated at about 535 feet.

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

80225

Office of Minerals Exploration

March 27, 1967

Mr. Edward Tullis
223 Saint Charles Street
Rapid City, South Dakota 57701

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract No. 2233

Dear Mr. Tullis:

Transmitted herewith are a year's supply of MME Form 60's (Operator's Monthly Voucher) and MME Form 61's (Operator's Progress Report), for use relative to the above-mentioned contract. The Operator, under an Office of Minerals Exploration contract, is required to report monthly to the Government. The report consists of three parts.

FIRST, the Operator's Monthly Voucher on MME Form 60 listing the project costs incurred and claimed by the Operator is the voucher basis for payment of the Government's share of the cost.

SECOND, the Operator's Progress Report on MME Form 61 is a statistical report of the units and cost of work performed under the contract.

THIRD, the Operator's Narrative Report is a concise description of the work performed, results accomplished, and any unusual situations encountered illustrated and supported by engineering geological maps or sketches, and drill hole logs, assay reports, etc., as pertinent.

The Operator submits the original and four copies of each of the three sections of this report and the substantiating documents to the OME Field Officer, Region III at the end of each month during the life of the contract.

Instructions for preparation thereof are on the reverse side of the MME Form 60 and MME Form 61, and samples are enclosed for your convenience. Please let us know if you need additional forms.

Sincerely yours,

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

MEClark/mc/3/27/67
cc: Chief, OME
Hasler chron
OME chron
2233

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
3/17/67	Kirkemo	122
"	J Johnson	112
	Long	140
		110
		220

AIRMAIL

MAR 22 1967

Mr. Rexford W. Barton
President and Director
Double Rainbow Mines, Inc.
2251 Virginia Street
Berkeley, California 94709

Re: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

Dear Mr. Barton:

This will acknowledge with thanks receipt of two signed copies of the contract referenced above. We have reviewed also a copy of a letter dated March 10, 1967, to Mr. J. William Hasler, Field Officer, Region III, from Mr. Anthony D. Terry, wherein Mr. Terry designates Mr. Edward L. Tullis "as and to be agent of Double Rainbow Mines, Inc. in connection with all administrative matters arising out of the said contract."

Delegation of authority for another party to act on behalf of the Operator under this contract can be made only by the signators to the contract for the Operator; namely, Rexford W. Barton, President and Director, and Catherine B. Mayo, Secretary and Director. We suggest that these signators grant Power of Attorney to an agent, presumably Mr. Tullis, to sign vouchers and certain other documents in the future on behalf of Double Rainbow Mines, Inc. Any restrictions in the delegation such as Mr. Terry mentioned in his letter of March 10 should be described. Please send us two notarized copies of the Power of Attorney.

We share your hopes for success in the forthcoming exploration program at the Double Rainbow mine.

RECEIVED
MAR 2 2 1967
Division of Land Resources
General Land Office

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Mr. Anthony D. Terry

cc: Director's Reading File
Division File
Econ. Geol. File
OME Docket

OME Reading File
Region III
Kirkemo
HKirkemo/mm (3/17/67)

23263

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225
Office of Minerals Exploration

OFFICIAL COPY
O. M. E.
RECEIVED
MAR 15 1967
INITIALS | CODE

March 13, 1967

Memorandum

To: Chief, OME

From: Field Officer, Region III

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine,
Lawrence County, South Dakota
Contract No. 2233

Transmitted herewith is a copy of a letter dated March 10, 1967 from Dowdall, Harris, Hull & Terry which constitutes a designation of Mr. Edward L. Tullis as the agent of Double Rainbow Mines, Inc. in connection with all administrative matters arising out of the said contract. Mr. Tullis' address is as follows:

Mr. Edward L. Tullis
223 Saint Charles Street
Rapid City, South Dakota 57701

The Government is authorized to make all disbursements to Mr. Tullis, and all accounting and other requirements will be handled through his offices, except for changes which might arise in the terms of the agreement on the above stated docket.

J. William Hasler
J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Problems with Double Rainbow
Contact
authorization from Double Rainbow
may be necessary

DOWDALL, HARRIS, HULL & TERRY
ATTORNEYS AT LAW
250 NORTH CHURCH AVENUE
TUCSON, ARIZONA 85701

RICHARD J. DOWDALL
RICHARD C. HARRIS
NORMAN S. HULL
ANTHONY D. TERRY

JAMES HENDRICK TERRY
OF COUNSEL

TELEPHONE
AREA CODE 602
624-8894

10 March 1967

OME Region III
RECEIVED
MAR 13 1967
Denver, Colorado

Mr. J. William Hasler
Field Officer, Region III
Office of Minerals Exploration
U. S. Department of Interior
Geological Survey
Federal Center Building 25
Denver, Colorado 80225

Re: OME-6558 (Silver) Double Rainbow Mines, Inc.
Double Rainbow Mine, Lawrence County,
South Dakota

Dear Mr. Hasler:

In connection with the above referred to contract, this will constitute a designation of Mr. Edward L. Tullis, 223 Saint Charles Street, Rapid City, South Dakota, as and to be the agent of Double Rainbow Mines, Inc., in connection with all administrative matters arising out of the said contract.

You are authorized to make all disbursements to Mr. Tullis, and all accounting and other requirements will be handled through his offices. Except for changes which might arise in the terms of the agreement, it will not be necessary for you to furnish our office with copies of correspondence or other material, since we have made

arrangements with Mr. Tullis which we deem adequate to keep us fully advised of progress.

Very truly yours,

DOWDALL, HARRIS, HULL & TERRY

Anthony D. Terry

Anthony D. Terry

ADT/efd

AIR MAIL

Xc-enclosed (2)

Mr. Edward L. Tullis

Robert E. Driscoll, Jr., Esquire

Note: I notified Mrs. Bunevich by phone today that this contract had been signed. She reported nothing further need be done regarding EEO except she would include it in this month's report. H. Rickard 3/16/67

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225
Office of Minerals Exploration

O. M. E.
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March 10, 1967

Memorandum

To: Chief, OME

From: Field Officer, Region III

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota
Contract 2233

Enclosed are the Government's copy and Budget and Finance's copy of a revised proposed contract for the subject mine. The contract consists of MME Form 50 (7 pages), Annex I (2 pages), Exhibit A (7 pages), Exhibit B (1 page) and three maps (Figures 1, 2, and 3). All copies of the contract have been signed for the Government and for the Applicant. The date for commencement of the work, June 1, 1967, has been inserted. The "Field Office" copy and the "Extra copy for field use" has been retained in the Region III Field Office.

Please be advised that, effective immediately, Mr. Anthony D. Terry's address will be:

Mr. Anthony D. Terry
DOWDALL, HARRIS, HULL & TERRY
ATTORNEYS AT LAW
250 North Church Avenue
Tucson, Arizona 85701

Telephone: 602-624-8894

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Denver Federal Center - Building 25 - Room 2284
Denver, Colorado 80225

January 27, 1967

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Mr. Rexford W. Barton, President
The Double Rainbow Mines, Inc.
2511 Virginia Street
Berkeley, California 94709

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota

Dear Mr. Barton:

Enclosed are the original and three copies of a revised proposed contract for the subject mine. The contract consists of MME Form 50 (7 pages), Annex I (2 pages), Exhibit A (7 pages), Exhibit B (1 page), and three maps (Figures 1, 2, and 3). All copies of the contract have been signed for the Government. The date for commencement of the work should be inserted.

The changes requested by your attorney, Anthony D. Terry, on behalf of you as the applicant have been made and the period of royalty obligation has been increased by two years.

We note that in your letter dated January 16, 1967, you proposed May 1, 1967, as the starting date. Because of frozen ground or difficult operating conditions, would a later date, perhaps June 1, be more realistic?

If the proposed contract is satisfactory to you, the original and three copies should be signed by an authorized representative of the applicant. Thereafter, please retain the operator's copy and send the other three copies (Budget and Finance Copy, Government copy, and Field Office's Copy) to this office.

Please be advised that the 7 percent interest accrues from the dates on which individual payments are made by the Government and like the principal is repayable from royalty on production.

If any part of the proposed contract does not have your approval, the original and all copies should be returned to this office together with the proposed changes for consideration.

Sincerely yours,

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Enclosures

cc: Chief, OME ✓
Hasler chron
OME chron
OME-6558

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
1/19/67	Kirkemo	120
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	Long	140
1/24	Cal	120 m
	Pilzgood	1/23
	Hergen	1/27
		120 M

JAN 24 1967

AIRMAIL

Memorandum

To: Field Officer, Region III

From: Chief, Office of Minerals Exploration

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota

Enclosed are the original and three copies of a revised proposed contract for the subject mine. The contract consists of MME Form 50 (7 pages), Annex I (2 pages), Exhibit A (7 pages), Exhibit B (1 page), and three maps (Figures 1, 2, and 3). All copies of the contract have been signed for the Government. The date for commencement of the work should be inserted. Also enclosed is an extra copy of the contract for field use.

We have made the changes requested by the Applicant and recommended by you, and have increased the period of royalty obligation by two years.

We note that the Applicant in its letter dated January 16, 1967, proposed May 1, 1967, as the starting date. Because of frozen ground or difficult operating conditions, would a later date, perhaps June 1, be more realistic?

FROM SOLICITOR
JAN 20 1967
FOR SIGNATURE

If the proposed contract is satisfactory to you and the Applicant, all four copies should be signed by an authorized representative of the Applicant. Thereafter, please distribute the copies in the usual manner.

Please advise the Applicant that the 7 percent interest accrues from the dates on which individual payments are made by the Government and like the principal is repayable from royalty on production.

If any part of the proposed contract does not have your approval or that of the Applicant, the original and all copies should be returned to this office together with the proposed changes for consideration.

FRANK E. JOHNSON

Frank E. Johnson

Enclosures

cc: Director's Reading File
Division File
Econ. Geol. File
OME Docket
OME Reading File
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MME Form 7
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		220
		120M
	Kemp	
	Pfleger	

SOLICITOR

JAN 20 1967

INTERIOR DEPT.

January 19, 1967

Memorandum

To: The File

From: Harold Kirkemo, Assistant Chief,
Office of Minerals Exploration

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota

The proposed exploration contract, dated December 2, 1966, was reviewed by the Applicant and the Applicant's contractor and returned to the Government unsigned with a request, dated January 16, 1967, to make certain revisions.

The requested revisions were made accordingly without changing the estimated costs of the project. These changes, excepting the Government's change for the period of royalty obligation, have been considered and approved by the Applicant's contractor and by the Field Officer, Region III. The revised items are as follows:

Article 1. Allow 24 months instead of 12 months for completion of the work.

This is a reasonable request inasmuch as the necessary equipment for this project could not be brought to the property before winter weather conditions would have made access difficult and surface operations costly to undertake.

(Revision by the Government). Article 7(b)(2). The period for royalty obligation in the event of a certification of possible production is extended by two years to a period of twelve years. Little if any production can be expected in the two years allowed for completion of the exploration project. Extending the royalty obligation period will help to protect the Government's interest in the project.

Exhibit A, General Provisions,
Page 2, par. 2. Change the dimensions of the shaft to accommodate the shaft equipment to be used.

Equipment used at the contractor's uranium mine at Hauber, Wyoming, will be installed at the Double Rainbow project. Presumably,

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Division of Mineral Resources
General Legal Services

cheaper to sink a larger shaft (cross section dimension) than acquire new equipment for a smaller shaft.

Page 3, par. 1. Change the specifications for air lines, water lines, and ventilation pipes to reflect the difference in requirements according to place of use.

The mobility of equipment used in slusher drifts requires that service lines be readily extended or withdrawn. Allowing smaller diameter, flexible lines in these workings will permit bringing these services closer to the working faces, and withdrawing them as protection against blast damage.

Harold Kirkemo

Harold Kirkemo

cc: Director's Reading File
Division File
Economic Geology File
OME Docket
OME Reading File
Assoc.Sol. (Mr. Long) Rm. 6554
Mr. Kirkemo

HKirkemo/gla 1-19-67

MME FORM 6 REFERENCE SLIP

REV. 2-59 OFFICE OF MINERALS EXPLORATION

TO:	DATE	INITIALS
1. ~~Associate Solicitor, 6042~~		
2. Harold Kirkemo*		
* Please call Ext. 5424 when contract has been approved and we will pick it up.		
3.		
4. SOLICITOR 8076 K-66-2129.11		
5.		
FROM: Frank E. Johnson JAN 20 1967	1/19/67	

FOR: Check items for action desired

____ Action ____ Reply for signature, of _____

____ Approval ____ Investigate ____ Surname

____ Comment ____ Recommendations ____ Signature

____ Conference ____ Rewrite ____ File

____ Instructions ____ Your information

REMARKS:

Mr. Long:

Attached are a revised proposed contract and a self-explanatory memo to the File. If you concur, will you please surname the Director's Reading File Copy and OME Docket Copy of the memo to the Field Officer, R-III.

HULL, TERRY AND BRET HARTE
ATTORNEYS AT LAW
THE TRANSAMERICA BUILDING
TUCSON, ARIZONA

NORMAN S. HULL
ANTHONY D. TERRY
LAWRENCE K. BRET HARTE

JAMES HENDRICK TERRY
OF COUNSEL

TELEPHONE
AREA CODE 602
623-8426

16 January 1967

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Mr. Frank E. Johnson, Chief
Office of Minerals Exploration
U. S. Department of the Interior
Geological Survey
Washington, D. C. 20240

Re: OME-6558 (Silver) Double Rainbow Mines, Inc.
Double Rainbow Mine, Lawrence County,
South Dakota

Dear Mr. Johnson:

As discussed with Mr. J. William Hasler on January 9th, our client, Double Rainbow Mines, Inc., requests certain changes in the proposed OME exploration contract No. 2233 dated December 2, 1966. Such changes are due in part to the weather conditions in South Dakota and in part to certain changes in the original proposal.

On behalf of our client we would request the following:

Article I (page 1): The anticipated starting date is May 1, 1967. It will require at least 18 months from the anticipated starting date to complete the required work. (A time limit of 24 months from the contract date of December 2, 1966, would be satisfactory).

The following factors contribute to the necessity for additional time:

Can they start by 5/1/67?

a) The initial project work entailing surface excavation and construction can not start until the ground is thawed out in the spring, and the snow melts;

b) Additional footage of diamond drilling was added to the original proposal, which will require extra time;

Possibly, expenditure period should be made 12 or 15 years?

c) Additional footage of slusher drifting in the upper contact was added to the original proposal, which will require extra time;

d) Some allowance must be made in the over-all completion time to cover unexpected delays which could occur if greater quantities of water are encountered.

Exhibit A (page 2) - General Provisions: The shaft cross section will be changed to a three-compartment shape measuring 7'-4" x 15'-4" outside timber size. This is slightly larger than the original shaft proposal. No increase in allowable cost for shaft sinking is requested.

a) This change is necessary to accommodate some of the shaft equipment which is available for this project.

Exhibit A (page 3) - General Provisions: Amend the first paragraph to read as follows:

"Air lines shall be not less than 3-inch diameter, water lines not less than 1-inch diameter, and ventilation pipe not less than 14-inch diameter in all drifts except slusher drifts. Either a 2-inch diameter pipe or two 1-inch diameter hoses shall be used for slusher drift air lines. Vent tubing of 12-inch minimum diameter shall be used for ventilation of slusher drifts while drilling."

We wish to thank your office and Mr. Hasler for your cooperation on this matter.

Very truly yours,

HULL, TERRY and BRET HARTE

Anthony D. Terry

Anthony D. Terry

ADT/efd
AIR MAIL
cc-Mr. J. William Hasler, Field Officer, Region III
Office of Minerals Exploration, U. S. Department
of the Interior, Geological Survey,
Federal Center, Denver, Colorado 80225

Government's copy

MME Form 50
July 1965

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
U. S. GEOLOGICAL SURVEY

Pages Retyped

EXPLORATION CONTRACT
(Long Form)

Docket No.	Commodity	Contract No.	County	State
OME -6558	Silver	2233	Lawrence	South Dakota

It is agreed ~~[illegible] 1966~~ (Date), between the United States of America, acting through the Department of the Interior, U. S. Geological Survey, hereinafter called the "Government," and

Double Rainbow Mines, Inc., a South Dakota corporation

whose mailing address is 2251 Virginia Street, Berkeley, California 94709, hereinafter called the "Operator," as follows:

ARTICLE 1. Authority and scope.--(a) This contract entered into under the authority of Public Law 701, 85th Cong., 2d sess. (72 Stat. 700; 30 U.S.C. § 641 - 646), consists of this form, the attached Annex I (land description), Exhibit A (work and costs), and the maps and documents listed. The work is a search for new or unexplored deposits of the commodity designated above. The Operator shall begin the work on or before _____ (Date), and, subject to the provisions of Article 9 and Exhibit A, shall either have completed the work within 24 months from the date of the contract or shall have incurred allowable costs (see Article 6) in a sum not less than the total cost set forth in Exhibit A.

(b) The total allowable cost of the work set forth in Exhibit A is $ 312,180.00. The Government will contribute 75 percent of the allowable costs as they are incurred, in a total sum not in excess of $234,135.00 in accordance with the provisions of Articles 3, 4, 5, and 6. "Costs incurred" means costs that have been paid or have become due and payable, or that the Government determines have become obligations.

(c) Interest computation.--Simple interest at the rate of 7 percent shall accrue from the dates Federal funds are made available until the period specified for payment of royalty expires, or until the amount of Federal funds contributed is fully repaid with interest.

(d) The Operator shall not transfer or assign this contract or any right or obligation thereunder without the written consent of the Government.

ARTICLE 2. Operator's right in land.--(a) The Operator represents and undertakes that Annex I correctly describes the land which is the subject of this contract and the nature of the Operator's right of property and possession therein (whether as owner, lessee, or otherwise), and that such right, title, or interest is subject only to the following claims, liens, or encumbrances:

See Annex I

(b) The Subordination Agreement of the holder of any claim, lien, or encumbrance listed above and (if the Operator does not hold the legal title) the lien agreement of any holder of the legal title of the land (lessor, seller, optionor, etc.) are attached as follows:

See Annex I

(c) The Operator shall preserve and maintain his right, title, or interest in the land and his right to the possession thereof for the purposes of this contract, and shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of this contract. The Operator shall neither transfer, convey, nor surrender the land nor any right, title, or interest therein, nor permit nor suffer any claim, lien, or encumbrance thereon, without expressly referring to and providing in the instrument of conveyance, lien, or encumbrance for the preservation of the Government's right to a royalty on production and liens for the payment thereof. Two true copies of such instrument shall be furnished to the Government. If the Government's rights to royalty as provided in Article 7 have been terminated, the provisions of this paragraph (c) shall become inapplicable.

ARTICLE 3. Performance of the work.--(a) Operator's responsibility.--The work shall be performed diligently, efficiently, in a workmanlike manner in accordance with good mining standards, and in compliance with State laws governing health, safety, and liability insurance covering employment. The Operator shall provide suitable and adequate equipment, facilities, materials, supplies, and labor to complete the work as specified in Article 1(a).

(b) Independent contracts.--To the extent that the allowable costs are estimated in Exhibit A with express reference to performance by independent contractors on a unit-price basis (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations), the work may be so performed (see Article 6(a), Category (1)). Any such independent contract shall refer to some specific and identifiable part of the work, and shall be subject to all of the pertinent terms and conditions of this exploration contract; but the Government shall not be considered a party thereto, and its rights under this contract, including the right to terminate its contributions, shall not be affected thereby. Regardless of the provisions of any such independent contract, the Government will participate in payments to the independent contractor only as to work performed in accordance with the provisions of this exploration contract, and only to the extent that the Government deems the unit prices for the work under the independent contract to be reasonable.

(c) Government may inspect.--The Operator shall consult with and inform the Government on all phases of the work as it progresses. The Government may enter at all reasonable times to inspect the work under the contract and production operations during the period that royalty is payable to the Government. The Operator shall provide the Government with all reasonable means of access for such inspections.

ARTICLE 4. Contribution by the Government.-- The Government will make its contribution on the basis of the monthly vouchers referred to in Article 5(b), but all payments by the Government are provisional only, subject to audit. Until the account between the Operator and the Government is finally audited and settled and the Operator's final report has been received, the Government may withhold such sums as are necessary to protect its interests. The Government may make payments for the account of the Operator directly to independent contractors and suppliers rather than to the Operator.

ARTICLE 5. Reports, accounts, audits.--(a) Operator's records.--The Operator shall keep suitable records and accounts of the work performed and of any production in which the Government may have an interest; and shall preserve those with respect to work performed for at least three years after final payment by the Government, and those with respect to production for at least three years after any obligation to pay royalties to the Government has terminated. The Government may inspect and audit said records and accounts at any time, either by itself or by a certified public accountant. The Comptroller General of the United States or his representative, until the expiration of said three-year periods, shall have access to and the right to examine all pertinent books, documents, papers, and records of the Operator. If work under this contract is carried on in conjunction with any other operations, or if labor, supervision, services, materials, supplies, equipment, facilities, or other requirements for carrying on the work are also used in connection with other operations, the costs shall be segregated and accounted for on a basis and by methods and accounts that are satisfactory to and approved by the Government.

(b) Monthly reports.--The Operator shall provide the Government with four copies of monthly reports in three sections as follows:

(1) Operator's Monthly Voucher claiming costs for work performed;

(2) Operator's Progress Report showing the number of units of the various types of work performed; and

(3) a narrative report of the work performed during the reporting period, including adequate engineering-geological maps or sketches, drill hole logs and locations, and assay reports on samples taken concurrently with advance in mineralized ground.

(Forms for reporting under (1) and (2) above will be provided by the Government; however, the original of the Operator's Monthly Voucher shall be supported by documentary evidence, such as certified copies or transcripts of payrolls and invoices, for all costs claimed under Article 6 (a) (1).)

(c) Final report.--Upon completion of the work or termination of the Government's obligation to contribute to costs, the Operator shall furnish the Government with three copies of a final report (in addition to the final monthly report). This final report shall include a geological and engineering evaluation of the results of the work performed under the contract with an estimate of the ore reserves resulting from such work, complete assay data, adequate geological and engineering maps or sketches, and a summary of the work performed and the related costs.

(d) Report of sales.--The Operator shall provide the Government with suitable accounting and documentary evidence covering all production to which the Government's royalty relates, such as two copies of smelter or concentrator settlement sheets and certified accounts of production and sale or other disposition of production.

(e) Compliance with requirements.--If the Government determines that any of the Operator's reports, records, or accounts are insufficient or incomplete, or if the Operator fails to make them, the Government may procure the preparation or completion of the same with suitable attachments as an expense of the work to which the Operator shall contribute. The Government may withhold approval and payment of any vouchers relating to insufficient or incomplete reports, records, or accounts.

ARTICLE 6. Costs.--(a) Allowable costs.--The allowable costs of the work to which the Government will contribute are limited to:

(1) the necessary, reasonable, and direct actual costs that are estimated in Exhibit A by categories as specified in this article; and

(2) fixed costs for units of work to be performed (per foot, per hour, etc.) agreed upon in lieu of actual costs and set forth in Exhibit A.

The Government will not contribute to costs under any category or subcategory omitted from the estimate of costs in Exhibit A. Any excess over any estimate which is indicated as the maximum of any category, subcategory, or item, either as to requirement or related cost; any excess over a fixed unit cost; and any excess over the total allowable cost of the work are not allowable. The Operator shall incur such excesses for his own account without contribution by the Government, but the Operator is not obligated to incur more than his agreed percentage of the total allowable cost of the work.

Any category or subcategory or element thereof not designated as a maximum in this article, or in Exhibit A may be exceeded, provided that the total allowable cost of the work, which is a maximum, is not exceeded.

CATEGORY (1)--INDEPENDENT CONTRACTS.--(See Article 3(b)). The total of this category and the average unit cost estimated for each type of work to be performed under an independent contract are maximums.

CATEGORY (2)--PERSONAL SERVICES.

Subcategory (a)--Supervision and Technical Services--All elements of this subcategory (number of supervisors, technicians, outside consultants, periods of employment, rates of pay, and total) are maximums.

Subcategory (b)--Labor.

CATEGORY (3)--OPERATING MATERIALS AND SUPPLIES.--Includes such items as drill bits and steel, explosives, fuel, pipe, power, timber, rail, and small tools costing less than $50 each.

CATEGORY (4)--OPERATING EQUIPMENT.

Subcategory (a)--Rental.--The number of each rented item [6 mine cars, 1 truck], the rate of rental [$100 per month, $5 per hour], and the total of this subcategory are maximums.

Subcategory (b)--Purchases.--The total of this subcategory is a maximum.

Subcategory (c)--Depreciation.--All elements of this subcategory (time periods, rate of depreciation, and subcategory total) are maximums.

CATEGORY (5)--INITIAL REHABILITATION AND REPAIRS.--Costs of items listed under this category include all requirements, such as labor, materials and supplies, and supervision at a rate not higher than provided for in Category (2), and shall not be duplicated under any other category. The total of this category is a maximum.

