MME Form 9
Rev. Mar. 59

UNITED STATES
DEPARTMENT OF THE INTERIOR
Office of Minerals Exploration

OFFICIAL DOCKET FILE

Contract No. 14-23-2236 Docket No. MME-6415

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- [ ] Withdrawn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
- [ ] Certification of Discovery
- [ ] Closing Letter
- [x] Cost Audits 9/69
- [ ] Termination Notice or Agreement
- [ ] Recision Notice
- [x] Assignment of Contract 8-14-67 Govt. app. 9-8-67
- [ ] Contract Amendments
- [x] Contract with all exhibits and annexes
- [x] Owner's Consent to Lien and Subordination Agreement
- [x] Application and Attachments

Right Side

- [ ] Project Summary (final)
- [ ] Work Completed Analysis (final)
- All other material filed in chronological order including the following reports if checked:
- [ ] Field Team Semiannual Report for Certified Project
- [ ] Final Field Team Report (Tab)
- [x] Operator's Final Report (Tab)
- [ ] Interim Field Team Reports
- [x] Operator's monthly reports and all attachments
- [ ] On-site Exam. Report (Tab)
- [ ] Settlement Sheets
- [ ] Drill Logs

Folder No. 1-A Revised Application dated 8/26/66

Additional Folders:

Left Side

Folders No. _____: Reports
- [ ] Analysis of Semiannual Inspection Reports
- [ ] Project Summary (Interim) by MME Engineers

Right Side

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

Folders No. 2 : Maps (Use pocket folder or envelope)

Folders No. _____: Settlement Sheets

Folders No. _____: Drill Logs

Folders No. _____: Royalty Material

52615

OME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
1/16/70	Emerick	120
		120
		220

JAN 16 1970

Mr. Henry Stein, Vice President
Rheco-Lenado, Inc., Assignee
Box 939
Aspen, Colorado 81611

Re: OME-6415 (Silver)
Rheco-Lenado, Inc., Assignee
Lenado Area
Pitkin County, Colorado
Contract 2236

Dear Mr. Stein:

Reference is made to the completed exploration project with the Government.

We sincerely regret that the work performed did not result in a certification of possible production under the provisions of the contract. In the absence of such certification the Government retains no claim or lien against the property described in the contract or any future production therefrom.

Your attention is called to the provisions of the contract which require the Operator to keep and preserve certain records for the periods indicated.

Please accept our thanks for your check in the amount of $13.50 representing refund of an overpayment made to you by the Government.

We appreciate your interest and participation in the OME exploration program.

Sincerely yours,

Harold Kirkemo (gla)

Harold Kirkemo
Chief, Office of
Minerals Exploration

cc: Director's Reading File
Mineral Resources File
OME Docket
OME Reading File
OME Region III
Mr. Emerick - 130

WLEmerick/1 1/16/70

I-C-DC-OME-2-70

Government's copy

UNITED STATES
DEPARTMENT OF THE INTERIOR

Office of Survey and Review

Audit Operations

Kirkemo

OFFICIAL
COPY
O. M. E.
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INITIALS CODE

Report of Review-Contract 2236
Docket No. OME-6415 (Silver)
RHECO-Lenado, Inc. (Operator)
Pitkin County, Colorado

Washington, D.C.
September 1969

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SECRETARY
OFFICE OF SURVEY AND REVIEW
Audit Operations, Region I
801 19th Street, N.W., Room 813
Washington, D.C. 20240

OCT 28 1969

Memorandum

To: Director, Geological Survey

From: Regional Director, Audit Operations,

Subject: Review of Contract 2236
Docket No. OME 6415 (Silver)
RHECO-Lenado, Inc. (Operator)
Pitkin County, Colorado

As requested by the Chief, Office of Minerals Exploration, we made a cost review of Contract 2236. The results of our review are shown in the attached report.

C. D. Bare

Attachment

We reviewed the contract files of the Office of Minerals Exploration (OME) pertaining to the minerals exploration contract No. 2236 with RHECO-Lenado, Inc. (Operator) and examined the related disbursement records in the Branch of Budget and Finance, Administrative Division, Geological Survey. The review was made during September 1969 at Washington, D. C.

The contract was awarded on February 6, 1967, for $78,800, the total estimated cost of the project, with OME participation on a 75 percent basis or not in excess of $59,100.

The Contractor was to explore by drilling for silver-bearing ore bodies below an elongate geochemical anomaly which is approximately coextensive with the outcrop areas of the Leadville limestone and of the transverse Woody Creek and Lenado faults between offset segments of the limestone.

The work was divided into two stages. Stage I consisted of bulldozing access roads to, and the leveling of a maximum of four drill sites; core drilling in four inclined holes; and evaluating the results. Stage II, dependent upon the results obtained in Stage I, consisted of similar work as provided for in Stage I of the contract.

Repayment of disbursed Federal funds plus interest at 6½ percent was to be made on the basis of established royalties of all minerals

and metals produced from the land during the exploratory operations for a period of 11 years from the date of the contract should a certification of possible production be issued by OME. All work under the contract was to be completed within 31 months from the date of the contract or by September 6, 1969. Amendments suspended work from March to August 1968 and again from February to June 1969.

Field inspections were made and 17 vouchers were submitted to the OME Region III office.

The units of work authorized and paid under Contract 2236 are summarized in Exhibit I. An overpayment of $13.50 was made by OME to RHECO-Lenado, Inc. We believe that the claimed and accepted costs of $73,466, and the OME participation on a 75 percent basis for $55,100, are acceptable under the terms of the contract.

C. D. Bare
Regional Director

Summary of Contract Terms, Accepted Costs, and Unexpended Balance

Actual Costs	Authorized Amounts	Accepted Costs	Unexpended Balance
Category (1) Independent Contracts			
Mobilization and Demobilization drilling equipment and personnel	$ 700	$ 350	$ 350
Bulldozing roads and drill sites including moving bulldozer in and out 180 hours at $18/hour	3,240	882	2,358
Drilling eight holes at various rates estimate 4,300 feet	33,020	30,390	2,630
Reaming, including installing and removing casing at various rates	4,440	695	3,745
Casing lost in hole	3,000	2,252	748
Freight Allowance 40 cwt. at $1.25/cwt	50		50
Cementing and redrilling 280 hours at $12.50/hour	3,500	9,463	(5,963)
Additives 240 sacks at $7.50/sack	1,800	4,389	(2,589)
Water truck rental 8 months at $190/month	1,520	1,188	332
Water truck mileage 4,000 miles at $0.12/mile	480	54	426
Truck driver, including FICA, etc. 1,280 hours at $3.51/hour (rounded)	4,500	2,830	1,670
Subtotal	56,250	52,493	3,757

Summary of Contract Terms, Accepted Costs, and Unexpended Balance

Actual Costs	Authorized Amounts	Accepted Costs	Unexpended Balance
Surveying 32 hours at $12/hour (rounded)	380	900	(520)
Surveying instrument, in hole, including transport 10 days at $80/day	800	782	18
Standby time 80 hours at $11/hour	880	726	154
Core boxes 430 boxes at $1/box	430	224	206
Category (2) Personal Services Subcategory (a) Supervision and Technical Services			
1-Supervisor-geologist-engineer 8 months at $910/month	7,280	7,280	
Subcategory (b) Labor			
1-Engineer's Assistant 8 months at $650/month	5,200	4,848	352
Category (3) Operating Materials and Supplies			
Explosives, including detonators	150		150
Category (7) Miscellaneous			
Analytical work at various rates	2,100	2,855	(755)
Subtotal	73,470	70,108	3,362

Summary of Contract Terms, Accepted Costs, and Unexpended Balance

Actual Costs	Authorized Amounts	Accepted Costs	Unexpended Balance
Vehicle mileage 24,000 miles at $0.12/mile	2,880	1,675	1,205
Accounting and Office Expense 8 months at $40/month	320	673	(353)
FICA, Payroll taxes, insurance, etc. 8 months at $266/month (rounded)	2,130	1,010	1,120
Totals	$78,800	$73,466	$5,334
Government Participation at 75%	$59,100	$55,100 1/	$4,000

1/ The Contractor was overpaid by $13 because of a computation on voucher No. 95848.

These costs are for both Stage I and Stage II of Contract 2236.

Government's Copy

OME Region III
RECEIVED
APR 28 1969
Denver, Colorado

EXPLORATION CONTRACT
RHECO-LENADO, INC., ASSIGNEE
OME-6415

Amendment No. 3

It is agreed this 23rd day of April, 1969, between the United States of America, acting through the Department of the Interior, U. S. Geological Survey, hereinafter called the "Government," and Rheco-Lenado, Inc., hereinafter called the "Operator," that Exploration Contract 2236 (OME-6415), dated February 6, 1967, as amended, is further amended effective February 14, 1969, as follows:

1.(a) Work under the contract may be suspended during the period beginning February 15, 1969, and ending not later than June 20, 1969.

(b) No costs incurred by the Operator during the period of suspension shall be allowable for contribution by the Government.

(c) The Government shall not contribute to the costs of rehabilitation or repair which in its opinion would not have occurred if there had been no suspension of the work.

(d) During the period of suspension the Operator, at its own cost and expense, and without contribution by the Government shall preserve and protect the project work.

2. The time fixed by Article 1(a) of the contract, as amended, for completion of the work is extended from 27 to 31 months from the date of the contract, or until September 6, 1969.

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 Harold Kirkemo
Chief, Office of Minerals Exploration

RHECO-LENADO, INC.

By Henry F. Stein

Title V. Pres.

Long
Appd. Sol. Office
Emrich
Kirkemo
Kilsgaard
Ney

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
4/14/69	Emerick	120
4/15/69	Kirkemo	120
		220
		120M

April 14, 1969

Memorandum

To: The File

From: William L. Emerick
Office of Minerals Exploration

Subject: OME-6415 (Silver)
Rheco-Lenado, Inc., Assignee
Lenado Area
Pitkin County, Colorado
Contract 2236

Justification for Amendment No. 3

The Operator in a letter to the Field Officer, Region III, requested a recess for the period February 15, 1969 to June 20, 1969 because inclement winter weather will limit access to and operations in the drilling area. The Field Officer recommended that an Amendment to the contract be executed providing for the requested recess.

Amendment No. 3 provides for the recess period and extends the completion date of the contract.

I concur with the Field Officer's recommendation.

William L. Emerick
William L. Emerick

cc: Director's Reading File
Economic Geology File
OME Docket
OME Reading File
Mr. Emerick

WLEmerick/bsl 4/14/69

Government's Copy

EXPLORATION CONTRACT
RHECO-LENADO, INC., ASSIGNEE
OME-6415

Amendment No. 2

It is agreed this 20th day of June, 1968, between the United States of America, acting through the Department of the Interior, U. S. Geological Survey, hereinafter called the "Government," and Rheco-Lenado, Inc., hereinafter called the "Operator," that Exploration Contract 2236 (OME-6415), dated February 6, 1967, as amended, is further amended effective June 19, 1968, as follows:

1. (a) Work under the contract may be suspended during the period beginning June 20, 1968, and ending not later than August 1, 1968.

(b) No costs incurred by the Operator during the period of suspension shall be allowable for contribution by the Government.

(c) The Government shall not contribute to the costs of rehabilitation or repair which in its opinion would not have occurred if there had been no suspension of the work.

(d) The Operator, at its own cost and expense, without contribution by the Government, during the period of suspension shall preserve and protect the project work.

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

RHECO-LENADO, INC.

By Henry S. Stein

Title V. Pres.

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
6/10/68	RMS	120
6/11/68	Kirkham	120
"	Johnson	110
		220
		120M

June 11, 1968

Memorandum

To: The File

From: Roscoe M. Smith

Subject: OME-6415 (Silver)
Rheco-Lenado, Inc., Assignee
Lenado Area
Pitkin County, Colorado

Justification for Amendment No. 2

An extension of the current recess was requested by the Operator and recommended by the Field Officer because the Independent Contractor is not available on the expiration date owing to drilling commitments contracted during the recess.

Since receiving the request weather conditions in Colorado have prevented access to other OME projects. August 1 is now considered a safe estimate, and this amendment extends the recess to that date.

The Operator's request to change the locations of proposed holes 7 and 8 does not require an amendment. The holes are authorized under Exhibit A, Description of the Work, Stage II, which reads "...locations selected ... to delineate further any ore bodies discovered in Stage I ..."Hole 7 is an offset to Hole 1 where high-sulfide ore was found in Stage I. Hole 8 will be drilled from the same site but directed toward the old Aspen Contact silver mine.

R. M. Smith
Roscoe M. Smith

cc: Director's Reading File
Economic Geology File
OME Docket
OME Reading File
Mr. Smith

RMSmith/bsl 6/10/68

Government's copy

EXPLORATION CONTRACT
RHECO-LENADO, INC., ASSIGNEE
OME-6415

AMENDMENT NO. 1

It is agreed this 8th day of April, 1968, between the United States of America, acting through the Department of the Interior, U. S. Geological Survey, hereinafter called the "Government," and Rheco-Lenado, Inc., hereinafter called the "Operator," that Exploration Contract 2236 (OME-6415), dated February 6, 1967, is amended effective March 19, 1968, as follows:

1.(a) Work under the contract shall be suspended during the period beginning March 20, 1968, and ending not later than June 20, 1968.

(b) No costs incurred by the Operator during the period of suspension shall be allowable for contribution by the Government.

(c) The Government will not contribute to any cost of rehabilitation or repair which in its opinion would not have occurred had there been no suspension of the work.

(d) The Operator at its own cost and expense, without contribution by the Government, during the period of suspension shall preserve and protect the project work.

2. The time fixed by Article 1(a) of the contract for the completion of the work is extended from 24 to 27 months from the date of the contract, or until May 6, 1969.

3. The maximum period for royalty payments and for the lien to secure the payment thereof provided for in Article 7 of the contract is extended from ten (10) to eleven (11) years from the date of the contract.

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

RHECO-LENADO, INC,

By Henry S. Stern

Title V. Pres.

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MME Form 7
(2/63)

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Date	Surname	Code
3/29/68	[illegible]	120
4/1/68	Kirkemo	120
4/2	[illegible]	110
		220
		120M

APR 2 1968

Memorandum

To: The File

From: Roscoe M. Smith

Subject: OME-6415 (Silver)
Rheco-Lenado, Inc., Assignee
Lenado Area
Pitkin County, Colorado
Contract 2236

Justification for Amendment No. 1

The Operator requested and the Field Officer recommended a three-month recess from March 20 to June 20, 1968, for three mutually advantageous purposes:

(1) To reassess the results of the work to date by modifying maps and sections to accomodate information gained by drilling, and to revise the plan of future drilling to improve the probability of success.

(2) To reduce the hazards from snowslides in the immediate drilling area during the spring months.

(3) To reduce the actual costs by postponing further work until snow removal, frozen pipelines, and water haulage are obviated by warm weather.

Roscoe M. Smith

Roscoe M. Smith

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

RMSmith/bsl 3/29/68

Government's copy

EXPLORATION CONTRACT
RICHMOND HILL EXPLORATION COMPANY, INC.
OME-6415

ASSIGNMENT OF CONTRACT

WHEREAS, Richmond Hill Exploration Company, Inc., a Colorado corporation, hereinafter called the "Assignor," and the United States of America, acting through the Department of the Interior, U. S. Geological Survey, hereinafter called the "Government," entered into Exploration Contract 2236 (Docket OME-6415), dated February 6, 1967, hereinafter called the "Contract," and

WHEREAS, RHECO-LENADO, INC., a Colorado corporation, whose address is P. O. Box 939, Aspen, Colorado 81611, hereinafter called the "Assignee," pursuant to an Assignment of leases and lode claims effective July 1, 1967, has acquired the Assignor's interest in the land which is the subject of the Contract and the Assignee desires to perform the work under the Contract;

NOW, THEREFORE, effective July 1, 1967, the Assignor, subject to the acceptance by the Assignee and consent of the Government, in consideration of the sum of One Dollar ($1.00) and other good and valuable consideration received from the Assignee, does hereby sell, assign, transfer, and convey to the Assignee all of its right, title, and interest in the Contract, including such sums which might be paid by the Government as its share of the costs of the work performed under the terms of the Contract: Provided, that the Government shall be and is hereby released by the Assignor from all claims under the Contract.

The Assignor consents to all future amendments (including a termination agreement) and assignments of the Contract, and waives notice thereof.

Dated this 14th day of August, 1967.

RICHMOND HILL EXPLORATION COMPANY, INC.

By [signature]

Title President

I, John A. F. Wendt, certify that I am the _____ secretary of the corporation named herein; that Wm. B. Rubey who signed this instrument on behalf of the corporation was then President of said corporation; that said instrument was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

J. A. F. Wendt

Corporation Seal

ASSIGNEE'S ACCEPTANCE

The Assignee hereby accepts the foregoing assignment and agrees to be bound by the terms, provisions, and conditions of the Contract. The Assignee expressly assumes and agrees to pay to the Government any royalty that may accrue under the provisions of the Contract.

Dated this 14th day of August, 1967.

RHECO-LENADO, INC.

By Wm B Rubey

Title President

I, John A. F. Wendt, certify that I am the _____ secretary of the corporation named herein; that Wm. B. Rubey who signed this instrument on behalf of the corporation was then President of said corporation by authority of its governing body, and is within the scope of its corporate powers.

J. A. F. Wendt

GOVERNMENT'S CONSENT

The Government, this 8th day of September, 1967, hereby consents to the above assignment without releasing the Assignor from any of the terms, provisions, and conditions of the Contract, or any amendment (including a termination agreement) or assignment thereof.

THE UNITED STATES OF AMERICA

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

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FROM SOLICITOR
JUL 31 1967
FOR SIGNATURE

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 -6415	Silver	2235	Pitkin	Colorado

It is agreed FEB 6 1967 (Date), between the United States of America, acting through the Department of the Interior, U. S. Geological Survey, hereinafter called the "Government," and

Richmond Hill Exploration Company, Inc., a Colorado corporation

whose mailing address is P. O. Box 939, Aspen, Colorado 81611, 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 15, 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 $ 78,800.00. The Government will contribute 75 percent of the allowable costs as they are incurred, in a total sum not in excess of $59,100.00 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 6 - ½ 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.

THE UNITED STATES OF AMERICA

RICHMOND HILL EXPLORATION COMPANY, INC.
(Operator)

By Wm B Rubey

Title President

By Thomas B Baker
Acting Director, U. S. Geological Survey

Long
Smith
Kirkemo
Johnson
Kilpgard

I, W J. A. F. WENDT, certify that I am the
(Name)

secretary of the corporation named as Operator herein; that Wm. B. RUBEY, who signed this contract on behalf of the Operator, was then
(Name)

PRESIDENT 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]

EXPLORATION CONTRACT
RICHMOND HILL EXPLORATION COMPANY, INC.
OME-6415

ANNEX I

The land, including all rights thereto, referred to in Article 2 of the contract consists of five groups of patented and unpatented lode and placer mining claims in secs. 22, 23, 27, and 28, T. 9 S., R. 84 W., 6th Principal Meridian, Woody Creek mining district, Pitkin County, Colorado. The five groups are identified as the RHECO, Smuggler-Durant, Flogaus, Stein, and Herron-Grover groups on Figure 1 entitled "Richmond Hill Exploration Company, Inc., Lenado Project, . . . Claim Map," attached and made part hereof.

The RHECO group consists of three unpatented lode mining claims owned by Richmond Hill Exploration Company, Inc., and recorded in the office of the Pitkin County Recorder, Aspen, Colorado, as follows:

Name of Claims	Book	Pages
Silver Tide	220	53, 54
Ebb Tide	220	395, 396
Neap Tide	220	397, 398

The remaining four groups consist of 43 patented lode claims and one patented placer claim as follows:

Smuggler-Durant group owned by Smuggler-Durant Mining Corporation:

Claim	Survey No.	Claim	Survey No.
Leadville	6576	Tenderfoot	5759
Alma	5293	River	5759
Daisy	5293	Annex	5759
Last Chance	5759	Lamokin	5759
Last Chance #2	5759	Mollie	5759
Eureka	5759	Tillie	6635

Flogaus group owned by Flogaus Lumber Co.:

Claim	Survey No.	Claim	Survey No.
Silver City	6828	Nestor	5854
Boston	6828	Nettie	5854
Discovery	5244	Moscow	5854
Ajax	5244	Court of Chancery	4615
Black Metalic	5244	Blue Diamond	4615
Tripod	5244	Atlantic Cable	5853
Logan	5853	Barefoot	5854
Cape Nome	16559	Snow Shoe	5854
Tunnel	5854	Bridal Chamber	5245
Brook	5854	Little Maggie	5245
Lenado Placer	6039	Don	5853

Stein group owned by Henry L. Stein:

Claim	Survey No.	Claim	Survey No.
Alpine	6783	Brooklet	6783
Ide	6783	Brookside	6783
Boaze	6783		

Herron-Grover group owned by Anna E. Olson, John L. Herron, and Edward J. Grover:

		Interests		
Claim	Survey No.	Olson	Herron	Grover
Apex	6122	23/72	46/72	3/72
Hidden Treasure	6122	23/72	46/72	3/72
Sea Bird	6122	23/72	46/72	3/72
Camp Bird	14176	23/72	46/72	3/72
Highland	6500	1/3	2/3	--

The Operator is in possession of the RHECO group of unpatented claims by right of location.

The Operator is in possession of the four groups of patented claims under the terms of (a) an undated Assignment of mining leases and option to purchase executed by Henry L. Stein, Managing Director of Floodtide, a joint venture and lessee, recorded February 2, 1965 in Book 211, page 35 of the Pitkin County records, and (b) a Mining Lease executed April 26, 1965, by Anna E. Olson, owner of a part interest in the Herron-Grover group.

Floodtide obtained rights to the Smuggler-Durant group by a

10-year Mining Lease executed October 31, 1963, by Smuggler-Durant Mining Corporation, the owner.

Floodtide obtained rights to the remaining interests in the Herron-Grover group and to the Flogaus and Stein groups by an Assignment executed July 15, 1964, by Edwin J. Smart, lessee.

Edwin J. Smart obtained rights to the Flogaus group by a 10-year Mining Lease executed April 3, 1963, by Flogaus Lumber Co., the owner.

Edwin J. Smart obtained rights to the Stein group by a 10-year Mining Lease executed August 12, 1963, by Henry L. Stein, the owner.

Edwin J. Smart obtained rights to the remaining part interest in the Herron-Grover group under the terms of two leases as follows:

(1) Lease with option to purchase executed August 7, 1963, for three years and extended August 4, 1966, until August 7, 1968, by John L. Herron,, a part owner.

(2) Lease of Mining Property executed August 24, 1963, for five years by Edward J. Grover, a part owner.

Lien and Subordination Agreements executed by the following owners covering all interests in all the patented claims are attached and made part hereof:

Smuggler-Durant Mining Corporation
Flogaus Lumber Company
Henry L. Stein
Anna E. Olson
John L. Herron
Edward J. Grover

MME Form 52
Jan. 1959

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

FOR GOVERNMENT USE ONLY
Operator
Docket No. OME –
Contract No. 14-23-090 – 2238
Contract Date FEB 3 1967

LIEN AND SUBORDINATION AGREEMENTS 1/

To the United States of America:

That certain land in the County of Pitkin, State of Colorado,

~~XXXXXXXXXXXXXXXXX 2/X~~ in a mining lease dated October 31, 1963,

and recorded in Book 204, Page 550, official records of said county.

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

Richmond Hill Exploration Company, Inc., 3/

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

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

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

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

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

None

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

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

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

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

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

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

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

Dated this 1st day of February, 1965.

X _____	(Seal)	_____ (Street) _____ (City & State)
SMUGGLER-DURANT MINING CORPORATION		Suite 1101, 4 West 58th Street (Street)
Donald M. Hyman, Pres	(Seal)	New York, N. Y. (City & State)
_____	(Seal)	_____ (Street) _____ (City & State)
_____	(Seal)	_____ (Street) _____ (City & State)
_____	(Seal)	_____ (Street) _____ (City & State)
_____	(Seal)	_____ (Street) _____ (City & State)

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

_____
(Corporate Seal)

MME Form 52
Jan. 1959

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

FOR GOVERNMENT USE ONLY
Operator
Docket No. OME –
Contract No. 14-23-090 – 2255
Contract Date FEB 6 1967

LIEN AND SUBORDINATION AGREEMENTS[1]

To the United States of America:

That certain land in the County of Pitkin, State of Colorado,

~~described as follows:~~[2] in a mining lease dated April 3, 1963, and recorded in Book 203, Page 519, official records of said county.