Subcategory (a)--Initial rehabilitation and repairs of existing buildings, fixtures, and installations (exclusive of mine workings).--The total of this subcategory is a maximum.

Subcategory (b)--Initial rehabilitation and repairs of operating equipment.--The total of this subcategory is a maximum.

CATEGORY (6)--NEW BUILDINGS, FIXTURES, AND INSTALLATIONS (EXCLUSIVE OF MINE WORKINGS).--Costs of items listed under this category include all requirements, such as labor, materials and supplies, and supervision at a rate not higher than provided for in Category (2), and shall not be duplicated under any other category. The total of this category is a maximum.

CATEGORY (7)--MISCELLANEOUS.--Includes requirements and costs that do not fall within any of the first six categories, such as repairs other than initial and maintenance of operating equipment, analytical work, prints and other reproductions, accounting, Operator's share of payroll taxes, liability insurance covering employment, travel, and communications.

(b) Nonallowable costs.--In addition to the limitations imposed by paragraph (a) of this Article 6 the Government will not contribute to the following costs:

(1) Costs of the land, such as rental, depreciation, depletion, or other costs of acquiring, owning, or holding possession;

(2) Indirect costs, such as general overhead, corporate management, interest, taxes (other than payroll and sales taxes), insurance (other than liability insurance covering employment), damages to persons, damages to property (other than necessary repairs or replacements of equipment or other property used in the work);

(3) Previous work performed or costs incurred before the date of this contract; and

(4) Deferred payments.--Any costs incurred by the Operator under any rental-purchase agreement, installment-purchase agreement, or any agreement for the purchase of goods under the provisions of which payment of the full purchase price is deferred more than 90 days from the delivery of the goods, unless the purchase agreement is approved by the Government in writing.

(c) Reductions in costs.--The Operator shall account for and give the Government credit for any incidental benefits, credits, or money received in the ordinary course of business in prosecuting the work (as by salvage or sale of materials or equipment, furnishing of room or board, furnishing of power or services to third persons, rebates or discounts on purchases, etc.), in the same ratio in which the Government contributes to costs; and such amounts shall be treated as a reduction in costs incurred so that they are available for use within the limit of the original total cost. The provision does not apply to receipts from production which are subject to the Government's royalty under the provisions of Article 7.

ARTICLE 7. Repayment by Operator.--(a) Certification.--If the Government considers that mineral or metal production from the land covered by the contract may be possible as a result of the exploration work, it shall so certify in writing to the Operator at any time not later than six months after a sufficient final report and final accounting (see Article 5) have been furnished.

(b) Royalty on production.--The Operator, whether or not the producer (for example, if the Operator either transfers or does not retains his interest in the land), shall pay to the Government a royalty on all minerals and metals mined or produced from the land as follows:

(1) irrespective of any certification of possible production--from the date of the contract until the lapse of the time within which the government may issue such certification or until the total net amount contributed by the Government is fully repaid with interest, whichever occurs first; or

(2) if the Government issues a certification of possible production--for a period of ten years from the date of the contract, or until the total net amount contributed by the Government is fully repaid with interest, whichever occurs first.

(c) Payment of royalty.--(1) The Government's royalty shall be five percent of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, concentrate, metal or equivalent), at the point of delivery (the f.o.b. point); except, that charges of the buyer arising in the regular course of business and shown as deductions on the buyer's settlement sheets (such as treatment processes performed by the buyer, sampling and assaying to determine the value of the production sold, and freight payable by the buyer to a carrier (not the Operator or producer)), shall be allowed as deductions in arriving at the "gross proceeds" as that term is used herein. No costs of the Operator or Producer are deductible in arriving at the "gross proceeds" as that term is here used.

The term "treatment processes" means those processes (such as milling, concentrating, smelting, refining, or equivalent, but excluding fabricating or manufacturing) applied to the crude ore or other production after it is extracted from the ground to put it into a commercially marketable form.

(2) The Government's royalty shall be computed and paid currently upon each lot sold, held, or used in integrated operations, as the case may be.

(d) Unsold production.--If any production (ore, concentrate, metal, or equivalent), after the lapse of six months from the date the ore was extracted from the ground, remains neither sold nor used in integrated manufacturing or fabricating operations (for instance, if it is stockpiled), the Government, at its option, as long as it so remains, may require the computation and payment of its royalty on the value of such production in the form (ore, concentrate, metal, or equivalent) it is in when the Government elects to require computation and payment. If any production is used in integrated manufacturing or fabricating operations before the Government makes its election, the Government's royalty on such production shall be computed on the value thereof in the form in which and at the time it is so used. "Value" as here used means what is or would be gross income from mining operations for percentage depletion purposes in Federal income tax determination or the market value, whichever is greater.

Diamond drill core shall be stored in boxes identified as to hole number with markers in the core sections indicating the depth represented. Sludge samples shall be stored in suitable containers properly identified as to source and location. The stored core and sludge samples shall be retained for Government inspection and possible use. With prior Government approval, the Operator may dispose of the core and sludge samples.

All significantly mineralized areas intersected by underground workings shall be sampled and assayed. A representative bulk sample shall be collected from each round broken in mineralized rock. Channel or chip samples shall be cut normal to the trends of the mineralized areas at intervals of not more than 5 feet. Each sample shall be split and one split assayed for silver and gold and, if warranted by inspection, for lead and zinc. The remainder of each sample shall be stored and identified in a suitable container for Government inspection and possible use. With prior Government approval, the Operator may dispose of the stored samples.

True copies of assay certificates of all samples shall be submitted with the Operator's montly report which shall include also a map, sketch, or cross section showing the work completed during the reporting period and the locations of all samples taken from drill core and underground workings.

All drill holes and underground workings shall be logged or mapped geologically and copies of the logs of completed holes and maps of workings shall likewise be submitted with the Operator's monthly report.

The vertical shaft shall be not less than 8 by $10\frac{1}{2}$ feet in cross section in clear of timber, and shall be divided into manway and skip compartments. Ladders throughout and landings at vertical intervals of not more than 20 feet shall be installed in the manway compartment.

Drifts and cross cuts intended for passage of trackless loading and hauling equipment shall be not less than 8 by 10 feet in cross section. Drifts and crosscuts wherein slusher equipment is used shall be not less than 6 by 6 feet in cross section.

The underground workings shall be rock bolted or timbered to the extent necessary and proper. The Government's contribution shall be limited by the total estimated for the item, Rock bolting, listed under Estimated Costs of the Project.

Air lines shall be not less than 3-inch diameter, water lines not less than 1-inch diameter, and ventilation pipe not less than 14-inch diameter. In the event track haulage is used, mine rails shall be not less than 20-pound size.

The Operator shall provide such supervision, labor, and technical services as may be required to complete the work in a satisfactory manner.

The Operator at its own cost and expense shall rehabilitate and repair mine workings and installations on the Upper contact level which are necessary for access and operation of the exploration work on that level specified in the contract. The Operator also shall bear the total cost and expense of surface construction necessary for operation of the project.

Description of the Work

The work shall consist of diamond core drilling from surface and underground sites approximately 13 holes totalling about 6,110 feet, sinking a vertical shaft about 260 feet, excavating a station, sump, and loading pocket, and drifting a total of 4,200 feet on two levels, the Upper and Lower contacts.

The approximate locations of the work described are shown in plan view on Figure 2, entitled "Double Rainbow Mine Proposed Underground Exploration Work, Upper Contact," and on Figure 3, entitled "Double Rainbow Proposed Underground Exploration Work, Lower Contact," which are attached hereto and made part hereof.

Four holes, Nos. 1S-4S, inclusive, totalling about 2,635 feet shall be drilled from the surface at sites located approximately as indicated in red color on Figure 2.

Nine holes, Nos. 1U-9U, inclusive, totalling about 3,475 feet shall be drilled from the Richmond-Sitting Bull mine workings on the Upper contact at sites located approximately as indicated in blue color on Figure 3.

All holes presently planned are to be drilled vertically unless results of drilling dictate changes in the plan for subsequent holes. The geological targets and the possible depths of the holes are as follows:

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
Denver Federal Center-Building 25-Room 2284
Denver, Colorado 80225

January 12, 1967

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Memorandum

To: Chief, OME

From: Field Officer, Region III

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota

Enclosed are the original and three copies of a proposed contract for the subject mine. The contract consists of MME Form 50 (7 pages), Annex I (2 pages), Exhibit A (7 pages), Exhibit B (1 page), and three maps (Figures 1, 2, and 3). Also enclosed is an extra copy of the contract which you sent for field use. These copies of the proposed contract have been returned to me by the applicant in a letter dated January 6, 1967.

The contract is being returned in order to lengthen the time necessary for the completion of the contract work as well as some possible minor changes under the general specifications of the contract which the applicant will inform you about in a letter this week. If the contract carries a January 1967 date the work time completion should be 24 months rather than the 12 months as was originally stated in the contract.

The applicant is concerned about some specifications relative to the size of air lines and possibly the size of the shaft. However, none of the changes proposed by the applicant will be construed to increase the cost of the contract which is presently $312,180.

I concur with the changes that have been proposed by the applicant and recommend that these changes be made and that a revised exploration contract be prepared and sent to the applicant as soon as possible.

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Denver Federal Center-Building 25-Room 2284
Denver, Colorado 80225

January 12, 1967

Mr. Anthony D. Terry
Attorney at Law
Phoenix Title Building
Tucson, Arizona 85701

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Property
Lawrence County, South Dakota

Dear Mr. Terry:

Thank you for returning the Government's copy of the proposed contract on the above-mentioned subject which you had inadvertently retained.

The proposed contract has been returned to our Washington office in order to lengthen the time necessary for the completion of the contract work as well as some possible minor changes under the general specifications of the contract and informed that the applicant will write them this week.

A revised exploration contract will be prepared and sent to you as soon as possible.

Sincerely yours,

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

cc: Chief, OME
Hasler chron
OME chron
6558

OFFICIAL
COPY
O. M. E.
RECEIVED
JAN 6 1967
MAIL SECTION

Office of Minerals Exploration

January 4, 1966

Mr. Anthony D. Terry
Attorney at Law
Phoenix Title Building
Tucson, Arizona 85701

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Property
Lawrence County, South Dakota
Contract 2233

Dear Mr. Terry:

This letter is in reply to our telephone conversation concering the proposed contract on the above mentioned property. I have conferred with our Washington office and have been instructed to ask you to return all copies of the proposed contract unsigned as it will be necessary for Washington to execute a new contract with the dates requested by you as well as changing some items within the contract that may be forthcoming, after my conference with Mr. Delicate which is scheduled for January 9.

Will you please return all copies of the contract as soon as possible so that I may have them for the conference with Mr. Delicate?

Sincerely yours,

J. William Hasler

J. William Hasler
Field Officer, Region III
Office of Minerals Exploration

cc: Chief, OME
Hasler chron
OME chron
2233

Office of Minerals Exploration

JGJ TWO YR
HXJ 130K

December 6, 1966

Mr. Rexford W. Barton, President
The Double Rainbow Mines, Inc.
2551 Virginia Street
Berkeley 9, California 94709

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota

Dear Mr. Barton:

Enclosed are the original and three copies of a proposed contract for the subject mine. The contract consists of MME Form 50 (7 pages), Annex I (2 pages), Exhibit A (7 pages), Exhibit B (1 page), and three maps (Figures 1, 2, and 3). All copies of the contract have been signed for the Government. The date for commencement of the work should be inserted. Also enclosed is an extra copy of the contract that I use for field use.

If the proposed contract is satisfactory to you, all five copies should be signed by an authorized representative of the Applicant. Thereafter, please mail the signed copies (retaining your copy) to the Washington office: Office of Minerals Exploration, U. S. Geological Survey, Room 4460 - Interior Building, Washington, D. C. 20240, as I shall be out of the office the remainder of this month.

The 7-1/4 percent interest accrues from the dates on which individual payments are made by the Government and like the principal is repayable from royalty on production.

If any part of the proposed contract does not have your approval, the original and all copies should be returned to the Washington office together with the proposed changes for consideration.

Sincerely yours,

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

cc: Chief, OME ✓
Hasler chron
OME chron
OME-6558

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
11/30/66	Kitkemo	
"	Johnson	
"	Kilgaard	
12/1	Meyer	
12/1	Woodward	
	Bahn	
12/2	Cole	210
		120M

AIRMAIL

Memorandum

To: Field Officer, Region III

From: Chief, Office of Minerals Exploration

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota

Enclosed are the original and three copies of a proposed contract for the subject mine. The contract consists of MME Form 50 (7 pages), Annex I (2 pages), Exhibit A (7 pages), Exhibit B (1 page), and three maps (Figures 1, 2, and 3). All copies of the contract have been signed for the Government. The date for commencement of the work should be inserted. Also enclosed is an extra copy of the contract for field use.

If the proposed contract is satisfactory to you and the Applicant, all four copies should be signed by an authorized representative of the Applicant. Thereafter, please distribute the copies in the usual manner.

Please advise the Applicant that the * percent interest accrues from the dates on which individual payments are made by the Government and like the principal is repayable from royalty on production.

If any part of the proposed contract does not have your approval or that of the Applicant, the original and all copies should be returned to this office together with the proposed changes for consideration.

FRANK E. JOHNSON

Frank E. Johnson

Enclosures

cc: Director's Reading File
Division File
Economic Geology File
OME Reading File
130

MMerrithew/mm (11/29/66)

* As soon as we know the interest rate for December, we will call you so that you may insert it on all copies of the contract.

23263

MME FORM 6 REFERENCE SLIP

REV. 2- OFFICE OF MINERALS EXPLORATION

TO:	DATE	INITIALS
1. [redacted]		
2. Harold Kirkemo, 4450		
3. K-66-2129 INTERIOR DEPT.	11	
4. NOV 23 1966		
5. SOLICITOR		
FROM: F. E. Johnson	11/23/66	

FOR: Check items for action desired

X Action	____ Reply for signature of ____	
X Approval	____ Investigate	____ Surname
____ Comment	____ Recommendations	____ Signature
____ Conference	____ Rewrite	____ File
____ Instructions	Your information	

REMARKS:

FROM SOLICITOR
NOV 28 1966
FOR SIGNATURE

RECEIVED
NOV 23 1966
[illegible] Resources
[illegible] Legal Service

DRAFT 11/2/66
HKirkemo/gla

MME Form 50
July 1965

120 HK
110
120 M

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
U. S. GEOLOGICAL SURVEY

EXPLORATION CONTRACT
(Long Form)

Docket No.	Commodity	Contract No.	County	State
OME -6558	Silver		Lawrence	South Dakota

It is agreed _____ (Date), between the United States of America, acting through the Department of the Interior, U. S. Geological Survey, hereinafter called the "Government," and

Double Rainbow Mines, Inc., a South Dakota corporation

whose mailing address is 2251 Virginia Street, Berkeley 9, California, hereinafter called the "Operator," as follows:

ARTICLE 1. Authority and scope.--(a) This contract entered into under the authority of Public Law 701, 85th Cong., 2d sess. (72 Stat. 700; 30 U.S.C. § 641 - 646), consists of this form, the attached Annex I (land description), Exhibit A (work and costs), and the maps and documents listed. The work is a search for new or unexplored deposits of the commodity designated above. The Operator shall begin the work on or before _____ (Date), and, subject to the provisions of Article 9 and Exhibit A, shall either have completed the work within 12 months from the date of the contract or shall have incurred allowable costs (see Article 6) in a sum not less than the total cost set forth in Exhibit A.

(b) The total allowable cost of the work set forth in Exhibit A is $312,180.00. The Government will contribute ~~50~~ 75 percent of the allowable costs as they are incurred, in a total sum not in excess of $234,135.00 in accordance with the provisions of Articles 3, 4, 5, and 6. "Costs incurred" means costs that have been paid or have become due and payable, or that the Government determines have become obligations.

(c) Interest computation.--Simple interest at the rate of ____ percent shall accrue from the dates Federal funds are made available until the period specified for payment of royalty expires, or until the amount of Federal funds contributed is fully repaid with interest.

(d) The Operator shall not transfer or assign this contract or any right or obligation thereunder without the written consent of the Government.

ARTICLE 2. Operator's right in land.--(a) The Operator represents and undertakes that Annex I correctly describes the land which is the subject of this contract and the nature of the Operator's right of property and possession therein (whether as owner, lessee, or otherwise), and that such right, title, or interest is subject only to the following claims, liens, or encumbrances:

See Annex I

(b) The Subordination Agreement of the holder of any claim, lien, or encumbrance listed above and (if the Operator does not hold the legal title) the lien agreement of any holder of the legal title of the land (lessor, seller, optionor, etc.) are attached as follows:

See Annex I

(c) The Operator shall preserve and maintain his right, title, or interest in the land and his right to the possession thereof for the purposes of this contract, and shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of this contract. The Operator shall neither transfer, convey, nor surrender the land nor any right, title, or interest therein, nor permit nor suffer any claim, lien, or encumbrance thereon, without expressly referring to and providing in the instrument of conveyance, lien, or encumbrance for the preservation of the Government's right to a royalty on production and liens for the payment thereof. Two true copies of such instrument shall be furnished to the Government. If the Government's rights to royalty as provided in Article 7 have been terminated, the provisions of this paragraph (c) shall become inapplicable.

ARTICLE 3. Performance of the work.--(a) Operator's responsibility.--The work shall be performed diligently, efficiently, in a workmanlike manner in accordance with good mining standards, and in compliance with State laws governing health, safety, and liability insurance covering employment. The Operator shall provide suitable and adequate equipment, facilities, materials, supplies, and labor to complete the work as specified in Article 1(a).

(b) Independent contracts.--To the extent that the allowable costs are estimated in Exhibit A with express reference to performance by independent contractors on a unit-price basis (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations), the work may be so performed (see Article 6(a), Category (1)). Any such independent contract shall refer to some specific and identifiable part of the work, and shall be subject to all of the pertinent terms and conditions of this exploration contract; but the Government shall not be considered a party thereto, and its rights under this contract, including the right to terminate its contributions, shall not be affected thereby. Regardless of the provisions of any such independent contract, the Government will participate in payments to the independent contractor only as to work performed in accordance with the provisions of this exploration contract, and only to the extent that the Government deems the unit prices for the work under the independent contract to be reasonable.

(c) Government may inspect.--The Operator shall consult with and inform the Government on all phases of the work as it progresses. The Government may enter at all reasonable times to inspect the work under the contract and production operations during the period that royalty is payable to the Government. The Operator shall provide the Government with all reasonable means of access for such inspections.

ARTICLE 4. Contribution by the Government.-- The Government will make its contribution on the basis of the monthly vouchers referred to in Article 5(b), but all payments by the Government are provisional only, subject to audit. Until the account between the Operator and the Government is finally audited and settled and the Operator's final report has been received, the Government may withhold such sums as are necessary to protect its interests. The Government may make payments for the account of the Operator directly to independent contractors and suppliers rather than to the Operator.

ARTICLE 5. Reports, accounts, audits.--(a) Operator's records.--The Operator shall keep suitable records and accounts of the work performed and of any production in which the Government may have an interest; and shall preserve those with respect to work performed for at least three years after final payment by the Government, and those with respect to production for at least three years after any obligation to pay royalties to the Government has terminated. The Government may inspect and audit said records and accounts at any time, either by itself or by a certified public accountant. The Comptroller General of the United States or his representative, until the expiration of said three-year periods, shall have access to and the right to examine all pertinent books, documents, papers, and records of the Operator. If work under this contract is carried on in conjunction with any other operations, or if labor, supervision, services, materials, supplies, equipment, facilities, or other requirements for carrying on the work are also used in connection with other operations, the costs shall be segregated and accounted for on a basis and by methods and accounts that are satisfactory to and approved by the Government.

(b) Monthly reports.--The Operator shall provide the Government with four copies of monthly reports in three sections as follows:

(1) Operator's Monthly Voucher claiming costs for work performed;

(2) Operator's Progress Report showing the number of units of the various types of work performed; and

(3) a narrative report of the work performed during the reporting period, including adequate engineering-geological maps or sketches, drill hole logs and locations, and assay reports on samples taken concurrently with advance in mineralized ground.

(Forms for reporting under (1) and (2) above will be provided by the Government; however, the original of the Operator's Monthly Voucher shall be supported by documentary evidence, such as certified copies or transcripts of payrolls and invoices, for all costs claimed under Article 6 (a) (1).)

(c) Final report.--Upon completion of the work or termination of the Government's obligation to contribute to costs, the Operator shall furnish the Government with three copies of a final report (in addition to the final monthly report). This final report shall include a geological and engineering evaluation of the results of the work performed under the contract with an estimate of the ore reserves resulting from such work, complete assay data, adequate geological and engineering maps or sketches, and a summary of the work performed and the related costs.

(d) Report of sales.--The Operator shall provide the Government with suitable accounting and documentary evidence covering all production to which the Government's royalty relates, such as two copies of smelter or concentrator settlement sheets and certified accounts of production and sale or other disposition of production.

(e) Compliance with requirements.--If the Government determines that any of the Operator's reports, records, or accounts are insufficient or incomplete, or if the Operator fails to make them, the Government may procure the preparation or completion of the same with suitable attachments as an expense of the work to which the Operator shall contribute. The Government may withhold approval and payment of any vouchers relating to insufficient or incomplete reports, records, or accounts.

ARTICLE 6. Costs.--(a) Allowable costs.--The allowable costs of the work to which the Government will contribute are limited to:

(1) the necessary, reasonable, and direct actual costs that are estimated in Exhibit A by categories as specified in this article; and

(2) fixed costs for units of work to be performed (per foot, per hour, etc.) agreed upon in lieu of actual costs and set forth in Exhibit A.

The Government will not contribute to costs under any category or subcategory omitted from the estimate of costs in Exhibit A. Any excess over any estimate which is indicated as the maximum of any category, subcategory, or item, either as to requirement or related cost; any excess over a fixed unit cost; and any excess over the total allowable cost of the work are not allowable. The Operator shall incur such excesses for his own account without contribution by the Government, but the Operator is not obligated to incur more than his agreed percentage of the total allowable cost of the work.

Any category or subcategory or element thereof not designated as a maximum in this article, or in Exhibit A may be exceeded, provided that the total allowable cost of the work, which is a maximum, is not exceeded.

CATEGORY (1)--INDEPENDENT CONTRACTS.--(See Article 3(b)). The total of this category and the average unit cost estimated for each type of work to be performed under an independent contract are maximums.

CATEGORY (2)--PERSONAL SERVICES.

Subcategory (a)--Supervision and Technical Services--All elements of this subcategory (number of supervisors, technicians, outside consultants, periods of employment, rates of pay, and total) are maximums.

Subcategory (b)--Labor.

CATEGORY (3)--OPERATING MATERIALS AND SUPPLIES.--Includes such items as drill bits and steel, explosives, fuel, pipe, power, timber, rail, and small tools costing less than $50 each.

CATEGORY (4)--OPERATING EQUIPMENT.

Subcategory (a)--Rental.--The number of each rented item [6 mine cars, 1 truck], the rate of rental [$100 per month, $5 per hour], and the total of this subcategory are maximums.

Subcategory (b)--Purchases.--The total of this subcategory is a maximum.

Subcategory (c)--Depreciation.--All elements of this subcategory (time periods, rate of depreciation, and subcategory total) are maximums.

CATEGORY (5)--INITIAL REHABILITATION AND REPAIRS.--Costs of items listed under this category include all requirements, such as labor, materials and supplies, and supervision at a rate not higher than provided for in Category (2), and shall not be duplicated under any other category. The total of this category is a maximum.

Subcategory (a)--Initial rehabilitation and repairs of existing buildings, fixtures, and installations (exclusive of mine workings).--The total of this subcategory is a maximum.

Subcategory (b)--Initial rehabilitation and repairs of operating equipment.--The total of this subcategory is a maximum.

CATEGORY (6)--NEW BUILDINGS, FIXTURES, AND INSTALLATIONS (EXCLUSIVE OF MINE WORKINGS).--Costs of items listed under this category include all requirements, such as labor, materials and supplies, and supervision at a rate not higher than provided for in Category (2), and shall not be duplicated under any other category. The total of this category is a maximum.

CATEGORY (7)--MISCELLANEOUS.--Includes requirements and costs that do not fall within any of the first six categories, such as repairs other than initial and maintenance of operating equipment, analytical work, prints and other reproductions, accounting, Operator's share of payroll taxes, liability insurance covering employment, travel, and communications.

(b) Nonallowable costs.--In addition to the limitations imposed by paragraph (a) of this Article 6 the Government will not contribute to the following costs:

(1) Costs of the land, such as rental, depreciation, depletion, or other costs of acquiring, owning, or holding possession;

(2) Indirect costs, such as general overhead, corporate management, interest, taxes (other than payroll and sales taxes), insurance (other than liability insurance covering employment), damages to persons, damages to property (other than necessary repairs or replacements of equipment or other property used in the work);

(3) Previous work performed or costs incurred before the date of this contract; and

(4) Deferred payments.--Any costs incurred by the Operator under any rental-purchase agreement, installment-purchase agreement, or any agreement for the purchase of goods under the provisions of which payment of the full purchase price is deferred more than 90 days from the delivery of the goods, unless the purchase agreement is approved by the Government in writing.

(c) Reductions in costs.--The Operator shall account for and give the Government credit for any incidental benefits, credits, or money received in the ordinary course of business in prosecuting the work (as by salvage or sale of materials or equipment, furnishing of room or board, furnishing of power or services to third persons, rebates or discounts on purchases, etc.), in the same ratio in which the Government contributes to costs; and such amounts shall be treated as a reduction in costs incurred so that they are available for use within the limit of the original total cost. The provision does not apply to receipts from production which are subject to the Government's royalty under the provisions of Article 7.

ARTICLE 7. Repayment by Operator.--(a) Certification.--If the Government considers that mineral or metal production from the land covered by the contract may be possible as a result of the exploration work, it shall so certify in writing to the Operator at any time not later than six months after a sufficient final report and final accounting (see Article 5) have been furnished.

(b) Royalty on production.--The Operator, whether or not the producer (for example, if the Operator either transfers or does not retains his interest in the land), shall pay to the Government a royalty on all minerals and metals mined or produced from the land as follows:

(1) irrespective of any certification of possible production--from the date of the contract until the lapse of the time within which the government may issue such certification or until the total net amount contributed by the Government is fully repaid with interest, whichever occurs first; or

(2) if the Government issues a certification of possible production--for a period of ten years from the date of the contract, or until the total net amount contributed by the Government is fully repaid with interest, whichever occurs first.

(c) Payment of royalty.--(1) The Government's royalty shall be five percent of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, concentrate, metal or equivalent), at the point of delivery (the f.o.b. point); except, that charges of the buyer arising in the regular course of business and shown as deductions on the buyer's settlement sheets (such as treatment processes performed by the buyer, sampling and assaying to determine the value of the production sold, and freight payable by the buyer to a carrier (not the Operator or producer)), shall be allowed as deductions in arriving at the "gross proceeds" as that term is used herein. No costs of the Operator or Producer are deductible in arriving at the "gross proceeds" as that term is here used.

The term "treatment processes" means those processes (such as milling, concentrating, smelting, refining, or equivalent, but excluding fabricating or manufacturing) applied to the crude ore or other production after it is extracted from the ground to put it into a commercially marketable form.

(2) The Government's royalty shall be computed and paid currently upon each lot sold, held, or used in integrated operations, as the case may be.

(d) Unsold production.--If any production (ore, concentrate, metal, or equivalent), after the lapse of six months from the date the ore was extracted from the ground, remains neither sold nor used in integrated manufacturing or fabricating operations (for instance, if it is stockpiled), the Government, at its option, as long as it so remains, may require the computation and payment of its royalty on the value of such production in the form (ore, concentrate, metal, or equivalent) it is in when the Government elects to require computation and payment. If any production is used in integrated manufacturing or fabricating operations before the Government makes its election, the Government's royalty on such production shall be computed on the value thereof in the form in which and at the time it is so used. "Value" as here used means what is or would be gross income from mining operations for percentage depletion purposes in Federal income tax determination or the market value, whichever is greater.

(e) Lien for payment.--To secure the payment of royalty (see Article 7(b)), the Operator hereby grants to the Government a lien upon his interest in the land and upon any production of minerals and metals therefrom until the royalty claim is extinguished by lapse of time or is fully paid.

(f) Notice to purchasers.--The Operator or producer shall give notice of the Government's claim for royalty to any purchaser of the production, and shall authorize and direct such purchaser to pay the royalty directly to the Government and to furnish the Government with copies of the settlement sheets. If the records of any production and sales or other disposition of production, whether the production is by the Operator or by others, are not made available to the Government, the amount of the royalty may be estimated by the Government, and this estimate shall be final and binding upon the Operator or producer.

(g) No obligation to produce.--Nothing in this contract shall be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any production operations.

(h) Government not obligated to buy.--Nothing in this contract shall be construed as imposing any obligation on the Government to purchase any minerals and metals mined or produced from the land.

ARTICLE 8. Interests in purchased property.--(a) Title and ownership.--All costs under this contract shall be incurred by the Operator in the Operator's own name and for the Operator's own account; but any property acquired to the cost of which the Government contributes shall belong to the Operator and the Government jointly in proportion to their respective contributions although title thereto shall be taken in the name of the Operator.

(b) Preservation of property.--Until the final disposal of any property in which the Government has an interest, the Operator shall preserve and protect same for the best interest of the Government, and any reasonable and necessary cost thereof will be treated as an allowable cost of the exploration. After the completion of the work, termination of the Government's obligation to contribute, or when such property is not being used for the work, the Operator shall not use it elsewhere without the written consent of the Government and without paying a reasonable rental to be fixed by the Government for its proportionate interest.

(c) Disposal of property.--Upon the completion of the work, termination of the Government's obligation to contribute to costs, or when the property is no longer needed for the work, the Operator shall promptly dispose of salable or salvageable property in which the Government has an interest for the joint account of the Government and the Operator, either by return to the vendor, sale to others, purchase by the Operator, or sale or transfer to the Government at a price at least as high as could be obtained from others, unless the Government in writing waives its interest in any such property. Without advance approval of the sales price by the Government, the Operator shall not sell at any price any item of property that cost more than $500, and shall not sell at less than 25 percent of the purchase price any item of property that cost $500 or less. The Government, in lieu of approving the sales price for any such item, may itself purchase the item at the best price which the Operator is able to obtain or offers. Property remaining upon any termination of the work shall be considered in groups or categories (such as drill steel, explosives, pipe, or rail), and if the original cost of the remaining unexpended portion of any such group or category is less than $50, the Government waives its interest therein. If necessary to accomplish the disposal of any item, the Operator shall dismantle and sever it from the land, the cost thereof to be treated as a cost of the exploration.

(d) Default of the Operator re disposal.--If within 90 days after the completion of the work, termination of the Government's obligation to contribute to costs, or after the property is no longer needed for the work, the Operator has failed to sell or otherwise liquidate or dispose of any property in which the Government has an interest, the Government, at any time prior to final settlement under the contract, may:

(1) in writing extend the time within which the Operator must dispose of or liquidate the property;

(2) by written notice to the Operator, place upon such property what it determines to be a fair valuation thereof, not in excess of the cost less 1.66 percent per month from the date such property was purchased under this contract to the termination of said 90-day period; and such property shall thereupon be considered and accounted for as having been purchased by the Operator at the valuation so fixed by the Government; and

(3) enter and take possession of such property wherever it may be found, and remove and dispose of it for the joint account of the parties.

ARTICLE 9. Termination of the Government's obligations.--(a) If the Government determines that operations at any time have failed to achieve anticipated results and further work is not justified, the Government may give the Operator written notice thereof, and thereupon:

(1) the Government shall be free of all obligation to contribute to costs not then incurred other than such as may be allowable under the provisions of the contract as necessary and incidental to final accounting and reporting; and

(2) the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to final accounting and reporting.

(b) If the Government determines that the Operator is in default under the terms of the contract, the Government may give the Operator written notice of such default with a specification of reasonable time within which the default must be cured; and if the Operator fails to cure such default as required, thereupon:

(1) the Government shall be relieved of all obligation to contribute to costs not incurred when the notice was given, other than such as may be allowable by the provisions of the contract as necessary and incidental to final accounting and reporting; and

(2) the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to final accounting and reporting.

The Government may also avail itself of any other remedy the law may provide for breach of contract, including the right to rescind the contract and to demand repayment of all moneys contributed by the Government under the contract.

(c) The giving of any notice by the Government under the provisions of this Article 9 shall not affect the Government's rights as provided for in the contract with respect to royalty and liens to secure the payment thereof, and such rights shall be fully preserved.

(d) The determinations of the Government are subject to appeal under Article 13.

ARTICLE 10. Notices to be given by the Government may be delivered to the Operator, or may be sent by certified mail addressed to the Operator at his mailing address stated in this contract. If mailed, notices are deemed to have been delivered five days after the date of mailing.

ARTICLE 11. Officials not to benefit.--No member of or delegate to Congress or resident commissioner shall be admitted to any share or part of this contract or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

ARTICLE 12. Nondiscrimination in Employment. The provisions respecting nondiscrimination in employment which are required by section 301 of Executive Order 10925, dated March 6, 1961 as amended and supplemented are attached hereto as Exhibit B and are hereby incorporated in and made a part of this contract.

ARTICLE 13. Disputes.--Any dispute arising under this contract which is not disposed of by agreement shall be decided by the Director, U. S. Geological Survey, who shall reduce his decision to writing and mail or otherwise furnish a copy thereof to the Operator. The decision of the Director, U. S. Geological Survey, shall be final and conclusive unless, within 30 days from the date of receipt of such copy, the Operator mails or otherwise furnishes to the Director, U. S. Geological Survey, a written appeal addressed to the Secretary of the Interior. The decision of the Secretary or his duly authorized representative for the determination of such appeals shall be final and conclusive unless determined by a court of competent jurisdiction to have been fraudulent, or capricious, or arbitrary, or so grossly erroneous as necessarily to imply bad faith, or not supported by substantial evidence.

The term "Director, U. S. Geological Survey," as used herein includes his duly authorized representative.

ARTICLE 14. Work Hours Act of 1962 - Overtime Compensation.--This contract, to the extent that it is of a character specified in the Work Hours Act of 1962 (Public Law 87-581, 76 Stat. 357-360) and is not covered by the Walsh-Healey Public Contracts Act (41 U.S.C. 35-45), is subject to the following provisions and to all other provisions and exceptions of said Work Hours Act of 1962.

(a) Overtime requirements.--No Operator or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any laborer or mechanic to be employed on such work in excess of eight hours in any calendar day or in excess of forty hours in any workweek unless such laborer or mechanic receives compensation at a rate of not less than one and one-half times his basic rate of pay for all hours worked in excess of eight hours in any such calendar day or in excess of forty hours in any such workweek, as the case may be.

(b) Violations; liability for unpaid wages; liquidated damages.--In the event of any violation of the clause set forth in subparagraph (a) of this paragraph, the Operator and any subcontractor responsible therefor shall be liable to any affected employee for his unpaid wages. In addition, such Operator and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for

liquidated damages. Such liquidated damages shall be computed, with respect to each individual laborer or mechanic employed in violation of the clause set forth in subparagraph (a) of this paragraph, in the sum of $10 for each calendar day on which such employee was required or permitted to work in excess of eight hours or in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in subparagraph (a) of this paragraph.

(c) Withholding for unpaid wages and liquidated damages.--The U. S. Geological Survey may withhold or cause to be withheld, from any moneys payable on account of work performed by the Operator or subcontractor, such sums as may administratively be determined to be necessary to satisfy any liabilities of such Operator or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in subparagraph (b) of this paragraph.

ARTICLE 15. Copeland (Anti-Kickback) Act--Nonrebate of wages.--The regulations of the Secretary of Labor applicable to contractors and subcontractors (29 CFR, Part 3), made pursuant to the Copeland Act, as amended (40 U. S. C. 276c) and to aid in the enforcement of the Anti-Kickback Act (18 U. S. C. 874) are made a part of this contract by reference. The Operator will comply with these regulations and any amendments or modifications thereof and will be responsible for the submission of affidavits required of independent contractors thereunder. The foregoing shall apply except as the Secretary of Labor may specifically provide for reasonable limitations, variations, tolerances, and exemptions.

ARTICLE 16. Changes and added provision.--

_____

_____

_____

_____

Executed in quintuplicate the day and year first above written.

DOUBLE RAINBOW MINES, INC.

_____
(Operator)

By_____

Title_____

THE UNITED STATES OF AMERICA

By_____
Director, U. S. Geological Survey

_____

I, _____, certify that I am the
(Name)

_____ secretary of the corporation named as Operator herein; that

_____, who signed this contract on behalf of the Operator, was then
(Name)

_____ of said corporation; that said contract was duly signed for
(Title)

and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

_____

 [CORPORATE SEAL]

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HKirkemo/gla

EXPLORATION CONTRACT
DOUBLE RAINBOW MINES, INC.
OME-6558

ANNEX I

The land referred to in Article 2 of the contract consists of twenty-nine (29) patented lode mining claims and one (1) unpatented mining claim situated in sections 3, 4, 9, and 10, T. 4 W., R. 4 E., Black Hills Meridian, Galena district, Lawrence County, South Dakota.

These claims are shown on Figure 1, entitled "Double Rainbow Mine Claim Map, Lawrence County, South Dakota," which is attached hereto and made part hereof.

The patented claims in the group are as follows:

Claim	Survey No.	Claim	Survey No.
Merritt No. 1	73	Grand View	365
Merritt No. 2	133	Ora Flamme	384
Florence	163	Sleeper	1980
Chicago	334	George B. McClellan	2031
Sitting Bull	336	Gorman	2031
Richmond	345	Bank of Dakota	1901
Tiger Tail	333	Teddy	1901
Center Fraction	2030	Fissure	1901
Grand View Fraction Lode	366	Bed Rock	1901
Silver Terra	364	Gulch	1901
Mountain	1640	Gray Eagle	1901
Custer	919	Camillus	1901
Rock Hill	1639	Margaret	1901
Savage	372	Wabash	1901
		War Eagle	1901

The unpatented claim is recorded in the Lawrence County Courthouse, Deadwood, South Dakota, as follows:

Rattle Fraction Book 240, page 286

The Operator is the sole owner of the surface and mineral rights on the property described above with the exception of the surface rights to approximately 1.80 acres of the Merritt No. 1 claim which are in conflict with a patented placer claim (Galena Placer, M. S. No. 692). Because the area of conflict is more than one-quarter mile from the site of the proposed work, the surface rights in such land are not essential to the Government's interest. The requirement for a Lien and Subordination Agreements is hereby waived.

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SECOND DRAFT
HKirkemo/mm (11/22/66

EXPLORATION CONTRACT
DOUBLE RAINBOW MINES, INC.
OME-6558

EXHIBIT A

The purpose of this project is to explore for silver-bearing ore deposits occurring as replacement bodies associated with three dolomitic zones referred to as the Upper, Lower, and Basal contacts in the Deadwood formation of Cambrian age, and with sedimentary and metamorphic rocks at the base of the Deadwood formation overlying Precambrian rocks.

The work shall be performed by diamond core drilling from the surface and from underground workings, and by shaft sinking, crosscutting, and drifting.

General Provisions

No drilling or underground work shall be done within 100 feet of the exterior boundaries of the land outlined on Figure 1.

The location, direction, and extent of each work item shall be subject to prior Government approval. The Government will not participate in the costs incurred for incomplete drill holes or for casing left in holes at the request of the Operator.

All surface diamond drill holes shall be cased through overburden and completed with standard BX (nominal diameter 1-5/8") core size or equivalent wire line size equipment.

All diamond drill holes drilled from underground locations shall be completed with standard AX (nominal diameter 1-1/8") core size or equivalent wire line size equipment.

Significantly mineralized core shall be split and one split assayed for silver and gold. Where indicated by the mineralization, the core may be assayed also for lead and zinc. No sample shall represent a core length greater than five feet. The remaining core shall be stored in proper sequence with the unmineralized core.

Facilities shall be provided for recovering drill sludges. Sludge samples shall be retained when drilling in significantly mineralized rock.

Diamond drill core shall be stored in boxes identified as to hole number with markers in the core sections indicating the depth represented. Sludge samples shall be stored in suitable containers properly identified as to source and location. The stored core and sludge samples shall be retained for Government inspection and possible use. With prior Government approval, the Operator may dispose of the core and sludge samples.

All significantly mineralized areas intersected by underground workings shall be sampled and assayed. A representative bulk sample shall be collected from each round broken in mineralized rock. Channel or chip samples shall be cut normal to the trends of the mineralized areas at intervals of not more than 5 feet. Each sample shall be split and one split assayed for silver and gold and, if warranted by inspection, for lead and zinc. The remainder of each sample shall be stored and identified in a suitable container for Government inspection and possible use. With prior Government approval, the Operator may dispose of the stored samples.

True copies of assay certificates of all samples shall be submitted with the Operator's monthly report which shall include also a map, sketch, or cross section showing the work completed during the reporting period and the locations of all samples taken from drill core and underground workings.

All drill holes and underground workings shall be logged or mapped geologically and copies of the logs of completed holes and maps of workings shall likewise be submitted with the Operator's monthly report.

The vertical shaft shall be not less than 8 by 10½ feet in cross section in clear of timber, and be divided into manway and skip compartments. Ladders throughout and landings at vertical intervals of not more than 20 feet shall be installed in the manway compartment.

Drifts and crosscuts intended for passage of trackless loading and hauling equipment shall be not less than 8 by 10 feet in cross section. Drifts and crosscuts wherein slusher equipment is used shall be not less than 6 by 6 feet in cross section.

The underground workings shall be rock bolted or timbered to the extent necessary and proper. The Government's contribution shall be limited by the total estimated for the item, Rock bolting, listed under Estimated Costs of the Project.

Air lines shall be not less than 3-inch diameter, water lines not less than 1-inch diameter, and ventilation pipe not less than 14-inch diameter. In the event track haulage is used, mine rails shall be not less than 20-pound size.

The Operator shall provide such supervision, labor, and technical services as may be required to complete the work in a satisfactory manner.

The Operator at its own cost and expense shall rehabilitate and repair mine workings and installations on the Upper contact level which are necessary for access and operation of the exploration work on that level specified in the contract. The Operator also shall bear the total cost and expense of surface construction necessary for operation of the project.

Description of the Work

The work shall consist of diamond core drilling from surface and underground sites approximately 13 holes totalling about 6,110 feet, sinking a vertical shaft about 260 feet, excavating a station, sump, and loading pocket, and drifting a total of 4,200 feet on two levels, the Upper and Lower contacts.

The approximate locations of the work described are shown in plan view on Figure 2, entitled "Double Rainbow Mine Proposed Underground Exploration Work, Upper Contact," and on Figure 3, entitled "Double Rainbow Proposed Underground Exploration Work, Lower Contact," which are attached hereto and made part hereof.

Four holes, Nos. 1S-4S, inclusive, totalling about 2,635 feet shall be drilled from the surface at sites located approximately as indicated in red color on Figure 2.

Nine holes, Nos. 1U-9U, inclusive, totalling about 3,475 feet shall be drilled from the Richmond-Sitting Bull mine workings on the Upper contact at sites located approximately as indicated in blue color on Figure 3.

All holes presently planned are to be drilled vertically unless results of drilling dictate changes in the plan for subsequent holes. The geological targets and the possible depths of the holes are as follows:

Hole No.	Geological Targets: Upper Contact	Lower Contact	Basal Contact and Precambrian Rocks	Approximate Maximum Depth of Hole, feet
1S	X	X	X	750
2S	X	X		650
3S	X	X	X	535
4S	X	X	X	700
1U thru 8U		X		340-370
9U		X	X	640

Holes intended to cut the Basal contact and basement rocks should penetrate about 25 feet into Precambrian rocks.

Unused footage remaining from the above described drilling program may be used as warranted within the limits of available drilling funds.

Based principally on information obtained from the surface diamond drilling, and from such information as is useful from the underground drill holes, a site for a vertical shaft shall be selected which will provide access for underground workings to be driven from the shaft on the Lower contact. The approximated location of the shaft is indicated on Figures 2 and 3. The approximate total depth of the shaft is 260 feet.

A shaft station, rock storage pocket, and sump shall be excavated for servicing the workings to be driven on the Lower contact.

Four slusher drifts totalling 1,400 feet shall be driven on the Upper contact from the Richmond-Sitting Bull mine workings and the McClellan tunnel as indicated on Figure 2.

Starting from the shaft station established for the Lower contact workings, a drift shall be driven southwesterly approximately 700 feet, thence southerly approximately 800 feet using trackless loading and hauling equipment to explore the Lower contact as indicated on Figure 3.

From positions selected in the trackless drift, about five slusher drifts totalling about 1,300 feet shall be driven to explore mineralized zones in the Lower contact as indicated on Figure 3.

Estimated Costs of the Project

Actual Costs

Category (1) Independent Contracts

Drilling, 6,110 feet[1/]	$ 28,548.00	$28,548.00
1,985 feet from surface sites into Precambrian rocks, BX @ $6.50/foot		
650 feet from surface site through Lower contact, BX @ $6.00/foot		
3,475 feet from underground sites, AX @ $3.38/foot		

Category (2) Personal Services

None except:

Subcategory (a) Supervision and Technical Services

1 - Outside geological consultant		
30 days @ $75.00/day	$ 2,250.00	$ 2,250.00

Category (7) Miscellaneous

None except:

Consultant's per diem,		
30 days @ $16.00/day	$ 480.00	
Consultant's travel expenses,		
1,825 miles @ $0.12/mile	219.00	$ 699.00
		31,500.00
Total Estimated Actual Costs (rounded)		~~$31,497.00~~

Fixed Unit Costs

Shaft sinking, 260 feet @ $220.00/foot 1/	$57,200.00	
Allowance for excess water in shaft sinking	11,440.00*	
If water flow in excess of 50 gallons per minute is encountered during shaft sinking, an increase of $25.00 per foot of shaft sunk thereafter is allowed for each 50-gallon-per-minute increase in water flow.		
Excavate shaft station, sump, and loading pocket, including installation of skip loader, 9,000 cubic feet @ $2.16/cubic foot	19,440.00*	
Rock bolting	4,348.00	
5-foot bolts @ $3.00 each, installed		
8-foot bolts @ $3.50 each, installed		
Drifting, 4,200 feet 1/ (rounded)	188,250.00	
Slusher drift, Upper contact, 1,400 feet @ $35.00/foot		~~XXXXXXXXX~~
Slusher drift, Lower contact, 1,300 feet @ $41.73/foot		
Trackless drift, Lower contact, 1,500 feet @ $56.67/foot		
		200,600.00
Total Estimated Fixed Unit Costs (rounded)		~~$280,678.00~~

*Maximum

1/ Includes all costs whatseever such as mobilization and demobilization, labor, equipment, materials and supplies, services, taxes, insurance, supervision, assays, etc.

SUMMARY

Total Estimated Actual Costs	$ 31,500.00
Total Estimated Fixed Unit Costs	280,680.00
Total Estimated Cost of the Project	$312,180.00
Government Participation @ 75%	$234,135.00

EXPLORATION CONTRACT
DOUBLE RAINBOW MINES, INC.
OME-6558

EXHIBIT A

The purpose of this project is to explore for silver-bearing ore deposits occurring as replacement bodies associated with three dolomitic zones referred to as the Upper, and Basal Lower contacts in the Deadwood Formation of Cambrian age, and with sedimentary and metamorphic rocks at the base of the Deadwood Formation overlying Precambrian rocks.

The work shall be performed by diamond core drilling from the surface and from underground workings, and by shaft sinking, crosscutting, and drifting.

General Provisions

No drilling or underground work shall be done within 100 feet of the exterior boundaries of the land outlined on Figure 1.

The location, direction and extent of each work item shall be subject to prior Government approval. The Government will not participate in the costs incurred for incomplete drill holes or for casing left in holes at the request of the Operator.

All surface diamond drill holes shall be cased through overburden and completed with standard BX (nominal diameter 1-5/8") core size or equivalent wire line size equipment.

All diamond drill holes drilled from underground locations shall be completed with standard AX (nominal diameter 1-1/8") core size or equivalent wire line size equipment.

True copies of assay certificates of all samples shall be submitted with the Operator's monthly report which shall include also a map, sketch, or cross section showing the work completed during the reporting period and the locations of all samples taken from drill core and underground workings.

All drill holes and underground workings shall be logged or mapped geologically and copies of the logs of completed holes and maps of workings shall likewise be submitted with the Operator's monthly report.

The vertical shaft shall be not less than 8 by 10½ feet in cross section in clear of timber, and be divided into manway and skip compartments. ~~The two compartments shall be separated by timber no less than 8- by 8-inch cross section with 3-inch lagging nailed to the timbers on the skip side.~~ Ladders throughout and landings at vertical intervals of not more than ~~50~~ 20 feet shall be installed in the manway compartment.

Drifts and crosscuts intended for passage of trackless loading and hauling equipment shall be not less than 8 by 10 feet in cross section. Drifts and crosscuts wherein slusher equipment is used shall be not less than 6 by 6 feet in cross section.

The ~~drifts and crosscuts~~ underground workings shall be rock bolted or timbered to the extent necessary and proper. The Government's contribution shall be limited by the total estimated for the item, Rock bolting, listed under Estimated Costs of the Project.

Air lines shall be not less than 3-inch diameter, water lines not less than 1-inch diameter, and ventilation pipe not less than 14-inch diameter. In the event track haulage is used, mine rails shall be not less than 20-pound size.