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

Richmond Hill Exploration Company [3]

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

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

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

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

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

None

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

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

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

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

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

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

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

Dated this 31 day of December, 1964.

	Woody Creek Post Office,	(Street)
		(City &)
x J P Elogans (Seal)	Pitkin County, Colorado	(State)
President, Elogans Lumber Company		(Street)
		(City &)
(Seal)		(State)
		(Street)
		(City &)
(Seal)		(State)
		(Street)
		(City &)
(Seal)		(State)
		(Street)
		(City &)
(Seal)		(State)
		(Street)
		(City &)
(Seal)		(State)

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

_____ (Corporate Seal)

MME Form 52
Jan. 1959

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

FOR GOVERNMENT USE ONLY
Operator
Docket No. OME –
Contract No. 14-23-090– 22[illegible]
Contract Date FEB 3 [illegible]

LIEN AND SUBORDINATION AGREEMENTS 1/

To the United States of America:

That certain land in the County of Pitkin, State of Colorado,

~~described as follows~~ 2/ in a mining lease dated August 12, 1963, and recorded in Book 206, Page 490, official records of said county.

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

Richmond Hill Exploration Company, Inc. 3/

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

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

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

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

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

None

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

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

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

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

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

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

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

Dated this 1st day of January, 1965.

x Henry L. Stein (Seal)	Box 480, (Street) Aspen, Colorado 81611 (City & State)	
(Seal)	(Street) (City & State)	
(Seal)	(Street) (City & State)	
(Seal)	(Street) (City & State)	
(Seal)	(Street) (City & State)	
(Seal)	(Street) (City & State)	

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

_____
(Corporate Seal)

MME Form 52
Jan. 1959

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

FOR GOVERNMENT USE ONLY
Operator
Docket No. OME –
Contract No. 14-23-090– 2236
Contract Date

LIEN AND SUBORDINATION AGREEMENTS 1/

To the United States of America:

That certain land in the County of Pitkin, State of Colorado,

~~XXXXXXXXXXXXXXXXX~~ 2/ in a lease dated August 7, 1963, and recorded in Book 203, Page 500, official records of said county.

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

Richmond Hill Exploration Company, Inc. 3/

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

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

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

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

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

None

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

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

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

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

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

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

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

Dated this 1st day of January, 19 65.

X John L Herron	(Seal)	Aspen, Colorado 81611	(Street) (City & State)
	(Seal)		(Street) (City & State)
	(Seal)		(Street) (City & State)
	(Seal)		(Street) (City & State)
	(Seal)		(Street) (City & State)
	(Seal)		(Street) (City & State)

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

_____
(Corporate Seal)

MME Form 52
Jan. 1959

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

FOR GOVERNMENT USE ONLY
Operator
Docket No. OME –
Contract No. 14-23-090 – 2235
Contract Date FEB 6 1967

LIEN AND SUBORDINATION AGREEMENTS[1]

To the United States of America:

That certain land in the County of Pitkin, State of Colorado,

~~described as follows:~~[2] in a Lease of Mining Property dated August 24, 1963, and recorded in Book 203, Page 526, official records of said county. Restricted to claims at Lenado only.

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

Richmond Hill Exploration Company, Inc.[3]

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

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

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

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

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

None

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

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

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

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

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

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

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

Dated this 6th day of January, 1965.

	3264—F Road	(Street)
	Fruita Colorado	(City & State)
x Edward J. Grover (Seal)		
		(Street)
		(City & State)
(Seal)		
		(Street)
		(City & State)
(Seal)		
		(Street)
		(City & State)
(Seal)		
		(Street)
		(City & State)
(Seal)		
		(Street)
		(City & State)
(Seal)		

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

_____ (Corporate Seal)

MME Form 52
Jan. 1959

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

FOR GOVERNMENT USE ONLY
Operator
Docket No. OME –
Contract No. 14-23-090– 2236
Contract Date FEB 6 1967

LIEN AND SUBORDINATION AGREEMENTS[1]

To the United States of America:

That certain land in the County of Pitkin, State of Colorado,

described as follows:[2] an undivided 23/72 interest in the Apex, Hidden Treasure, and Sea Bird patented claims, Survey No. 6122, and for the Camp Bird patented claim, Survey No. 14176, and for an undivided 1/3 interest in the Highland patented claim, Survey No. 6500, all located in the Woody Mining District.

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

RichmondHill Exploration Company, Inc.[3]

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

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

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

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

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

None

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

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

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

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

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

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

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

Dated this 26th day of April, 1965.

James E. Olson (Seal) 9 Mellwrace Rd. (Street) Youngstown Ohio (City & State)

_____ (Seal) _____ (Street) (City & State)

_____ (Seal) _____ (Street) (City & State)

_____ (Seal) _____ (Street) (City & State)

_____ (Seal) _____ (Street) (City & State)

_____ (Seal) _____ (Street) (City & State)

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

_____ (Corporate Seal)

EXPLORATION CONTRACT

RICHMOND HILL EXPLORATION COMPANY, INC.

OME-6415

EXHIBIT A

The purpose of the project is to explore by drilling, from sites to be prepared on the land surface, for silver-bearing ore bodies below an elongate geochemical anomaly which is approximately coextensive with the outcrop areas of the Leadville limestone and of the transverse Woody Creek and Lenado faults between offset segments of the limestone.

Ore bodies are inferred in and along the transverse faults and possibly along bedding-plane faults where the faults intersect or traverse limestone strata of the Manitou, Dyer, Leadville, and Belden formations of Paleozoic age.

General Provisions

A bulldozer no smaller than a Caterpillar D-7 shall be used for preparation of access roads and drill sites.

All drill holes shall be cased as necessary. The Government will not contribute to the cost of casing left in a hole at the Operator's request.

Drill holes shall be surveyed as necessary by an in-hole instrument suitable for determining both bearing and inclination.

Facilities shall be provided for recovering drill sludge, and such sludge shall be retained when drilling in significantly mineralized rock.

All drill core shall be stored in boxes identified as to hole number with markers in the core sections indicating the depths represented. Significantly mineralized core shall be split and one split assayed for gold and silver and for lead and zinc as warranted. Whenever core recovery is less than 60 percent, a split of the corresponding retained sludge shall be assayed separately. The remaining core shall be stored in proper sequence with the unsampled core, and the remaining sludge shall be stored in suitable containers properly identified as to hole number and depth. Stored samples shall be made available for Government inspection and possible use, and may be disposed of with prior Government approval.

All drill core shall be logged and copies of the logs showing locations of all samples taken and the geological formations and structures traversed by the drill holes shall be furnished monthly to the Government.

True copies of assay certificates of all samples shall be submitted with the Operator's monthly report.

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

The Government will not contribute to the cost of any holes closer than 150 feet to the outer boundary of the project area or closer than 50 feet to the ore intercept in any other hole.

The location, direction, and extent of each work item shall be subject to Government approval.

The work shall be divided into two stages. The Operator shall complete all of Stage I and as much of Stage II as is authorized in advance by the Government and confirmed in writing. Approval of Stage II shall depend upon the results obtained in Stage I.

Description of the Work

Stage I

The work shall consist of bulldozing access roads to and the levelling of a maximum of four drill sites, core drilling an estimated 2150 feet in four inclined holes, and evaluating the results.

The holes shall be drilled to intersect the Woody Creek fault, the Lenado fault, or the upper or lower contact of the Leadville limestone near one of these faults.

The approximate inclinations and depths of the holes are as follows:

Hole No.	Inclination	Depth
1	-45°	600 feet
2	-45°	400 feet
3	-40°	600 feet
4	-40°	550 feet

Any drilling footage not used in completing Stage I may be applied to Stage II.

The approximate locations of the drill sites and bearings of the drill holes are shown on Figure 2 entitled "Lenado Project" attached and made part hereof.

Stage II

The work shall consist of bulldozing access roads to, and the levelling of drill sites, drilling an estimated 2150 feet in four or more holes, and evaluating the results.

The locations of the drill sites and the bearings, inclinations, and depths of the drill holes may be selected either to delineate further any ore bodies discovered in Stage I by offset drilling or to explore the favorable geologic setting southwest of the Leadville Tunnel by holes 5, 6, 7, and 8 approximately as illustrated on Figure 2.

Any footage not used in completing the foregoing options in Stage II may be used to core drill in the area of the Tillie shaft at sites to be selected by the Operator and approved in advance in writing by the Government.

Estimated Costs of the Work

Stage I

Actual costs

Category (1) Independent Contracts

Mobilization and demobilization, drilling equipment and personnel	$ 350.00
Bulldozing roads and drill sites, including moving bulldozer in and out, 90 hours @ $18.00 hour	1,620.00
Drilling four holes, est. 2150 feet	16,510.00

Depth, feet	NC	NX	BX	AX&EX
0 - bedrock	$7.85			
Bedrock-250	$7.75	$7.40	$6.50	$6.00
250 - 500		$8.20	$7.10	$6.60
500 - 750			$8.00	$7.30
750 - 1,000			$8.95	$8.20

Category (1) Independent Contracts (continued)

Reaming, including installing and removing casing Rates, all sizes:		$2,220.00
0 - 500 feet	$3.80/foot	
500 - 1,000 feet	$5.40/foot	
Casing lost in hole		1,500.00

Sizes:	4-inch	NX	BX	AX	EX
Cost/foot	$4.14	$3.31	$3.00	$1.81	$1.62

Freight allowance 20 cwt. @ $1.25/cwt	25.00	
Cementing and Redrilling, 14 hours @ $12.50/hour	1,750.00	
Additives, 120 sacks @ $7.50/sack	900.00	
Water truck rental, 4 months @ $190.00/month	760.00	
Water truck mileage - 500 miles/month 2000 miles @ $0.12/mile	240.00	
Truck driver, including F.I.C.A., etc. 640 hours @ $3.51/hour (rounded)	2,250.00	
Surveying, 16 hours @ $12.00/hour (rounded)	190.00	
Surveying instrument, in-hole, including transport 5 days @ $80.00/day	400.00	
Standby time, 40 hours @ $11.00/hour	440.00	
Core boxes, 215 boxes @ $1.00/box	215.00	$29,370.00

Category (2) Personal Services

Subcategory (a) Supervision and Technical Services

None except:

1 Supervisor-geologist-engineer, 4 months @ $910.00/month	3,640.00	

Subcategory (b) Labor		
1 Engineer's assistant, 4 months @ $650.00/month	$2,600.00	$ 6,240.00
Category (3) Operating Materials and Supplies		
None except:		
Explosives, including detonators	75.00	75.00
Category (7) Miscellaneous		
None except:		
Samples assayed for gold and silver, 150 samples @ $3.00/sample	$ 450.00	
Samples assayed for lead and zinc, 150 samples @ $4.00/sample	600.00	
Vehicle mileage (3,000 miles/month), 12,000 miles @ $0.12/mile	1,440.00	
Accounting and office expense, 4 months @ $40.00/month	160.00	
F.I.C.A., payroll taxes, insurance, etc., 4 months @ $266.00/month (rounded)	1,065.00	3,715.00
Total Estimated Cost of Stage I		$39,400.00

Stage II

Actual Costs

The schedule for Stage I applies

Total Estimated Actual Costs - Stage II	$39,400.00
Total Estimated Actual Costs of the Work	$78,800.00
Government Participation @ 75%	$59,100.00

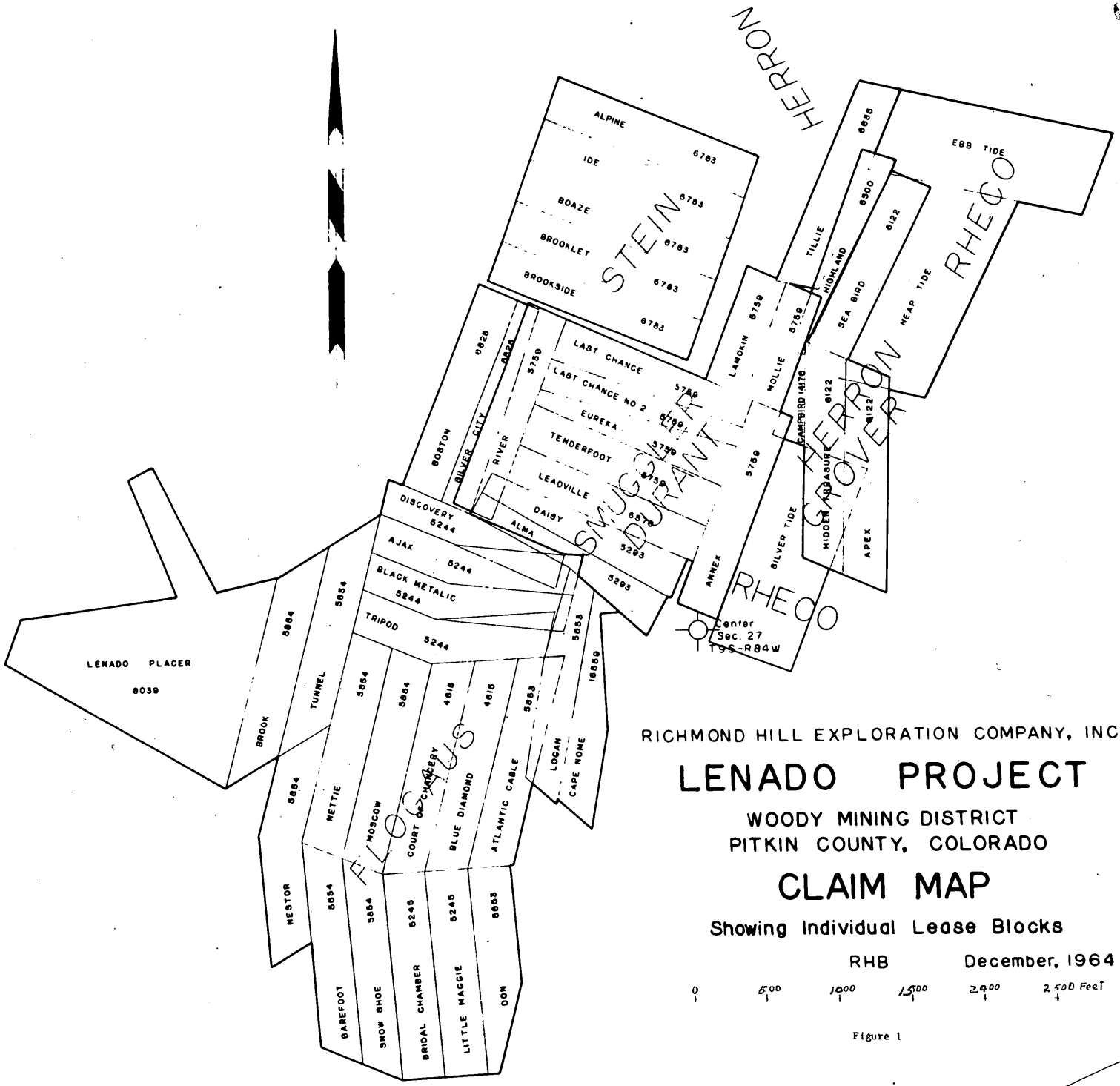
EXHIBIT B

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.'"



RICHMOND HILL EXPLORATION COMPANY, INC.

LENADO PROJECT

WOODY MINING DISTRICT
PITKIN COUNTY, COLORADO

CLAIM MAP

Showing Individual Lease Blocks

RHB December, 1964

0 500 1000 1500 2000 2500 Feet

Figure 1

MME Form 40
Jan. 65

Budget Bureau No. 42-R1508
Approval expires Dec. 31, 1968

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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.)*

Richmond Hill Exploration Company, Inc.
P. O. Box 939
Aspen, Colorado 81611

APPLICANT DO NOT USE THIS BLOCK

DOCKET NUMBER

DATE RECEIVED

REGION

DIVISION CODE

BUSINESS ORGANIZATION *(Check one)*

INDIVIDUAL	
CORPORATION	X
PARTNERSHIP	
OTHER *(Specify)*	

STATE IN WHICH FIRM IS ORGANIZED Colorado

LIST CORPORATE OFFICERS OR PARTNERS HERE, IF APPLICABLE

NAME	ADDRESS	TITLE
William B. Rubey	Aspen, Colorado	President
Henry L. Stein	Aspen, Colorado	Vice-President
John Wendt	Aspen, Colorado	Secretary

MINERAL(S) FOR WHICH YOU WISH TO EXPLORE
Silver

ESTIMATED COST OF PROJECT
$ 89,845.61

PROPERTY NAME	LOCATION COUNTY	STATE
Benado Area	Pitkin	Colorado

GENERAL INSTRUCTIONS

Before filling out this application, please read the *OME Regulations for Obtaining Federal Assistance in Financing Explorations for Mineral Reserves* (30 CFR Chap. III). To assure prompt action, your application must provide all applicable material and information specified on the back of this application form. Avoid unnecessary correspondence and delays by submitting complete and accurate information. *Please submit 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, D. C., or with the nearest OME Field Office.~~ Washington, D. C., 20242, 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.

16 Sept 66
DATED

Wm B Rubey
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).]

OFFICIAL COPY
O. M. E.
RECEIVED
APR 29 1975
INITIALS CODE

MINING LEASE

This Lease and Indenture, made this 26th day of April, 1965 A. B., between Anna E. Olson the party of the first part hereinafter referred to as Lessor, and RICHMOND HILL EXPLORATION COMPANY, INC., a Colorado Corporation with offices in the City of Aspen, County of Pitkin, State of Colorado, party of the second part hereinafter referred to as Lessee: WITNESSETH:

The said Lessor for and in consideration of One Hundred and 00/100 ($100.00) Dollars, paid by the Lessee to the Lessor for Lessor's partial interest of record as listed below and recorded in Book 201, pages 411 and 412 of the records for Pitkin County and in further consideration of the royalties hereinafter reserved and the covenants and agreements hereinafter expressed to be kept and performed by said Lessee, the Lessor has granted, demised and let unto said Lessee the Mining Property more fully described as follows:

Name of Claim	Interest	U.S.M.S. No.
Apex Lode Mining Claim	23/72	6122
Hidden Treasure Mining Claim	23/72	6122
Sea Bird Mining Claim	23/72	6122
Camp Bird Mining Claim	23/72	14176
Highland Mining Claim	1/3	6500

all located in Woody Creek Mining District, or more specifically in Sections 22 and 27, Township 9 South, Range 84 West 6th P.M., all in Pitkin County, State of Colorado;

TO HAVE AND TO HOLD the same unto the said Lessee for the term of Ten (10) years from the date hereof, expiring at noon on the 26th day of April, 1975, A.D., unless sooner forfeited or determined through the violation of any covenant hereinafter set forth to be kept and performed by the Lessee. Provided further, that if the said Lessee faithfully keeps and performs all covenants and agreements to be kept and performed

by it and makes all payments hereinafter provided and this lease is in good standing at the end of said ten (10) year term, the Lessee will have the right to renew the same for an an additional term of ten (10) years but no longer, on the same terms and conditions as herein set forth. Provided, however, that in order to effect such a renewal the Lessee shall give the Lessor written notice of its election to renew said Lease at least Sixty (60) days before the expiration date, namely Noon April 26, 1975 . Such notice may be delivered personally to the Lessor or may be delivered by registered mail, properly addressed to Lessor.

The Lessee shall enter upon and make use of said property only for mining operations and the exploration of such mineral deposits as may be found of economic interest. In all resaonable and proper pursuit of this exploration for and ~~exploration~~ exploitation of and with the nemessary installations for this effort, the Lessee shall make use of such surface area as are necessary and proper.

Said Lessee, in consideration of said lease, does agree with the Lessor as follows:

Lessee shall enter upon and take possession as proper in the pursuit of mining efforts upon completion and signature of this lease by the parties thereto.

The Lessee shall upon entering upon and taking possession of said property make such examination of title of abstract as may be required and prudent in the Lessee's judgement and at the sole expense of the Lessee.

Lessee shall enter upon and perform such exploratory work, surveying, evaluation studies, etc., as may be reasonable and proper, keeping full records thereof, cores recovered from core drilling, samples, etc., thereof and obtained during this exploration beginning not later than 120 days after the excution of this lease by the parties thereto, said records to be kept during the term hereof or any extended term of this lease.

Lessee shall enter upon said mining premises and work the same in the manner necessary for the good and economic mining so as to exploit, extract or otherwise remove the mineral deposits found within and or under the property in a feqsible, reasonable, and proper manner for the greatest financial gain to the lessor.

Lessee shall well and sufficiently timber all shafts, drifts, crosscuts, tunnels and or other workings on or within the mining property or under the surface thereof and shall maintain said timber by replacement as to provide safe and reasonable access to the mine and its adjuncts both surface and underground.

Lessor and or his agent or agents shall have access to and may enter upon the property, its buildings, installations and the mining operations at any and all reasonable times without limitation by the Lessee.

The Lessee shall cause to be made maps and copies of engineering and mining reports, field data and similar information, including Summaries and exploration results, and exploitation on semi-annual intervals beginning November 1, 1965 and thereafter on May 1 and November 1, so long as this lease is in effect or reports shall be provided as may hereafter be agreed upon.

Further, Lessor and or his agent or agents shall have access to any and all pertinent maps, records, files, etc., as may be a true and accurate indication of the true worth of the mineral property under lease as described in Paragraph 2 above. These records shall be made available without cost to the Lessor. If Lessee fails or refuses to provide said information, Lessor and or his agent or agents may make such studies, evaluations, mapping, surveying, etc., as may be required to recover this information at the Lessee's expense.

Lessee shall occupy and hold all cross or parallel lodes, spurs, veins or deposits of any kind that are discovered by Lessee or any agent under Lessee's direction in any manner by working under or from the demised ground including extralateral rights of said veins lodes, spurs and or mineral deposits thereto during and only during the period of the lease or any extended term thereof.

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

Lessee shall do all stoping, development work, and or other mining operation in an approved and customary manner of the 'prudent miner".

Lessee shall cause to be paid the Lessor such royalties upon the divided interests in the several claims as described and listed in Paragraph 2 above in accordance with the following royalty schedule.

(a) Ten per cent (10%) of the net smelter returns on ore, the gross contained mineral value of which is less than or equal to Fifty Dollars ($50.00) per ton.

(b) Twelve per cent (12%) of the net smelter returns on ore, the gross contained mineral value of which is equal to or greater than Fifty Dollars and One Cent ($50.01) per ton.

(c) To pay a minimum royalty of Three Hundred and No/100 ($300.00) Dollars per annum in advance each year on an annual basis, said advance royalty to be credited to subsequent production until the above sum is recovered by the Lessee, from production royalties normally due the Lessor from production from the property, under terms of this lease.

Lessee shall cause the ore buyer, smelter, or other purchaser of the mineral production from this property to pay to the Lessor such royalties as may be due the Lessor at the following location prior to tendering of payment to Lessee for such mineral production. The payment shall be made to Anna E. Olsen, Youngstown, Ohio by check with attached certificate,

settlement sheet or statement, purchase agreement or other legal instrument showing transfer of ownership of mineral resouree together with the tonw of ore, or other mineral resouces involved, and affecting the value per ton for royalty determination.

Lessee shall not "co-mingle"any ore from the property with ore or ores from any other mining property until on acceptance by Lessor or his agent of procedures, techniques, equipmenmt and other requirements by Lessee or its agents to truly determine values of said ores prior to such "co-mingling", shall be satisfactorily established, installed and operational and approved by Lessor or his agents. Such approval shall be in writing and properly acknowledged by both parties. Such an instrument shall upon proper acceptance by Lessor and Lessee become a part of and shall be considered an addendum to this lease or any extended term thereof.

Lessee shall carry insurance or take such legal measures as may be necessary to protect the Lessor against any claims for Workmen's Compensation and also to protect the Lessor against any Mechanic's or Material Men's liens, and to keep posted on the premises such notices as may be necessary to protect Lessor. Further, Lessee shall post and keep posted such notices as Lessor may require fpr the purpose aforesaid on the premises or operational access for mining purposes to these properties,

Lessee shall pay all production taxes and on improvements made by Lessee on said premises, due and or incurred prior to the date of the termination of the lease or relinquishment hereof, if prior to said termination date.