The Operator shall provide such supervision, labor, and technical services as may be required to complete the work in a satisfactory manner.

The Operator at its own cost and expense shall rehabilitate and repair mine workings and installations on the Upper contact level which are necessary for access and operation of the exploration work on that level specified in the contract. The Operator also shall bear the total cost and expense of surface construction necessary for operation of the project.

Description of the Work

The approximate locations of the work described are shown in plan view on Figure 2, entitled "Double Rainbow Mine Proposed Underground Exploration Work, Upper Contact," and on Figure 3, entitled "Double Rainbow Proposed Underground Exploration Work, Lower Contact," which are attached hereto and made part hereof.

INSERT

~~The work shall consist of drilling~~ four ~~vertical diamond~~ ~~core~~ 2,635 feet and averaging about ~~300~~ 630 feet ... as indicated

The work shall consist of diamond core drilling from surface and underground holes (sites approximately 12 holes) totalling about ~~5,200~~ 5,110 feet, sinking a vertical shaft about 260 feet, excavating a station, sump, and loading pocket, and drifting a total of 4,200 feet on two levels, the Upper and Lower contacts.

subsequently ...

Basal contact, and about ... each rock. Nine vertical diamond ~~core~~ ... ~~and averaging about 355 feet in depth~~ shall be drilled from the Richmond-Sitting Bull workings on the Upper contact at sites located

150 feet for ... drift to the Precambrian rocks.

Four ~~contact~~ holes, No.s ~~1S, 2S, 3S, and 4S,~~ 1S - 4S, inclusive, totalling about 2635 feet ~~and averaging about 660 feet in depth~~ shall be drilled from the surface at sites located approximately as indicated in red color on Figure 2.

Nine ~~contact~~ holes, No.s 1U - 9U, inclusive, totalling about 3475 feet shall be drilled from the Richmond - Sitting Bull mine workings on the Upper contact at sites located approximately as indicated in blue color on Figure 3. ~~Eight of these holes will average about 435 feet in depth, and the ninth may be well be between 590 and 640 feet.~~

All holes presently planned are to be drilled vertically unless results of drilling dictate changes in the ~~course of~~ plan for subsequent holes. The geological targets and the possible depths of the holes are as follows:

Hole No.	Geological targets: Upper ~~contact~~ contact	Lower contact	Basal contact and Precambrian rocks	Approximate maximum depth of hole, feet
1S	x	x	x	750
2S	x	x		650
3S	x	x	x	535
4S	x	x	x	700
1U through 8U		x		340 - 370
9U		x	x	640

Holes intended to cut the Basal contact and basement rocks should penetrate about 25 feet into Precambrian rocks.

Unused footage remaining from the above described drilling program may be used ~~for~~ as warranted ~~[illegible]~~ within the limits of available drilling funds.

Unused [illegible] remaining from the above described program may be used for additional holes as warranted, and within the limits of available drilling funds.

approximately as indicated in blue color on Figure 3. These holes, averaging about 355 feet in depth, will provide stratigraphic information and explore projected mineralized zones in the Lower contact. The ninth hole, No. 9U, [illegible] approximately 640 feet to explore the Lower contact.

Based principally on information obtained from the surface diamond drilling, and from such information as is useful from the underground drill holes, a site for a vertical, ~~two-compartment~~ shaft shall be selected which will provide access for underground workings to be driven from the shaft on the Lower contact. The approximate location of the shaft is indicated on Figures 2 and 3. The approximate total depth of the shaft is 260 feet.

A shaft station, rock storage pocket, and sump shall be excavated for servicing the workings to be driven on the Lower contact.

Four slusher drifts totalling 1,400 feet shall be driven on the Upper contact from the Richmond-Sitting Bull workings and the McClellan tunnel as indicated on Figure 2.

Starting from the shaft station established for the Lower contact workings, a drift shall be driven southwesterly approximately 700 feet, thence southerly approximately 800 feet using trackless loading and hauling equipment to explore the Lower contact as indicated on Figure 3.

From positions selected in the trackless drift, about five slusher drifts totalling about 1,300 feet shall be driven to explore mineralized zones in the Lower contact as indicated on Figure 3.

Estimated Costs of the Project

Actual Costs

Category (1) Independent Contracts

Diamond core drilling, 1/	$28,548.00 ~~[illegible]~~ ~~$22,816.00~~	28,548.00 ~~[illegible]~~ ~~$22,816.00~~
6,110 ~~[illegible]~~ feet into Precambrian rocks		
1,985 ~~[illegible]~~ feet from surface sites, BX @ $6.50 ~~[illegible]~~/ft.		
650 feet from surface site through Lower contact, BX @ 6.00/ft.		
~~[illegible]~~ feet from underground sites, AX @ $3.38/ft. 3,475		

Category (2) Personal Services

None except:

Subcategory (a) Supervision and Technical Services

1 - Outside geological consultant

30 days @ $75.00/day	$ 2,250.00	2,250.00

Category (7) Miscellaneous

None except:

Consultant's per diem,		
30 days @ $16.00/day	$ 480.00	
Consultant's travel expenses,		
1825 ~~[illegible]~~ miles @ $0.12/mile	219.00 ~~216.00~~	
~~F.I.C.A., payroll taxes, insurance, etc.~~	~~360.00~~ ~~$50.00~~	699.00 ~~1,046.00~~
Total Estimated Actual Cost: ~~[illegible]~~ (rounded)		~~$26,110.00~~ ~~26,[illegible]~~ ~~$31,022.00~~ $31,500.00

Fixed Unit Costs

Shaft sinking, 260 feet @ $220.00/ft. 1/	$57,200.00	
Allowance for excess water in shaft sinking	11,440.00*	
If water flow in excess of 50 gallons per minute is encountered during shaft sinking, an increase of $25.00 per foot of shaft sunk thereafter is allowed for each 50-gallon-per-minute increase in water flow.		
Excavate shaft station, sump, and loading pocket, including installation of skip loader, 9,000 cubic feet @ $2.16/cu.ft.	19,440.00*	
Rock bolting	4,348.00	
5-foot bolts @ $3.00 each, installed		
8-foot bolts @ $3.50 each, installed		
Drifting, 4,200 feet 1/ (rounded)	188,250.00	280,680.00 ~~$280,678.00~~
Slusher drift, Upper contact, 1,400 feet @ $35.00/ft.		
Slusher drift, Lower contact, 1,300 feet @ $41.73/ft.		
Trackless drift, Lower contact, 1,500 feet @ $56.67/ft.		

* Maximum

1/ Includes all costs whatsoever such as mobilization and demobiliation, labor, equipment, materials and supplies, services, taxes, insurance, supervision, assays, etc.

S U M M A R Y

Total Estimated Fixed Unit Costs	280,680.00 ~~$280,678.00~~
Total Estimated Actual Costs	31,500.00 $ ~~26,122.00~~
Total Estimated Cost of the Project	312,180.00 ~~$306,800.00~~
Government Participation @ 75%	~~$230,100.00~~ $234,129.00

---

* Maximum

1/ Includes all costs whatsoever such as mobilization and demobilization, labor, equipment, materials and supplies, services, taxes, insurance, supervision, assays, etc.

SUMMARY

Total Estimated Actual Costs	31,500.00 ~~$31,497.00~~
Total Estimated Fixed Unit Costs	280,680.00 ~~280,678.00~~
Total Estimated Cost of the Project	312,180.00 ~~$312,175.00~~
Government Participation @ 75%	~~$234,129.00~~ 234,135.00

HOMESTAKE MINING COMPANY

LEAD, SOUTH DAKOTA

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Airmail

November 15, 1966

Mr. Frank Johnson, Chief
Office of Minerals Exploration
U. S. Department of Interior
Washington, D. C.

Re: Double Rainbow Mine
South Dakota

Dear Mr. Johnson:

Anthony Terry, attorney for the Double Rainbow people, called me last week about some suggested plans for increasing the depths of some of the underground holes to be drilled in the upper contact workings of the Double Rainbow. The plan is to more fully test the Deadwood formation and the underlying schist by extending each of 4 of the underground holes by about 200 feet, adding about 800 feet of drilling. I consulted with Dr. Edward Tullis, consultant for Double Rainbow, and we agreed that this extra drilling would be worth the extra cost. Dr. Tullis so notified Mr. Terry who was to pass the information back to OME.

A second plan was communicated to me by Bill Hasler of the OME office at Denver. This called for deepening of 3 of the surface holes and one of the underground holes, the purpose being to obtain information on the bottom part of the Deadwood formation and the basement rocks over a wider area than would be possible with the first plan.

The following is a footage comparison of the two plans. The drill holes are located by number on the enclosed map.

Plan I - 4 underground holes to be deepened to penetrate 25 ft. of Precambrian

Hole No.	Original depth estimated	Increased depth estimated
2U	340	585
6U	355	585
7U	360	595
9U	375	590
	1,430	2,355
		- 1,430
Total increase in footage		925 ft.
Increase in cost @ $3.375 per ft.		$3,121.87

Plan II - 3 surface holes and one underground hole to be deepened to penetrate 25 ft. of Precambrian

Hole No.	Original depth estimated	Increased depth estimated
1S	500	700
3S	400	485
4S	450	650
9U	375	590
	1,725	2,425
		- 1,725
Total increase in footage		700 ft.
Increased cost		$4,553.13

Dr. Tullis and myself, in telephone conference agreed to recommend Plan II above. Because of the greater average depth of the surface holes we would like to increase Homestake's bid price from $6.00 to $6.50 per ft., this higher price to apply to holes 1S, 3S, and 4S only.

Because of the uncertainties in predicting depths of holes we feel that 200 ft. should be added to the 2,425 figure in Plan II as a safety factor. This could be split, 25% to underground and 75% to surface drilling.

We are looking forward to completion of the contract and the start of work at Double Rainbow.

Sincerely,

A. L. Slaughter

A. L. Slaughter
Chief Geologist

ALS/ls

cc: Mr. William Hasler
Dr. E. L. Tullis

HULL, TERRY AND BRET HARTE
ATTORNEYS AT LAW
PHOENIX TITLE BUILDING
TUCSON, ARIZONA

NORMAN S. HULL
ANTHONY D. TERRY
LAWRENCE K. BRET HARTE

JAMES HENDRICK TERRY
OF COUNSEL

TELEPHONE
AREA CODE 602
623-8426

15 November 1966

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INITIALS CODE

Mr. Walter Kirkemo
Office of Minerals Exploration
U. S. Department of the Interior
Geological Survey
Washington 25, D. C.

Re: OME-6558 (Silver) Double Rainbow Mines, Inc.
Double Rainbow Mine, Lawrence County,
South Dakota

Dear Mr. Kirkemo:

This will confirm our telephone conversation of yesterday in which I stated that I had contacted our Geologist, Mr. Tullis, the contractor involved, Homestake Mining Company, and my clients, Double Rainbow, in connection with the increase in our application for loan from the amount applied for to the amount stated by you of approximately $310,000.

It is understood that this increase is due largely to the addition of approximately 400 feet more drifting in the upper contact and 800 feet more drilling in the underground area. All parties concur that this increase is advisable. Therefore, on behalf of my clients, I authorize its inclusion in the contract which you indicated was in the process of preparation.

Very truly yours,

Anthony D. Terry

Anthony D. Terry

ADT/efd

AIR MAIL

Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
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		220
		120M

November 2, 1966

Memorandum

To: The File

From: Assistant Chief, Office of Minerals Exploration

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota

Notes on preparation of contract

Double Rainbow Mines, Inc., received five bids for the proposed work, but only one covered all aspects of the program, and its bid on most of the individual items was the lowest of the five. Homestake Mining Co., the successful bidder (revised bid dated August 31, 1966), reported to the OME Field Officer, Region III, that its bid includes, without extra cost, supervision of the entire project, and geological sampling, assaying, and reporting services as described under General Provisions of the contract. These expenses are included in the estimated costs for diamond drilling, shaft sinking, excavating, and drifting.

It is not possible to estimate the quantity of water that may be encountered in sinking the shaft. On the basis that the cost to the Government of handling excess water should not exceed the maximum usually allowed (20%) on OME contracts for rehabilitation and repairs, the maximum amount allowed was established at $11,440.00 (20% of the cost of sinking the shaft).

Except for diamond drilling and consultant's services and expenses, all work and cost items are listed under Fixed Unit Costs in order to simplify preparation of vouchers and monthly reports, and to facilitate administration of the contract by the OME Field Officer. This project is far removed from other OME projects in Region III, and interim inspections will therefore not be frequent.

Harold Kirkemo

Harold Kirkemo

cc: Director's Reading File
Division File
Economic Geology File
OME Docket
OME Reading File
Mr. Kirkemo
HKirkemo/gla 11-2-66

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HOMESTAKE MINING COMPANY

LEAD, SOUTH DAKOTA

November 1, 1966

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Mr. Frank E. Johnson
Chief
Office of Mineral Exploration
U.S. Geological Survey
Interior Building - Room 4460
Washington, D. C. 20240

Dear Mr. Johnson:

Ref: OME 6558 (Silver) Double-Rainbow Mine (Richmond Sitting Bull) Lawrence County, South Dakota.

At the request of Mr. William Hassler, I am forwarding the quantities of rock bolts which are estimated for the proposed underground work at the Double Rainbow property. They are as follows:

5-foot rock bolts	1,412	7010
8-foot rock bolts	32	710

Sincerely yours,

HOMESTAKE MINING COMPANY

Donald T. Delicate

Donald T. Delicate
Manager of Mining

DTD:k

Copies - Mr. A. L. Slaughter
- Mr. William Hassler
- Mr. Paul Price

Frank:

11/4/66

I allowed $500.00 total for rock bolts including installation. Perhaps the allowance should be increased. I assume that rock bolts would be used only at the station — obviously they will be needed also in the drifts in lieu of timber.

Kirk.

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225

Office of Minerals Exploration

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November 1, 1966

Memorandum

To: Harold Kirkemo

From: Field Officer, Region III

Subject: Drawings concerning the Double Rainbow project, OME-6558

Enclosed are two sets of each drawing concerning the Double Rainbow project OME-6558. Perhaps Pete can use a set for his files.

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

see folder
#2

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October 3, 1966

To: Chief, OME

From: Field Officer, Region III

Subject: Report of examination OME-6558 (Silver)
The Double Rainbow Mine
(Richmond-Sitting Bull)
Lawrence County,
South Dakota

On the above mentioned subject, dated September 30, 1966, it is requested the following change be made:

Page 33, Proposed costs, Item 4 under Type of Work, Upper Contact Drifting, Drive exploration drift, 6 x 6, the footage was stated as 1,000 ft. It should be 1,400 feet.

Corrected on file

J. William Hosler

IN REPLY REFER TO:

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September 30, 1966

Memorandum

To: Chief, OME

From: Field Officer, Region III

Subject: Report of examination: OME-6558 (Silver)
The Double Rainbow Mine
(Richmond-Sitting Bull)
Lawrence County,
South Dakota

Transmitted herewith are the original and one copy, including figures, of the report of examination on the above-mentioned subject and five sets of prints for inclusion in the contract.

The Double Rainbow Mine (Richmond-Sitting Bull) has had an estimated production of approximately $750,000 from some 50,000 tons of ore which at present prices would have a value of approximately $27.00 per ton from the upper contact area of the Cambrian Deadwood formation. Large areas of the upper contact are unexplored. The mine has been extensively sampled and the "verticals" exposed in the present mine area extend or trend into areas that have not been explored. It is felt that with the past history of the property and silver and gold production from the upper contact areas that there is a good chance of discovering new reserves of silver and gold of at least comparable size and grade as has been produced from the Richmond-Sitting Bull.

It is concluded that both the upper and lower contact areas in the Cambrian Deadwood formation may contain somewhat significant silver and gold ore bodies, and therefore recommended that a contract be executed between the government and the applicant to perform the exploration work outlined in the report.

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

UNITED STATES

DEPARTMENT OF THE INTERIOR

STEWART L. UDALL, SECRETARY

U. S. GEOLOGICAL SURVEY

OFFICE OF MINERALS EXPLORATION

REPORT OF EXAMINATION

REGION III

OME Docket - 6558 (Silver)

DOUBLE RAINBOW MINES, INC.

also known as

RICHMOND-SITTING BULL

LAWRENCE COUNTY, SOUTH DAKOTA

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By

J. WILLIAM HASLER

GEOLOGIST

SEPTEMBER 1966

FIELD EXAM REPORT

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Figure _____. Double Rainbow Mine, proposed exploration work, lower contact---------- In back

Figure _____. Double Rainbow Mine claim map---------- In back

Introduction and summary

The Double Rainbow Mines, Inc. (also known as the Richmond-Sitting Bull) applied on April 20, 1966 for Government assistance to explore for silver on the Double Rainbow property, Lawrence County, South Dakota. The Double Rainbow Mines, Inc. is the sole owner of surface and mineral rights described in the application and consists of 29 patented mining claims and one unpatented claim--about 290 acres in all. All of the property listed would be subject to Government royalty and liens. There are no liens or encumbrances.

The application was referred to the field, and the property was examined by J. William Hasler, Field Officer, Region III in company with Dr. E. L. Tullis, Geologic consultant, and Mr. A. L. Slaughter, representatives of the applicant company on August 24-25, 1966.

Twenty-nine ore shipments from the Richmond-Sitting Bull mine made between November 17, 1908 and March 16, 1912 ranged in size from 5 to 27 tons and totaling 453 tons. It is not known whether this represents total mine production for this period. These shipments averaged $13.82 in gold ($35.00 per oz.) and 33.01 ounces of silver. Gold content varied from $1.75 to $41.65 per ton and silver content from 5.0 ounces to 190.15 ounces per ton. Nineteen of the shipments totaling 280 tons contained an average of 6.54% lead. A copy of this assay data is attached as Exhibit 6 accompanying the application.

Proposed exploration work at the Double Rainbow property includes surface and underground diamond drilling; shaft sinking; station and pocket excavations; and exploration drifting in the upper and lower contacts, for a total estimated cost of $278,800.00.

It is concluded that there is a good chance of discovering significant silver deposits of comparable size and grade that have previously been found on the property and a somewhat revised exploratory program is recommended at an estimated total of 229,750.00. The government's portion at 75 percent will total $172,312.50.

The property and past production

The property of Double Rainbow covers parts of sections 3, 4, 9, and 10 of Township 4 N., Range 4 E., Black Hills Merdian, Lawrence, County, South Dakota and is located near the small community of Galena, South Dakota. Figure ___, Double Rainbow Mine property, underground workings and geology. The property is 6-1/2 airline miles and 10-1/2 road miles from Lead, South Dakota, 9-1/2 road miles from the C.B.&Q Railroad at Pluma.

The present upper contact workings on the Double Rainbow property are accessible and, for the most part, in good condition. The property may be reached from Deadwood, South Dakota by traveling on a good, all-weather road via Highway 85 to Pluma then left at Pluma on highway 385 for approximately 5 miles to Bear Butte Creek, thence up Bear Butte Creek to Galena, South Dakota, a jeep road 1/4 mile long near Galena is accessible to the mine.

The shipping point for any concentrates from the property would be Pluma, South Dakota, which is located on the CB&Q railroad, 9-1/2 miles from the property.

Applicant's rights in the land

Double Rainbow Mines, Inc., is the sole owner of surface and mineral rights on the property described in this application.

The property of Double Rainbow, on which application for financial assistance is made covers parts of sections 3, 4, 9 and 10 of Township 4 N., Range 4 E., Black Hills Meridian, Lawrence County, South Dakota. It consists of 29 patented mining claims and one unpatented claim, about 290 acres in all. All of the property listed would be subject to Government royalty and liens. There are no liens or encumbrances. Figure _____, map showing claims, this report.

The property is known by two names; the Richmond-Sitting Bull and the Double Rainbow.

A list of the claims is given on the next page, page 5.

A claim map of the property is included as Figure 1, not titled.

Legal description of land

Patented Mining Claims located in Sections 3, 4, 9 and 10, Township 4 N, Range 4 E, Black Hills Meridian, Lawrence County, South Dakota. SUBJECT, however, to all surface rights in favor of Esther Allen Borsch, her heirs and assigns, with respect to the surface right in and to that part of M. S. No. 73 the Merritt No. 1 Lode Mining Claim contained within the boundaries of the Galena Placer M. S. No. 692, being that portion of M. S. 73 which is in conflict with M. S. 692 and contains approximately 180 acres. Note: War Eagle, M. S. 363, has no such number. It was covered by M. S. 1901 as the early survey did not go to patent.

Merritt No. 1	-M.S.	73	Grand View	-M.S.	365
Merritt No. 2	-M.S.	133	Oroflam Ora Flamme	-M.S.	384
Florence	-M.S.	163	Sleeper	-M.S.	1980
Chicago	-M.S.	334	George B. McClellan	-M.S.	2031
Sitting Bull	-M.S.	336	Gorman	-M.S.	2031
Richmond	-M.S.	345	Bank of Dakota	-M.S.	1901
Tiger Tail	-M.S.	333	Teddy	-M.S.	1901
Center Fraction	-M.S.	2030	Fissure	-M.S.	1901
Grand View Fraction			Bed Rock	-M.S.	1901
Lode	-M.S.	366	Gulch	-M.S.	1901
Silver Terra	-M.S.	364	Gray Eagle	-M.S.	1901
Mountain	-M.S.	1640	Camillus	-M.S.	1901
Custer	-M.S.	919	Margaret	-M.S.	1901
Rock Hill	-M.S.	1639	Wabash	-M.S.	1901
Savage	-M.S.	372	War Eagle	-M.S.	1901

Unpatented claims

Unpatented mining claims located in Section 3, Township 4 N, Range 4 E, Black Hills Meridian, Lawrence County, South Dakota.

Rattle Fraction - Book 240, Page 286, beginning at Corner No. 1 of the Rattle Fraction Lode Mining Claim from which USLM 6 bears N. 56° 49' W. a distance of 1495 feet; thence east 850 feet to Corner No. 2; thence south 400 feet to Cor. No. 3; thence west 850 feet to Corner No. 4; thence north 400 feet to Corner No. 1, the place of beginning.

Geologic features

Description of the rocks - The oldest rocks exposed near the property in Bear Butte Creek are Precambrian schists, slates and quartzites. The upper Cambrian Deadwood formation unconformably overlies the Precambrian, and the Cambrian rocks cover most of the Double Rainbow property. Total thickness of the Deadwood formation is about 500 feet. A basal quartzite is present at the base, in some places with a few feet of quartz pebble conglomerate. The basal quartzite ranges from 20 to 85 feet in thickness. Above the quartzite is a 10 to 30 foot section of thin, bedded, sandy dolomite. Above this are shales, limestone conglomerates, and more dolomitic beds. About 380 feet above the base is a massive quartzite 25 to 40 feet thick. Above this quartzite is a sandy to quartzitic dolomite probably 30 or more feet in thickness. The upper part of the formation consists of shales and limestone conglomerates with a 9 foot cap of massive quartzite at the top of the formation. The Whitewood limestone of Ordovician age overlies the Deadwood and is 62 feet thick. Next in the sequence is the Englewood limestone of Mississippian age, 34 feet thick. Forming the top of Custer Hill is a cover of Pahasapa limestone also of Mississippian age.

The stratigraphic section is thickened greatly by the intrusion of porphyry sills of general monzonitic to quartz monzonitic composition. These range from a few feet to 100 feet in thickness.

The column of sedimentary and intrusive rocks is shown by the graphic logs of the four Newmont drill holes (Figures 7, 8, 9 and 10), accompanying the application.

The regional strike of the Deadwood in the area of the Double Rainbow is north-south and the dip is to the east. Dips are variable. On the outcrops at the Custer and Merritt mines the dips are from 16° to 20° to the east. In the zone explored by the Richmond-Sitting Bull workings, dips are from 5° to 7°, although the most easterly face (Haven's drift) shows a considerable steepening. In the vicinity of the Barton Tunnel the dips are from 12° to 30°. The attitudes of the rocks are clearly shown on the section, Figure 6 accompanying the application.

The rocks of the Deadwood formation, where seen in underground workings on the two main ore horizons are broken by numerous vertical fractures, called "verticals". An individual vertical may not extend more than a few tens of feet along its strike, but parallel to it and overlapping may be one or two others. Such a group of verticals may be confined to a total width of a foot, but the en echelon system may extend for several hundred feet. Some of the verticals are small faults with seldom more than a few inches displacement. According to Dr. E. L. Tullis (Exhibit 10 and Figure 14 accompanying the application) about one-half of the verticals in the Richmond-Sitting Bull strike in a general east-west direction, between N. 70° E. and S. 60° E. Nineteen percent fall into a north-east classification, from N. 30° E. to N. 50° E. A minor group falls between N. 20° and north-south. The pattern of the underground workings is controlled by the directions and spacing of the verticals.