Lessee does hereby agree to indemnify and save Lessor harmless of any claim or demand arising out of or in connection with Lessee's operation of the leasehold premises or facilities connected therewith and asserted against Lessor, but not limited to, personal injury, property damage, business debt or obligations of lessor or its agents, employees or officers, and in the event it becomes necessary for Lessors to employ an attorney to enforce this indemnity, that Lessee shall pay Lessors reqsonable attorney fees and costs.

Upon the expiration of the primary term of this lease or any expanded term hereof or upon a prior termination of this lease, the Lessor shall deliver up to Lessee said leasehold premises with the appurtenances thereto, together with all improvements in good order and condition, with all drifts, shafts, tunnels, and or other passages, thoroughly clear of loose rock and rubbish, and drained, and mine ready for immediate continued working, exclusive of damages or conditions not resulting from the negligence of Lessee.

On April 25, ~~19~~, of any year the Lessee may if it so desires, pay all royalties and taxes then due and surrender and terminate this lease by giving thrity (30) days prior written notice of such termination and by executing and recording at the Lessee's expense the proper release of this mining lease.

Upon violation by the Lessee of any covenant or covenants herein before or subsequently stated, and herein before reserved, the Lessor may notify the Lessee by registered mail addressed to it at Aspen, Colorado or its legal postal address. That default has been made in the terms of this lease setting forth briefly and generally the nature of such default, and if the same is not corrected within thirty (30) days after said registered notice is deposited in the United States Post Office that then thereafter said lease shall be null and void and the Lessor shall be entitled to immediate possession of said property and may enter upon the same and dispossess all persons occupying the same, with or without force and with or without process of law; or at the option of said Lessor the Lessee and all persons found in occupancy of said premises may be proceeded against for unlawful detainer of said premises, as provided by statute,

As the Lessor owns a lesser interest in the lands covered by this lease than the entire and individual fee simple estate therein, then the royalties and rentals provided herein shall be paid the Lessor only in the proportion his interest bears to the whole and undivided fee, provided that specific sums as mentioned above shall obtain and be binding upon Lessor and Lessee for the specific condition stated.

Upon termination of this lease for any cause stated above and as a part of this lease and the conditions thereof, Lessee shall furnish the Lessor a complete set of maps, records, etc., of work done and results of said operational use by Lessee without cost to the Lessor or his agent.

The Lessee shall not be responsible for delays in the progress of work caused without fault of Lessee, his employees and agents by reason of (a) failure of power, (b) act of God, (c) natural emergency, war, insurection, or atomic explosion, (d) operation of law, (e) governmental regulations, (f) strikes and lockouts, or (g) catastrophic water; providing however, Lessee shall advise Lessor of any such delay occurring from time to time and the causes therefor.

This agreement shall be binding upon and inure to the benefit of the parties hereto, their heirs, personal representatives, executors, administrators, successors and assigns.

IN WITNESS WHEREOF the parties hereto have hereunto set their hands the day and year first above written.

Lessor

RICHMOND HILL EXPLORATION COMPANY, INC.

By _____ President

ATTEST:

Secretary

MINING LEASE

This Lease and Indenture, made this 26th day of April, 1965 A. B., between Anna E. Olson the party of the first part hereinafter referred to as Lessor, and RICHMOND HILL EXPLORATION COMPANY, INC., a Colorado Corporation with offices in the City of Aspen, County of Pitkin, State of Colorado, party of the second part hereinafter referred to as Lessee: WITNESSETH:

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all located in Woody Creek Mining District, or more specifically in Sections 22 and 27, Township 9 South, Range 84 West 6th P.M., all in Pitkin County, State of Colorado;

TO HAVE AND TO HOLD the same unto the said Lessee for the term of Ten (10) years from the date hereof, expiring at noon on the 26th day of April, 1975, A.D., unless sooner forfeited or determined through the violation of any covenant hereinafter set forth to be kept and performed by the Lessee. Provided further, that if the said Lessee faithfully keeps and performs all covenants and agreements to be kept and performed

by it and makes all payments hereinafter provided and this lease is in good standing at the end of said ten (10) year term, the Lessee will have the right to renew the same for an an additional term of ten (10) years but no longer, on the same terms and conditions as herein set forth. Provided, however, that in order to effect such a renewal the Lessee shall give the Lessor written notice of its election to renew said Lease at least Sixty (60) days before the expiration date, namely Noon April 26, 1975 . Such notice may be delivered personally to the Lessor or may be delivered by registered mail, properly addressed to Lessor.

The Lessee shall enter upon and make use of said property only for mining operations and the exploration of such mineral deposits as may be found of economic interest. In all resaonable and proper pursuit of this exploration for and ~~exploration~~ exploitation of and with the nekessary installations for this effort, the Lessee shall make use of such surface area as are necessary and proper.

HMBR
JPK

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Lessee shall enter upon said mining premises and work the same in the manner necessary for the good and economic mining so as to exploit, extract or otherwise remove the mineral deposits found within and or under the property in a feqsible, reasonable, and proper manner for the greatest financial gain to the lessor.

Lessee shall well and sufficiently timber all shafts, drifts, crosscuts, tunnels and or other workings on or within the mining property or under the surface thereof and shall maintain said timber by replacement as to provide safe and reasonable access to the mine and its adjuncts both surface and underground.

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Lessee shall pay all production taxes and on improvements made by Lessee on said premises, due and or incurred prior to the date of the termination of the lease or relinquishment hereof, if prior to said termination date.

Lessee does hereby agree to indemnify and save Lessor harmless of any claim or demand arising out of or in connection with Lessee's operation of the leasehold premises or facilities connected therewith and asserted against Lessor, but not limited to, personal injury, property damage, business debt or obligations of lessor or its agents, employees or officers, and in the event it becomes necessary for Lessors to employ an attorney to enforce this indemnity, that Lessee shall pay Lessors reqsonable attorney fees and costs.

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On April 25, ~~19__~~, of any year the Lessee may if it so desires, pay all royalties and taxes then due and surrender and terminate this lease by giving thrity (30) days prior written notice of such termination and by executing and recording at the Lessee's expense the proper release of this mining lease.

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This agreement shall be binding upon and inure to the benefit of the parties hereto, their heirs, personal representatives, executors, administrators, successors and assigns.

IN WITNESS WHEREOF the parties hereto have hereunto set their hands the day and year first above written.

Anna E. Olson
Lessor

RICHMOND HILL EXPLORATION COMPANY, INC.

By Wm B Ruley
President

ATTEST:

John P. Kellogg
Secretary

MINING LEASE

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The Lessee shall upon entering upon and taking possession of said property make such examination of title of abstract as may be required and prudent in the Lessee's judgement and at the sole expense of the Lessee.

Lessee shall enter upon and perform such exploratory work, surveying, evaluation studies, etc., as may be reasonable and proper, keeping full records thereof, cores recovered from core drilling, samples, etc., thereof and obtained during this exploration beginning not later than 120 days after the excution of this lease by the parties thereto, said records to be kept during the term hereof or any extended term of this lease.

Lessee shall enter upon said mining premises and work the same in the manner necessary for the good and economic mining so as to exploit, extract or otherwise remove the mineral deposits found within and or under the property in a feqsible, reasonable, and proper manner for the greatest financial gain to the lessor.

Lessee shall well and sufficiently timber all shafts, drifts, crosscuts, tunnels and or other workings on or within the mining property or under the surface thereof and shall maintain said timber by replacement as to provide safe and reasonable access to the mine and its adjuncts both surface and underground.

Lessor and or his agent or agents shall have access to and may enter upon the property, its buildings, installations and the mining operations at any and all reasonable times without limitation by the Lessee.

The Lessee shall cause to be made maps and copies of engineering and mining reports, field data and similar information, including Summaries and exploration results, and exploitation on semi-annual intervals beginning November 1, 1965 and thereafter on May 1 and November 1, so long as this lease is in effect or reports shall be provided as may hereafter be agreed upon.

Further, Lessor and or his agent or agents shall have access to any and all pertinent maps, records, files, etc., as may be a true and accurate indication of the true worth of the mineral property under lease as described in Paragraph 2 above. These records shall be made available without cost to the Lessor. If Lessee fails or refuses to provide said information, Lessor and or his agent or agents may make such studies, evaluations, mapping, surveying, etc., as may be required to recover this information at the Lessee's expense.

Lessee shall occupy and hold all cross or parallel lodes, spurs, veins or deposits of any kind that are discovered by Lessee or any agent under Lessee's direction in any manner by working under or from the demised ground including extralateral rights of said veins lodes, spurs and or mineral deposits thereto during and only during the period of the lease or any extended term thereof.

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

Lessee shall do all stoping, development work, and or other mining operation in an approved and customary manner of the 'prudent miner".

Lessee shall cause to be paid the Lessor such royalties upon the divided interests in the several claims as described and listed in Paragraph 2 above in accordance with the following royalty schedule.

(a) Ten per cent (10%) of the net smelter returns on ore, the gross contained mineral value of which is less than or equal to Fifty Dollars ($50.00) per ton.

(b) Twelve per cent (12%) of the net smelter returns on ore, the gross contained mineral value of which is equal to or greater than Fifty Dollars and One Cent ($50.01) per ton.

(c) To pay a minimum royalty of Three Hundred and No/100 ($300.00) Dollars per annum in advance each year on an annual basis, said advance royalty to be credited to subsequent production until the above sum is recovered by the Lessee, from production royalties normally due the Lessor from production from the property, under terms of this lease.

Lessee shall cause the ore buyer, smelter, or other purchaser of the mineral production from this property to pay to the Lessor such royalties as may be due the Lessor at the following location prior to tendering of payment to Lessee for such mineral production. The payment shall be made to Anna E. Olsen, Youngstown, Ohio by check with attached certificate,

settlement sheet or statement, purchase agreement or other legal instrument showing transfer of ownership of mineral resouree together with the tonw of ore, or other mineral resouces involved, and affecting the value per ton for royalty determination.

Lessee shall not "co-mingle"any ore from the property with ore or ores from any other mining property until on acceptance by Lessor or his agent of procedures, techniques, equipmenmt and other requirements by Lessee or its agents to truly determine values of said ores prior to such "co-mingling", shall be satisfactorily established, installed and operational and approved by Lessor or his agents. Such approval shall be in writing and properly acknowledged by both parties. Such an instrument shall upon proper acceptance by Lessor and Lessee become a part of and shall be considered an addendum to this lease or any extended term thereof.

Lessee shall carry insurance or take such legal measures as may be necessary to protect the Lessor against any claims for Workmen's Compensation and also to protect the Lessor against any Mechanic's or Material Men's liens, and to keep posted on the premises such notices as may be necessary to protect Lessor. Further, Lessee shall post and keep posted such notices as Lessor may require fpr the purpose aforesaid on the premises or operational access for mining purposes to these properties,

Lessee shall pay all production taxes and on improvements made by Lessee on said premises, due and or incurred prior to the date of the termination of the lease or relinquishment hereof, if prior to said termination date.

Lessee does hereby agree to indemnify and save Lessor harmless of any claim or demand arising out of or in connection with Lessee's operation of the leasehold premises or facilities connected therewith and asserted against Lessor, but not limited to, personal injury, property damage, business debt or obligations of lessor or its agents, employees or officers, and in the event it becomes necessary for Lessors to employ an attorney to enforce this indemnity, that Lessee shall pay Lessors reasonable attorney fees and costs.

Upon the expiration of the primary term of this lease or any expanded term hereof or upon a prior termination of this lease, the Lessor shall deliver up to Lessee said leasehold premises with the appurtenances thereto, together with all improvements in good order and condition, with all drifts, shafts, tunnels, and or other passages, thoroughly clear of loose rock and rubbish, and drained, and mine ready for immediate continued working, exclusive of damages or conditions not resulting from the negligence of Lessee.

On April 25, ~~19__~~, of any year the Lessee may if it so desires, pay all royalties and taxes then due and surrender and terminate this lease by giving thrity (30) days prior written notice of such termination and by executing and recording at the Lessee's expense the proper release of this mining lease.

Upon violation by the Lessee of any covenant or covenants herein before or subsequently stated, and herein before reserved, the Lessor may notify the Lessee by registered mail addressed to it at Aspen, Colorado or its legal postal address. That default has been made in the terms of this lease setting forth briefly and generally the nature of such default, and if the same is not corrected within thirty (30) days after said registered notice is deposited in the United States Post Office that then thereafter said lease shall be null and void and the Lessor shall be entitled to immediate possession of said property and may enter upon the same and dispossess all persons occupying the same, with or without force and with or without process of law; or at the option of said Lessor the Lessee and all persons found in occupancy of said premises may be proceeded against for unlawful detainer of said premises, as provided by statute,

As the Lessor owns a lesser interest in the lands covered by this lease than the entire and individual fee simple estate therein, then the royalties and rentals provided herein shall be paid the Lessor only in the proportion his interest bears to the whole and undivided fee, provided that specific sums as mentioned above shall obtain and be binding upon Lessor and Lessee for the specific condition stated.

Upon termination of this lease for any cause stated above and as a part of this lease and the conditions thereof, Lessee shall furnish the Lessor a complete set of maps, records, etc., of work done and results of said operational use by Lessee without cost to the Lessor or his agent.

The Lessee shall not be responsible for delays in the progress of work caused without fault of Lessee, his employees and agents by reason of (a) failure of power, (b) act of God, (c) natural emergency, war, insurection, or atomic explosion, (d) operation of law, (e) governmental regulations, (f) strikes and lockouts, or (g) catastrophic water; providing however, Lessee shall advise Lessor of any such delay occurring from time to time and the causes therefor.

This agreement shall be binding upon and inure to the benefit of the parties hereto, their heirs, personal representatives, executors, administrators, successors and assigns.

IN WITNESS WHEREOF the parties hereto have hereunto set their hands the day and year first above written.

Anna E. Olson
Lessor

RICHMOND HILL EXPLORATION COMPANY, INC.

By Wm B Ruley
President

ATTEST:

John P. Kellogg
Secretary

MINING LEASE

This Lease and Indenture, made this 26th day of April, 1965 A. B., between Anna E. Olson the party of the first part hereinafter referred to as Lessor, and RICHMOND HILL EXPLORATION COMPANY, INC., a Colorado Corporation with offices in the City of Aspen, County of Pitkin, State of Colorado, party of the second part hereinafter referred to as Lessee: WITNESSETH:

The said Lessor for and in consideration of One Hundred and 00/100 ($100.00) Dollars, paid by the Lessee to the Lessor for Lessor's partial interest of record as listed below and recorded in Book 201, pages 411 and 412 of the records for Pitkin County and in further consideration of the royalties hereinafter reserved and the covenants and agreements hereinafter expressed to be kept and performed by said Lessee, the Lessor has granted, demised and let unto said Lessee the Mining Property more fully described as follows:

Name of Claim	Interest	U.S.M.S. No.
Apex Lode Mining Claim	23/72	6122
Hidden Treasure Mining Claim	23/72	6122
Sea Bird Mining Claim	23/72	6122
Camp Bird Mining Claim	23/72	14176
Highland Mining Claim	1/3	6500

all located in Woody Creek Mining District, or more specifically in Sections 22 and 27, Township 9 South, Range 84 West 6th P.M., all in Pitkin County, State of Colorado;

TO HAVE AND TO HOLD the same unto the said Lessee for the term of Ten (10) years from the date hereof, expiring at noon on the 26th day of April, 1975, A.D., unless sooner forfeited or determined through the violation of any covenant hereinafter set forth to be kept and performed by the Lessee. Provided further, that if the said Lessee faithfully keeps and performs all covenants and agaeements to be kept and performed

by it and makes all payments hereinafter provided and this lease is in good standing at the end of said ten (10) year term, the Lessee will have the right to renew the same for an an additional term of ten (10) years but no longer, on the same terms and conditions as herein set forth. Provided, however, that in order to effect such a renewal the Lessee shall give the Lessor written notice of its election to renew said Lease at least Sixty (60) days before the expiration date, namely Noon April 26, 1975 . Such notice may be delivered personally to the Lessor or may be delivered by registered mail, properly addressed to Lessor.

The Lessee shall enter upon and make use of said property only for mining operations and the exploration of such mineral deposits as may be found of economic interest. In all reasonable and proper pursuit of this exploration for and ~~exploration~~ exploitation of and with the necessary installations for this effort, the Lessee shall make use of such surface area as are necessary and proper.

Said Lessee, in consideration of said lease, does agree with the Lessor as follows:

Lessee shall enter upon and take possession as proper in the pursuit of mining efforts upon completion and signature of this lease by the parties thereto.

The Lessee shall upon entering upon and taking possession of said property make such examination of title of abstract as may be required and prudent in the Lessee's judgement and at the sole expense of the Lessee.

Lessee shall enter upon and perform such exploratory work, surveying, evaluation studies, etc., as may be reasonable and proper, keeping full records thereof, cores recovered from core drilling, samples, etc., thereof and obtained during this exploration beginning not later than 120 days after the excution of this lease by the parties thereto, said records to be kept during the term hereof or any extended term of this lease.

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Lessee shall pay all production taxes and on improvements made by Lessee on said premises, due and or incurred prior to the date of the termination of the lease or relinquishment hereof, if prior to said termination date.

Lessee does hereby agree to indemnify and save Lessor harmless of any claim or demand arising out of or in connection with Lessee's operation of the leasehold premises or facilities connected therewith and asserted against Lessor, but not limited to, personal injury, property damage, business debt or obligations of lessor or its agents, employees or officers, and in the event it becomes necessary for Lessors to employ an attorney to enforce this indemnity, that Lessee shall pay Lessors reqsonable attorney fees and costs.

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HMBR JPK EOB

On April 25, ~~19~~, of any year the Lessee may if it so desires, pay all royalties and taxes then due and surrender and terminate this lease by giving thrity (30) days prior written notice of such termination and by executing and recording at the Lessee's expense the proper release of this mining lease.

Upon violation by the Lessee of any covenant or covenants herein before or subsequently stated, and herein before reserved, the Lessor may notify the Lessee by registered mail addressed to it at Aspen, Colorado or its legal postal address. That default has been made in the terms of this lease setting forth briefly and generally the nature of such default, and if the same is not corrected within thirty (30) days after said registered notice is deposited in the United States Post Office that then thereafter said lease shall be null and void and the Lessor shall be entitled to immediate possession of said property and may enter upon the same and dispossess all persons occupying the same, with or without force and with or without process of law; or at the option of said Lessor the Lessee and all persons found in occupancy of said premises may be proceeded against for unlawful detainer of said premises, as provided by statute,

As the Lessor owns a lesser interest in the lands covered by this lease than the entire and individual fee simple estate therein, then the royalties and rentals provided herein shall be paid the Lessor only in the proportion his interest bears to the whole and undivided fee, provided that specific sums as mentioned above shall obtain and be binding upon Lessor and Lessee for the specific condition stated.

Upon termination of this lease for any cause stated above and as a part of this lease and the conditions thereof, Lessee shall furnish the Lessor a complete set of maps, records, etc., of work done and results of said operational use by Lessee without cost to the Lessor or his agent.

The Lessee shall not be responsible for delays in the progress of work caused without fault of Lessee, his employees and agents by reason of (a) failure of power, (b) act of God, (c) natural emergency, war, insurection, or atomic explosion, (d) operation of law, (e) governmental regulations, (f) strikes and lockouts, or (g) catastrophic water; providing however, Lessee shall advise Lessor of any such delay occurring from time to time and the causes therefor.

This agreement shall be binding upon and inure to the benefit of the parties hereto, their heirs, personal representatives, executors, administrators, successors and assigns.

IN WITNESS WHEREOF the parties hereto have hereunto set their hands the day and year first above written.

James E. Olson
Lessor

RICHMOND HILL EXPLORATION COMPANY, INC.

By Wm B Ruhey
President

ATTEST:

John P. Kellogg
Secretary

MINING LEASE

This Lease and Indenture, made this 26th day of April, 1965 A. B., between Anna E. Olson the party of the first part hereinafter referred to as Lessor, and RICHMOND HILL EXPLORATION COMPANY, INC., a Colorado Corporation with offices in the City of Aspen, County of Pitkin, State of Colorado, party of the second part hereinafter referred to as Lessee: WITNESSETH:

The said Lessor for and in consideration of One Hundred and 00/100 ($100.00) Dollars, paid by the Lessee to the Lessor for Lessor's partial interest of record as listed below and recorded in Book 201, pages 411 and 412 of the records for Pitkin County and in further consideration of the royalties hereinafter reserved and the covenants and agreements hereinafter expressed to be kept and performed by said Lessee, the Lessor has granted, demised and let unto said Lessee the Mining Property more fully described as follows:

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all located in Woody Creek Mining District, or more specifically in Sections 22 and 27, Township 9 South, Range 84 West 6th P.M., all in Pitkin County, State of Colorado;

TO HAVE AND TO HOLD the same unto the said Lessee for the term of Ten (10) years from the date hereof, expiring at noon on the 26th day of April, 1975, A.D., unless sooner forfeited or determined through the violation of any covenant hereinafter set forth to be kept and performed by the Lessee. Provided further, that if the said Lessee faithfully keeps and performs all covenants and agreements to be kept and performed

by it and makes all payments hereinafter provided and this lease is in good standing at the end of said ten (10) year term, the Lessee will have the right to renew the same for an an additional term of ten (10) years but no longer, on the same terms and conditions as herein set forth. Provided, however, that in order to effect such a renewal the Lessee shall give the Lessor written notice of its election to renew said Lease at least Sixty (60) days before the expiration date, namely Noon April 26, 1975 . Such notice may be delivered personally to the Lessor or may be delivered by registered mail, properly addressed to Lessor.

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Said Lessee, in consideration of said lease, does agree with the Lessor as follows:

Lessee shall enter upon and take possession as proper in the pursuit of mining efforts upon completion and signature of this lease by the parties thereto.

The Lessee shall upon entering upon and taking possession of said property make such examination of title of abstract as may be required and prudent in the Lessee's judgement and at the sole expense of the Lessee.

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HMBR JPK JEB

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Upon violation by the Lessee of any covenant or covenants herein before or subsequently stated, and herein before reserved, the Lessor may notify the Lessee by registered mail addressed to it at Aspen, Colorado or its legal postal address. That default has been made in the terms of this lease setting forth briefly and generally the nature of such default, and if the same is not corrected within thirty (30) days after said registered notice is deposited in the United States Post Office that then thereafter said lease shall be null and void and the Lessor shall be entitled to immediate possession of said property and may enter upon the same and dispossess all persons occupying the same, with or without force and with or without process of law; or at the option of said Lessor the Lessee and all persons found in occupancy of said premises may be proceeded against for unlawful detainer of said premises, as provided by statute,

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Anna E. Olson
Lessor

RICHMOND HILL EXPLORATION COMPANY, INC.

By Wm B Ruley
President

ATTEST:

John P. Kellogg
Secretary

	Apex	Comp Bird	Hidden Treasure	Seaport	U.S.A
Mrs Charles Adsen	23/72	23/72	23/72	23/72	No
John L Hanson	46/72	46/72	46/72	46/72	subtitle
Ed Estrovez	3/72	3/72	3/72	3/72.	

1. ~~Bank letter~~ OMF-1413 for requests made
We requested Bank letter within 90 days of the application date (see Connor's last memo)

2. add new claims heading applicant this request
Note Only 1 copy of the form 52 noted below was received)

a) Mining Lease Oct 31, 1963 - 12 patented claims
Lessor - Smuggler - Durant Mining Corp
Lessee - Floodtide - (Henry L. Stein) also stein is secretary of applicant
(a joint venture)

b) Mining Lease (No.) April 3, 1963 - 25 patented claims
Lessor - Flagous Lumber Co. → Form 52 O.K.
Lessee - Edwin J. Smart, Trustee

c) Lease (No.) of Mining Property Aug 24, 1963 - has Addendum
Lessor - Edward J. Grover → Form 52 OK.
Lessee - Edwin J. Smart, Trustee
Land is parts of 14 claims → only 4 claims on application map

d) Mining Lease (No. 3) and Indenture August 12, 1963 - 5 patented claims
Lessor - Henry Stein → Form 52 OK.
Lessee - Edwin J. Smart, Trustee

e) Lease and Option to purchase (No. 4) August 7, 1963
Lessor John L. Herron → Form 52 OK
Lessee Edwin J. Smart, Trustee
22 patented claims - or parts of claims ← only 5 in application

→ f) Assignment July 15, 1964
Assignor - Edwin J. Smart - Trustee (Form 52 not needed)
Assignee - Floodtide
Covers above leases - b, c, d, and e.