Geology and mineralogy of the ore deposits. The ore occurs as replacements chiefly at two horizons in the Deadwood formation where the verticals intersect the favorable beds. These two favorable horizons are designated the "upper contact" and the "lower contact". Ores of the lower contact are in the base of a sandy dolomite section which lies above the basal quartzite. Mineralization is in some places disseminated in the top few feet of quartzite. Ores of the upper contact replace dolomitic quartzite and sandy dolomite just above a massive quartzite which is about 100 feet below the top of the formation. Vertical separation of the top two contacts is about 370 feet. A minor contact has been designated on the sections (Figure 6, accompanying the application). This is below the lower contact in the basal quartzite and the separation of about 150 feet is largely due to a thick porphyry intrusive. Mineralized material consists of fine pyrite, a little sphalerite, and perhaps a little galena, disseminated in the quartzite or dolomitic quartzite.

A secondary control has been suggested by Ewoldt and others. (See various reports accompanying application). They relate the better ore bodies to areas of flatter dips or "flats". It is true that much of the Richmond-Sitting Bull workings are in an area of flatter dip, but good ore follows steeper dips to the east in Haven's Drift (Figure 11). The lower contact Merritt No. 2 mine produced good ore from more steeply dipping beds. See section, Figure 6, accompanying application.

The primary ore minerals are, in order of abundance, pyrite, galena and sphalerite. The pyrite is usually fine grained, the galena somewhat coarser. Sphalerite is not abundant. Other primary minerals that have been reported have been found in small amounts with a microscope are arsenopyrite, lollingite, chalcopyrite and tetrahedrite. There is much quartz in the ore as a dense fine-grained replacement of the dolomite. As evidenced by the recent drilling, the ore of the lower contact below the Richmond-Sitting Bull is of the primary type. The five foot section of high grade ore in hole No. 1 is massive pyrite with galena and some chalcopyrite and sphalerite. As no silver minerals were identified, it is assumed that the silver is closely associated with the galena.

Secondary ore minerals include limonite, hematite, pyrolusite, psilomelane, cerrusite, anglesite, and smithsonite. Small amounts of covellite and native silver have been reported. The oxidized ore is brown to yellow and the higher values seem to be associated with the yellow material. There is also much dark color due to the manganese minerals. The medium grade, silver values appear to be associated with the manganese.

Past production from the Richmond-Sitting Bull has been from both primary and oxidized ores. Faces of ore now available for sampling are mostly oxidized ore.

Past production

Statements from various reports credit the Double Rainbow property with total production of from $450,000 to $1,750,000. The $450,000 figure was reported by Joseph Boreo in 1913 (Exhibit 4) to have been substantiated from books of the First National Bank of Deadwood. Louis Noble in a report written in 1907 (Exhibit 5) says that the mine was most actively productive from 1880 to 1883 and to some extent in 1891 and that records of production submitted to him showed a net value received of $451,383 from the sale of bullion and ores. He estimated that about 100,000 tons of material had been removed from the mine and that one-half of it was still on the ground. He also estimated that the gross value of all ore shipped and treated was $750,000.

Litigation involving a dispute over extra-lateral rights began in 1884 and continued for 16 years. During this period production was small and sporatic. Samples taken in 1920 indicate some production in that year, probably by leasers. Copies of a settlement sheet showing shipments in 1908 to March 1912 are included with this application as Exhibit 6. This is the only record of actual ore shipments that is available.

The records of how the ore was handled and treated are rather obscure. Noble says in his report that during the most productive time, 1880 to 1883, the ore was sorted by hand, the lead ores were smelted on the ground and shipped to Omaha, the silver and gold ores were treated in a pan amalgamation mill on the ground, and material too low grade for this treatment was put on the dump.

Reserves and grade of ore

Upper contact ore - An examination of the Double Rainbow property was made by Dr. F. C. Lincoln and Harold B. Ewoldt in 1939 (Exhibit 7). Dr. Lincoln was, at that time, professor of mining engineering at the South Dakota School of Mines and Technology. Ewoldt is a mining engineer graduate of the same school in 1930. They sampled 40 faces, 32 of which are in the Richmond-Sitting Bull, 6 in the Florence, and 2 in the War Eagle. A large composite sample was made up by combining 5 pounds of material for each foot of sample width (a 3 foot sample contributed 15 pounds. Three splits were made of this large sample DRA, 150 pounds; DRB, 150 pounds, DRC, 190 pounds. Each split was assayed and the results averaged to give the following:

Silver	9.55 ozs. per ton @ $1.29	$12.32
Gold	0.078 ozs. per ton @ $35.00	2.73
Lead	1.97% @ 16 ¢ per pound	6.30
		$21.35

Zinc	0.9%
Iron	15.5%
Manganese	3.5%
Calcium	1.95%
Sulphur	0.85%
Insoluble	56.4%

The zinc could add to the contained value.

Only ore from the upper contact horizon is contained in the above samples. A number of the samples from which material was taken to make up the composite sample were not of ore grade.

The samples making up the composite are listed as Exhibit 8. The complete list of samples taken by Lincoln and Ewoldt, including those not composited is included as Exhibit 9.

The Richmond-Sitting Bull was examined and a report written in February 1913 by Joseph Boreo, about whom we have no personal information. This was at a time when the mine was being worked. He listed a number of shipments by location in the mine and labeled some "high grade ore" and some "second grade ore". He stated that the ore was difficult to sort by hand, but that it was, in this way from the beginning that the shipments were made. Contained value in gold, silver and lead was as high as $359.80 per ton by present prices. A shipment from a dump had a present value of $18.26 and one from the Florence dump of $28.10. Data on these shipments is listed in Boreo's report (Exhibit 4).

Other statements made by Boreo: "A systematic sampling of Main Drift, Fort Drift and Blind Lode on 37 bags of 50 pounds each gave 35 ounces of silver per ton". "Following Main Drift south in Grand View claim the ore has value of about 30-40 ounces of silver per ton and $21.00 in gold."

Twenty-nine ore shipments made between November 17, 1908 and March 16, 1912 ranged in size from 5 to 27 tons and totaling 453 tons. It is not known whether this represents total mine production for this period. These shipments averaged $13.82 in gold ($35.00 per oz.) and 33.01 ounces of silver. Gold content varied from $1.75 to $41.65 per ton and silver content from 5.0 ounces to 190.15 ounces per ton. Nineteen of the shipments totaling 280 tons contained an average of 6.54% lead. A copy of this assay data is attached as Exhibit 6.

A report on the Galena District was written for the United States Bureau of Mines by Dr. E. L. Tullis of the South Dakota School of Mines and Technology (Exhibit 10). Tullis says, "The assays from the car lot shipments of ore from the Sitting Bull during 1890 indicate the value of the bulk of the ore shipped at that time. In the 5 car lots reported between March 3, 1890 and May 19, 1890, the silver varied between 83 and 109 ounces per ton, the gold between 0.2 and 0.4 ounces per ton and the lead between 25 and 36 per cent". Tullis further states that the milling ore during the same period carried from 10 to 45 ounces of silver and a trace to 0.1 ounces of gold per ton. This material was concentrated to a product carrying from 36 to 86 ounces of silver, a trace to 0.2 ounces of gold and 31 to 67 per cent lead.

Old assay records of C. B. Harris, one time assayer for the Sitting Bull, were obtained by Tullis. These books contain hundreds of assays of the Richmond-Sitting Bull mine and other mines and prospects in the Galenz area, made during operation of the Sitting Bull between August 29, 1889 and July 1890 and during exploration work in 1903 and 1904 and in 1919 and 1920. Many high grade assays were obtained. Unfortunately, there is no information on thickness of ore. Copies of the notes from Harris' assay records are attached as Exhibit 11.

Louis Noble examined the Richmond-Sitting Bull in 1907 (Exhibit 5) and after taking 10 samples, stated that Mr. Harris was familiar with the ores and his judgment and statements were not misleading. He reported that in 1905 a trial lot of 183 tons of average dump material was shipped to the Imperial Company Mill at Deadwood, South Dakota. Assays were as follows:

Gold		$3.40 per ton (35.00)
Silver	4.63 ounces	$5.97 per ton (1.29)
Lead	1.75 per cent	$5.60 per ton (16 ¢)
		$14.97

Noble estimated that about 100,000 tons of material had been removed and that 50,000 tons of it was still on the ground. He estimated that the gross value of ore treated and shipped was about $750,000 and thus he arrives at an average grade of $15.00 per ton. The proportion of gold, silver and lead are not closely known, but at present prices and using the same proportion of gold, silver and lead as in Ewoldt's bulk sample, this ore would have a present contained value of $37.00 per ton.

A fairly complete sampling job was done in the Richmond-Sitting Bull by Noble in 1913. These 400 samples were taken systematically along the walls and faces of the workings without regard for the ore controls of verticals and favorable beds. Many of these can now be observed in the mine and appear to be well taken channel samples. Most samples represent the full height of wall where taken, 6 feet or more. Many of these samples are low grade because they were taken along walls of stopes where the ore had been removed. Some are ore grade, however, the best being ore that contains 40.4 ounces of silver per ton (see Figure 12 and Exhibit 12). Lincoln and Ewoldt took samples at some of the same faces as sampled by Noble and checked his results fairly closely. Some are listed on the next page.

Noble's No.	Ewoldt's No.	Gold, $ @ 35.00	Silver, ounces
D211	R12	9.10	18.60
	R12	3.15	16.80
D210		.35	14.40
	R13	.35	20.50
D78		5.25	6.80
	R10	14.00	30.50
D63		4.20	5.60
	R30	3.85	4.27

Forty-five samples were taken in the Richmond-Sitting Bull and Merritt No. 1 during November, 1965 by Little Beaver personnel under the supervision of Little Beaver geologists. Many of these were taken at places previously sampled by Ewoldt and Noble, for the purpose of checking on the earlier sampling. A number of them, however, were taken at places not previously sampled. Comparative analyses are shown on the underground sample map, Figure 11. Most analyses of Little Beaver samples shown on the map (prefix "G") are weighted averages of 2 or 3 vertically contiguous samples taken in the same face or wall. This, together with the fact that outlines of some earlier samples are not clearly discernible, may be the reason for divergence between Little Beaver samples and earlier samples taken at the same places. Little Beaver samples are listed individually on the sample list, Exhibit 13.

Some of the better Little Beaver samples are listed below:

Sample No.	Height Ft.	Width Ft.	Gold, $ @ $35.00	Silver ounces	Lead %	Zinc %	Cu %
G10	1.5	7.0	6.80	64.90	1.26	1.34	.03
G20	4.0	6.0	.34	11.40	.59	.72	.005
G25	2.0	7.0	13.60	13.55	.75	.86	.030
G28	4.0	6.0	6.26	10.32	.60	.93	.038
G32	0.9	6.0	5.25	24.10	.86	1.00	
G34	3.5	6.5	1.36	12.72	.58	.72	
G48	2.0	6.0	1.00	13.24	1.37	.90	
G52	1.5	4.5	1.75	9.20	6.99	.82	.14
G53	1.5	4.5	5.75	3.53	1.65	.79	
G55	3.5	3.0	15.58	3.38	.80	.75	

The better faces are listed below:

Sample No.	Height Ft.	Width Ft.	Gold, $ $35.00	Silver ounces	Lead %	Zinc %
G9, 10, 11	5.5	7.0	1.85	20.44	.34	.67
G19, 20	6.5	6.0	.21	8.71	.60	.70
G33, 34	6.5	6.5	.89	8.80	.50	.74
G40, 41	5.0	5.0	3.17	4.73	2.33	1.46
G51, 52, 53	5.5	4.5	1.75	4.54	2.80	.74

In summary, there are several reasons why samples on walls and faces of the present workings indicate a lower grade of ore than was actually produced from the Richmond-Sitting Bull. In the extensive replacement deposits of this type from which gold was produced, the ore shoots are lenticular in cross-section, thicker at the verticals and thinning with distance from the verticals. Thus, many of the present samples in the Richmond-Sitting Bull are probably rim samples, it is logical to assume that the early miners would, in most cases, follow an ore shoot to its economic limit. This limit could be caused by lower grade, thinner ore, or a circumstance such as a steepening dip, causing the handling of the ore to be more difficult and hazardous. This last reason may be why mining was stopped in the working called Haven's Drift. (Figure 11).

The longest dimension of the ore bodies is in the direction of the vertical that makes the ore. This can be from a few feet to several hundred feet. A number are only a few feet in width, but many stopes

have widths of 18 to 20 feet, and in the northern and central part of the Richmond-Sitting Bull several stopes are 30 to 50 feet wide. One is 70 to 80 feet wide for a few hundred feet. The larger ore bodies result from mineralization along several closely spaced verticals or from intersections of verticals.

The 40 face samples taken by Lincoln and Ewoldt from the Double Rainbow mine and used to make up a composite sample for metallurgical testing (Exhibit 8) have an average thickness of 3.5 feet, with a maximum of 6 feet and a minimum of 2 feet. These, however, are probably not respresentative of the areas where the ore has been removed. Nearly all of the stoped areas are 6 feet or more in height and in some places are as high as 10 feet.

The quantity of ore that could economically be mined from the upper contact on the Double Rainbow property is impossible to determine. Material of ore grade or near ore grade is present in about 17 faces and wall samples. Several of these are pointed toward unexplored areas.

By following ore on some of these verticals, their continuity would be proven or disproven, and it is hoped that intersecting ore-bearing verticals would be found.

Noble's figure of 100,000 tons of matererial removed from the Richmond-Sitting Bull seems a reasonable one. Only about 50,000 tons of this was milled or shipped, but much material was put on dumps and mixed with waste rock that would be commercial ore under present conditions. The actual area tested by the underground workings is only about 1/5 of the total size of a block that has some mineralization on both the east and west ends.

The estimate of average metal content and average value of ore mined from the upper contact Richmond-Sitting Bull is as follows:

	Grade per ton	
Gold, $	$35.00	$ 3.15
Silver, ozs.	15.7 @ $1.29	20.25
Lead, %	2.0 @ 16¢/lb.	6.40
Total contained value		$29.80

The ore is estimated to also have contained about .75% zinc and .03% copper.

Lower Contact Ore - The only workings of the Double Rainbow Company which are in the lower contact ore horizon are on the Merritt claims at the west edge of the property.

Three samples in a vertical line were taken by Lincoln and Ewoldt in 1939 from the Merritt workings. The center sample, one foot thick, contained $0.70 in gold ($35.00), 4.18 ounces of silver and 6.56% lead for a total gross value of $27.08. Two 1.5 foot samples, one above and one below had insignificant values.

Assays on three cars of ore shipped from the Merritt in June of 1890 are listed in the data taken from the notebooks of C. B. Harris (Exhibit 11). They are as follows:

No.	Gold, $ $35.00/oz.	Silver Ounces	Lead %
16	3.40	40	68.5
17	3.40	38	63
18	3.40	37.5	70

Judging from the high lead content, these would appear to have

been rather carefully sorted galena ore.

The mine known as the Horseshoe Comet, on the Comet claim adjacent to the southwest corner of the Merritt No. 2, produced ore from the lower contact horizon. Although this mine is not owned by the Double Rainbow Company, the grade of ore found here may be somewhat indicative of that which could be expected on the property of the Double Rainbow. The assay records of C. B. Harris show many samples from the Horseshoe Comet during the period of February 1903 to June of 1904. A number contained over 100 ounces of silver per ton. One sample of "pyrite, soft stuff" contained 1,466 ounces of silver per ton. (See Exhibit 11).

The Silver Queen mine, about one mile south of the Double Rainbow property is another lower contact mine with a history of important production. The average of six faces sampled by Ewoldt and described by him as being over mining widths is as follows: $1.40 in gold (at $35.00), 18 ounces of silver, and 13% lead per ton.

Recent drilling (1964) has been done on the Double Rainbow property by Newmont Exploration, Ltd. Six holes were drilled to test the lower contact below the upper contact workings of the Richmond-Sitting Bull. The core is stored at Galena. Where sampled, the core was split and one-half remains. Logs of four of the holes are made part of this application as Figures 7, 8, 9 and 10. Most of the core samples from drill hole No. 1 were assayed at the South Dakota School of Mines, all others were sent to C. O. Parker and Company of Denver. Results are as follows:

Hole No.	Footage	Ft.	Oz. Au	Oz. Aq	% Pb	% Zn	% Cu	Remarks
1	462.5-465	2.5	.16	10.41	0.2	1.7	.45	(Quartzitic dolomite
	465-467.5	2.5	.22	401.11	1.6	3.1	.15	(above sill "D"
2	599-602	3.0	.08	9.34				Basal quartzite
3	466-469	3.0	.01	0.94				(Quartzitic dolomite
								(above sill "D"
4	475.4-480.8	5.4	.04	2.01	0.1	0.8	.20	(Quartzitic dolomite
								(above sill "D"
5	591-598	7.0	.01	1.26				Basal quartzite
6	466.3-475	8.7	.07	2.48	Tr	1.2	Tr	(Quartzitic dolomite
								(above sill "D"

There is really no good basis for arriving at a figure for the grade of ore to be expected on the lower contact under the Double Rainbow property. The Merritt and other lower contact mines in the district are known to have produced good ore in quantity and to have produced some high grade ore. However, sample information is incomplete, except perhaps for the Silver Queen and this is too far away to have a direct bearing.

In the Bald Mountain District which is 10 airline miles west of the Galena District, gold ore was mined for many years from the same two horizons in the Deadwood formation. It is a well established fact that ore from the lower contact was better grade than that from the upper contact. If this relation holds true for the Galena area, somewhat better grade ore than the estimated grade of ore removed from the Richmond-Sitting Bull can be expected.

The high grade ore intersected by Newmont's No. 1 hole proves that such ore does exist beneath the upper workings. The average, of course, would be expected to be much lower.

Lower Contact Reserves - Ewoldt and Watkins (1940) report that the average working face at the Silver Queen was 8 feet wide and that the average thickness was only 2 feet.

A map of the Merritt Mine indicates that ore bodies of 200 to 300 feet in length were mined. Notes on this map (Ewoldt and Robinson 1943) describe the stopes as being from 10 to 30 feet wide and 8 to 14 feet high (Figure 13).

A hole was drilled by the Bureau of Mines at a location about 1600 feet southeast of the east corner of the Camillus claim of Double Rainbow. At a depth of 525 feet the lower contact showed two feet of limestone and quartzite, well mineralized with pyrite, galena and sphalerite, plus 9 feet of pyritic quartzite below. A copy of the log is included as Exhibit 2.

In the summer of 1965, E. L. Tullis obtained a sample from the streambed at the lower end of the Galena placer claim where the stream is crossed by the lower contact ore horizon. This sample contained 0.02 ounces of gold, 2.38 ounces of silver, 0.9% lead and 3.8% zinc per ton.

No. 1 hole of Newmont intersected 5 feet of ore. Other holes intersected from 5.4 feet, 7.0 feet, and 8.7 feet of mineralization.

Almost the entire area of the property, about 280 acres, is underlain by the lower contact horizon and is potential ore-bearing ground. The underground workings in the Richmond-Sitting Bull explore an area of about 20 acres, whereas the actual area of the workings is 139,000 square feet or about 3.2 acres.

The estimate of metal content and value of ore which could be mined from the lower contact is as follows:

	Grade per ton		
Gold, $	$35.00		$ 3.50
Silver, ozs.	18.0	$1.29	23.22
Lead, %	2.0@	16/lb.	6.40
			$33.12

Summary of Ore Reserves - It has been characteristic of the Deadwood formation mines in the northern Black Hills not to have any substantial ore reserves at any time. The ore shoots, which follow vertical fractures in favorable beds, are often not any wider or higher than the openings being driven, so that all or most of the ore is mined as the development progresses. Continuity of ore shoots between intersections is not assured. However, some of these mines, while none is producing at the present time, operated for many years (Bald Mountain, Golden Reward, Maitland).

While a number of ore faces are present in the Richmond-Sitting Bull, probably not more than a few thousand tons could be called "known" ore reserves. High grade silver ore was found in one of the 6 holes drilled in 1964 through the lower contact ore horizon. The area prospected by this drilling is but a small part of the potential ore-bearing area. Large areas of favorable ground on the Double Rainbow property still remain to be explored on both the upper and lower contacts.

It is believed that the program as outlined in this application will lead to the discovery of sufficient ore to justify construction of a mill with a capacity of from 100 to 150 tons per day.

(f) Reasons for Expecting to Find Ore

General - General reasons for expecting to be able to now mine ore of the grade previously produced are (1) the greater efficiency of modern mining methods, (2) the greatly increased prices of gold, silver and lead, and (3) the improved metallurgical procedures.

Upper Contact - Extensive sampling has been done in the Richmond-Sitting Bull by various parties. Some sampling has been done in other upper contact workings, the Savage, War Eagle, Barton Tunnel and the Florence. Sample locations and values for which sufficient data is available are shown on the underground sample map (Figure 11). On the map of the Richmond-Sitting Bull, however, many low grade samples taken by Louis Noble were omitted to avoid over-crowding. All of Noble's samples in the Richmond-Sitting Bull are shown by number on copies of a map made by him and by gold and silver content in his list of samples (Figure 12 and Exhibit 12).

Noble's samples were channel samples taken from floor to back and based on the appearance of the channels, seem to have been well taken samples. Ewoldt's samples are described as sheet samples, actually chip samples taken over the area of a face or part of a face. Little Beaver samples were taken in the same manner. As the distribution of ore is closely controlled by the verticals, the exact position of an up and down channel would greatly effect it's value. A horizontal channel would likewise be undependable as certain stratigraphic beds are more favorable for ore than others. Therefore, a chip sample taken over a rectangular area was thought to give the fairest representation. These were usually taken across a vertical or verticals for the full width of the face or for an arbitrary

width if taken along a wall. Several rectangular areas divided on the basis of the stratigraphy and mineralization make up the complete sampling of a face or section of a wall.

Production from the Richmond-Sitting Bull is estimated at about $750,000 from about 50,000 tons of ore which at present prices would have a value of about $37.00 per ton. Old sample records indicate that a considerable amount of the ore was bonanza grade, as high as 100 ounces in silver and better. A 64 ounce silver sample over a 1-1/2 foot thickness was obtained in the recent sampling. Large areas of upper contact remain unexplored, both east and west of the Richmond-Sitting Bull workings and several ore faces could now be mined which lead into these areas. Numerous verticals extend from the workings into unexplored portions of the property. For these reasons it is thought that a well planned prospecting program in the upper contact has a good chance of finding a substantial quantity of ore.

Lower Contact - Here, little sampling has been done on the Double Rainbow property. A one foot sample taken by Ewoldt on the Merritt No. 1 claim contains 4.18 ounces of silver and 6.56% lead. Drill holes found a 5.0 foot section of high grade silver ore and several intersections of silver mineralization.

Silver, lead and zinc mineralization is present in the lower contact horizon where it is cut by Bear Butte Creek, at the lower end of the Galena Placer Claim.

Extensive mining for gold has been done in the Cambrian Deadwood formation in the Lead-Trojan-Maitland areas. It is an accepted and proven

fact that lower contact ores have been better grade than those mined from the upper contact.

A very similar fracture pattern between the Richmond-Sitting Bull (upper contact) and the Merritt No. 2 (lower contact) is revealed by Tullis' study of vertical directions (Figure 14). Ore solutions reaching the upper contact horizon through the Deadwood formation and depositing the ore bodies of the Richmond-Sitting Bull should have encountered similar conditions at the lower contact horizon.

Other mines in the district have had important production from the lower contact.

For the reasons given above it is thought that the lower contact horizon under the Richmond-Sitting Bull is a very favorable area to prospect for substantial deposits of silver-lead ore.

Proposed exploration

Proposed exploration work at the Double Rainbow property includes surface and underground diamond drilling; shaft sinking; station and pocket excavation; and exploration drifting in the upper and lower contacts (horizons). It is intended to explore the upper and lower contacts in the vicinity of the old Richmond-Sitting Bull Mine (Double Rainbow property). Recent diamond drilling indicates the presence of silver, lead, zinc, copper and gold mineralization in the unexplored lower contact below the old workings. Recent sampling indicates ore grade or near ore grade mineralization at several locations in the old mine on the upper contact. The proposed drifting is oriented to crosscut several areas of known mineralized "verticals" or fractures in the two favorable horizons or contacts. Some drifts would follow known mineralized verticals. Approximately 3,500 feet of the proposed drifting would be in the horizons favorable for ore deposition. See figures 3, 4, and 6, (accompanying application).

Approximately 2,000 feet of the proposed diamond drilling would be from the surface. This drilling would be from the surface. This drilling would be used primarily to gain geologic information and stratigraphic control to be used in the final detailed layout of the underground work. It is hoped that this drilling might intersect mineralized rock or ore, but its main purpose is to provide stratigraphic information. The tentative locations of the surface holes are shown on Figure 5.

In addition to the surface drilling approximately 3,200 feet of diamond drilling is proposed from the upper contact workings down to the lower contact. This drilling is shown on Figure 5, accompanying the application, and duplicated entire report. Its main function would be to provide stratigraphic information to aid in the lower contact layout and planning. The orientation and location of several slusher exploration drifts will be governed by the underground diamond drilling results.