Assignment, (not dated) Recorded in Book 211 page 305
Assignor - Floodtide
Assignee - Richmond Hill Exp. Co. (Form 52 not needed)
All the above

Note: Only one copy of the form 52 was received. Shown on base map of Affidavit of Assessment Work? 3 patented claims
Also, there were 12 patented claims

Lindgren - pg 667

ore deposits on silver & contact faults.
Base of Weber shales most important ore horizon.

Lenado fault - post mineral and pre glacial
Barren except for drag ore.

Targets - 1. Intersection of silver & Lenado fault
2. " " " & North fault (with Lenado
3. " " " & Leadville form.
4. short holes above Elgous mill to intersect base of Weber the Lenado fault, through the leadville and into pre-tertiary quartzite

Richmond Hill Exploration Company, Inc.
P. O. Box 939
ASPEN, COLORADO 81611
Telephone 925-3717

March 10, 1965

Mr. William P. Maddy
Executive Vice President
The Bank of Aspen
Aspen, Colorado

Dear Mr. Maddy:

Our company is contemplating a mineral exploration program at Lenado, a small lumber camp about 4½ miles northeast of here. The first phase of the program will consist solely of surface diamond drilling, and should require most of the summer months of 1965. We estimate that this phase will cost $40,000.

We have funds to the amount of $10,000, and are seeking a loan of $30,000 to be repaid semi-annually at your regular interest rates over a five-year period. We would like the first installment to be September 10, 1965.

It is estimated that 86% of the funds will pay the direct drilling costs. The remaining 14% will pay for supervision and overhead, bulldozer work, and the preparation and assaying of cores.

An early reply to this request would be appreciated.

Yours very truly,

Wm B Rubey

William B. Rubey,
President

WBR:pe

The Bank of Aspen

ASPEN, COLORADO

WILLIAM P. MADDY
EXECUTIVE VICE PRESIDENT

April 8, 1965

Mr. William B. Rubey, President
Richmond Hill Exploration Co., Inc.
P. O. Box 939
Aspen, Colorado

Dear Mr. Rubey:

Reference is made to your letter of March 10 and our earlier discussions concerning your request for a $30,000.00 loan from our bank.

We regret to inform you that our loan committee does not feel that we can make this loan at this time.

Sincerely,

W. P. Maddy

WPM:bb

Richmond Hill Exploration Company, Inc.
P. O. Box 939
ASPEN, COLORADO 81611
Telephone 925-3717

February 24, 1965

Mr. K. W. Geib
Executive Vice President
The First National Bank
Glenwood Springs, Colorado

Dear Mr. Geib:

Our company is contemplating a mineral exploration program at Lenado, a small lumber camp about 4½ miles northeast of here. The first phase of the program will consist solely of surface diamond drilling, and should require most of the summer months of 1965. We estimate that this phase will cost $40,000.

We have funds to the amount of $10,000, and are seeking a loan of $30,000 to be repaid semi-annually at your regular interest rates over a five-year period. We would like the first installment to be August 24, 1965.

It is estimated that 86% of the funds will pay the direct drilling costs. The remaining 14% will pay for supervision and overhead, bulldozer work, and the preparation and assaying of cores.

An early reply to this request would be appreciated.

Yours very truly,

William B. Rubey
President

WBR:pe

THE FIRST NATIONAL BANK
GLENWOOD SPRINGS, COLORADO

K. W. "BILL" GEIB
ASSISTANT VICE PRESIDENT, FIELD MAN

April 7th, 1965

Mr. William B. Rubey, President
Richmond Hill Exploration Company, Inc.
P. O. Box 939
Aspen, Colorado

Dear Mr. Rubey:

In reply to your letter of February 24th regarding application for a loan of $30,000.00 for a mineral exploration program at Lenado, our Discount Committee feel that they are unable to consider your application at this time.

We regret that we are unable to serve you in this respect.

Yours very truly,

K. W. Geib

Exec. Vice Pres.

KWG:JER

Richmond Hill Exploration Company, Inc.
P. O. Box 939
ASPEN, COLORADO 81611
Telephone 925-3717

March 11, 1965

RECEIVED
MAR 15 1965
INITIALS
120
120

Mr. George C. Selfridge, Chief
Division of Exploration Operations
Office of Minerals Exploration
U. S. Department of the Interior
Washington 25, D. C.

Re: OME-6415 (Silver)
Your letter of February 15
addressed to Mr. William B.
Rubey, President

Dear Mr. Selfridge:

In Mr. Rubey's absence I am authorized to answer, and attempt to fulfill the requests in, your subject letter. We regret that it has required so much time for the gathering of these data and exhibits.

1(a) Financial Eligibility: Attached are one original and one copy of bank correspondence from two banks refusing our company a loan of funds necessary to conduct the proposed exploration. Inasmuch as the banks were contacted in person, there is no correspondence from Applicant.

2(b) Applicant's Rights in Land:

(1) John Herron owns a 2/3 interest in the Highland 6500 claim. An Anna E. Olson (Mrs. Charles A.), living at 9 Mill Race Road, Youngstown, Ohio, owns the other 1/3. In addition, she owns a 23/72 % interest in the Apex, Hidden Treasure, Sea Bird, and Camp Bird claims. Applicant submitted a Mining Lease to Mrs. Olson on November 17, 1964, but as yet have received no answer.

(2) The correct Survey No. for the Leadville claim is 6576. There was evidently a typographical error in the Smuggler-Durant lease. Also, in the Flogaus lease the correct name should be the Snow Shoe.

(3) At the time that our maps were drafted, the Cambrian No. 2 mineral location was thought to be a valid claim. Later, last fall, several months after the location was claimed and recorded by its locators, a careful search of the ground failed to disclose any work done. The recorded notice fails to mention a discovery. After going over the matter with the local U. S. Ranger, whose opinion was that the claim was not valid, we decided it would be improper to subordinate a non-existing claim to the O. M. E. As soon as melting snows permit, we intend to either make the Cambrian No. 2 valid, or make a new location.

2(c) Included under cover of this letter are two originals and two copies of the Lien and Subordination Agreements for each of the five lessors. These, together with what you have, should make up the required five copies.

5(a) Exploration Work: Offset distances would never be less than 35 feet. It is probable, however, that due to the roughness of the terrain, and the expense of access roads, a Phase I drillsite would be used for offsetting in Phase II so that the actual hole collars could be only a few feet apart. The offset hole would then be directed so that it would penetrate the body of mineral 35 feet from where the discovery hole had penetrated it.

7(a) Estimate of Costs:

(1) One original and one copy each of three bulldozer bids are enclosed. The make of dozer is given. Also, two more drilling contractors' bids are enclosed: one original and one copy from the R. S. McClintock Diamond Drill Company, and one original and one copy from the Shelton Drilling Company

(2) Two copies of a table of estimated costs, by hole and by item, are enclosed. A breakdown for each Wireline size is given for distance, expected amount of overburden, expected reaming footages, expected hours for cementing, hole surveying, standby, and water haulage, and a unit summary with estimated prices per foot and per hour.

enclosures
cc: Rubey, Stein, Connors

Sincerely yours,
John P. Kellogg
John P. Kellogg, Gen'l Mgr.

THE FIRST NATIONAL BANK

GLENWOOD SPRINGS, COLORADO

K. W. "BILL" GEIB
ASSISTANT VICE PRESIDENT, FIELD MAN

February 24,1965

OFFICIAL COPY
RECEIVED
MAR 15
INITIALS

Mr. John P. Kellogg, Gen. Manager
Richmond Hill Exploration Company
Aspen, Colorado

Dear Mr. Kellogg:

I regret to inform you that the Discount Committee does not feel that we should go into this type of loan at this time, therefore, your request for a loan of $30,000.00 has been denied.

Yours very truly,

K. W. Geib

Exec. Vice President

KWG:JER

The Bank of Aspen

ASPEN, COLORADO

WILLIAM P. MADDY
EXECUTIVE VICE PRESIDENT

March 10, 1965

Mr. William B. Rubey, President
Richmond Hill Exploration Company
P. O. Box 939
Aspen, Colorado

Dear Mr. Rubey:

We have considered your request for $30,000.00 for a development in the Lenado area.

We sincerely regret that we are not in a position to accommodate your requirements at this time.

Sincerely,

W. P. Maddy

W. P. Maddy

WPM:bb

FOOTAGE AND HOUR DISTRIBUTION ESTIMATE

ITEM COST BREAKDOWN ESTIMATE

PHASE I LENADO EXPLORATORY DRILLING PROJECT

Diamond Drill Hole Number

I T E M	1	2	3	4	5	6	7	8	9	10	11	12	13	Total Footage	Price	Total Dollars
Overburden	30	15	15	15	15	20	20	10	10	10	15	15	20	210	$6.65	$ 1,396.50
Plugbit 0 - 250'	220													220	5.58	1,227.60
Plugbit 250' - 500'	250													250	5.97	1,492.50
Core Bedrock - 250' NX		235	185	235	235	180	230	190	240	190	235	210	230	2,595	6.86	17,803.70
Core 250 - 500 NX					50									50	7.32	366.00
Core 250 - 500 BX		250		10	120				50				50	480	6.80	3,264.00
Core 500 - 750 BX	250													250	7.07	1,767.50
Core 750 - 1000 AX	250													250	7.82	1,955.00
TOTALS	1000	500	200	250	420	200	250	200	300	200	250	225	300	4,305	6.33	29,272.80
	Miscellaneous Estimated Drilling Costs															
Reaming	84	48	18	22	44	18	22	18	28	18	22	20	28	390	3.42	1,333.80
	Estimated Hours													Total Hours		
Cementing	10	5	3	4	5	3	4	3	4	3	4	4	4	56	11.70	655.20
Surveying Hole	5	2	1	2	2	1	2	1	2	1	2	2	2	25	17.50	437.50
Standby Time	6	3	2	2	4	2	3	2	3	2	3	3	3	38	10.70	406.60
Water Haulage			40	50	90	40	40	40	75	40	45	39	70	569	3.98	2,264.60
										GRAND TOTAL - -				- - - -	- - - -	$34,370.50

OFFICIAL
COPY
O. M. E.
RECEIVED
MAR 15 1965
INITIALS | CODE

CORE DRILLING AGREEMENT

1. **THIS AGREEMENT**, made and entered into this ..... day of ....., 19.... by and between Richmond Hill Exploration Company, Inc. of P.O. Box 939 - Aspen, Colorado 81611 ..... the party of the first part and the R. S. McCLINTOCK DIAMOND DRILL CO., of Spokane, Washington, party of the second part,

Witnesseth:

2. In consideration of certain payments hereby agreed to be made by the said first party to the said second party, the said second party hereby agrees to drill, sink or prospect with a diamond core drill from Surface ..... in or near Lenado Project - Aspen, Colorado at site s ... to be selected by the said first party, subject to the conditions hereinafter mentioned. It is further agreed by the said first party that the depth of none of the herein specified drill holes shall exceed a depth of 1,000' ..... feet, and the total amount as guaranteed must be drilled in not more than 13 ..... holes.

3. The said second party agrees to use for the above described work one ..... Diamond Core drill.., and men skilled in operating same; to operate the drill.., both day and night 6 days per week. whenever practicable, and to furnish only such person as the said first party may designate by written order, all core taken out of said prospect hole s.. Size of core to be approximately NX, BX & AX inches in diameter. The said first party shall provide suitable boxes if it desires to save the core, and if it also desires may have a man at the drill at all times to remove and take charge of said core. No information whatever regarding the records and results of this drilling is to be given any other party, without the written consent of the said first party.

4. The said first party hereby agrees to pay to said second party the following prices for the herein described drilling.

Depth	Overburden	NX per Ft.	BX per Ft.	AX per Ft.
0' - 50'	$ 9.83			
0' - 250'	Core	$ 9.73	$ 8.71	$ 7.61
250' - 500'	"	7.73	7.71	6.70
500' - 750'	"	8.23	8.21	7.20
750' - 1000'	"	9.73	8.71	7.61
0' - 500'	Diamond Plug Bit Weber	4.10		

5. In accordance with this agreement, the said first party hereby guarantees the said second party a minimum total of 4,305' .. feet of drilling at the price.. as herein provided in Clause Four.

The said second party shall have the option of withdrawing from this contract after a total of 4,305' ..... feet have been drilled under the terms of this agreement.

In the event the said first party should stop the drilling before the guaranteed footage has been drilled, it agrees to pay the said second party half the price per foot for the undrilled balance, in addition to payment at full price for the footage actually drilled.

.....

.....

.....

.....

CORE DRILLING AGREEMENT

6. The party of the first part hereby agrees to furnish the said second party ~~at each of the herein described prospect hole~~.., free of charge, an ample supply of water .20 G.P.M.... for the proper prosecution of the herein-described work.

.Party of second part will supply pump & pipe line where practical at no.....
additional charge to customer for supplying water from source to drill sites...
Where water haulage by truck is required party of first part agrees to pay....
rental of $200.00 month for water truck plus .12¢ per mile.....
.....
.....
.....
.....

7. The said ~~first~~ second party also agrees to transport the drilling outfit and supplies of the said second party from ~~the nearest railway station or motor terminal~~ to the location of the first prospect hole, and from one hole to another and back to ~~the nearest railway station or motor terminal~~ Spokane ~~site~~ at the termination of the work under this contract. For mobilization charge of $1,495.50
Demobilization charge of $1,241.75

8. Should the party of the first part fail to perform its part of the contract of furnishing water, Roads & their Maintenance ~~and transportation~~, or locate sites, as herein agreed, regardless of cause, or should the party of the first part issue instructions that delay operations for any reason or in any other way interrupt the continuous operation of the said diamond drill, it shall pay the second party the labor expense of drilling crew while idle through such delay, at the rate of

$....80.00.....per shift, consisting of 8 hours, for each shift or part thereof that the operation of the said drill is delayed.

9. It is hereby agreed that should a cavity, or loose and caving material, be encountered at a depth which should prevent successful drilling, the party of the second part does not guarantee to drill or sink said prospect hole.. to any specified depth, but will drill or sink as deep as is practicable under the conditions, and the party of the first part shall pay for every foot actually sunk or drilled.

It is further agreed by both parties hereto that should cavities, soft, broken or caving material be encountered so that the drill hole will not remain open after being bored, and it becomes necessary or advisable to resort to cementing or reaming and casing in order to protect same until the depth desired by said first party is reached, then the said first party agrees to pay the actual cost of doing such reaming, casing and cementing in addition to the price per foot paid for the drilling. Plus $12.00 per hour machine time while engaged in these

activities... Drilling Cement @ $12.00 per hour (Machine time) plus actual cost.
Mud-Chemicals- Consumned at cost F.O.B. Jobside. Acid testing $10.00 per hour.
Casing lost or ordered left in place @ NX $2.92 ft., BX $2.16 ft., AX $ $1.90 ft.

10. The party of the second part agrees to cover its employees with Workman's Compensation Insurance under the State Laws of ....Colorado..... and agrees to furnish the first party with insurance certificate as evidence of such coverage. The party of the second part also agrees to cover its employees with Public Liability Insurance in the amounts of $300,000 and $500,000 and property damage in the amount of ~~$300,000~~ 500,000.

CORE DRILLING AGREEMENT

FORCE MAJEURE

In case the parties hereto, or either of them, shall be delayed or prevented by acts of nature, fire, flood, war, insurrection, mob violence, requirement or regulation of Government, or any cause whatsoever beyond the control of said parties, or either of them, in performing under the terms of this contract, no liability for damages or otherwise shall arise by reason of any such delay or prevention of performance, and the obligation to perform shall be suspended until the cause of the disability shall be removed or become inoperative.

Drilling to commence this spring season.

11. The payments for the herein-described work are to be made on the first of each month for all invoices rendered for work done up to the 25th day of the previous month.

12. The party of the second part hereby agrees to ship the outfit for the herein described work within Seven days from the date of notification of acceptance of this agreement, but the said second party shall not be responsible for delays caused by strikes, railroad accidents or blockades. This proposition is for immediate acceptance, but although accepted does not constitute a contract until approved by an officer of the R. S. McClintock Diamond Drill Co., at its office in Spokane, Washington, U.S.A., and is subject to change or withdrawal until so approved.

It is expressly agreed that there are no promises, agreements or understandings outside of this contract, and that no agent or salesman has any authority to obligate the R. S. McClintock Diamond Drill Co., by any terms, stipulations or conditions not herein expressed. This contract may be altered only by written consent of both parties hereto.

R. S. McCLINTOCK DIAMOND DRILL CO.

By J. O. Kier
J. O. Kier, Drill Supt. Contract Div.

IN WITNESS WHEREOF, the parties hereto have set their hands and seals.

Accepted by

.....

.....

Title .....

Approved by
R. S. McCLINTOCK DIAMOND DRILL CO.

By .....

Date .....

Title .....

Water Wells

Test Holes

Shelton Drilling Co.

Phone WH 5-6892 P. O. Box 441

GLENWOOD SPRINGS, COLORADO

Bid on Drill Holes at Lenado

Drill hole # 1		
From	0' -500' Plug at $ 5.50 per.ft.	$ 2,750.00
	500'-800' B Core at $ 12.00 per.ft.	3,600.00
	800'-1,000' A Core at $ 18.50 per.ft.	3,700.00
		$ 10,050.00
Drill hole # 2		
From	0'-200' B Core at $ 8.00 per.ft.	$ 1,600.00
	200'-400' B Core at $ 11.00 per.ft.	2,200.00
	400'-500' A Coer at $ 15.00 per.ft.	1,500.00
		$ 5,300.00
Drill hole # 3		
From	0'-200' B Core at $ 11.00 per.ft.	$ 2,200.00
Drill hole # 4		
From	0'-200' B Core at $ 11.00 per.ft.	$ 2,200.00
	200'-250' A Core at $ 14.00 per.ft.	700.00
		$ 2,900.00
Drill hole # 5		
From	0'-200' B Core at $ 11.50 per.ft.	$ 2,300.00
	200'-300' B Core at $ 12.50 per.ft.	1,250.00
	300'-420' A Core at $ 15.00 per.ft.	1,800.00
		$ 5,350.00
Drill hole # 6		
From	0'-200' B Core at $ 12.50 per.ft.	$ 2,500.00
Drill hole # 7		
From	0'-250' B Core at $ 9.50 per.ft.	$ 2,375.00

Water Wells

Test Holes

Shelton Drilling Co.

Phone WH 5-6892 P. O. Box 441

GLENWOOD SPRINGS, COLORADO

Drill hole # 8	
From 0'-100' B Core at $ 8.50 per.ft.	$ 850.00
100'-200' A Core at $ 13.50 per.ft.	1,350.00
	$ 2,200.00
Drill hole # 9	
From 0'-200' B Core at # 9.50 per.ft.	$ 1,900.00
200'-300' B Core at $ 13.00 per.ft.	1,300.00
	$ 3,200.00
Drill hole # 10	
From 0'-200' B Core at $ 11.50 per.ft.	$ 2,300.00
Drill hole # 11	
From 0'-250' B Core at $ 10.00 per.ft.	$ 2,500.00
	$ 2,025.00
Drill hole # 12	
From 0'-225' B Core at $ 9.00 per.ft.	$ 1,800.00
Drill hole # 13	
From 0'-200' B Core at $ 10.50 per.ft.	$ 2,100.00
200'-300' B Core at $ 12.50 per.ft.	1,250.00
	$ 3,350.00
Total price for Thirteen (13) drill holes.	$ 46,025.00
	46,250.00

Surveys will be run at $ 15.00 per.hr.
Standby rates $ 10.00 per.hr. with crew
$ 75.00 per. day without crew

This bid takes into consideration all cementing, reaming, and casing needed to drill the above holes.

This work will be done with a wire line core barrel.

Water Wells

Test Holes

Shelton Drilling Co.

Phone WH 5-6892 P. O. Box 441

GLENWOOD SPRINGS, COLORADO

Resume of Drilling Experience of Shelton Drilling Co.,Inc.

We have been associated with the drilling industry since 1946.
Since 1959 we have been in bussiness,drilling with rotary,cable tools,and diamond drills.
At present we are running three (3) cable tools,one (1) rotary,and two (2) diamond drills.

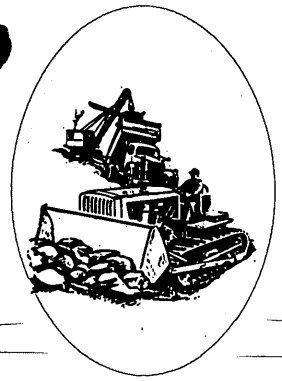
Joe H. Shelton

JOHN V. HYRUP

Heavy and General Construction

BASALT, COLO.

Phone Basalt 2478



Feb. 26, 1965

Richmond Hill Exploration
Aspen, Colo.

Dear Sirs:

Rental of D 7 Cat with Cat Angle 13' dozer is $14.00 per hr.

Estimate of 5400 ft of road in the Lenado District is 120 hrs for a total cost of $1680.00 which includes compressor work if needed.

Thanks
John V. Hyrup

W-3 EXCAVATING
Box 137
Basalt, Colorado

Mr. John Kellogg
Richmond Hill Exploration
Aspen, Colorado
Box 939

Dear Mr. Kellogg:

In reference to the Lenado Access Roads, we will be available at any time with a Cat D-7 hydraulic angle Dozer with operator and all cat expenses at $14.00 per hour approximately 80 hours for completion of the job.

This will also include charge for one move on and one move off.

Down time will be at our expense.

Thank you.

Sincerely,

Rich Weatherly

Rich Weatherly
W-3 EXCAVATING

ERNEST L. JONES
EARTH MOVING CONTRACTOR
WOODY CREEK, COLORADO

Bid for bulldozer work at RICHMOND HILL EXPLORATION COMPANY'S core drilling project at Lenado, Pitkin County, Colorado, planned for spring and summer of 1965.

Type of machine: Caterpillar D-4, 8 foot blade.

Cost per hour, including operator, fuel, all maintenance costs - - - - $10.00

Estimated number of hours for access roads, drill sites, and turn arounds - - - - 100

Work will give a road at least 7 feet wide on solid.

Price includes any and all rock shooting that may be necessary.

Ernest L. Jones

Ernest L. Jones

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

Bldg. 20 - Denver Federal Center
Denver, Colo. 80225

February 8, 1965

Memorandum

OFFICIAL COPY
O. M. E.
RECEIVED
FEB 11 1965
INITIALS | CODE

To: George C. Selfridge, Chief
Division of Exploration Operations
Washington, D. C.

From: Acting Field Officer, OME, Region III

Subject: Application for OME Aid (Silver)
Richmond Hill Exploration Co., Inc.
Lenado Area
Pitkin County, Colorado

Attached is the subject application in the amount of $~~150,000.~~

Bank letters were not included because the Applicant had submitted them with OME 6289 Contract 2169. ?

Only two drilling bids are included but the Applicant has requested another bid.

Hugh M. Connors

Hugh M. Connors

cc: File
Chron

MME Form 40
July 1962

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

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

APPLICATION FOR FINANCIAL ASSISTANCE IN MINERALS EXPLORATION

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

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

Richmond Hill Exploration Company, Inc
P. O. Box 939
Aspen, Colorado

APPLICANT DO NOT USE THIS BLOCK

DOCKET NUMBER 6415

DATE RECEIVED 2/11/65

REGION III

DIVISION CODE

BUSINESS ORGANIZATION *(Check one)*

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

STATE IN WHICH FIRM IS ORGANIZED Colorado

LIST CORPORATE OFFICERS OR PARTNERS HERE, IF APPLICABLE

NAME	ADDRESS	TITLE
William B. Rubey	Aspen, Colorado	President
Henry L. Stein	Aspen, Colorado	Vice-President
John Wendt	Aspen, Colorado	Secretary

MINERAL(S) FOR WHICH YOU WISH TO EXPLORE
Silver

ESTIMATED COST OF PROJECT
$

PROPERTY NAME: Lenado Area
LOCATION COUNTY: Pitkin
STATE: Colorado

GENERAL INSTRUCTIONS

Before filling out this application, please read the *OME Regulations for Obtaining Federal Assistance in Financing Explorations for Mineral Reserves* (30 CFR Chap. III). To assure prompt action, your application must provide all applicable material and information specified on the back of this application form. Avoid unnecessary correspondence and delays by submitting complete and accurate information. *Please submit 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.