Historically, diamond drilling alone, has not been a successful tool for finding Cambrian ore bodies which are localized along verticals.

The following summary lists the proposed exploration work, size of openings, footages, etc.

Applicant's proposed exploration work

Type work	Size	Footage	Comments
Vertical shaft	11-1/2 x 10-1/2'	260'	Lower contact
Station & Pocket	9,000 cu. ft.	-	Lower contact
Trackless drift	8 x 10	1,500'	Lower contact
Slusher drift	6 x 6	1,300'	Lower contact
Slusher drift	6 x 6	1,000'	Upper contact
Surface diamond drilling	BX	2,000'	Upper and lower contact
Underground Diamond drilling	AX	3,200'	Lower contact

In the event that an OME contact is executed, it is estimated that work would start August 1, 1966 and finish July 1, 1967. A time schedule for the proposed work is as follows: (This schedule will be followed after execution of a contract.)

Type of work	Date begin	Date finish	Est. monthly progress
*Surface construction	8/1/66	10/31/66	
Surface diamond drilling	9/1/66	10/31/66	1,000 ft.
**Shaft sinking	9/15/66	12/30/66	125 ft.
*Rehabilitation-Main tunnel	11/1/66	12/15/66	534 ft.
Underground diamond drilling	12/1/66	3/10/67	900 ft.
Excavate station and pocket	12/15/66	1/20/67	-
Trackless drifting lower contact	2/1/67	5/28/67	375 ft.
Slusher drifting upper contact	2/1/67	5/28/67	250 ft.
Slusher drifting lower contact	4/1/67	6/31/67	325 ft. (2) 650 ft. (1)

*The surface construction and main tunnel rehabilitation will be done without OME assistance.

**Shaft sinking will be done in two phases with interruptions when the headframe is installed and the station excavation is started.

Recommended exploration

The exploration program herein recommended by the examining geologist varies from the originally proposed program only in the relocation of two exploratory slusher drifts and in an expanded total footage of slusher drifts in the upper contact workings, (See unnumbered figures, this report.)

To more adequately explore for extensions of the nearly east-west striking "verticals" that intersect south drift of the Richmond-Sitting Bull workings, it appears advisable to substitute an exploratory slusher drift trending approximately S 10° W from the Bad Air Drift for 450 feet, in place of the short 150-foot drift trending S 25° W from the south drift as shown in figure 3 accompanying the application. The newly proposed drift will explore as much as 140 feet of new ground for a distance of 450 feet. The originally proposed drift from the south drift would only intersect one or two verticals, and the end of the drift would only be 60 feet from the south drift.

A slusher drift trending S 10° W for 350 feet from the McClellan drift will more adequately explore for extensions of the more or less east striking "verticals" than would the 200-foot slusher drift trending N 66° E from the most easterly workings of the Richmond-Sitting Bull as shown on Figure 3 accompanying the application. These two exploratory slusher drifts will add 400 feet of slusher drift to the work in the upper contact area, and increase the total footage there from 1,000 feet to 1,400 feet, and increase the cost of that item from $35,000 to $49,000, at a cost per foot of $35. The proposed exploration work sill be conducted on the subject property as follows: 1/

Item	Size of opening	Footage	Area
Vertical shaft	11-1/2' x 10-1/2'	260'	Lower contact
Station & pocket	9,000 cu. ft.	-	Lower contact
Trackless drift	8' x 10'	1,500'	Lower contact
Slusher drift	6' x 6'	1,300'	Lower contact
Slusher drift	6' x 6'	1,400'	Upper contact
Surface diamond drilling	BX	2,000'	Upper & lower contacts
Underground diamond drilling	AX	3,200'	Lower contact

1/ Figures 1, 2, and 3 unnumbered accompanying this report.

Proposed costs

	Type of work	Footage	BID PRICE $/Unit	BID PRICE $
1)	Sink vertical shaft and install skips & dump	260 ft.	$220.00/ft.	$ 57,200
2)	Excavate station and pocket and install skip loader	9,000 cu.ft.	2.16/cu.ft.	19,500
3)	Lower Contact Drifting			
	Drive exploration drift 8x10	1,500 ft.	56.67/ft.	85,000
	Drive exploration drift 6x6	1,300 ft.	41.73/ft.	54,250
4)	Upper Contact Drifting			
	Drive exploration drift 6x6	1,400 ~~1,000~~ ft.	35.00/ft.	49,000
5)	Surface diamond drilling - BX	2,000 ft.	6.00/ft.	12,000
	U.G. diamond drilling - AX	3,200 ft.	3.38/ft.	10,800
6)	Supervision and geological expenses			12,000
				$229,750

Rock Bolting Bid

5-foot bolts	$ 3.00/bolt
8-foot bolts	3.50/bolt

57,200
19,500
85,000
54,250
49,000
12,000
10,800
12,000

299,750

Conclusions and recommendations

The Double Rainbow Mine (Richmond-Sitting Bull) has had an estimated production of approximately $750,000 from some 50,000 tons of ore which at present prices would have a value of approximately $37.00 per ton from the upper contact area of the Cambrian Deadwood formation. Large areas of the upper contact are unexplored. The mine has been extensively sampled and the "verticals" exposed in the present mine area extend or trend into areas that have not been explored. It is felt that with the past history of the property and silver and gold production from the upper contact areas that there is a good chance of discovering new reserves of silver and gold of at least comparable size and grade as has been produced from the Richmond-Sitting Bull.

In the area of the "lower contact", silver lead and zinc mineralization is present where it is cut by Bear Butte Creek, at the lower end of the Galena Placer claim. Extensive mining for gold has been done in the Cambrian Deadwood formation in the Lead-Trojan-Mailland areas. It is an accepted and proven fact that lower contact ores have been better than those mined from the upper contact.

A very similar fracture pattern between the Richmond-Sitting Bull (upper contact) and the Merritt No. 2 (lower contact) has been exhibited in a study by Dr. E. L. Tullis. Ore solutions reaching the upper contact horizon through the Deadwood formation that had deposited ore in areas like the Richmond-Sitting Bull should have found similar conditions in the lower contact horizon. It is concluded that both the lower and upper contact areas in the Cambrian Deadwood formation may contain somewhat significant silver and gold ore bodies, and therefore recommended that a contract be

executed between the government and the applicant to perform the exploration work herein outlined. Homestake Mining Company is the lowest bidder on the work to be contracted and should be granted the work as proposed under bid.

Table 1: Showing comparable bid estimates for proposed explorations for shaft sinking and underground work.

Item	Footage	$/unit	BID PRICE: Homestake Mng. Co.	Centennial Development Co. $/Foot	Centennial Development Co. Price	Four Corners Expl. Co. $/Foot	Four Corners Expl. Co. Price
Sink vertical shaft					$ 58,500		
install skips & dump	260 ft.	195.19/ft.	$ 50,750	225.00/ft.	1,000	275.00/ft.	$ 71,500
Excavate station & pocket,					14,400	3	
install skip loader	9,000 cu.ft.	2.16/cu.ft.	19,500	1.60/cu.ft.	1,500	2.50/ft.	22,500
Lower Contact Drifting							
Exploration drift 8'x10'	1,500 ft.	56.67/ft.	85,000	60.00/ft.	90,000	60.00/ft.	90,000
Exploration drift 6'x6'	1,300 ft.	41.73/ft.	54,250	42.00/ft.	54,600	50.00/ft.	65,000
Upper Contact Drifting							
Exploration drift 6'x6'	1,000 ft. 1/	30.00/ft.	30,000	38.00/ft.	38,000	40.00/ft.	40,000
Surface diamond drilling (BX)	2,000 ft.	6.00/ft.	12,000	-	-	-	-
Underground diamond drilling (AX)	3,200 ft.	3.38/ft.	10,800	-	-	-	-
			$262,300		$258,000 2/		$2[illegible]000
Engineering and geological			12,000				
			$274,300				
Rock Bolt Bid							
5-ft. bolts		3.00/bolt		1.60/ft.		4.00/ft.	
8-ft. bolts		3.50/bolt				4.50/ft.	

1/ Homestake bid shown here is first bid and does not include the mine cage and skip, nor does it reflect the additional cost of 400 feet of slusher drift presently prescribed for the upper contact work.

Homestake Mining Co. new bid (Aug. 31, 1966) is still considerably lower than other two bids. Two other bids do not include supervision, geological accounting, assaying, etc., figures.

2/ Centennial Development does not include diamond drilling nor supervision, geology, assaying, etc.

Table 2. Comparative bid costs for diamond drilling

Item	Size	Footage	Homestake 1/ $/ft/	Homestake 1/ Price	MacPherson $/ft.	MacPherson Price	Matari Exp. Co. $/ft	Matari Exp. Co. Price
Surface diamond drilling	BX	2,000	6.00	12,000.00	9.00 1/ 5.85 2/	$18,720.00	8.00	$16,000.00
Underground diamond drilling	AX	3,200	3.38	10,800.00	5.30	16,960.00	6.00	19,200.00
Mobilization						1,400.00		
Cementing, reaming, casing, etc.					12.50/hr.			
Compressor installation					8.00/hr.			

1/ It is assumed Homestake Mining Company bid includes mobilization, reaming, casing, cementing, mud additives, core boxes, sample sacks, etc. They should perhaps be contacted again concerning their bid. They are again lower in bid price than the other two bids.

2/ Surface drilling From top bedrock to 700 ft. in depth BXWL size core @ 5.85 per ft.

U. S. Geological Survey -- Denver Federal Center
Building 25- Room 2284
Denver, Colorado 80225

August 12, 1966

OFFICIAL COPY

Mr. Rexford W. Barton, President
Double Rainbow Mines, Inc.
c/o Anthony D. Terry, Esquire
Hull, Terry and Bret Harte
509 Phoenix Title Building
Tucson, Arizona

Re: OME-6558 (Silver
Double Rainbow Mines, Inc
Lawrence County,
South Dakota

Dear Mr. Barton:

This letter is to notify you that a date for a field examination on the subject application has been scheduled for August 24-25, 1966.

Yesterday, in a telephone conversation with Mr. A. L. Slaughter, Vice President, Homestake Mining Company, I informed him of the above mentioned date. Mr. Slaughter stated that he would notify Prof. Edward Tullis; South Dakota School of Mines, a consultant to Double Rainbow Mines Inc. of the schedule.

I shall be in the field all next week and should I find it necessary to change the date of examination I will notify you through Mr. Slaughter, otherwise please consider the date of August 24-25 a firm committment for the field examination.

Sincerely yours,

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

cc: A. L. Slaughter
E. Tullis
Chief OME
6558
Hasler chron
OME chron

HULL, TERRY AND BRET HARTE
ATTORNEYS AT LAW
PHOENIX TITLE BUILDING
TUCSON, ARIZONA

NORMAN S. HULL
ANTHONY D. TERRY
LAWRENCE K. BRET HARTE

JAMES HENDRICK TERRY
OF COUNSEL

TELEPHONE
AREA CODE 602
623-8426

5 July 1966

OFFICIAL
COPY
O. M. E.
RECEIVED
JUL 7 1
INITIALS

Mr. Frank E. Johnson, Chief
Office of Minerals Exploration
U. S. Department of the Interior
Geological Survey
Washington 25, D. C.

Re: OME-6558 (Silver) Double Rainbow Mines, Inc.
Double Rainbow Mine, Lawrence County,
South Dakota

Dear Mr. Johnson:

Your letter of June 20, 1966, to Mr. Rexford W. Barton, President of Double Rainbow Mines, Inc., has been received.

Mr. Barton and this office are attempting to ascertain the correct information which you requested and you will hear from Mr. Barton as soon as this is accomplished.

We regret the delay, but as you know it is difficult to check records by correspondence.

Copy to RHT 7/12/66

Sincerely,

HULL, TERRY and BRET HARTE

Anthony D. Terry

Anthony D. Terry

ADT/efd

AIR MAIL

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
6/	Kirkemo	130
		140
		2273

AIRMAIL

JUN 20 1966

Memorandum

To: Field Officer, Region III

From: Chief, Office of Minerals Exploration

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota

Kirkemo
HKirkemo/mm (6/17/66)

This application is referred to you for review, a field examination if warranted, and your recommendations.

This is a well prepared application with extensive supporting information offered. We agree with Mr. Morton's comment (see Mr. Kirkemo's review, a copy of which is enclosed) that underground work seems to be the next logical step to explore the lower contact. The presence of high grade silver in the core from Diamond Drill Hole 1 indicates that there is well mineralized material in the lower contact directly beneath the most extensive stopes in the upper contact. If this is true also beneath other stopes is not known. The pattern of proposed holes from workings in the upper contact indicates that the Applicant bases his drilling program on this possibility.

A few holes beneath the southern workings of the Richmond-Setting Bull mine would be useful for checking the positions of the various rock units in advance of underground work in the lower contact. Presumably, the proposed hole on Section D-G is intended for stratigraphic and structural information at the site of the proposed vertical shaft.

We urge you, or whoever makes an examination of this property, to inspect the cores from the drilling completed to date, particularly any splits of core from Hole 1 where the high grade silver was reported. The principal support for the Applicant's proposal is based on the results of this drilling. Our justification for participating in a contract, if one is recommended, would depend largely on confirmation of this evidence.

You will note from the copy of our letter to the Applicant that we are requesting some additional information that is necessary to complete the application.

FRANK E. JOHNSON

Frank E. Johnson

Enclosures

cc: Director's Reading File
Economic Geology File
Division File
OME Docket
OME Reading File
130

23263

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
6/17/66	Kirkemo	120
		110
		320

JUN 20 1966

AIRMAIL

Mr. Rexford W. Barton, President
Double Rainbow Mines, Inc.
c/o Anthony B. Terry, Esquire
Bull, Terry and Bret Harte
509 Phoenix Title Building
Tucson, Arizona

Re: OMR-6358 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota

Dear Mr. Barton:

We have completed preliminary review of your application and have referred it for further processing to Mr. J. William Nasler, Field Officer, Region III, U. S. Geological Survey, Room 2284, Building 25, Denver Federal Center, Denver, Colorado 80225. Please furnish Mr. Nasler with copies of any information you may send us in response to the following comments.

We note on Exhibit 3, Legal Description of Land, and on Figure 1, Double Rainbow Mine Claim Map, that the same claim is identified as Ore Flamme and as Oreflam, respectively. Please identify the correct spelling. The same exhibits show different M.S. numbers (363 and 1901) for the War Eagle claim.

Ore Flamme is correct spelling

This is the correct number

The table of contents lists 4 Lien and Subordination Agreements, Form 52, but this document is not included. We understand that you are the sole owner of the claims, and therefore an executed Form 52 is not required. Perhaps it was intended to cover the surface rights held by Esther Allen Borsch on part of the Merritt No. 1 claim. If so, please submit five copies of the executed form to us. Five copies of the form are enclosed. Copies of this form need not be sent to Mr. Nasler.

Under Item 7, Estimate of Costs, estimated costs for work by independent contractors should be supported by bids from three contractors if possible. We asked for copies of such bids when you submitted the application to us on May 23, 1966, but, as yet, we have not received them.

23263

We would allow the salaries of a supervisor, geologist or engineer, and of an outside consulting geologist or engineer to be charged directly to an OME contract. The present allowable rate for an outside consulting geologist or engineer is $75.00 per day plus $16.00 per diem, and $0.10 per mile travel expense.

The salaries and wages of the operating personnel listed in your analysis of Manpower Requirements are costs incurred by the contractor and would be included in the unit exploration costs for individual work items as you have stated on page 24 and shown in your Summary of Costs.

The Operator is compensated for operating equipment purchased or already owned for use on an OME project by allowing depreciation to the extent of 1/60th of the fair market value of the equipment or its book value, whichever is less, for each month used. If the equipment is rented, a fair rental charge per month is allowed.

The cost or rental charge for equipment used by a contractor cannot be charged to an OME contract. These expenses contribute to the over-all unit cost of the individual work items the same as salary and labor expenses.

The Regional Office will notify you or Dr. E. L. Tullis at Rapid City, South Dakota, in case additional information is needed or to schedule a field examination.

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

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

Enclosure

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

HKirkemo/mm (6/17/66)

Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
6/16/66	Kirkemo	

June 15, 1966

Memorandum

To: The File

From: Harold Kirkemo

Subject: OME-6558 (Silver)
Double Rainbow Mines, Inc.
Double Rainbow Mine
Lawrence County, South Dakota

Review of Application

The Applicant proposes an exploration program for silver ore at the Double Rainbow property in the Galena mining district about 6½ miles southeast of Lead, South Dakota. The program would include 2,000 feet of diamond drilling from the surface, 3,200 feet of underground diamond drilling, a 260-foot vertical shaft, and 3,800 feet of drifting. Total cost of the project is estimated at $278,800.

The exploration targets are replacement deposits containing silver, lead, and gold ore which occur in two stratigraphic horizons, referred to as the upper contact and the lower contact, in the Deadwood Formation of Upper Cambrian age. The basal Deadwood conglomerate contains gold ore in some places in the Black Hills but there are no plans to explore it on the present program. The Deadwood Formation at the property is about 465 feet thick but intrusive igneous sills add as much as 175 feet to the total. Data from drill holes indicate that the lower contact is 150 to 200 feet above the basal conglomerate, 350 to 380 feet below the upper contact, and 400 to 475 feet below the top of the Deadwood Formation. The contacts consist of dolomitic sandstone ~~or dolomitic~~ or dolomitic quartzite beds which have a general northerly strike, and are flat or dip about 8 to 10 degrees to the east.

The contacts are intersected by vertical fractures, called verticals, some of which are mineralized. Replacement deposits extend outward from the verticals in tabular or lens-like masses that range in thickness from a few inches to 30 inches or more, are as much as 50 feet wide, and may extend several hundred feet along groups of verticals. The primary minerals are pyrite and argentiferous galena. Many of the ore bodies are oxidized.

The principal production has been from the Richmond-Sitting Bull mine where 50,000 tons of ore valued at about $750,000 and averaging about $37 per ton was mined from the upper contact. The majority of the workings in this mine are open and accessible.

Workings on the lower contact on the Merritt claims are caved and inaccessible. Drilling in 1964 by Newmont Exploration, Ltd. established the presence of well mineralized material in the lower contact below the Richmond-Sitting Bull mine workings. One hole intersected 5.0 feet of material which assayed 10.4 ounces silver and 0.16 ounces gold per ton in the upper 2.5 feet, and 401.11 ounces silver and 0.22 ounces gold per ton in the lower 2.5 feet.

Plans are to explore certain areas in the upper contact in the Richmond-Sitting Bull mine with slusher drifts.

The proposed drilling is intended principally to obtain stratigraphic information for planning the underground work in the lower contact.

Mr. James J. Norton, U.S.G.S., briefly reviewed this application and commented as follows:

> "You ask if the underground work should be done at the same time as the drilling instead of later. This question applies mainly to work on the lower contact.
>
> It seems to me that the only way to find ore bodies here is by underground work. If there had been no previous drilling to show the existence of mineralized ground along the lower contact, I would say that extensive drilling should be done before the shaft and crosscut work are started. But there has been such drilling and it has shown that mineralized ground exists. It now seems appropriate to go in and find if any of it is of a size and grade to be ore.
>
> I haven't had time to examine the maps, sections, and drill hole data in detail, but my impression is that new drilling will show only what it is expected to show. That is, it will show the position of various rock units and the existence of mineralized ground at normal places, and thus it will serve mainly to aid planning the underground work. Of course some of the drill holes may contain surprises, and to provide for this possibility the drilling should be done far enough in advance of underground headings to avoid costly errors."

He concluded that the main job of appraising the proposal has to be done by the field examiner.

When the Applicant's representatives submitted and discussed the application with Mr. Frank Johnson in May 1966, they were asked to support the cost estimates with bids from several contractors. No bids have been received to date so the request will be made again by letter.

Harold Kirkemo

Harold Kirkemo

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

HKirkemo/mm (6/15/66)

DRAFT. . . 6/2/66
JJNorton:

Memorandum

To: Harold Kirkemo

From: James J. Norton

You ask if the underground work should be done at the same time as the drilling instead of later. This question applies mainly to work on the Lower Contact.

It seems to me that the only way to find ore bodies here is by underground work. If there had been no previous drilling to show the existence of mineralized ground along the Lower Contact, I would say that extensive drilling should be done before the shaft and crosscut work are started. But there has been such drilling and it has shown that mineralized ground exists. It now seems appropriate to go in and find if any of it is of a size and grade to be ore.

I haven't had time to examine the maps, sections, and drill hole data in detail, but my impression is that new drilling will show only what it is expected to show. That is, it will show the position of various rock units and the existence of mineralized ground at normal places, and thus it will serve mainly to aid planning the underground work. Of course some of the drill holes may contain surprises, and to provide for this possibility the drilling should be done far enough in advance of underground headings to avoid costly errors.

In some places the Deadwood basal conglomerate contains gold ore. This is supposedly fossil placer, but it could be epigenetic. This probably isn't worth worrying about at Galena, but should at least be kept in mind.

Aside from these fatuous comments, I have nothing to suggest. Maybe I shouldn't have said anything at all, for obviously the main job has to be done by the field examiner.

The project proposal seems very well prepared.

JJN

DOUBLE RAINBOW MINES, INC.
Pierre, South Dakota

Rexford W. Barton, President
2251 Virginia Street
Berkeley 9, California

OFFICIAL COPY
O. M. E.
RECEIVED
JUN 6 1966
INITIALS | CODE
HK | 120K

1 June 1966

Mr. Frank Johnson, Chief
Office of Minerals Exploration
U. S. Geological Survey
Department of the Interior
Washington 25, D. C.

Re: Loan Application of Double Rainbow Mines, Inc.
Docket No. 6558

Dear Sir:

We hereby request that all communications and correspondence addressed to us by you, until further notice, including communications from your Regional Office in Denver, Colorado, be addressed to us in care of Anthony D. Terry, Esquire, Hull, Terry and Bret Harte, 509 Phoenix Title Building, Tucson, Arizona.

This will expedite our replies as I expect to be out of town from time to time during the summer.

Very truly yours,

DOUBLE RAINBOW MINES, INC.

Rexford W. Barton

Rexford W. Barton, President

Copy to Reg. III 6/20/66

May 23, 1966

Mr. Rexford W. Barton
Double Rainbow Mines, Inc.
2251 Virginia Street
Berkeley 9, California

Subject: OME-6558

Dear Mr. Barton:

Your application for exploration assistance, dated April 20, 1966, submitted to our office in person at Washington, D. C., has been assigned Docket No. OME-6558.

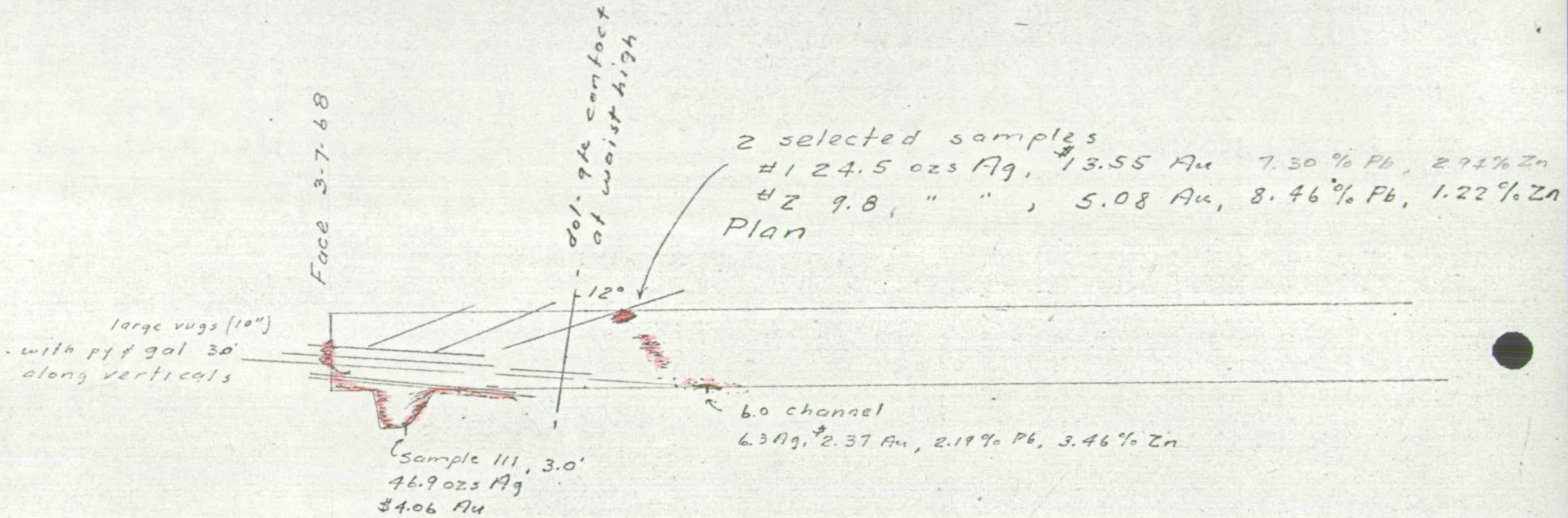
Please identify all future correspondence relating to your application by this docket number.