4 Feb 65
DATED

William B. Rubey
BY *(Signature)*

William B. Rubey, 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

REPORT AND APPLICATION

TO OFFICE OF MINERAL EXPLORATION

U. S. DEPARTMENT OF THE INTERIOR

OFFICIAL
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O. M. E.
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FEB 11 1985
INITIALS | CODE

EXPLORATION FOR SILVER
AT LENADO
PITKIN COUNTY, COLORADO

RICHMOND HILL EXPLORATION COMPANY, INC.

ASPEN, PITKIN COUNTY, COLORADO

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Base Map of Exploration, Scale 1" = 200 feet

Richmond Hill Exploration Company, Inc.
P. O. Box 939
ASPEN, COLORADO 81611
Telephone 925-3717

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Mr. Hugh M. Connors, Acting Field Officer
Office of Minerals Exploration, Region III
U. S. Department of the Interior
Building 20 - Federal Center
Denver, Colorado

Dear Mr. Connors:

We are submitting, under cover of this letter, an Application, with required information for O. M. E. financial assistance in the exploration for silver ores in Pitkin County, Colorado.

Richmond Hill Exploration Company, Inc. will appreciate your early consideration of this application.

Respectfully submitted,

William B. Rubey

William B. Rubey,
President

INTRODUCTION AND ABSTRACT

The following is a report of recommendations for exploration for valuable minerals near the town of Lenado, Pitkin County, Colorado. Lenado is primarily a lumber mill camp four and one-half miles northeast of Aspen, Colorado, or about sixteen miles by road from Aspen. The technical data herein have been partially reconstructed from existing records, maps, reports, and information gathered from former operators and miners. Recent geological work in the area to be explored has modified somewhat the older surface maps. It has been concluded from a study conducted by the applicant that began in the summer of 1962, from geological projections that were derived from this study, and from an analysis of various economic factors, that this district of relatively short-lived but extremely high-grade ore production is worthy of serious exploration.

Shipping records and original settlement sheets in the applicant's possession show a production from the Aspen Contact Mine at Lenado for the year 1891 through 1898 of 9,469 tons of ore of a gross value per ton at early 1964 metal prices of $205.70. At present prices (January, 1965) this value per ton is $227. Of this total tonnage, 5,458 tons, or about 58%, were shipped in 1892, when the lowest grade ore was mined. Weighted averages for 1892 are 28.5 ounces of silver, 25.5% lead, and 15.1% zinc per

ton. Mr. J. E. Spurr, in his 1898 United States Geological Survey Monograph, reported some production of 3,000 ounce silver. Evidence indicates that this ore was not in place but was dragged into a talc-like breccia or clay from below when the major Lenado faulting occurred. The only conceivable source is the older Silver Fault, with a proven record of high mineral content and production throughout the Aspen District. Most of the proposed exploration is based on this premise.

Since the productive 1890's little or no exploration has been done at Lenado. Except for some production of high grade zinc in the 1920's the district has been virtually asleep from a mineral standpoint for over sixty years. For ore that is now worth $157 a ton, the Aspen Contact Mining Company's gross receipts were under $18. In the early days zinc was a liability, and no organized search was made for cadmium with the zinc, which does occur in some of the Aspen zinc orebodies farther south.

The area is isolated from any main routes of commerce or tourism, but it is easily accessible. Timber and water are in abundance, and local labor is available. The proposed exploration will be conducted between 8,600 and 9,300 feet in elevation. Phases I and II should not be attempted during the winter months, when weather conditions can be severe.

The proposed exploration is divided into three phases, each successive phase depending upon a successful completion of the prior phase. Only Phase I is detailed in this report, with suggestions for probable executions of Phases II and III.

Phase I will require an estimated 18 weeks for completion, including final evaluation, at an estimated total cost of $40,000, of which the applicant is requesting 75% financial assistance, or $30,000. This initial phase should be adequate to prove the existence of mineralized zones. The proposed program will, in the applicant's opinion, most fully explore the most favorable ground at a minimum of cost.

The estimated time and costs of the 3 phases of exploration are as follows:

Phase I	- Surface core drilling	18 weeks	$ 40,000
Phase II	- Offset core drilling	10 weeks	20,000
Phase III	- Tunnel exploration?	25 weeks	90,000
TOTALS:		53 weeks	$150,000

The applicant is presently conducting a silver exploration program under O. M. E. contract 2169, Docket No. OME-6289, that officially began work on October 1, 1963. The project is five miles south of Aspen in a geological environment similar to Lenado. Should this present project be successful, a modern flotation mill would be constructed to serve the area, which would enhance the development of silver ore reserves at Lenado.

1. FINANCIAL ELIGIBILITY

(a) The applicant applied to The Bank of Aspen, its local depository, for a loan of $30,000, the amount requested in this application. The loan was denied. The applicant also applied to the First National Bank of Glenwood Springs, Colorado, for the same amount, and this loan was denied. Both banks considered this type of loan inappropriate for their business to undertake. Copies of correspondence are included in Exhibit No. 1.

(b) The sole, interested party in this application is:

Richmond Hill Exploration Company, Inc.
P. O. Box 939
Aspen, Colorado

(c) Applicant's share of the cost of the exploration work will be furnished from its general account in The Bank of Aspen.

(d) Applicant is financially prepared to pay the total cost of operation until reimbursement is made.

(e) Applicant would not undertake full expenditure of the proposed exploration program without financial assistance.

2. APPLICANT'S RIGHTS IN LANDS

The applicant holds five Mining Leases with a total of forty four patented and subordinated mining claims. All but two of these leases give the applicant surface rights, and all but two have purchase options. These leases, together with their assignments, as recorded in Pitkin County courthouse, are attached under Exhibit Nos. 2 through 8. The signed MME Form 52, Lien and Subordination Agreement for each, covering those mining claims included in the applicant's proposed exploration at Lenado, are attached under Exhibit No. 9.

only 1 copy of each

Four of the Mining Leases were originally made out to an individual as Trustee, who assigned them to Floodtide, a joint venture. Five leases, including the above four, have been assigned to the applicant, Richmond Hill Exploration Company, Inc.

Where there is open ground, as that north of the Tillie Claim, the applicant will have claims located as soon as the snow is sufficiently melted to permit surveying and discovery cuts.

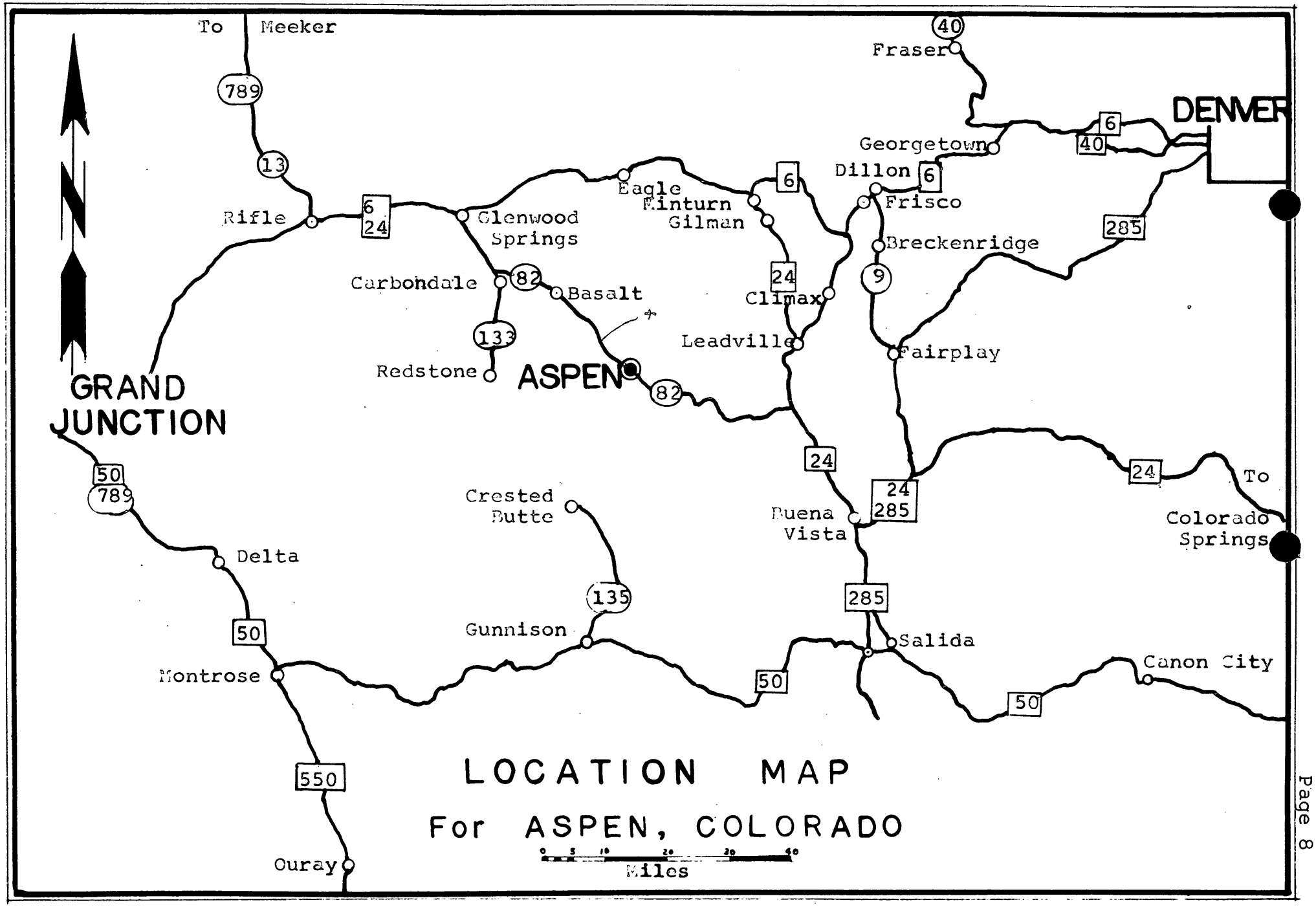
see - Twp. Range shown on claim map

3. ACKNOWLEDGMENTS

The greatest debt for Lenado geology is to Josiah Edward Spurr in his U. S. Geological Survey Monograph XXXI, "Geology of the Aspen Mining District, Colorado", with Atlas, published in 1898. For general geology, petrographic studies, and ore occurrence, to Mr. Adolph Knopf, in his U. S. Geological Survey Bulletin 785-A, "Recent Developments in the Aspen District, Colorado", published in 1926. To a Charles E. Anderson for his compilation and interpretation of some early, unpublished Spurr maps. To Mr. D. P. Rohlfing, whose lifetime work as a mining engineer in the Aspen area has contributed greatly to a better understanding of the geology and mining operations. To Dr. John W. Vanderwilt, whose knowledge of Aspen geology has been most helpful. Credit should be given to former miners and operators in the Lenado area, all local Aspen men, including Bill, Frank, and Ludvick Loushin, Bill and John Herron, Mr. R. E. Holmes, and to Frank Willoughby, graduate engineer and long-time mine operator in the district. Special credit should be given to Mr. James Babcock, a professional geologist whose field mapping at Lenado has been of great value. Work done by the U. S. Bureau of Mines and by the Anaconda Corporation in the Smuggler Mountain area near Aspen has added greatly to our library of information on the geology of the District.

4. LOCATION AND CLIMATE

The small town of Lenado is located about 4½ miles, in a straight line along the mineral belt, northeast of Aspen, Pitkin County, Colorado (see location map for Aspen, following page, and attached Generalized Geologic Map, Aspen Area). It is accessible from Aspen by sixteen miles of good road, 7 miles of which is paved Highway State #82. About eight miles of good county road follows east up Woody Creek from Woody Store. Woody Creek runs through Lenado, flowing the year around, and empties into the Roaring Fork River northwest of Aspen. The town's single industry is lumber, and the Flogaus mill provides employment for the few families living there. Topographic relief in the vicinity of Lenado is steep, the winters are severe and long, with deep snows normally from November through April. After a few weeks of muddy thaws, surface exploratory work probably could not be conveniently conducted until late in May or early June.


To Meeker
789
13
Rifle
6
24
Glenwood Springs
Carbondale
82
Basalt
133
Redstone
ASPEN
82
Eagle
Minturn
Gilman
6
24
Climax
Leadville
Dillon
6
Frisco
Breckenridge
9
Fairplay
Georgetown
Fraser
40
6
40
DENVER
285
GRAND JUNCTION
50
789
Delta
50
Montrose
550
Ouray
Crested Butte
135
Gunnison
50
24
Buena Vista
24
285
285
Salida
50
24
To Colorado Springs
Canon City
50
LOCATION MAP
For ASPEN, COLORADO
0 5 10 20 30 40
Miles

5. HISTORY AND PRODUCTION

Not much can be learned of the chronological story of Lenado. It grew into a small mining camp about the time Aspen flourished - sometime in the 1880's. The only records we have of production are those included in this report, and those only from the Aspen Contact Mine for the years 1891 through 1899. That mining was conducted earlier is known, probably from the enriched upper zones. and that shipments of rich silver ore were made by burros to Leadville, and later to reduction works in Aspen. Lenado had a dubious early reputation because of the high zinc content of the ores, which the operators were penalized for at that time. In the 1920's, with high zinc prices, the Smuggler-Durant Mining Company mined high grade zinc from the Aspen Contact and Leadville Mines, reportedly making shipments to the Ozark Smelting & Mining Company in Coffeyville, Kansas, and to Sears Roebuck. These records have been sought and are apparently lost. Since the twenties Lenado has become a lumber camp and mill. Other than the lumber operation employees and families, hunters, fishermen and an occasional sightseer, the camp is pretty much in isolation.

The two following production tabulations, pages 11, 12 and 13, indicate the richness of the Lenado ores. The Aspen Contact lots were high silica ores, averaging better than 30% SiO_2, suggesting that this ore came from the Cambrian quartzite Sawatch

contact. The iron was under 3%, and the CaO a little over 3%. Sulphur averaged about 13%. In the dollar production record under the Gross $ per ton it is interesting to note the extremely consistent values: for six years the values did not vary over 22¢ from $31 ore, which was the gross price at that time.

After 1893, with the abrupt decline of the silver market, all production was from small leasing operations.

DOLLAR PRODUCTION RECORD AND 1964 COMPARISON - ASPEN CONTACT MINE, LENADO, COLORADO

Year	Tons Prod.	$ Gross	Gross $ Per Ton	Gross $ Per Ton - 1964	$ Gross - 1964
1891	1503	$46,610	$31.01	$249.93	$ 374,593
1892	5448	96,726	17.72	142.41	777,274
1893	1214	58,898	48.52	389.96	473,411
1894	448	13,883	30.99	249.07	111,583
1895	632	19,598	31.01	249.23	157,513
1896	67	2,062	30.78	247.38	16,574
1897	97	3,017	31.10	249.95	24,245
1898	47	1,461	31.06	249.63	11,733
1898	3	103	34.33	275.91	828
TOTALS:	9469	$242,358	$25.59	$205.70	$1,947,754

Notes: Zinc not paid for in the 1890's
For 1964 gross value: Silver (Ag) at $1.293 per ounce; Lead (Pb) and Zinc (Zn), each at $2.60 per unit (13¢ a pound)
Net factor in 1890's was .6317, or total net of $153,098 for nine years.

The company operated up to 1895; after that there were small leases.

THE ASPEN CONTACT MINING COMPANY

Lenado, Pitkin County, Colorado

The following lots were shipped to Colorado Springs in 1892:

	Assays Per Ton		
Tons In Lot	Ounces Silver	% Lead	% Zinc
90.7	32.0	14.6	13.5
107.6	28.6	14.5	13.0
63.9	27.5	17.9	
115.9	27.3	14.8	
100.5	21.3	21.9	
97.0	28.5	14.0	
89.7	29.7	19.3	
89.3	26.7	23.1	13.5
94.4	26.8	15.6	
101.2	29.3	21.3	
89.6	26.2	17.6	14.5
94.5	25.8	16.8	16.8
183.9	28.2	16.3	16.7
96.9	25.1	18.8	
88.8	27.6	19.3	13.5
81.0	31.8	21.8	14.2
91.6	24.8	23.5	16.0
92.7	26.2	31.2	13.0
95.3	25.8	28.1	14.5
96.2	22.3	24.1	15.5
106.6	25.4	26.7	16.1
97.1	42.3	19.3	14.5
97.7	45.7	20.0	17.2
93.5	50.6	22.6	16.5
100.0	42.9	24.4	16.5
96.0	41.0	25.7	14.5
101.7	32.4	22.5	16.5
95.4	17.6	20.7	20.2

Page 2 - Ore shipped from Aspen Contact Mining Company

	Assays	Per	Ton
Tons In Lot	Ounces Silver	% Lead	% Zinc
99.0	48.0	23.3	20.5
94.5	28.0	31.9	19.5
93.5	23.8	27.1	17.0
92.3	49.7	24.4	17.0
94.9	30.5	30.5	16.0
95.1	36.4	27.5	15.0
94.3	22.6	27.8	15.5
92.3	25.9	31.0	15.5
96.2	26.6	28.2	12.0
105.4	32.0	32.6	
106.6	33.1	25.7	14.0
96.8	37.1	30.1	14.5
95.6	33.6	31.0	13.5
94.0	30.2	24.3	13.8
95.8	26.8	24.5	
104.6	24.1	24.4	12.0
94.2	29.1	29.5	13.2
99.6	23.6	17.4	11.5
89.8	22.0	20.5	11.2
90.3	19.8	19.4	16.3
99.8	19.2	35.4	13.4
94.6	20.3	42.3	13.5
93.4	22.7	45.6	16.3
99.3	22.8	46.8	15.5
99.5	20.5	45.5	15.1
98.8	17.6	44.7	15.0
100.3	14.2	42.0	14.0
98.4	18.5	37.6	14.7
5457.6 Tons			
Weighted averages	28.5	25.5	15.1

510# 302#

@ $1.293/oz $36.85/ton @ 16¢ → $81.60 @ 15¢ → $45.30

Total $163.75/ton
36.85
$124.90 [illegible] metals

6. GEOLOGY

The belt of mineralization at Lenado is a continuation of the Aspen mineral belt from the south and west (see attached generalized Geologic Map, Aspen Area). It is essentially the same, with Paleozoic sediments tipped by the same granite uplift to the east, and dipping steeply westerly under the younger, undifferentiated Mesozoic beds that appear as reddish sediments about a mill down Woody Creek valley from Lenado. A half mile above Lenado, to the east, is the granite, with the Cambrian quartzite domes over it. The mineral belt is roughly 2,000 feet in width, from west to east, from the lower Carboniferous Weber shales and basal limestones through the Missippian Leadville dolomites, the thin Devonian "Parting" quartzite member, the Ordovician ("Manitou" or "Yule") dolomite, and through the Cambrian "Sawatch" quartzite. The attached Stratigraphic Columnar Section, Page 15, may apply to Lenado, with two major differences: (1) there are no porphyry intrusives in evidence at Lenado, and (2) the Lenado ores were not produced from the Leadville dolomites, which were the most important host for Aspen silver ores. The intrusives may be at depth at Lenado and have not yet been encountered in the relatively shallow mine workings. Regarding the Leadville formation, it is precisely in the unproved and unexplored sections of the Leadville, where cut by the Silver fault, that most of the proposed exploration is directed.

Cambrian Sawatch in Aspen Contact Mine.

STRATIGRAPHIC COLUMNAR SECTION, ASPEN, COLORADO

GEOLOGIC FORMATIONS

AGE	FORMATION		DESCRIPTION
MESOZOIC Triassic, Jurassic	Undifferentiated		Sediments West of Mineral Belt
PALEOZOIC Carboniferous - Pennsylvanian	Maroon		"Red Beds" - sandstone, limy base; 4000 feet thick
	Weber (?) Belden		Hermosa (?) Shales, shaly lime; basal 300 feet black, thin-bedded; ore-bearing Ave. 1000 feet thick.
(Recent; after granite uplift)	Igneous intrusive		Albite Alaskite porphyry, Richmond Hill area; 150' thick Quartz porphyry, Smuggler Mine; 30' thick
Carboniferous - Mississippian	Leadville		Gray - blue; limestone above, dolomite below. Ore-bearing. 200 - 300' thick
	hiatus		
Devonian	Chaffee	Dyer	Gray dolomite
		Parting Member	Dolomite, shale, mostly quartzite.
	hiatus		
Ordovician	Manitou		Light gray dolomite; called "Yule" by Spurr & Knopf
Cambrian		Peerless Member	shale
	Sawatch		quartzite
PRE CAMBRIAN	Igneous		Granite; biotite-muscovite; locally gneissic or schistose

Spurr attaches considerable significance to the contact between the Weber shales and the Leadville formation, which he calls the Silver Fault. Rohlfing and Knopf concurred with Spurr. Some recent geologists have disputed this, claiming that it is a normal bedding contact. In view of the fact that the great Aspen orebodies, particularly in the Smuggler - Mollie Gibson Mines, occurred along this fault, or bedding contact, the argument would appear to be academic. Spurr writes, "The contact between the Weber shales and the Leadville dolomite is, throughout the whole of the area shown on this map, apparently a true fault contact, for it is characterized by a brecciated zone and by evidence of slipping in the formation of polished and striated surfaces and in little slip faults parallel to the main contact." Elsewhere Spurr states, "The Silver Fault has been more important than any other one thing in determining the deposition of minerals throughout the whole Aspen district.

It is consistently true in the Aspen district that it is primarily where this contact north-south fault zone is cut by later east-west faults that the major productive areas were located. At Lenado there are two such cross faults, north and south of a downdropped block. The southern one is the Lenado fault. It is shown on the attached Base Map of Proposed Exploration running diagonally across country from lower southwest to upper northeast. To the southwest, above the Bimetallic tunnel, the Lenado fault

dips steeply west, or northwest, but in the vicinity of the Aspen Contact Mine to the northeast it is nearly vertical, or locally overturned and dipping southeast. Spurr estimates that the fault had about 1,300 feet downthrow on the north side. This would naturally result in a shifting of the westerly dipping formations to the east on the north side of the fault. In fact, it is the geometric ratio of west dip to east displacement from which the 1,300 feet downthrow can be calculated. This structural logic is the basis for Section A - A, and the argument for locating the proposed diamond drill hole No. 1. There is a more detailed explanation of this structural picture on pages 123 - 124 of Spurr's Monograph.

Spurr's argument that the older Silver fault is the ore-bearer rather than the recent Lenado fault is, again, empirically proved throughout the Aspen district, where extensions of cross faults have seldom been ore-bearing, and it has been near the intersections of the two where rich mineral was discovered and produced. In Lenado, where the Bi-metallic tunnel turned and drifted on the Lenado fault there was no mineral. An exception would appear in the Aspen Contact and Leadville mines, where ore was mined along the Lenado fault. This, Spurr points out, is really not an exception, because the ore originated in the Silver fault and was dragged and scoured along the planes that resulted from the later Lenado faulting. The action would be similar to that of drawing a vertical chalk like downward on a blackboard -

Not a fault

because NO favorable beds cut in the workings

Maybe favorable for in favorable ore bodies

what was left above merely rubbed off, with the main body of chalk down below. All production from the Lenado mines was from ore not in place, but from what rubbed off in the Lenado fault gouge, and the main body of ore would be at depth, at or near the Silver fault, probably in the Leadville dolomites. Spurr emphasizes this fact several times: "It is the opinion of those who have worked these mines - and their opinion has been agreed to by the writer, after careful examination - that the broken and bunchy condition of the ore indicates that it was not formed in place, but has been dragged up along the fault from some other locality. The usually barren condition of the fault goes to show that it originated later than the ore deposition, and the conclusions which have been arrived at in regard to the ore in the Aspen Contact and Leadville mines point in the same direction.

"Another slight point in the determination of the age of this fault is the topography. Where the fault cuts across the top of the cliff on the south side of the canyon, it forms a groove instead of a scarp. This is evidence that there has been no movement of importance since the Glacial period. The age of the fault is therefore determined as postmineral and pre-Glacial."