Sincerely yours,

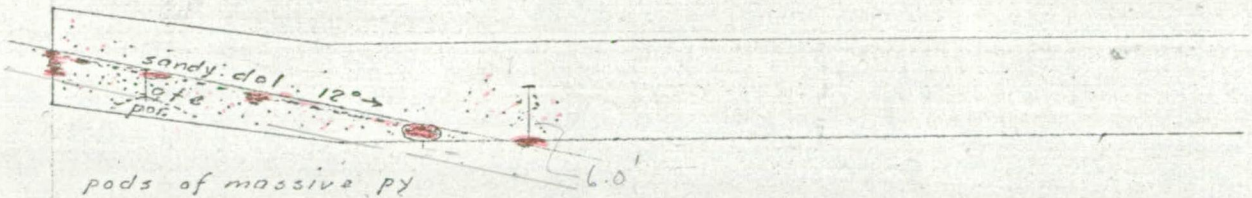
Frank E. Johnson
Chief, Office of
Minerals Exploration

Copy to Region III with copy of application and all attachments.

OME 6558



Section

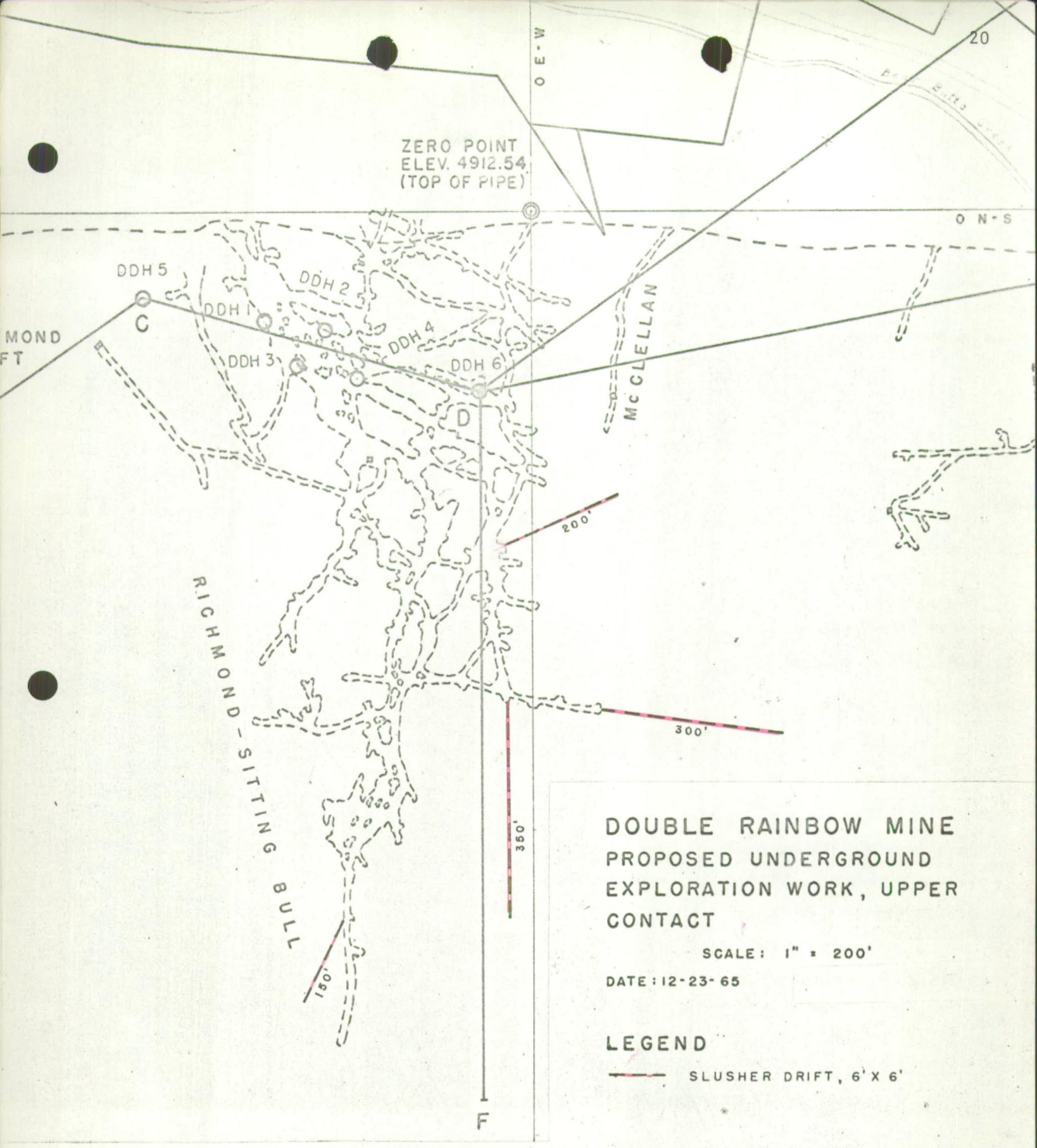


pods of massive py with galena in qtz at contact

much dissem py in qtz
some py in dol
some dissem gal in qtz & dol

Lower Contact Drift

1" = 20' 3-7-68



DOUBLE RAINBOW MINE
PROPOSED UNDERGROUND EXPLORATION WORK, UPPER CONTACT

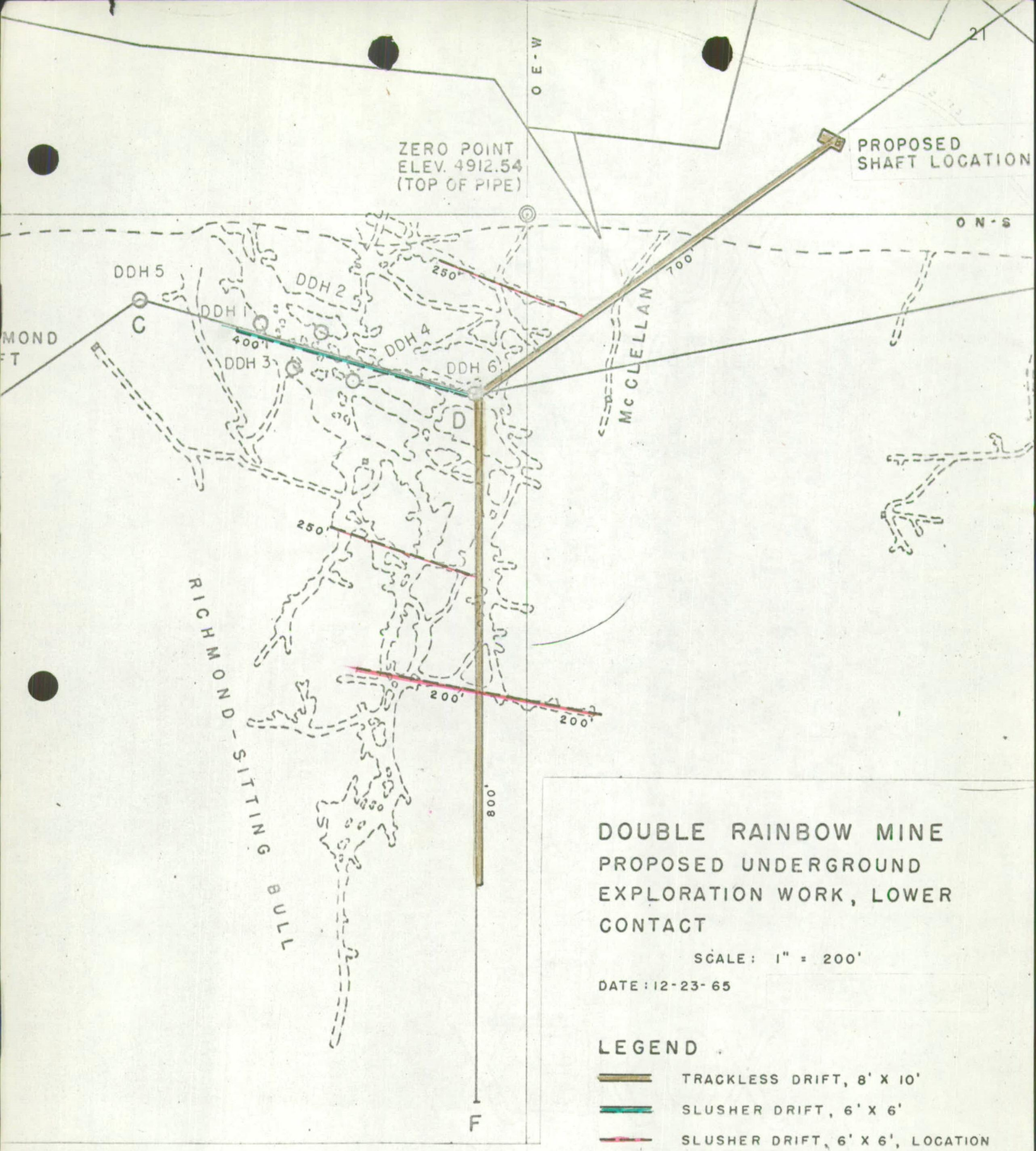
SCALE: 1" = 200'

DATE: 12-23-65

LEGEND

SLUSHER DRIFT, 6' X 6'

Figure 3



DOUBLE RAINBOW MINE
PROPOSED UNDERGROUND
EXPLORATION WORK, LOWER
CONTACT

SCALE: 1" = 200'

DATE: 12-23-65

LEGEND

TRACKLESS DRIFT, 8' X 10'

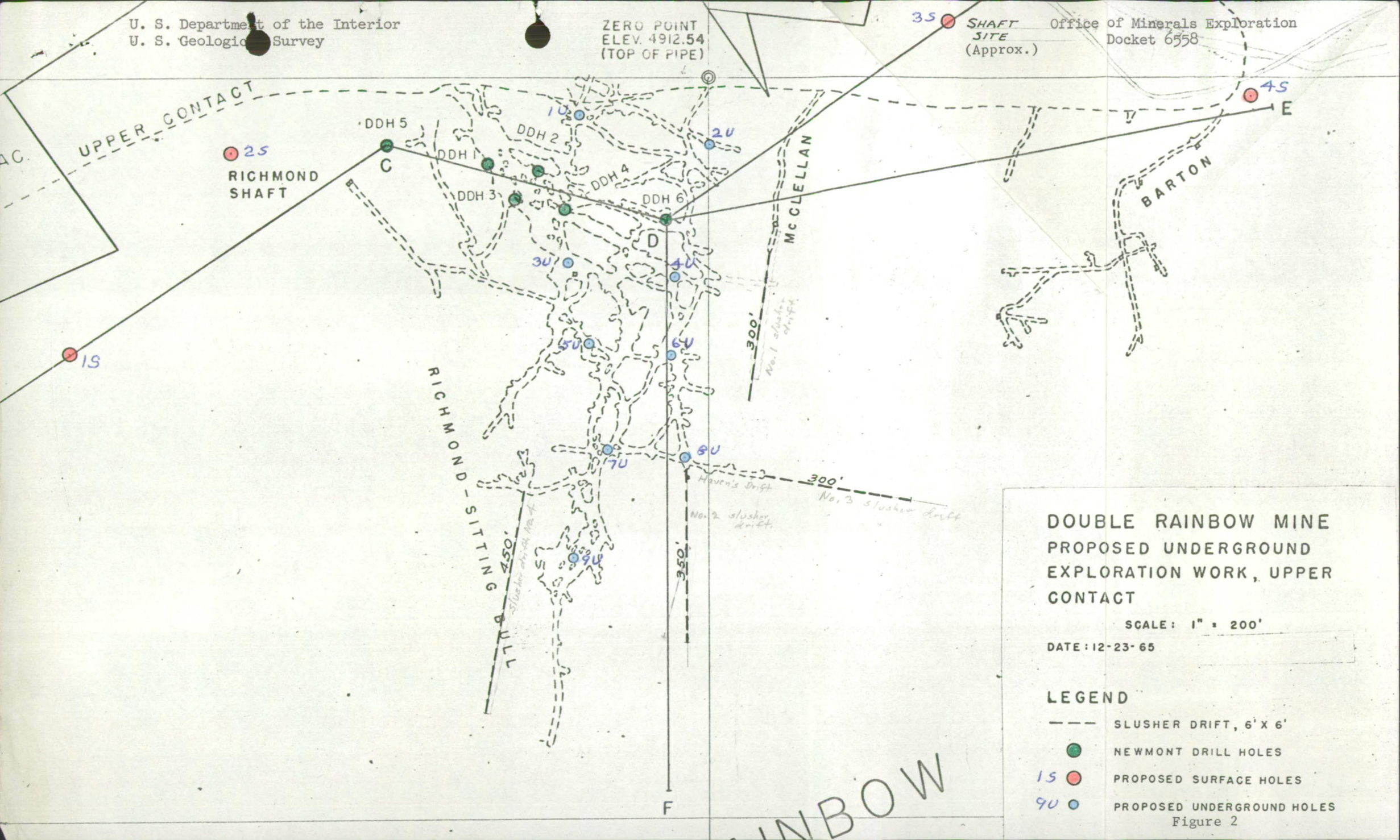
SLUSHER DRIFT, 6' X 6'

SLUSHER DRIFT, 6' X 6', LOCATION DEPENDS UPON POSITION OF ORE INTERCEPTS ALONG TRACKLESS DRIFT

Figure 4

U. S. Department of the Interior
U. S. Geologic Survey

Office of Minerals Exploration
Docket 6558



DOUBLE RAINBOW MINE
PROPOSED UNDERGROUND EXPLORATION WORK, UPPER CONTACT

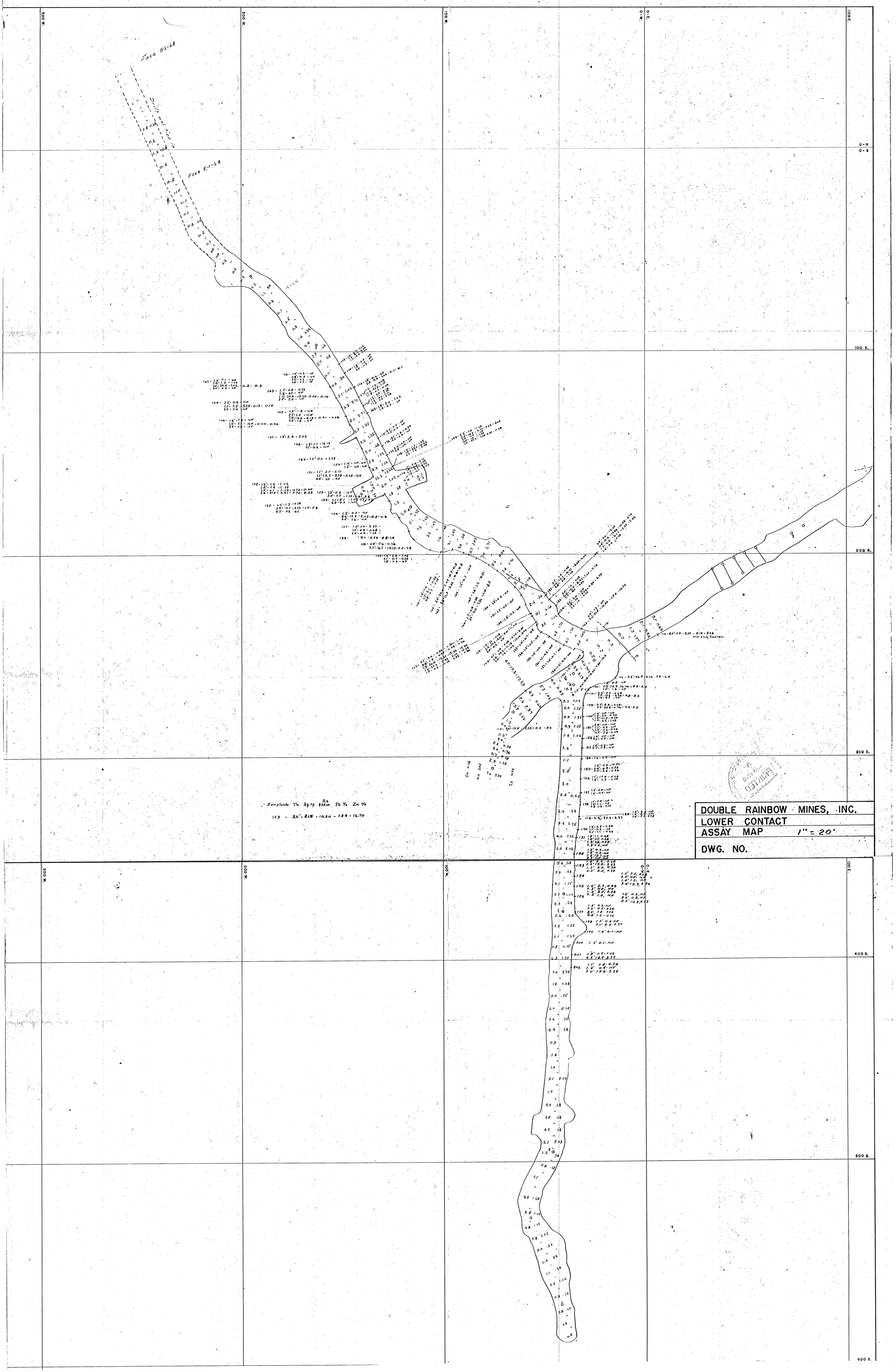
SCALE: 1" = 200'

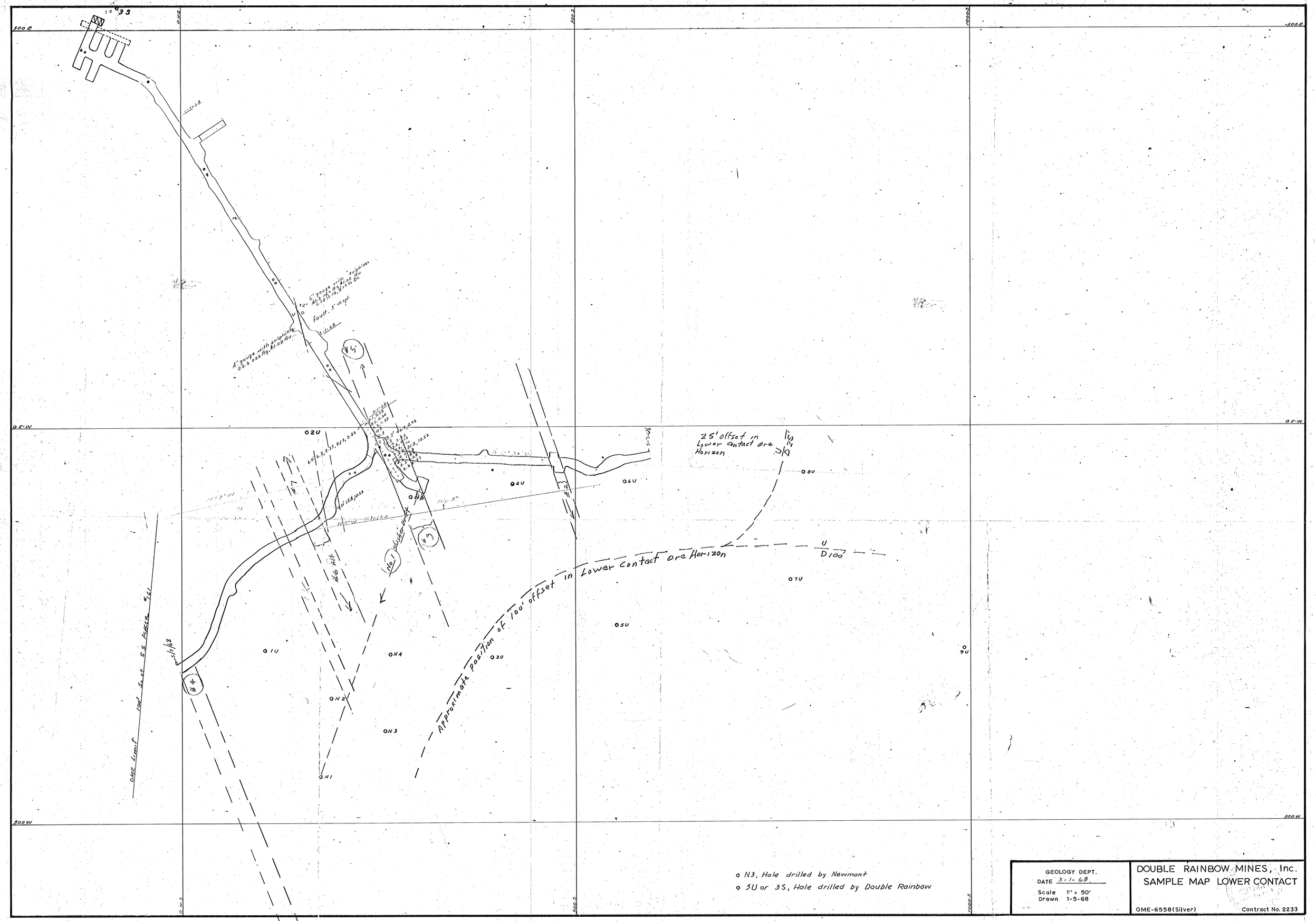
DATE: 12-23-65

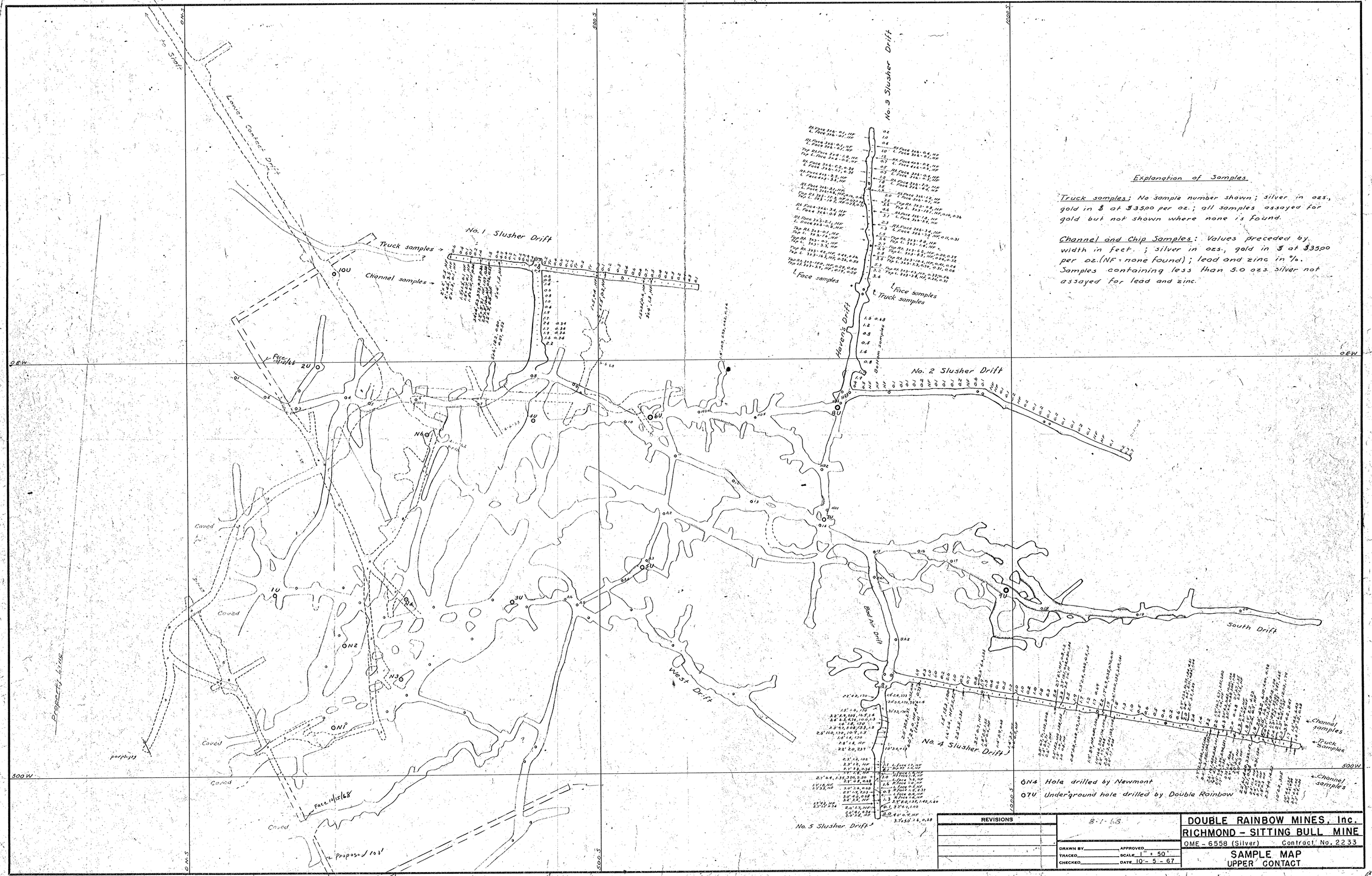
LEGEND

- SLUSHER DRIFT, 6' X 6'
- NEWMONT DRILL HOLES
- 1S PROPOSED SURFACE HOLES
- 9U PROPOSED UNDERGROUND HOLES

Figure 2


300 W.
200 W.
100 W.
0-W.
0-E.
100 E.
0-N
0-S
100 S.
200 S.
300 S.
400 S.
500 S.
600 S.
Face 5-6-68
Face 5-1-68
Samples: Th. Ag oz Au $35.00 Pb % Zn %
123 - 3.6' .215 - 10.50 - 1.34 - 16.70
DOUBLE RAINBOW MINES, INC.
LOWER CONTACT
ASSAY MAP 1" = 20'
DWG. NO.