On the "Extent of Ore Deposition", Spurr writes, "In the Lenado district, where there are indications of a considerable amount of ore, the sections show a local uplift, apparently corresponding in nature with that of Tourtelotte Park." Note: this was a highly productive silver area about one and one-half

miles south of Aspen. Under the chapter, "The Aspen Contact Mine", Spurr returns to the Lenado fault: "The dolomite near the fault is much broken up, containing fragments of ore and of limestone. Near the fault workings run through the dolomite on a vein of rich blende, which was in places very high in silver and lead. On the edges of the vein the sulphide has altered to zinc carbonate, with some lead carbonate. This vein was traced continuously for about 200 feet, trending with the shale-dolomite contact and only a short distance from it. In places its walls are smooth and straight, but they are slickensided, and are probably slip walls. In other places the vein is broken and interrupted by breccias and by faulted-in blocks of dolomite. It is probable that this ore was not formed in place, but existed prior to the faulting. A short distance southeast of the fault betweenthe shale and the dolomite comes another fault, which separates the dolomite from the Cambrian quartzite. The two faults have the same general movement, but the displacement of the West Lenado fault between the dolomite and the shale is greater. The zone between the dolomite and the quartzite, however, is greatly brecciated for many feet, and the quartzite is softened and decomposed. The ground-up rock is called "talc" by the miners, and is distinguished as "gray talc", "brown talc",or "blue talc", according as the quartzite, dolomite, or shaly material predominates. In this 'talc" the richest ore in the mine has been found, lying directly under the quartzite, for here the

fault dips steeply to the southeast, so that quartzite forms the hanging wall. The main ore body extended from the tunnel up to about 40 feet from the surface, making about 200 feet. In places the ore was about 40 feet thick, and laterally it ran along the fault for as much as 300 feet. This ore contained much lead, a moderate amount of silver, and not much zinc."

"The ore in the Aspen Contact mine, therefore, occurs in two chief zones, which are also fault zones; one at the contact of dolomite and shale, and one at the contact of dolomite and quartzite. Along both of these zones the ore is excessively broken up, and some of the very richest is in the finely ground material. Thus the ore does not seem to have formed in place, but to have existed previous to the fault; and as the faulting has been very extensive, the ore may have been carried a considerable distance. The average ore is very high in zinc, generally containing much lead, and a comparatively large amount of silver. Barite, on the other hand, which is such a common gangue mineral in other ores of the district, is very rare."

In his description of the Leadville mine (see Section B - B) Spurr notes the great similarity in structure and situation of ore bodies to those of the Aspen Contact. About the Leadville ore he writes: "In appearance this ore is like a soft mud, being blue-black, or more generally brownish blue, in color. As the so-called 'talc' of the miners is often a

triturated limestone, so this soft mud ore seems to be derived from the trituration of sulphides. When richest it is nearly black, and it probably, in part at least, sulphide of silver with galena. The brown color is given by an admisture of yellow clay, which occurs in bunches and seams, and is of later origin. An assay of this yellow mud showed only 25 ounces of silver to the ton, while one of the blue-black material associated with it assayed 3,000 ounces. On both sides of the ore is brown altered limestone, which in places is brecciated and has fragments of soft black ore embedded in it. This ore, then, presents the characteristics of having been dragged into its present position."

The second east-west fault (unnamed) near D.D.H. 8, 9 & 10 is shown in the upper part (Cambrian) of the Base plan map. The dip of this fault is unknown, but probably dips steeply south. The unconformable butting of the older Cambrian and Pre-cambrian rocks north of the fault against the younger beds south of it indicates that the downthrow was on the south side. Since this is the reverse of what happened at the Lenado cross fault, it may be assumed that the major movement in the area was the dropping of this central block between the two faults, forming a graben, and that north and south of this block the country remained relatively unmoved at the time of the cross faulting. Other than a short tunnel and a couple of shallow pits, there has been no exploration done in the vicinity of this northern cross fault.

Not on A's ground on revised map. Not applicable

7. PROPOSED EXPLORATION

PHASE I

Phase I exploration consists of diamond drilling core holes from the surface to specific targets at depth. Thirteen holes are planned for a total of 4,305 feet, all but 500' of which will be cored. The first 500 feet of the 1,000 foot Hole No. 1 will be plugbit for a saving of time and money through ground of highly probable barrenness. The wireline method will be utilized, and core sizes will be NX, BX, and AX Wireline. Of the thirteen proposed holes, all but two are based upon the twofold argument presented under Part 6, Geology, that (1) the ore already produced was not in place and must have been dragged into place from some other source, and that this source could only be the older Silver fault that was so important in the Aspen district's production, and (2) the most favorable targets along the Silver fault are its intersection with the Lenado fault, its intersection with the northern cross fault, and in the Leadville dolomite. The two exceptions are short holes just above the Flogaus mill, to the south, aimed at penetrating the base of the Weber, the Lenado fault, through the Leadville and into the Parting Quartzite, where high grade silver-zinc was reported discovered along the surface.

Later workers would suggest otherwise

not shown on map

I. Mobilization and Preparation. An experienced exploration geologist will be in charge of the project, with a full time assistant, both supervising the drilling on a two-shift a day basis. They will log holes, split cores, and prepare samples for assaying. They will require some part time labor for surveying, brushing lines, locating claim corners, establishing grid coordinates, possibly taking soil samples and analyzing them in the field, locating access roads and drill hole sites. Boxes of cores will require cataloguing and storage. Strip logs of each hole must be mapped, and subsurface projections made. All job records must be kept accurately and currently. Drill water must be arranged for, and a bulldozer will be contracted for roads and drill sites. The applicant is prepared to handle general overhead and supervision, work and time scheduling, accounts, and vehicular transportation from the Aspen company offices. The applicant has crushing, pulverizing, and sample-quartering facilities.

II. Drilling - General. As already mentioned, the core drilling will be contracted for a wireline rig, with the standard wireline core sizes which are 3/8 to 5/8 of an inch smaller in diameter than regular cores. The holes may be telescoped as needed, to save time from reaming. A hole may collar with an NX size, reduce to BX, then to AX, depending upon conditions and the geologist's decisions. Return cuttings should be caught, and "sludged" for careful examination by the geologist, and samples should be taken

for assay determination if mineralization is detected or suspected. The longer holes, and particularly the 1000' first hole should be surveyed periodically for bearing and angle. Most contractors furnish this service for a slight additional cost.

III. Access Roads. Access road work is an important part of this exploration program. Bulldozers and their operators can be hired locally on an hourly basis. Some rock blasting may have to be done, particularly for the northernmost road east of Gunnysack Ridge. These roads are approximated on the Base Plan Map, but grades and rock ledges may locally alter these locations. A drill rig can be skidded into position, but where water must be hauled to the rig grade allowance must be made for a truck.

IV. Diamond Drill Hole No. 1 (Section A - A). The justification for this hole has been explained in some detail under the Geology section. It is aimed S. 45° E., or approximately along the strike of the Aspen Contact tunnel, with the hole collar located on the dump, and angled 58° from horizontal to intercept the most likely location of the Silver fault at depth somewhere near where the fault is cut by the nearly vertical Lenado fault. This is the shallowest place one could expect to encounter the fault intersection directly under known production of high grade "drag" ore. The hole will be an estimated 1,000 feet in length, but it should bottom in granite, which could be somewhat longer or shorter than this distance. The first 500 feet can be drilled quicker and

cheaper with a plugbit, or solid end diamond bit. If it is, sludge samples should be caught and stored for examination. It is important that this first hole be surveyed periodically. Because of its location on a mine dump this hole could have considerably more overburden to penetrate than the other holes.

V. Diamond Drill Hole No. 2 (Section C - C). The geologic reasoning that applied to Hole No. 1 also applies to Hole No. 2. This hole is to 500 feet in depth, seeking the intersection of the Silver and Lenado faults, and the Leadville dolomite. Being located halfway between Hole No. 1 and the outcrop of the Silver fault to the northeast, north of the Lenado fault, it should encounter the intersection at approximately half the depth of Hole No. 1. The angle of Hole No. 2 will probably be modified as information is gained from the true log of Hole No. 1.

VI. Diamond Drill Hole No. 3 (Section D - D). Hole No. 3, to 200 feet, is aimed to intersect both faults just west of their junction on the surface. It should encounter the Silver fault about 125' from the surface (on dip), penetrate about 80' of Leadville dolomite, and cross the Lenado fault about 150' below the surface. It was at this depth that the Aspen Contact and Leadville mines reportedly had some of their widest and richest silver ore. This drill site is about 260' horizontally from the Smuggler ditch, and about 130' vertically above it. Pumping from the ditch would be possible.

VII. Diamond Drill Hole No. 4 (Section E - E). Located at the same drill site as Hole No. 3, Hole No. 4, to an estimated 260 feet, is aimed to intersect both faults north and east of their surface junction, or after they begin to diverge. This hole should cross both faults at about the same favorable depth as Hole No. 3, but it should penetrate about 120' of Leadville dolomite before it crosses the Leadville fault into the granite. Should both this hole and No. 3 hole discover strong mineralized structure at similar horizons, it may be assumed that it is continuous, since they will only be about 70' apart at depth.

Leadville? Lenado

At what depth? Diverging holes.

close

VIII. Diamond Drill Hole No. 5 (Section F - F). This hole, to an estimated 420 feet, from the same site as for Holes 3 and 4, will be fanned out more easterly to intercept both faults farther apart, and to catch the Parting Quartzite, possibly the top of the Ordovician "Yule" dolomite, and the full width, nearly 200 feet, of the Leadville dolomite. It should reach the granite, depending on the dip of the Lenado fault at this point. All of the above formations, west of the granite, are potential ore-bearing. Should this hole discover ore, it should be offset to the north.

IX. Diamond Drill Hole No. 6 (Section G - G). Hole No. 6 is a short, relatively flat hole located on the Base Plan Map about 950 feet southwest of the drill site for Hole No. 1 on the Aspen Contact dump. No. 6 is collared in the basal Weber formation,

and bears S. 30° W. across the Lenado fault, through a short section of Leadville dolomite, and through the Parting Quartzite where silver-zinc discoveries have been reported there and farther up Tinpot Wash.

X. Diamond Drill Hole No. 7 (Section H - H). The location of Hole No. 7 is the same site as for Hole No. 6. This hole is steeply pitches to cut the Lenado fault at about 150 feet below the surface for exploration of the favorable basal Weber, and the top of the Leadville dolomite. Because this hole is not intended to locate the Silver fault, it may encounter gouge ore, similar to that mined in the Leadville and Aspen Contact mines, in which case coring should be done with particular care to get maximum recovery.

XI. Diamond Drill Hole No. 8 (Section I - I). The next three holes are located at the northernmost part of Phase I exploration, at the north end of Tillie Gulch just south and below the North cross fault. The access road to this location should be constructed well in advance, while the earlier holes are being drilled, because in places it could be difficult, and will probably require some rock blasting. Hole No. 8 will collar in the Weber formation near where it is favorably crossed by the east-west fault, and bear northeast on a 45° dip to intersect the fault, and penetrate and bottom in the Sawatch Quartzite. The hole will cross the fault

at an unknown depth because its dip is not known at this time. In this area the quartzite is strongly mineralized across the surface, and could be of great interest at 150' to 200' depth. Water will have to be hauled to this location.

XII. Diamond Drill Hole No. 9 (Section J - J). From the same drill site as for Hole No. 8, this hole bears N. 85° E., also at a 45° dip, to intersect both faults, the north-south trending Silver fault, and the east-west cross fault. It will collar in the basal Weber limes, or shaly limes, cross the Silver fault at about 130' below the surface, cross a narrow band of Leadville dolomite, cross the North cross fault, and bottom at 300 feet in the Sawatch Quartzite.

XIII. Diamond Drill Hole No. 10 (Section K - K). Hole No. 10, from the same drill site as for Holes 8 and 9, bears S. 63° E., or normal to the strike of the Silver fault, and dips 35° to penetrate the basal Weber, cross the fault, and explore the favorable top half of the Leadville dolomite. This hole should be extended beyond its proposed 200 foot depth if the dolomite proves unusually favorable.

XIV. Diamond Drill Hole No. 11 (Section L - L). Moving back down the access road, the drill rig will set up north of the Tillie shaft and drill easterly where there appears from surface evidence to be some cross faulting not shown on any maps. Hole No. 11 will bear S. 71° E., or approximately normal to the Silver fault at this point, and dip steeply to intersect the fault about 200 feet

below the surface. It will penetrate the two favorable zones: basal Weber, and top of the Leadville dolomite, about 125 feet from where there was some production from the Tillie shaft.

XV. Diamond Drill Hole No. 12 (Section M - M). Hole No. 12 is a vertical hole located about 100 feet south of the Tillie shaft to explore the Silver fault at a depth of about 150 feet, and also to explore the basal Weber and the top of the Leadville dolomite.

XVI. Diamond Drill Hole No. 13 (Section N - N). Hole No. 13, the last hole in Phase I Exploration, is located at the bottom of Tillie gulch just above the main County road. Its purpose is the same as for Holes 11 and 12, and it also bears S. 71° E. to cut the Silver fault at a right angle. This hole has added favorability in possibly being in a minor cross-faulted zone which appears at about this point in the Four Friends tunnel, 250 feet to the west.

PHASE II

The second phase of exploration will be offset core drill holes to delineate and extend ore discovered in Phase I. The location and number of these holes cannot be determined in advance, of course, but a rough guess is that one-half of the initial footage should ordinarily be sufficient to offset and extend discovered ore, and give some indicated reserves. Therefore, one-half of Phase I cost will be calculated for Phase II.

PHASE III

Out

The third phase of exploration will be underground exploration, either by vertical or inclined shaft, or by adit, of orebody or orebodies delineated in Phase II, and by rehabilitation of the Aspen Contact and Bi-metallic tunnels. Opening the Aspen Contact may be done to continue exploration underground for ore discovered in Hole No. 2, over 200 feet beyond the Aspen Contact's most northeasterly workings. This would necessitate de-watering the workings down 250 or 300 feet. If there is no known, new target in the vicinity of the Aspen Contact, it should be re-opened for an examination of possible reserves that could be milled. An attempt should be made to de-water the winze, but if little or no progress is gained with reasonable pumping, and if Hole No. 1, drilled under the old workings, did not encounter valuable mineral, the pumping can be abandoned. Much may depend, of course, on what is seen and sampled above water level. For this work a compressor will be needed, about 450 feet of air line, and a submersible pump and hoses. It is likely that the portal is not caved back more than sixty or seventy feet, and spruce timbers can be gotten from the nearby Flogaus mill.

Rehabilitating the Bi-metallic tunnel for safe entry will require only one or two sturdy sets at the portal (unless there has been fresh caving during the winter of 1964 - 1965). It is proposed to drive the south drift on about 350 feet south to explore the projected intersection of the Silver and Lenado

faults. This can be done one of two ways: driving with a slusher, and mucking the rock into abandoned workings north and east, or laying track and tramming the rock by car to the outside dump. The last method is preferable, but more costly. There is roughly 1,100 feet of tunnel crosscut, and 400 feet of existing north-south drift that explored the Lenado fault, for a total of 1,500 feet that will require air and water lines, ventilation pipe, and probably track. Should the Silver fault - Lenado fault intersection prove up a valuable discovery of ore at the elevation of the Bi-metallic workings, there will be nearly 500 feet of "back" up dip that could have large reserves to be mined by cheap gravity methods.

The Tillie shaft is open to an unknown depth, since the collar sides have sluffed in. Descending the shaft can be accomplished by laying beams across the opening and winching down. If Holes 11 and 12, to the north and south of the Tillie, are totally barren, this descent and examination will probably not be warranted.

8. EXPERIENCE OF APPLICANT

As a company, Richmond Hill Exploration Company, Inc., has been involved in mineral exploration for over two years. This has mostly been in Pitkin County, Colorado, in both underground and surface work, including opening and extending tunnels, roadwork, claim staking, lease acquisitions, geological mapping, organization of field parties and a technical staff. Financing has been secured, and a number of projects, including exploration at Lenado, are planned for the future. In 1963 the applicant received an O. M. E. loan for silver exploration which called for extending the Highland tunnel an additional 5,000 feet, with a probable 1,000 feet of drifting, and 9,000 feet of underground core drilling. The Highland tunnel is headed under the Midnight - Little Annie mines, about five miles south of Aspen.

Experience Record - John P. Kellogg, General Manager and Chief Geologist. Since graduation from Michigan State University with a degree in geology in 1939, John P. Kellogg has devoted his professional life to the pursuit of mining engineering, geology, and related fields. He began his career as a geologist with the Anaconda Copper Corporation in Butte, Montana. After thirteen months, he was employed as Head of the Exploration and Development Department with the Cuban Manganese Mining Company, in Cristo, Cuba. For five years, until early 1948, Mr. Kellogg was

Chief Mining Engineer and Geologist at the Iron King Mine, Humboldt, Arizona. For a short period he was Consulting Chief Geologist at the La Huanchaca Mine, Pulacayo, Bolivia, and for two years he was Mining Engineer for the U. S. Bureau of Mines, located at Raleigh, North Carolina. For over three years, beginning in 1951, Mr. Kellogg was Exploration Mining Engineer and Staff Geologist for the U. S. Atomic Energy Commission at Grand Junction, Colorado. He was part time Acting Chief Geologist for the Grand Junction Operations Office. He was chosen for a three months' European Mission in 1953. Mr. Kellogg was General Manager and Chief of Exploration for the Pacific Uranium Mines Company, later to merge with Kermac Nuclear Fuels. He has been a private consulting Mining Geologist in United States, Canada, and Mexico; he was retained as Chief Geologist for Southern Illinois Fluorspar Mining Company in Rosiclare, Illinois, and as Chief Mining Engineer for Cummings-Roberts, Inc., Los Angeles and Montana. He was President and Resident Manager of Rosamond Smelting Company, Inc., of Rosamond and Lancaster, California. He has been a resident of Aspen since 1956, and in late 1962 was instrumental in organizing Richmond Hill Exploration Company, which he has headed as General Manager and Chief Geologist up to the present time.

Experience Record - Richard H. Beck, Chief Engineer. After Mr. Beck graduated from the Missouri School of Mines and Metallurgy

in 1934 he was employed as Mine Superintendent and Operator for several properties in the Tri-State area of Kansas, Missouri, and Oklahoma. He opened up and developed new properties for production. While Mr. Beck was in charge of the Beck Mining Company he redesigned and rebuilt a mill to ultimate capacity of 1,000 tons per day. He acquired and developed new mines to supply this mill. During these productive years of 1934 through 1951, Mr. Beck also made property examinations and evaluation reports for clients throughout the Western United States. In 1952 and 1953 he was engaged in the production and treatment of non-metallics at Miami, Oklahoma, opening quarries and designing kilns. In 1954 Mr. Beck was employed by Minerals Engineering Company in Grand Junction, Colorado, as mining engineer doing exploration, development and consulting work both for Minerals Engineering and for their clients. Mr. Beck was employed in this capacity for four years throughout the western United States and Mexico, during which time he also was engaged in mill design and operation. Thereafter, until coming to work for Richmond Hill Exploration Company, Inc., in February, 1964, Mr. Beck was engaged in private consulting work.

9. TIME AND COST ESTIMATES

PHASE I

I. RHECO Supervision, Overhead & Travel

100 days Supervision & Overhead @ $30 - - - - -	$ 3,000.00
100 days travel, 20 miles/day, @ 10¢ a mile - -	200.00
Total Estimated Supervision & Overhead	$ 3,200.00

II. Access Roads & Drillsites

80 hours bulldozer @ $15/hour - - - - - - - - - -	$ 1,200.00
Blasting supplies; powder, fuse & caps - - - -	48.50
Total Estimated Access Roads & Sites - - -	$ 1,248.50

III. Assay Determinations

125 samples assayed for silver, lead & zinc, or 375 determinations @ $2.00 - - - - - - - - -	$ 750.00
Cardboard core boxes, 431 @ $1.00 - - - - - - -	431.00
Total Estimated Assays & Storage - - - - -	$ 1,181.00

IV. Core Drilling Costs - Wireline Diamond Drill

(See attached bids, Exhibits 11 a, b, c)
(Estimate based on costs of mobilization, probable amount of overburden in 13 holes, expected amount of "telescoping" from large to smaller sizes, and the probable depths, cementing, reaming, casing, and hole surveying costs, water haulage costs, and possible standby time.)

Plugbit footage, 500' @ $7.10 - - - - - - - -	$ 3,550.00
Wireline coring, 3,805' @ $8.10 - - - - - - -	30,820.50
Total Estimated Drilling Costs - - - - - -	$34,370.50
GRAND TOTAL ALL COSTS	$40,000.00

Total Overall cost per foot for 4,305 feet - - - - - $9.29

PHASE II

Phase II Exploration is offset core drilling of possible commercial minerals discovered in Phase I. This is estimated at an arbitrary one-half of the drilling footage in Phase I, or a little over 2,000 feet for $20,000. This is expected to take two full months late in 1965.

PHASE III

I. Initial mobilization, surface plant, salaries, office supervision, overhead, all indirect costs, insurance, power and/or compressor rental, machines for following sub-phases, for six months winter of 1965-1966, or summer of 1966 - - - - - - - - - - - - - - - - - - - $36,200.

II. Entry to proven commercial ore body delineated by offset holes in Phase II (does not include possible shaft to ore discovered in Hole No. 1, which could cost as much as $500,000) estimated average cost for shaft, incline, or adit, 300' @ $75 - - - - - $22,500.

III. Opening Aspen Contact tunnel, timbering pipe, pumping, etc. - $ 5,500.

IV. (a) Rehabilitating of Bi-metallic's 1,500' of existing tunnel and drift with pipe, vent line, and track (air blower, ore cars, oilers, jacklegs, motor, etc. rental pro-rated per foot; Estimated cost per foot $6 for 1,500 feet - - - - $ 9,000.

(b) Drifting 350', 7 x 7' cross-section, 100% timbered, estimated cost per foot $48 - - - - $16,800.

TOTAL ESTIMATED COST OF PHASE III - - - - - - $90,000.

60,000

Filed for record November 8, 1963 at 3:40 o'clock PM
Reception No. 116591 Peggy E. Cobleigh Recorder

Exhibit No. 2

BOOK 204 PAGE 550

MINING LEASE

THIS LEASE AND INDENTURE, Made this 31st day of October, A. D. 1963, between SMUGGLER-DURANT MINING CORPORATION, the party of the first part hereinafter referred to as the Lessor, and FLOODTIDE, a joint venture, of the County of Pitkin, State of Colorado, party of the second part hereinafter referred to as Lessee,

W I T N E S S E T H:

The said Lessor, for and in consideration of One Hundred Dollars ($100.00) paid by the Lessee to the Lessor within thirty days (30) of the execution of this agreement, and in further consideration of the royalties hereinafter reserved and the covenants and agreements hereinafter expressed to be kept and performed by said Lessee, has granted, demised and let and by these presents does hereby grant, demise and let unto said Lessee the mining property situate in Pitkin County, Colorado, and particularly described in Exhibit "A" attached hereto.

TO HAVE AND TO HOLD the same unto the said Lessee for a term of Ten (10) years from the date hereof, expiring at noon on the 31st day of October, A. D. 1973, unless sooner forfeited or determined through the violation of any covenant hereinafter set forth to be kept and performed by the Lessee. And provided further, that if said Lessee faithfully keeps and performs all covenants and agreements to be kept and performed by it and makes all payments hereinafter provided and this Lease is in good standing at the end of said ten (10) years, the Lessee will have the right to renew the same for a further period of Ten (10) years but no longer, on the same terms and conditions as herein set forth. Provided,

however, that in order to effect such renewal the Lessee will give the Lessor written notice of its election to renew said Lease at least six (6) months before September 1, 1973. Said notice may pe personally delivered to the Lessor or may be delivered by registered mail or telegraph.

The Lessee further agrees with the Lessor as follows: Lessee will have until June 1, 1964, to perform such exploratory work, abstracting of title, surveying, etc., as it may deem necessary on said mining property or in any of the workings connected therewith.

Said Lessee, in consideration of said Lease, does further agree with said Lessor as follows: to-wit:

1. To enter upon said mining premises and work the same in a manner necessary to good and economical mining, so as to take out the greatest amount of ore possible, with due regard to the development and preservation of the same as a workable mine, and to the special covenants hereinafter reserved.

2. To well and sufficiently timber said mine at all points where proper, in accordance with good mining; and to repair all old timbering wherever it may become necessary.

3. To allow said Lessor and his agents from time to time to enter upon and into all parts of said mine for purposes of inspection, but such inspection shall be at their sole risk.

4. To occupy and hold all cross or parallel lodes, spurs or mineral deposits of any kind which may be discovered by the said Lessee, or any person under it, in any manner, by working within, or from the demised ground, as the property of said Lessor with privilege to said Lessee of working the same as a parcel of said demised premises.