500 E
500 W
0 E-W
0 N-S
500 S
1000 S
3S
2U
4U
6U
8U
7U
5U
9U
1U
N4
N2
N3
N1
N5
N8
#4
#6 raise
No. 1 shaft
#3
4" gouge with sulphides
23.0 022.09 81.02 RU
72° 4" gouge with sulphides
26.5 022.09 81.02 RU
fault, 3' disp.
25' offset in Lower Contact ore Horizon
Approximate position of 100' offset in Lower Contact ore Horizon
D 100
ore Limit 100' South of SS Pillar #61
o N3, Hole drilled by Newmont
o 5U or 3S, Hole drilled by Double Rainbow
GEOLOGY DEPT.
DATE 3-1-68
Scale 1" = 50'
Drawn 1-5-68
DOUBLE RAINBOW MINES, Inc.
SAMPLE MAP LOWER CONTACT
OME-6558(Silver)
Contract No. 2233



Explanation of Samples

Truck samples: No sample number shown; silver in ozs., gold in $ at $35.00 per oz.; all samples assayed for gold but not shown where none is found.

Channel and Chip Samples: Values preceded by width in feet.; silver in ozs., gold in $ at $35.00 per oz. (NF = none found); lead and zinc in %. Samples containing less than 5.0 ozs. silver not assayed for lead and zinc.

REVISIONS	

8-1-68

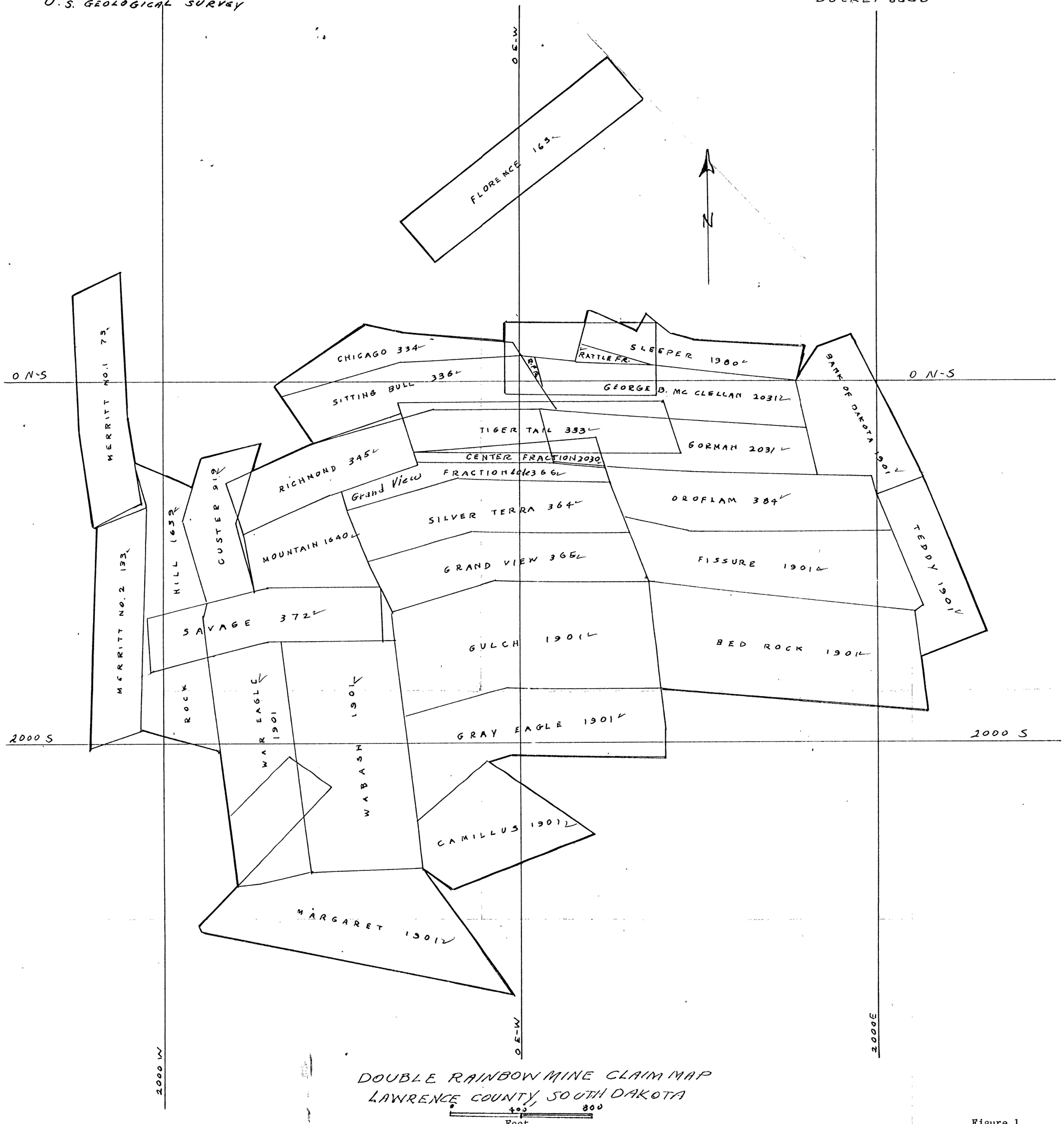
DRAWN BY ____ APPROVED ____
TRACED ____ SCALE 1" = 50'
CHECKED ____ DATE 10-5-67

DOUBLE RAINBOW MINES, Inc.
RICHMOND - SITTING BULL MINE
OME - 6558 (Silver) Contract No. 2233

SAMPLE MAP
UPPER CONTACT

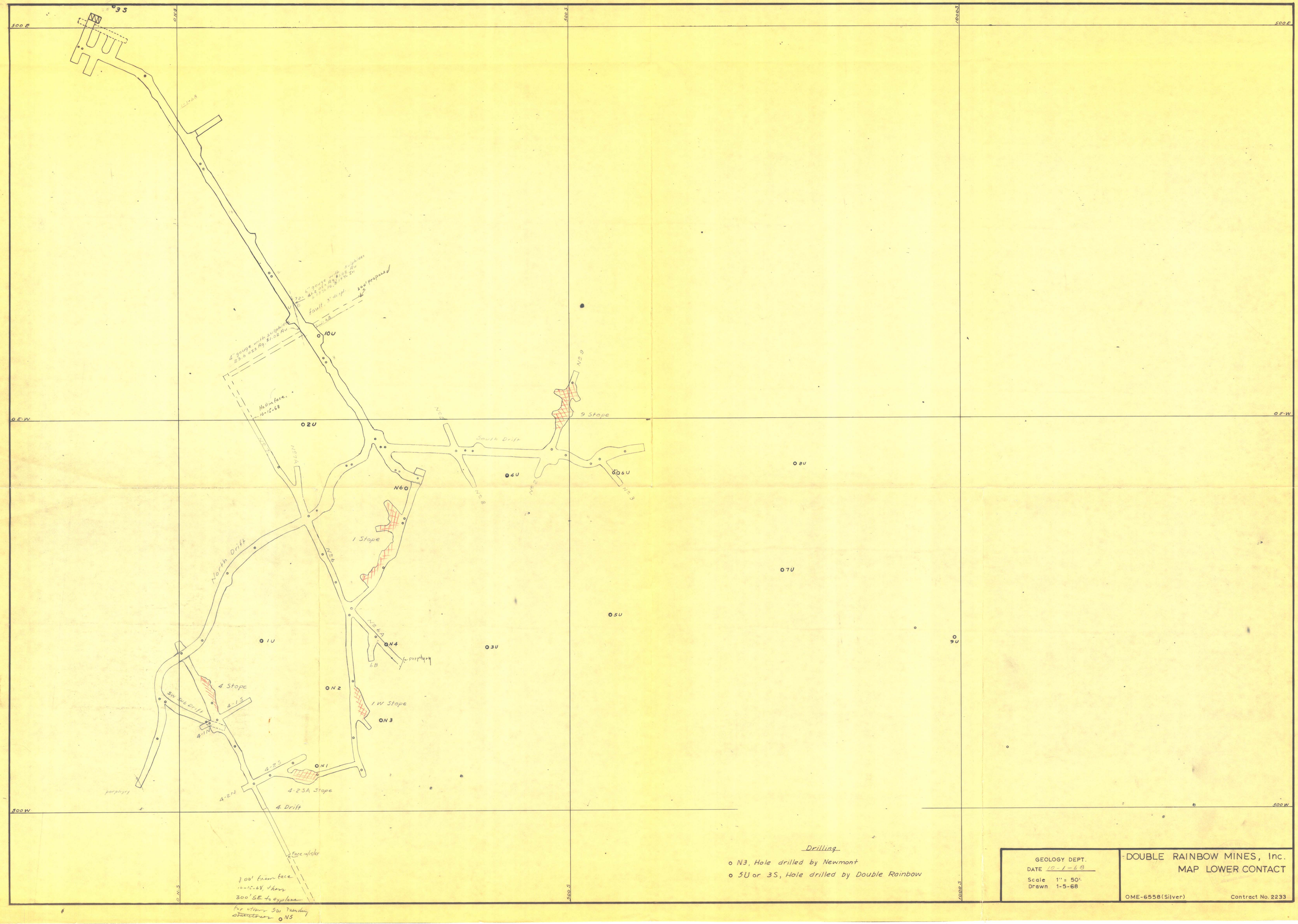
DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

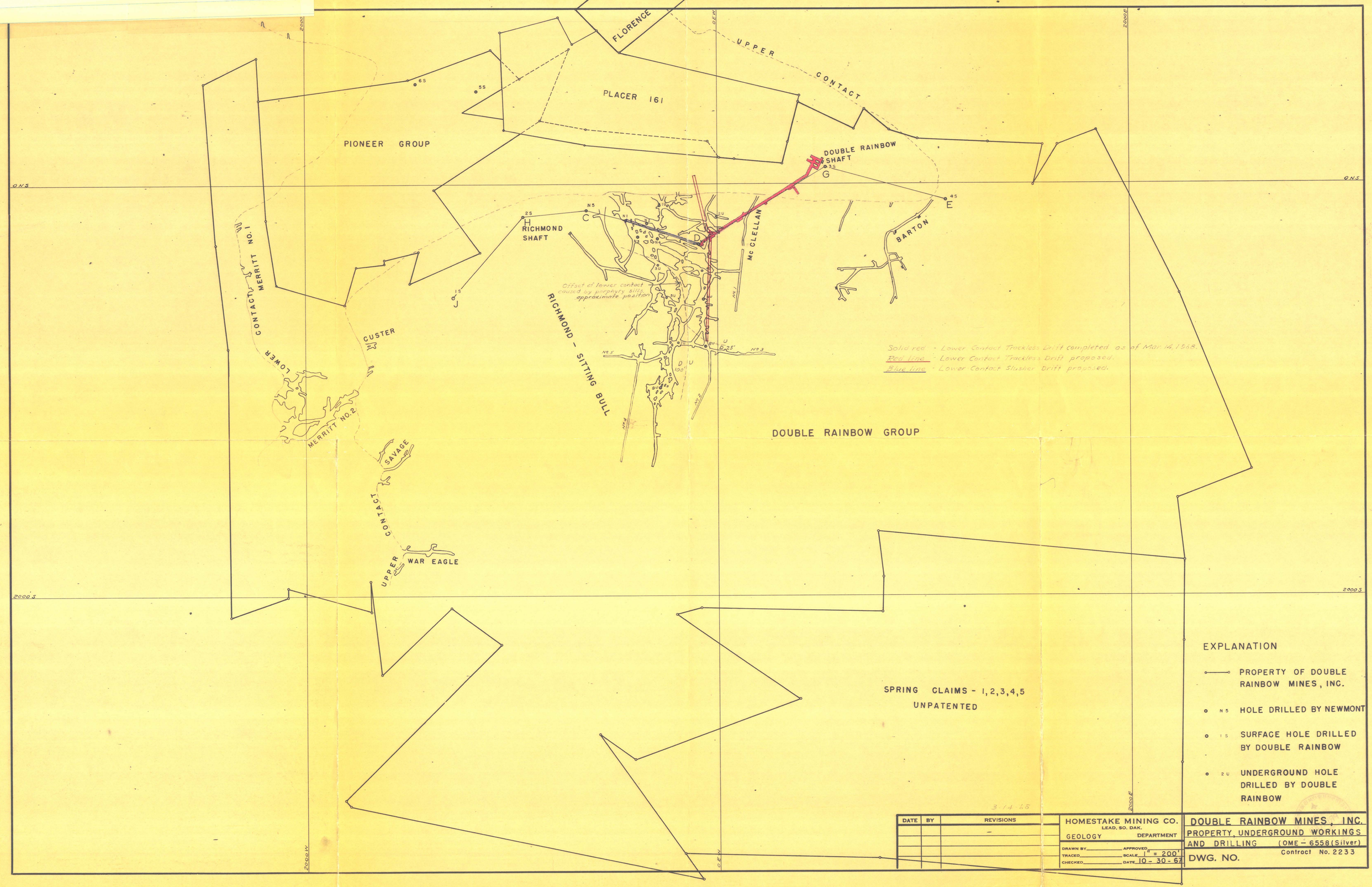
OFFICE OF MINERALS EXPLORATION
DOCKET 6558

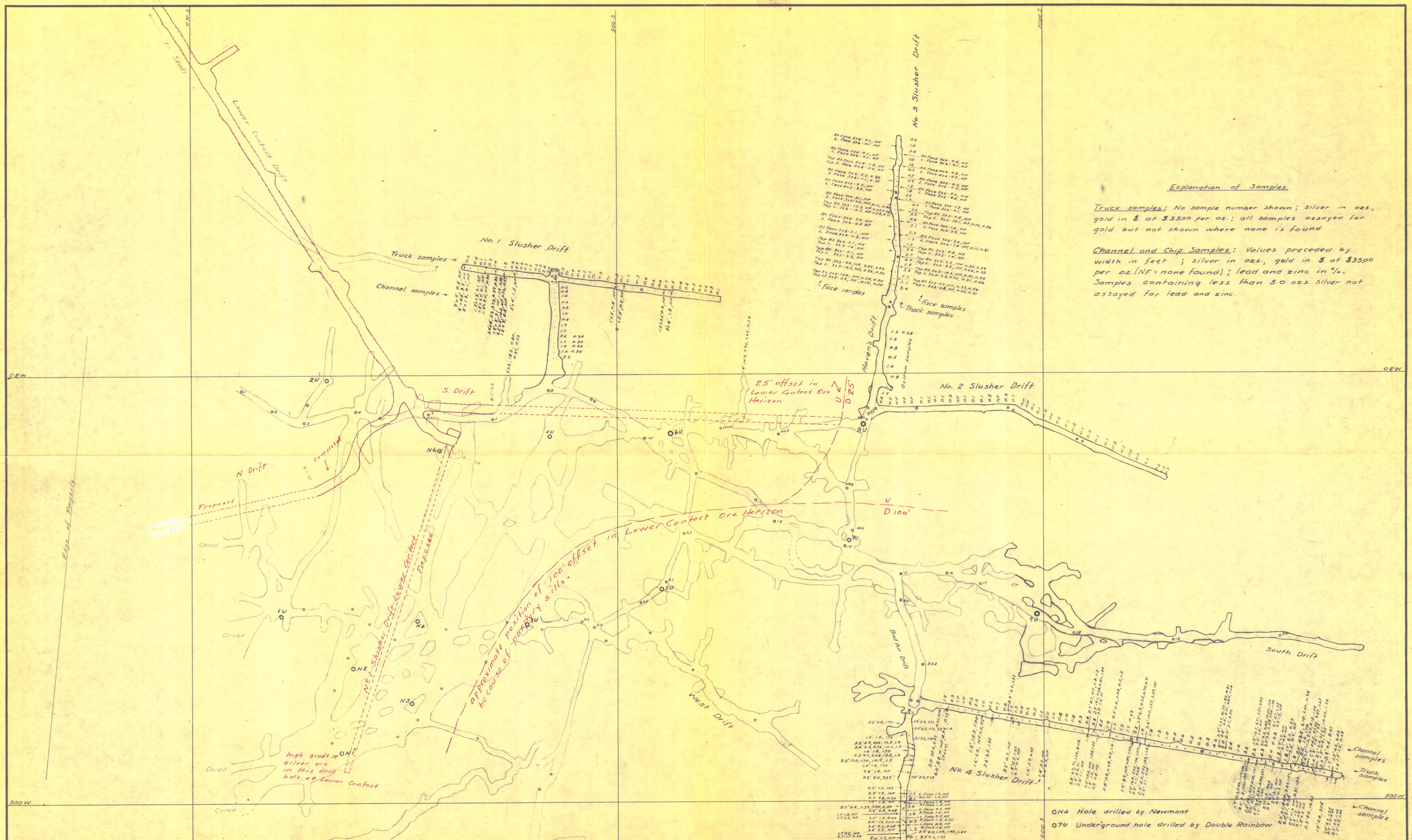


DOUBLE RAINBOW MINE CLAIM MAP
LAWRENCE COUNTY, SOUTH DAKOTA

Figure 1


300 E
0 N-S
500 S
1000 S
0 E-W
500 W
3S
10U
2U
N6
N6A
N4
6B
porphyry
1 Stope
North Drift
South Drift
9 Stope
No 9
No 8
No 2
No 3
No 6A
4 Stope
4-1S
4-1N
SW sub Drill
1 W Stope
N3
N2
N1
4-2S
4-2N
4-2SA Stope
4 Drift
Face 10/15/68
100' from face 10-15-68, 4 holes 300' SE to explore for other SW trending structures
N5
0U
1U
3U
5U
7U
9U
Drilling
o N3, Hole drilled by Newmont
o 5U or 3S, Hole drilled by Double Rainbow
GEOLOGY DEPT.
DATE 10-1-68
Scale 1" = 50'
Drawn 1-5-68
DOUBLE RAINBOW MINES, Inc.
MAP LOWER CONTACT
OME-6558(Silver)
Contract No. 2233


FLORENCE
UPPER CONTACT
PLACER 161
PIONEER GROUP
DOUBLE RAINBOW SHAFT
RICHMOND SHAFT
Mc CLELLAN
BARTON
RICHMOND - SITTING BULL
Offset of lower contact caused by property line approximate position
LOWER CONTACT
MERRITT NO. 1
CUSTER
MERRITT NO. 2
SAVAGE
UPPER CONTACT
WAR EAGLE
DOUBLE RAINBOW GROUP
SPRING CLAIMS - 1,2,3,4,5
UNPATENTED
Solid red - Lower Contact Trackless Drift completed as of Mar. 14, 1968.
Red line - Lower Contact Trackless Drift proposed.
Blue line - Lower Contact Slusher Drift proposed.
EXPLANATION
PROPERTY OF DOUBLE RAINBOW MINES, INC.
N5 HOLE DRILLED BY NEWMONT
1S SURFACE HOLE DRILLED BY DOUBLE RAINBOW
2U UNDERGROUND HOLE DRILLED BY DOUBLE RAINBOW
DATE | BY | REVISIONS
3-14-68
HOMESTAKE MINING CO.
LEAD, SO. DAK.
GEOLOGY DEPARTMENT
DRAWN BY
TRACED
CHECKED
APPROVED
SCALE 1" = 200'
DATE 10 - 30 - 67
DOUBLE RAINBOW MINES, INC.
PROPERTY, UNDERGROUND WORKINGS AND DRILLING (OME - 6558 (Silver)
Contract No. 2233
DWG. NO.



Explanation of Samples

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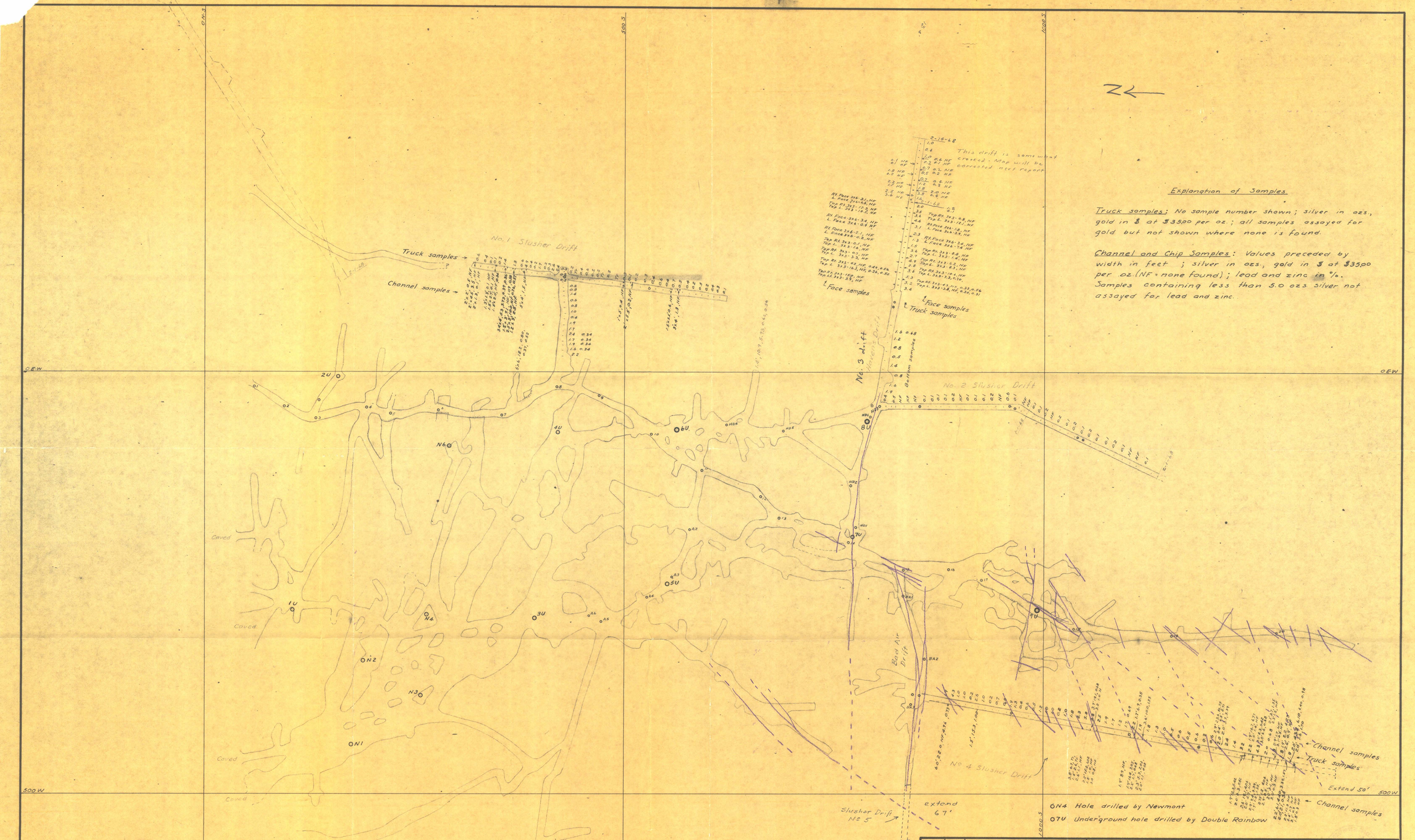
REVISIONS	4-1-68	DOUBLE RAINBOW MINES, Inc.
		RICHMOND – SITTING BULL MINE
	DRAWN BY ____ APPROVED ____	OME – 6558 (Silver) Contract No. 2233
	TRACED ____ SCALE 1" = 50'	SAMPLE MAP
	CHECKED ____ DATE 10 – 5 – 67	UPPER CONTACT



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DATE	BY	REVISIONS

2-1-68

DRAWN BY ____ APPROVED ____
TRACED ____ SCALE 1" = 50'
CHECKED ____ DATE 10 - 5 - 67

DOUBLE RAINBOW MINES, Inc.
RICHMOND - SITTING BULL MINE
OME - 6558 (Silver) Contract No. 2233

SAMPLE MAP
UPPER CONTACT

Received Wash. D.C. 2/23/68