5. To keep at all times the drifts, shafts, tunnels and

other workings thoroughly drained and clear of loose rock and rubbish, unless prevented by extraordinary mining casualty.

6. To do all stoping and development work in an approved and customary manner.

7. To pay to the Lessor the following royalty:

(a) Ten percent (10%) of the net smelter returns on ore, the gross mineral value of which does not exceed $50.00 per ton, and twelve (12%) per cent of the net smelter returns on ore, the gross mineral value of which exceeds $50.00 per ton.

(b) To pay a minimum royalty of $500.00 a year (whether ore to that value is mined or not) which shall be payable in two (2) Semi-annual installments (if not paid from production) on June 1 and December of each year, commencing December 1, 1963.

To make quarterly settlements for all ore or minerals of every type and character produced and saved during any calendar year; and to install and keep approved and standard sampling equipment to correctly determine and test the gross mineral value of all ores so produced and saved, and to give Lessor corresponding samples and all available information with respect to sampling and testing and the other methods used therein, and at all times to keep proper records pertaining thereto, and permit their inspection by the Lessor or its agents. Lessee shall provide or cause to be provided, Lessor with copies of all smelter returns.

(c) All payments due hereunder may be paid by Lessee's check mailed to the Lessor at Suite 1101, 4 West 58th St., New York, New York, on or before the date any such payments shall become due. Any advance royalties paid in any calendar year shall be applied on royalties from production becoming due the same year,

but shall not otherwise postpone or affect the obligation of Lessee to pay the minimum royalty of $500.00 per year.

8. To carry insurance in amounts of not less than $100,000.00/ $300,000.00 public liability and $50,000.00 property damage; and to protect the Lessor against any claims for workmen's compensation and against mechanic's and material liens. Lessee shall furnish Lessor with certificates of insurance prior to commencement of any operations under this lease.

9. To pay all production taxes and taxes on improvements made by Lessee on said premises.

10. To deliver to said Lessor the said premises with the appurtenances, and all improvements in good order and condition, with all drifts, shafts, tunnels and other passages thoroughly clear of loose rock and rubbish, and drained, and the mine ready for immediate continued working (accident not arising from negligence alone excusing) without demand or further notice upon the termination of this lease or any renewal hereof, or at any time previous, upon demand for forfeiture.

11. On June 1 of any year the Lessee may, if it so desires, pay all royalties and taxes then due and surrender and terminate this Lease by giving sixty (60) days notice of such termination and by executing and recording, at its expense, the proper release of this Mining Lease (and the Option herein contained).

12. And finally, that upon violation by the Lessee of any covenant or covenants hereinbefore reserved the Lessor may notify the Lessee by registered mail addressed to it at Aspen, Colorado, that default has been made in the terms of this Lease setting forth briefly and generally the nature of such default, and if the same is not corrected and the Lease fully complied with within thirty (30)

day after said registered notice is deposited in the United States Post Office, the Lessor at its option may terminate this Lease; and thereupon Lessor shall be entitled to immediate possession of said property and may enter upon the same and dispossess all persons occupying the same, with or without force and with or without process found in occupation of said premises may be proceeded against for unlawful detainer of said premises, as provided by statute.

13. In the event that Lessor owns a less interest in the lands described in Exhibit "A" than the entire and undivided fee simple estate therein, then the royalties provided for in Paragraph 7 above shall be paid the Lessor only in the proportion which its interest bears to the whole and undivided fee.

14. In consideration of the foregoing covenants to be kept and performed by the Lessee, and in consideration of the payments to be made by it, and provided all terms and conditions of this Lease and all payments to be made thereunder are performed and made and Lessee is not in default in any respect, then said Lessee shall have the right of first refusal to purchase the said demised premises at any time during the term of this Lease or any renewal thereof that Lessor receives a bona-fide offer to purchase the premises from a third party. Lessor shall convey the terms of said offer to Lessee who shall have a period, not to exceed thirty (30) days, to notify Lessor that it shall meet said terms. One-half of the payments or royalty theretofore made shall apply on said purchase price.

The forfeiture, surrender or termination of the above Lease for any cause shall render this right of first refusal void.

Each and every clause and covenant of this Lease and indenture shall extend to the heirs, personal representatives, successors and assigns of the parties hereto.

IN WITNESS WHEREOF, the said Lessor has caused this instrument to be executed and the Lessee has hereunto set its hand the day and year first above written.

SMUGGLER-DURANT MINING CORPORATION

By _____
Lessor

ATTEST:

_____

FLOODTIDE

By _____
General Manager

EXHIBIT "A"

NAME OF LODE OR CLAIM	U. S. MINERAL SURVEY NUMBER
Leadville	~~8576~~ 6576 as corrected ON MAP
Alma	5293
Daisy	5293
Last Chance	5759
Last Chance #2	5759
Eureka	5759
Tenderfoot	5759
River	5759
Annex	5759
Lamokin	5759
Mollie	5759
Tillie	6635

all shown on map

a)

The above patented mining claims are all situated in the Woody Creek Mining District, Pitkin County, Colorado.

1) see applicants letter 3/11/65 to Selfridge

Exhibit No. 3

Filed for record September 6, 1963 at 10:45 o'clock AM
Reception No. 116144 Peggy E. Coble, Recorder

BOOK 203 PAGE 519

MINING LEASE

THIS LEASE AND INDENTURE, made this 3rd day of April A.D., 1963, between The Flogaus Lumber Co., J.P.Flogaus R.E.Flogaus & Harvey E. Marsing the party of the first part hereinafter referred to as the Lessor, and Edwin J. Smart, Trustee, a resident of the City of Aspen, County of Pitkin, State of Colorado, party of the second part hereinafter referred to as Lessee, WITNESSETH:

The said Lessor, for and in consideration of $300.00 paid by the Lessee to the Lessor and in further consideration of the royalties hereinafter reserved and the covenants and agreements hereinafter expressed to be kept and performed by said Lessee, has granted, demised and let and by these presents does hereby grant, demise and let unto the said Lessee the mining property situate in Pitkin County, Colorado, and particularly described in Exhibit "A" attached hereto, signed by the parties and made a part hereof together with all appurtenances.

It is expressly understood and agreed that the surface and surface rights of the said property are hereby reserved from and under the provisions of this Lease and that this Lease, and the Option herein contained, shall apply only to the minerals and sub-surface rights in and under said lands, including whatever secondary rights Lessor has to use and occupy the surface for strictly mining purposes.

TO HAVE AND TO HOLD the same unto the said Lessee for the term of Ten (10) Years from the date hereof, expiring at noon on the 3rd day of April A.D., 1973, unless sooner forfeited or determined through the violation of any coventant hereinafter set forth to be kept and performed by the Lessee. And provided further, that if said Lessee faithfully keeps and performs all covenants and agreements to be kept and performed

by it and makes all payments hereinafter provided and this Lease is in good standing at the end of said 10 years, the Lessee will have the right to renew the same for a further period of Ten (10) Years but no longer, on the same terms and conditions as herein set forth. Provided, however, that in order to effect such a renewal the Lessee will give the Lessor written notice of its election to renew said Lease at least Sixty (60) Days before April 3, 1973. Said notice may be delivered to the Lessor or may be delivered by registered mail.

The Lessee further agrees with the Lessor as follows: Lessee will have Six Months (6) from date hereof, and until October 3, 1963, to perform such exploratory work, Abstracting of title, Surveying, etc., as it may deem necessary on said mining property or in any of the workings connected therewith.

Said Lessee, in consideration of said Lease, does further agree with said Lessor as follows: to-wit:

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

2. To well and sufficiently timber said mine at all points where proper, in accordance with good mining; and to repair all old timbering whereever it may become necessary.

3. To allow said Lessor and his agents from time to time to enter upon and into all parts of said mine for purposes of inspection.

4. To occupy and hold all cross or parallel lodes, spurs or mineral deposits of any kind which may be discovered by the said Lessee, or any person under it, in any manner, by working within, or from the demised ground, as the property of said Lessor with privilege to said Lessee of working the same as parcel of said demised premises.

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

6. To do all stoping and development work in an approved and customary manner.

7. To pay to the Lessor the following royalty:

(a) Ten per cent (10%) of the net smelter returns on ore, the gross mineral value of which does not exceed $50 per ton, and twelve (12%) per cent of the net smelter returns on ore, the gross mineral value of which exceeds $50 per ton.

(b) To pay a minimum royalty of One Thousand ($1,000.00) dollars a year (whether ore to that value is mined or not) which shall be payable in two (2) annual installments (if not paid from production) on November 3rd and May 3rd of each year, commencing November 3rd, 1963.

To make quarterly settlements for all ore or minerals of every type and character produced and saved during any calendar year; and to install and keep approved and standard sampling equipment to correctly determine and test the gross mineral value of all ores so produced and saved, and to give Lessor corresponding samples and all available information with respect to sampling and testing and the other methods used therein, and at all times to keep proper records pertaining thereto, and permit their inspection by the Lessor or its agents.

(d) All payments due hereunder may be paid by Lessee's check mailed to the Lessor at _____, on or before the date any such payments shall become due. Any advance royalties paid in any calendar year shall be applied on royalties from production becoming due the same year, but shall not otherwise postpone or affect the obligation of Lessee to pay the minimum royalty of $1,000.00 per year.

8. To carry insurance or take such legal measures as may be necessary to protect the Lessor against any claims for workmen's compensation and to also protect Lessor against mechanics' and material men's liens, and to keep posted on the premises any notices which the Lessor may be required to be kept posted for the purposes aforesaid on any of said premises.

9. To pay all production taxes and taxes on improvements made by Lessee on said premises.

10. To deliver to said Lessor the said premises with the appurtenances, and all improvements in good order and condition, with all drifts, shafts, tunnels and other passages thoroughly clear of loose rock and rubbish, and drained, and the mine ready for immediate continued working (accident not arising from negligence alone excusing) without demand or further notice on the said April 3rd, A.D., 1973, or if this lease is extended then on April 3rd A.D., 1983, at noon, or at any time previous, upon demand for forfeiture.

11. On April 3rd of any year the Lessee may, if it so desires, pay all royalties and taxes then due and surrender and terminate this Lease (and the Option herein contained) by giving Thirty (30) days notice of such termination and by executing and recording, at its expense, the proper release of this Mining Lease (and the Option herein contained).

12. And finally, that upon violation by the Lessee of any covenant or covenants hereinbefore reserved the Lessor may notify the Lessee by registered mail addressed to it at Aspen, Colorado, that default has been made in the terms of this Lease setting forth briefly and generally the nature of such default, and if the same is not corrected and the Lease fully complied with within Thirty (30) Days after said registered notice is deposited in the United States Post Office, the Lessor at its option may terminate this lease; and thereupon Lessor shall be entitled to immediate possession of said property and may enter upon the same and dispossess all persons occupying the same, with or without force and with or without process of law; or at the option of said Lessor the Lessee and all persons found in occupation of said premises may be proceeded against for unlawful detainer of said premises, as provided by statute.

13. OPTION: In consideration of the foregoing covenants to be kept and performed by the Lessee, and in consideration of the payments to be made by it, and provided all terms and conditions of this Lease and all payments to be made thereunder are performed and made and Lessee is not in default in any respect, then said Lessee shall have the right and option to purchase the said demised premises at any time during the term of this Lease or any renewal thereof by payment of the sum of Two Hundred Thousand Dollars ($200,000.00)1 payments or royalty theretofore made shall apply on said purchase price. Upon the tender of such payment, the Lessor will make, execute, acknowledge and deliver a good and sufficient deed or deeds of warranty conveying said property to the Lessee or such person or company as it may nominate, conveying the said premises free of incumbrances.

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

Each and every clause and covenant of this Lease and indenture shall extend to the heirs, executors and administrators and to the assigns of said Lessor, and if said Lessor may elect to the assigns of said Lessee.

IN WITNESS WHEREOF, the said Lessor has caused this instrument to be executed and the Lessee has hereunto set its hand the day and year first above written.

ATTEST:

Edwin J. Smart

By Hogans Lumber Co
Lessor

R. E. Hogans
Harry E. Nursing

Edwin J. Smart
EDWIN J. SMART, TRUSTEE
Lessee

EXHIBIT A

(b)

NAME OF LODE OR CLAIM	U.S. MINERAL SURVEY NUMBER
Silver City	6828
Boston	6828
Discovery	5244
Ben Davis X	5364
Monitor X	5364
Merrimac X	5364
Ajax	5244
Black Metalic	5244
Tripod	5244
Logan	5853
Cape Nome	16559
Tunnel	5854
Brook	5854
Lenado Placer	6039
Nestor	5854
Nettie	5854
Moscow	5854
Court of Chancery	4615
Blue Diamond	4615
Atlantic Cable	5853
Barefoot	5854
Snowshoe	5854
Bridal Chamber	5245
Little Maggie	5245
Don	5853

X not included or shown on map

rest of claims shown

out

SNOW SHOE on map

o.k. with map

The above patented mining claims are all situated in the Woody Creek Mining District, Pitkin County, Colorado.

Exhibit No. 4

Filed for record September 6, 1963 at 10:47 o'clock AM
Reception No. 116145 Peggy E. Coble, Recorder

BOOK 203 PAGE 526

LEASE OF MINING PROPERTY

THIS AGREEMENT OF LEASE, Made and entered into this twenty fourth day of August A. D. 1963, by and between Edward J. Grover, city of Glendale, county of Los Angeles, California, as party of the first part, hereinafter called the lessor and Edwin J. Smart, Trustee, city of Aspen, county of Pitkin, Colorado, as party of the second part, hereinafter called the lessee;

WITNESSETH, That subject to the conditions and limitations hereinafter set forth, the said lessor, for and in consideration of the rents, royalties, covenants and agreements hereinafter expressed to be paid, kept and performed by said lessee, has leased, let and demised and by these presents does lease, let and demise unto the said lessee the following described mining properties and premises situated in the Highland, Roaring Fork and Woody Mining Districts in Pitkin County, Colorado, to-wit:

(c)

CLAIM NAME	MINERAL SURVEY NO.
1/2 Baltimore	3337
1/8 Last Resort	6428
1/24 Apex	6122
1/24 Hidden Treasure	6122
1/24 Sea Bird	6122
1/24 Camp Bird	14176
1/8 American Flag	6008
1/8 Pembina	6008
1/16 Ella Sherwood	5304
1/16 Little Maude	5304
1/3 Globe	6987
1/3 Greely	6987
1/3 James G. Blaine	6987
1/3 Magnet	6987
~~1/8 Hurricane~~	
~~1/8 Minnetonka~~	

✓ shown on map

ok on map

EJS

It being understood by the lessee that the lessors claims of right in and to certain of said properties are based upon Mining Deeds, tax titles,

etc., and subject to any paramount right or rights of any other person or persons in or to said properties or any of them and that the rights hereby granted are taken subject to such incumbrances, defects in title, and paramount rights of others as now exists, and the entering into this Contract of Lease by second party shall be deemed acceptance by him of any and all risks pertaining to such titles and defects and incumbrances and as a waiver of any and all objections thereto.

TO HAVE AND TO HOLD, The above described premises unto the said party of the second part, his executors, administrators, and assigns, for the term of five (5) years from and after the date hereof, subject however, to the covenants and conditions hereinafter set forth, to be kept and performed by the parties of the second part.

THE SAID LESSEE, In consideration of the premises have covenanted, contracted and agreed and by these presents do covenant, contract and agree to and with said lessor, and its assigns:

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

2. To repair all old timbering wherever it may become necessary and to well and sufficiently timber said mine and mining premises at all points where proper and necessary in accordance with good and safe mining.

3. And to allow the lessor and all his agents, at any reasonable time and from time to time, to enter upon and to decend into all parts of said leased premises heretofor described for the purpose of inspection, surveys or taking samples therefrom and to render to said lessor all necessary and proper assistance in making such inspections, surveys or examinations.

4. To occupy and hold as the property of the lessor all cross and parallel lodes, spurs and mineral deposits of every kind which may be uncovered, disclosed or discovered within said leased ground by the said lessee or any person or persons under or in privity with it, with the privilege to said lessee to work and mine the same as part and parcel of said premises and not to locate or record the same, or allow the same to be located or recorded except in the name and for the use of the lessor; that the law of extra lateral rights shall apply; that where a discovery of mineral is made by lessee at a distance underground on the dip of the vein, it will be presumed between the lessor and the lessee that the vein extends upward at the same angle and if the argle of such dip is such that if continued to the surface the apex of such vein would lie within the surface boundaries of the premises hereby leased, the ore extracted from such vein shall be conclusively presumed as between lessor and lessee

to belong to lessor and to have been extracted by lessee from lessors property and when and if mined and sold shall be subject to the payment of rents, and royalties as hereinafter defined.

5. To at all times keep all drifts, shafts, tunnels, stopes and other workings driven or made subsequent to the execution hereof thoroughly drained and clear of loose rock and rubbish unless prevented by extraordinary mining casualties.

6. To store no waste underground except with the consent and under the direction of the lessor.

7. To make all working shafts at least four feet by six feet (4' x 6') in the clear, all drifts and tunnels at least four feet by six feet (4' x 6') in the clear, and all winzes and raises at least three and one-half feet by six feet (3½' x 6') in the clear.

8. It is expressly understood and agreed that the lessor reserves and shall have the right of property in and to twelve per cent (12%) of any and all ores extracted or mined by lessee from said premises during the period of this lease and the said lessee covenant and agree to pay the lessor twelve per cent (12%) of the net smelter return as royalty upon all ores mined, shipped, sold or in any manner taken or disposed of by lessee from said leased premises or any portion thereof, whose net smelter value does not exceed fifty dollars ($50.00) per ton and fifteen per cent (15%) on all ores whose net smelter return exceeds this amount. All settlements to be made upon the smelter,

mill or sampler net assay values, deducting therefrom only the actual cost of railway transportation and smelting charges; it being understood that all ores mined which are too low grade for shipment and treatment during the life of this lease or which have not been shipped prior to the expiration of this lease, shall remain the property of and be subject to the control and disposition of the lessor.

9. The lessee shall, and hereby do, assume all responsibility in case of accident to their or any of their employes in or about said property. And to further carry out the provisions of this section, they will carry Workman's Insurance.

10. It is expressly understood and agreed that the surface and surface rights of the said property are hereby reserved from and under the provisions of this lease, except for that portion of the surface needed for the conduct of reasonable mining activities, and that this lease shall apply only to the minerals.

11. All bills and expenses incurred by the lessee, or those in privity with them, shall be promptly paid by the lessee and by such prompt payment said lessee shall prevent the filing of any and all liens of miners, mechanics or material men against said demised premises and, if by reason of the failure of said lessee to pay such bills and expenses, any lien or liens shall be filed against said premises the said lessor may forthwith pay off and discharge the same and the said lessee be holden and bound to pay to said lessor all sums so advanced or paid to clear said premises from liens which may be filed as aforesaid, and the said lessor may also, at its election, declare a forfeiture of and terminate this lease, unless within thirty days after such payment, lessee has fully reimbursed lessor.

12. That no person, firm or corporation not in privity with the parties hereto shall be allowed to hold possession of said leased premises or any part thereof under any pretext whatsoever, except by permission of lessor.

13. Further, lessee agrees that at and upon the termination or expiration of this lease they will deliver to said lessor quiet and peaceable possession of said demised premises and each and every part thereof in good order. And it is mutually understood and agreed that all machinery and tools which may have been, by said lessee placed upon, and then be in or upon said premises, shall be and become the property of the lessor, unless removed within thirty (30) days after the receipt of notice of forfeiture hereinafter provided, or the removal of the same has been prevented by extraordinary casualty or act of God, and lessee further agrees that they shall not have the right to, and will not, remove any buildings, machinery, tools or other property from said premises while, or at any time when lessees are in any manner indebted to lessor.

14. Upon the violation of any of the covenants or conditions herein contained this lease shall, at the option of the lessor, upon thirty days written notice of such violation given to said lessee, expire unless such violation is remedied, and terminate and the said premises, with the appurtenances and all buildings and other

improvements, shall become forfeited to the lessor or its agent, or agents, and/or assigns who may thereupon enter upon and into said premises and take possession of the same and dispossess all persons occupying the same, with or without force and with or without process of law, or, at the option of the lessor, the said lessee and all persons found occupying said premises or any part thereof may be proceeded against as guilty of unlawfull detainer.

15. It is provided further, that if said lessee faithfully keep and perform all covenants and agreements to be kept and performed by them and make all payments hereinafter provided and this lease is in good standing at the end of said 5 Years, the Lessee will have the right to renew the same for a further period of five (5) Years but no longer, on the same terms and conditions as herein set forth. Provided, however, that in order to effect such a renewal the Lessee will give the Lessor written notice of their election to renew said Lease at least Sixty (60) Days before August 24, 1968. Said notice may be delivered to the Lessor or may be delivered by registered mail.

16. To pay a minimum royalty of Four Hundred Dollars ($400.00) a year (whether ore to that value is mined or not) which shall be payable in two (2) annual installments (if not paid from production) on August 24, 1963 and February 24, 1964 of each year, commencing August 24, 1963. The lessee further agrees to pay the County Taxes during the life of this lease or any extention of same.

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

IN WITNESS WHEREOF The parties hereto have hereunto subscribed their names the day and year first above written. Executed in duplicate.

EDWARD J. GROVER

Edward J. Grover

Party Of The First Part

EDWIN J. SMART, TRUSTEE

Edwin J. Smart

Party Of The Second Part

ADDENDUM

The following points are in addition to and made a part of a lease between EDWARD J. GROVER and EDWIN J. SMART, TRUSTEE, dated the 24th day of August, 1963.

1. Edwin J. Smart, Trustee, agrees to carry, from the date of the beginning of operations on properties covered in said lease, adequate public liability insurance.

2. At such time as Edwin J. Smart, Trustee, begins to ship ore and when the smelter is selected; said smelter will be instructed to make payments of royalties due Edward Grover directly from the smelter to Mr. Grover.

3. Edwin J. Smart agrees to pay reasonable legal fees in the event Mr. Grover is forced to retain legal help in inforcing terms of contract between Mr. Grover and Edwin J. Smart.

4. It is expressly agreed by and between the parties hereto that the lessor shall have the right to enter into any and all parts of the leased premises for the purpose of examining, sampling or surveying and in doing so shall render to the lessor every reasonable assistance in so doing. It is further understood that the lessor will have right to examine, sample or survey any other properties controlled by party of the first part.

Edwin J. Smart, Trustee

Edwin J. Smart

Edward J. Grover

Edward J. Grover

Exhibit No. 5

Filed for record April 15, 1964 at 10:00 o'clock AM
Reception No. 117521 Peggy E. Coble, Recorder

BOOK 206 PAGE 490

MINING LEASE

THIS LEASE AND INDENTURE, made this August 12 day of _____ A.D., 1963, between Henry Stein the party of the first part hereinafter referred to as the Lessor, and Edwin J. Smart, Trustee, a resident of the City of Aspen, County of Pitkin, State of Colorado, party of the second part hereinafter referred to as the Lessee, WITNESSETH:

The said Lessor, for and in consideration of $50.00 paid by the Lessee to the Lessor within thirty days (30) of the execution of this agreement, and in further consideration of the royalties hereinafter reserved and the covenants and agreements hereinafter expressed to be kept and performed by said Lessee, has granted, demised and let and by these presents does hereby grant, demise and let unto the said Lessee the mining property situate in Pitkin County, Colorado, and particularly described in Exhibit "A" attached hereto, signed by the parties and made a part hereof, together with all appurtenances.

TO HAVE AND TO HOLD the same unto the said Lessee for the term of Ten (10) Years from the date hereof, expiring at noon on the 12 day of August A.D., 1973. unless sooner forfeited or determined through the violation of any covenant hereinafter set forth to be kept and performed by the Lessee. And provided further, that if said Lessee faithfully keeps and performs all covenants and agreements to be kept and performed

by it and makes all payments hereinafter provided and this Lease is in good standing at the end of said 10 years, the Lessee will have the right to renew the same for a further period of Ten (10) Years but no longer, on the same terms and conditions as herein set forth. Provided, however, that in order to effect such a renewal the Lessee will give the Lessor written notice of its election to renew said Lease at least Sixty (60) Days before 12 August, 1973. Said notice may be delivered to the Lessor or may be delivered by registered mail.

The Lessee further agrees with the Lessor as follows: Lessee will have Six Months (6) from date hereof, and until 12 Feb., 1964, to perform such exploratory work, Abstracting of title, Surveying, etc., as it may deem necessary on said mining property or in any of the workings connected therewith.

Said Lessee, in consideration of said Lease, does further agree with said Lessor as follows: to-wit:

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

2. To well and sufficiently timber said mine at all points where proper, in accordance with good mining; and to repair all old timbering whereever it may become necessary.

3. To allow said Lessor and his agents from time to time to enter upon and into all parts of said mine for purposes of inspection.

4. To occupy and hold all cross or parallel lodes, spurs or mineral deposits of any kind which may be discovered by the said Lessee, or any person under it, in any manner, by working within, or from the demised ground, as the property of said Lessor with privilege to said Lessee of working the same as parcel of said demised premises.

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

6. To do all stoping and development work in an approved and customary manner.

7. To pay to the Lessor the following royalty:

(a) Ten per cent (10%) of the net smelter returns on ore, the gross mineral value of which does not exceed $50 per ton, and twelve (12%) per cent of the net smelter returns on ore, the gross mineral value of which exceeds $50 per ton.

(b) To pay a minimum royalty of $300.00 a year (whether ore to that value is mined or not) which shall be payable in two (2) annual installments (if not paid from production) on 12 March and 12 Sept. of each year, commencing 12 March, 1964.

To make quarterly settlements for all ore or minerals of every type and character produced and saved during any calendar year; and to install and keep approved and standard sampling equipment to correctly determine and test the gross mineral value of all ores so produced and saved, and to give Lessor corresponding samples and all available information with respect to sampling and testing and the other methods used therein, and at all times to keep proper records pertaining thereto, and permit their inspection by the Lessor or its agents.

(d) All payments due hereunder may be paid by Lessee's check mailed to the Lessor at _____, on or before the date any such payments shall become due. Any advance royalties paid in any calendar year shall be applied on royalties from production becoming due the same year, but shall not otherwise postpone or affect the obligation of Lessee to pay the minimum royalty of _____ per year.

8. To carry insurance or take such legal measures as may be necessary to protect the Lessor against any claims for workmen's compensation and to also protect Lessor against mechanics' and material men's liens, and to keep posted on the premises any notices which the Lessor may be required to be kept posted for the purposes aforesaid on any of said premises.

9. To pay all production taxes and taxes on improvements made by Lessee on said premises.

10. To deliver to said Lessor the said premises with the appurtenances, and all improvements in good order and condition, with all drifts, shafts, tunnels and other passages thoroughly clear of loose rock and rubbish, and drained, and the mine ready for immediate continued working (accident not arising from negligence alone excusing) without demand or further notice on the said 12 Aug., A.D., 1973, or if this lease is extended then on 12 Aug. A.D., 1983, at noon, or at any time previous, upon demand for forfeiture.

11. On 12 March of any year the Lessee may, if it so desires, pay all royalties and taxes then due and surrender and terminate this Lease (and the Option herein contained) by giving Thirty (30) days notice of such termination and by executing and recording, at its expense, the proper release of this Mining Lease (and the Option herein contained).

12. And finally, that upon violation by the Lessee of any covenant or covenants hereinbefore reserved the Lessor may notify the Lessee by registered mail addressed to it at Aspen, Colorado, that default has been made in the terms of this Lease setting forth briefly and generally the nature of such default, and if the same is not corrected and the Lease fully complied with within Thirty (30) Days after said registered notice is deposited in the United States Post Office, the Lessor at its option may terminate this lease; and thereupon Lessor shall be entitled to immediate possession of said property and may enter upon the same and dispossess all persons occupying the same, with or without force and with or without process of law; or at the option of said Lessor the Lessee and all persons found in occupation of said premises may be proceeded against for unlawful detainer of said premises, as provided by statute.

13. OPTION: In consideration of the foregoing covenants to be kept and performed by the Lessee, and in consideration of the payments to be made by it, and provided all terms and conditions of this Lease and all payments to be made thereunder are performed and made and Lessee is not in default in any respect, then said Lessee shall have the right and option to purchase the said demised premises at any time during the term of this Lease or any renewal thereof by payment of the sum of $50,000.00 _____. All payments or royalty theretofore made shall apply on said purchase price. Upon the tender of such payment, the Lessor will make, execute, acknowledge and deliver a good and sufficient deed or deeds of warranty conveying said property to the Lessee or such person or company as it may nominate, conveying the said premises free of incumbrances.

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

Each and every clause and covenant of this Lease and indenture shall extend to the heirs, executors and administrators and to the assigns of said Lessor, and if said Lessor may elect to the assigns of said Lessee.

IN WITNESS WHEREOF, the said Lessor has caused this instrument to be executed and the Lessee has hereunto set its hand the day and year first above written.

ATTEST:

_____

By Henry F. Stein
Lessor

By Edwin J. Smart
Edwin J. Smart, Trustee
Lessee

EXHIBIT A

NAME OF LODE OR CLAIM	U. S. MINERAL SURVEY NUMBER (d)
Alpine	6783
Ids	6783
Boaze	6783
Brooklet	6783
Brookside	6783

all on map

ok on map

The above patented mining claims are situated in the Woody Creek Mining District, Pitkin County, Colorado.

Exhibit No. 6

Filed for record at 10:25 a.m. Sept. 4, 1963
Reception No. 116128 Peggy E. Coble, Recorder

BOOK 203 PAGE 500

LEASE AND OPTION TO PURCHASE

THIS AGREEMENT, made and entered into this 7 day of ~~March~~, August A. D. 1963, by and between JOHN L. HERRON, of the County of Pitkin and State of Colorado, party of the first part, hereinafter refered to as "owner" or "lessor", and ~~RUSSELL OIL EXPLORATION COMPANY, INC.~~ EDWIN O. SMART, TRUSTEE, whose ~~corporate~~ address is Aspen, Pitkin County, Colorado, parties of the second part, hereinafter refered to as "lessees" or "optionees", WITNESSETH:

WHEREAS, the first party owns an interest in certain mining claims located on Aspen Mountain in the Roaring Fork Mining District and certain mining claims in the Lenado area of the Woody Creek Mining District and has agreed to lease said premises to the lessees for purposes of mining said properties and processing the surface dumps thereon upon the terms and for the considerations hereinafter expressed;

NOW, THEREFORE, for and in consideration of the promises and agreements hereinafter expressed, the parties hereto hereby agree as follows:

1. That the lessor, for and in consideration of the payments of rent and the keeping and performing of the covenants and agreements by the lessees as hereinafter set forth, does hereby lease unto the lessees all the property described in exhibit "A" attached hereto situate in the County of Pitkin, State of Colorado, Roaring Fork and Woody Creek Mining Districts.

See Exhibit "A"

TO HAVE AND TO HOLD the said premises from the date hereof for a period of three years at and for a lease rental as follows:

A. 5% of the net profits from the processing of the existing surface dumps upon said property.

B. 10% of the net profits from the mining and processing of the existing ore in place or sub-surface ore on or under said property.

C. The sum of $100.00 at the time of the signing and sealing hereof and the further sum of $100.00 on or before each month hereafter during the entire term of this lease, provided that in the event the profits to be paid as described in paragraphs A. and B. above exceed this monthly payment that said payments made as above provided shall be in lieu of the $100.00 monthly payments as heretofore provided;

2. That in consideration of this lease the lessees hereby covenant and agree as follows, to-wit:

A. To pay the rentals on the above described properties as heretofore provided on or before the 10th day of each month for the ore processed and sold in the preceding month;

B. To use said property for mining only and at the expiration of this lease, in the event the option to purchase as hereinafter provided shall not be exercised to return said property to the lessor in as good condition as when received, subject to the ordinary practices of the mining business;

C. That all timbers used in said mines by the lessees at the termination of the lease shall remain in said mines and become the property of the lessor.

3. It is mutually understood and agreed by the parties hereto as follows:

A. That the lessees shall be permitted upon the termination of this lease to remove all machinery and mining equipment within ninety (90) days after the termination of said lease whether installed in said mine or not and these properties shall be considered personal property and the exclusive property of the lessees; however, any machinery remaining on the property after ninety days after the termination of this lease shall revert to and become the property of the lessor;

B. That the lessor shall pay all taxes levied and assessed against said real property provided that lessees shall pay any property tax levied and assessed against the minerals removed therefrom;

4. That in consideration of the lease herein granted, the lessor hereby gives and grants to the lessees the exclusive right, option and privilege of purchasing all of said real property above described during the term of this lease, for the consideration and upon the terms and conditions as follows, to-wit:

A. That the total purchase price for said property shall be the sum of THIRTY THOUSAND AND NO/100 DOLLARS ($30,000.00) and all payments from said property as above described shall apply to said purchase price; that in the event the lessees elect to exercise their option to purchase they shall tender to the owner the sum of $5,000.00 which sum, however, shall include the payments made as above provided, together with written notice of their exercise of

the option, and upon tender and delivery of a good and sufficient Special Warranty Deed, which deed shall only warrant the title of the owner from the time he acquired his interest in the property, lessees shall pay the balance of the purchase price in cash as herein provided;

B. That the owner has not and does not hereby agree to furnish abstracts or other evidence of the merchantability of his title; however, he warrants that he has not, since acquiring his interest in the property, sold, disposed of, conveyed, mortgaged or otherwise encumbered said property, and he agrees in the event that title prior to his acquisition thereof shall be found to be unmerchantable, to assist the buyers in the perfection of the title to the property, all of the cost of which, however, shall be borne by the buyer; that in the event of said sale the owner further agrees to assist buyer in the acquisition of any outstanding undivided interests in and to said mining claims, which acquisition, however, shall also be at the sole cost of the buyer.

5. That in consideration of the lease and option herein granted, the lessees agree to permit lessor examine books pertaining to said mining operations on said properties insofar as necessary to establish the amount of the profits to be paid as hereinabove provided;

6. That the payments from the profits of operating said mining claims as heretofore provided shall be considered as the total payments to be made for 100% ownership of said claims and in the event that the lessor shall not own 100% of the claim being mined he shall only be entitled to the percent of the profits as represented by his percentage ownership of said claim, and for purposes of this determination lessor agrees to satisfactorily substantiate his ownership to the claim or claims being mined; that the lessors percentage ownership of said claims shall not, however, in any way effect or reduce the $100.00 per month payments to be made as heretofore described;

7. That in the event the lessees shall fail to make the payments on the profits of said mining claims or fails to make the $100.00 per month monthly payments within thirty days of the date the said payments shall become due, lessor shall be permitted to give lessees thirty days written notice of such default, and in the event said default shall not be corrected and the payments made within said thirty day period, this agreement shall be cancelled

and all monies paid hereunder shall be retained by lessor as stipulated, liquidation damages, in which event both parties shall be released of all obligations hereunder, which remedy however shall be exclusive in the event of default by lessees.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands and seals on the day and year first above written.

John L. Herron

John L. Herron
Party of the first part

Edwin J. Smart Trustee

Edwin J. Smart, Trustee
Party of the second part

STATE OF COLORADO)
) ss.
COUNTY OF PITKIN)

The foregoing instrument was acknowledged before me this 7th day of August, A. D. 1963 by John L. Herron, and Edwin J. Smart, Trustee

Witness my hand and official seal.

My commission expires:
Sept 22, 1965

ALBERT KERN NOTARY PUBLIC STATE OF COLORADO

Albert Kern

Notary Public

see folder 1-A, last page for extension to Aug. 7, 1968

EXHIBIT "A"

The following claims are located in the Roaring Fork Mining District, Pitkin County, Colorado.

Name of Claim	Survey Number
2/3 N.2/3 Arlington	4004
3/4 Birmingham	5211
1/2 Libby Belle	4008
2/3 N.2/3 Ruby	3642
1/6 Aspen Mine	3641
1/3 Aspen Fraction	3641
1/3 Carbonate Chief	2356
Durgen	16652
Multenoma	14822
9/10 Pride of the Hills	3916
24/96 Pioneer	1721
25/32 Broadway	1631
77/2,580 Mable	5796
7/32 O. K.	3762
Blazing Star	Do. #87466 B.107 P.631
Long John	Do. #87467 B.107 P.632
Aurora	Do. #87468 B. 107 P.632
Grand Duke	Do. #87469 B.107 P.633
Elgin	Do. #87470 B.107 P.633
Jay Gould	Do. #87471 B.107 P.634

The following claims are located in the Woody Creek Mining District, Pitkin County, Colorado.

Name of Claim	Survey Number
Apex 23/36	6122 ✓
Camp Bird 23/36	14176 ✓
Hidden Treasure 23/36	6122 ✓
Highland 2/3	6500 ✓
Iron 5/96	5847
Sea Bird 23/36 ✓	6122 ✓
Ute 5/96	5847

OK on (1/3)?

Filed for record July 16, 1964 at 11:55 o'clock
Reception No. 118249 Peggy E. Coble, Recorder

BOOK 205 PAGE 154

Exhibit No. 7

ASSIGNMENT

KNOW ALL MEN BY THESE PRESENTS that EDWIN J. SMART, INDIVIDUALLY and EDWIN J. SMART, TRUSTEE of the City of Aspen, Pitkin County, Colorado (hereafter referred to as ASSIGNOR) for and in consideration of the sum of one dollar and in the execution of his duties as Trustee, has and by these presents does assign, transfer, convey and deliver unto FLOODTIDE, a joint venture with offices in Aspen, Colorado (hereafter referred to as ASSIGNEE) all of ASSIGNOR'S right title and interest in and to the Mining Leases, Leases and Options to Purchase described as follows:

Lease No. 1

Lessor: Edward J. Grover
Lessee: Edwin J. Smart, Trustee
Dated: August 24, 1963
Recorded: September 6, 1963 in Book 203 at page 526 of the records of the Pitkin County, Colorado Recorder under Reception Number 116145

Lease No. 2

Lessor: The Flogaus Lumber Co., J. P. Flogaus, R. E. Flogaus and Harvey E. Marsing
Lessee: Edwin J. Smart, Trustee
Dated: April 03, 1963
Recorded: September 6, 1963 in Book 203 at page 519 of the records of the Pitkin County, Colorado Recorder under Reception Number 116144

April 8, 1963 Jopin

Lease No. 3

Lessor: Henry Stein
Lessee: Edwin J. Smart, Trustee
Dated: August 12, 1963
Recorded: April 15, 1964 in Book 206 at page 490 of the records of the Pitkin County, Colorado Recorder under Reception Number 117521

Lease and Option to Purchase

Lessor and Owner: John L. Herron
Lessee and Optionee: Edwin J. Smart, Trustee
Dated: August 7, 1963
Recorded: September 4, 1963 in Book 203 at page 500 of the records of the Pitkin County, Colorado Recorder under Reception Number 116128

Option Agreement

Owner and Optioner: William L. Marolt
Optionee: Edwin J. Smart, Trustee
Dated: August 7, 1963
Recorded: September 6, 1963 in Book 203 at page 535 of the records of the Pitkin County, Colorado Recorder under Reception Number 116146

TO HAVE AND TO HOLD the interests herein conveyed unto ASSIGNEE, its successors and assigns, forever subject only to the following:

1. This assignment is made without warranty of title, express or implied by Assignor other than that Assignor does warrant to Assignee (a) that he has not conveyed, contracted with respect to, sold, mortgaged or pledged any interest heretofore received by him pursuant to each of the above-described mining leases and/or options; and (b) that the interests have in nowise been terminated by the lessors or owners thereof by reason of any act of commission or omission of Assignor.

2. Ad valorem taxes assessed against the interest for the year 1964, if any.

EXECUTED AND DELIVERED this 15th day of July, 1964.

Edwin J. Smart
Edwin J. Smart
Individually and as Trustee

WILLIAM E. CLARK NOTARY PUBLIC

STATE OF COLORADO)
) ss.
County of Pitkin)

The foregoing instrument was acknowledged before me this 15th day of July, 1964 by Edwin J. Smart individually and as trustee.
Witness my hand and official seal.

William E. Clark
Notary Public

My commission expires: June 3, 1968

ASSIGNMENT

Exhibit No. 8

KNOW ALL MEN BY THESE PRESENTS that FLOODTIDE, a joint venture with offices in Aspen, Colorado (hereafter referred to as "ASSIGNOR") for and in consideration of the sum of ten dollars, and other good and valuable consideration the receipt and sufficiency of which is acknowledged, has and by these presents does assign, transfer, convey and deliver unto RICHMOND HILL EXPLORATION COMPANY, INC., a Colorado corporation with offices in Aspen, Colorado (hereafter referred to as "RHECO") all of ASSIGNOR'S right, title and interest in and to the Mining Leases, Lease and Option to Purchase described as follows:

Lease No. 1

Lessor: Edward J. Grover
Lessee: Edwin J. Smart, Trustee
Dated: August 24, 1963
Recorded : September 6, 1963 in Book 203 at page 526 of the records of the Pitkin County, Colorado Recorder under Reception Number 116145

Lease No. 2

Lessor: The Flogaus Lumber Co., J.P. Flogaus, R.E. Flogaus and Harvey E. Marsing
Lessee: Edwin J. Smart, Trustee
Dated: April 13, 1963
Recorded: September 6, 1963 in Book 203 at page 519 of the records of the Pitkin County, Colorado Recorder under Reception Number 116144

Lease No. 3

Lessor: Henry Stein
Lessee; Edwin J. Smart, Trustee
Dated: August 12, 1963
Recorded: April 15, 1964 in Book 206 at page 490 of the records of the Pitkin County, Colorado Recorder under Reception Number 117521

Lease No. 4

Lessor: Smuggler-Durant Mining Corporation
Lessee: Floodtide
Dated: October 31, 1963
Recorded: November 8, 1963 in Book 204 at page 550 of the records of the Pitkin County, Colorado Recorder under reception Number 116591

Lease and Option to Purchase

Lessor and Owner: John L. Herron
Lessee and Optionee: Edwin J. Smart, Trustee
Dated: August 7, 1963
Recorded: September 4, 1963 in Book 203 at Page 500 of the records of the Pitkin County, Colorado Recorder under Reception Number 116128

TO HAVE AND TO HOLD the interests herein conveyed unto RRECO, its successors and assigns forever, subject only to the following:

1. This assignment is made without warranty of title, express or implied.

2. Ad valorem taxes assessed against the interests for the year 1965 which taxes become due and payable January 1, 1966.

EXECUTED AND DELIVERED this 2 day of Feb., 1965.

FLOODTIDE

By: Henry L. Stein
Its Managing Director

STATE OF COLORADO)
) ss.
County of Pitkin)

The foregoing instrument was acknowledged before me this 2nd day of February, 1968 by HENRY L. STEIN as the Managing Director of Floodtide, a joint venture.

Witness my hand and official seal.
My commission expires: January 21, 1969

Doris Sterberg
Notary Public

Exhibit No. 10a

DIAMOND CORE DRILLING
DIAMOND DRILLING EQUIPMENT
GROUTING
FOUNDATION TESTING
MINING
QUARRYING
SHAFT SINKING
TUNNEL DRIVING
MINE PLANT DESIGN
AND FABRICATION

Boyles Bros. DRILLING COMPANY
CONTRACTORS - ENGINEERS - GEOLOGISTS
2960 W. 7th Avenue
DENVER 4, COLORADO
Phones: ALpine 5-9244
ALpine 5-0855

General Offices and Plant
1624 Pioneer Road P. O. Box 58
SALT LAKE CITY 10, UTAH
HUnter 7-7595

BRANCH OFFICES
PHOENIX
RENO
SPOKANE
DENVER
SACRAMENTO
ST. LOUIS

December 22, 1964

Mr. John P. Kellogg - President
Richmond Hill Exploration Company, Inc.
Aspen, Colorado

Dear Mr. Kellogg:

We submit, for your consideration, the following schedules of charges; this will apply to your proposed diamond drill program of approximately 4300 linear feet in the Woody Mining District, Pitkin County, Colorado.

Mobilization of men and equipment, lump sum, $250.00

1. Drilling Overburden, per linear foot, $ 7.90

2. Core Drilling Bedrock:

	NX	BX	AX and EX
Bedrock to 250 feet, per linear foot,	$7.50	$6.50	$6.10
250 to 500 feet, per linear foot,	8.30	7.20	6.70
500 to 750 feet, per linear foot,		8.10	7.40
750 to 1000 feet, per linear foot,		9.00	8.30

Plug bit drilling in hole # 1, would be charged at $1.00 per linear foot less than schedule two for core drilling.

Reaming for casing, all sizes, per linear foot, $ 3.60

Cementing, plus cost of cement or cement substitutes, per hour, $12.00

Surveying, plus cost of instrument rental, per hour, $11.00

Standby time, per hour, $11.00

Cardboard core boxes to hold 10 feet of core, each, $ 1.00

Hauling water for drilling would be charged for at the rate of $1.00 per linear foot drilled.

Casing left in hole will be charged for at our cost at job site.

Roads and drill site to be prepared and maintained at no cost to Boyles Bros. Drilling Company.

BOYLES BROS. DRILLING CO.

Page two.

We further estimate 100 days to drill the proposed footage.

Thank you for calling on our Company. If you have any questions, please feel free to call me.

Very truly yours,

BOYLES BROS. DRILLING COMPANY

George E. Lensch

George E. Lensch, District Manager

GEL/eg

Exhibit No. 10b

E. J. LONGYEAR COMPANY
General Offices, 76 South 8th St.
Minneapolis 2, Minnesota, U. S. A.
TELEPHONE: FEDERAL 9-7631 • CABLE LONGCO

January 26, 1965

Richmond Hill Exploration Company
P. O. Box 939
Aspen, Colorado 81611

Attention Mr. John P. Kellogg

PROPOSED EXPLORATORY DRILLING PROJECT VICINITY OF LENADO, COLORADO

Gentlemen:

1. In response to your request, we are pleased to set forth below for your consideration our proposal for the subject drilling project.

2. We understand that the program as now planned will consist of a minimum of 13 holes, ranging in length from 200 to 1,000 feet; that the angle of the holes will vary from 12 degrees to 90 degrees downward, as measured from the horizontal; and that a minimum of 1-1/16" core is desired. We further understand that water required for the drilling operations will be available within a maximum distance of 2,500 feet from any proposed drill location but will have to be hauled by tank truck to the drill locations; that all drill sites will be readily accessible by truck transportation; and that roads will be maintained by the Richmond Hill Exploration Company.

3. For this project we propose to furnish one Longyear diamond core drill of suitable design and capacity, together with the necessary accessory equipment as required to complete the work as now planned. We further propose to operate the drill a minimum of two 8=hour shifts per day, six days per week.

4. We will carry public liability insurance covering personal injury and property damage, and Workmen's Compensation insurance, and also all-risk insurance on the drilling equipment protecting against loss by theft, fire, flood, landslides and other similar hazards. Certificates showing the coverage referred to will be furnished upon request.

5. Based upon the conditions as outlined above, we are pleased to quote as follows:

a) Mobilization and demobilization of personnel and drilling equipment----------$450.00 Lump Sum

b) Overburden drilling - 0 to 50 feet in depth----$ 5.25 per foot

c) Diamond core drilling

	Limestone, dolomite & other related non-silicious rock types			Quartzite & other hard, silicious rock types		
	-------Per Foot-------			-----Per Foot------		
	NX WL	BX WL	AX WL	NX WL	BX WL	AX WL
Top of Ledge to 500'-------	$5.85	$5.65	$5.45	$7.35	$6.95	$6.75
500 to 1000' in depth------	6.25	6.05	5.85	7.95	7.55	7.35
1000 to 1500' in depth-----	6.95	6.75	6.55	8.95	8.55	8.35

It is understood and agreed that in holes inclined minus 30 degrees or less there will be an additional charge of 50¢ per foot for all drilling.

d) Non-core drilling in non-silicious limestones, limestones, shales and dolomites

Top of Ledge to 500' ----------$ 4.65 per foot

e) Reaming for casing if and when required--------$ 3.25 per foot, plus reimbursement at our cost, f.o.b. jobsite for all casing or pipe left in hole at your request or lost in hole through normal drilling operations

f) Cementing, waiting for cement to set and drilling out cement/ and/or drill hole surveys using instrument supplied by Longyear----------$ 11.40 per hour, plus cost of cement used.

g) Delays for your convenience or for which you are responsible----------$ 10.40 per hour

h) Rental charge for Tro-Pari surveying instrument$120.00 per month, plus payment for all repairs required to maintain the instrument in serviceable condition and/or full payment for the instrument in the amount of $1,200.00 in case it is lost in hole or damaged beyond repair.

i) Core boxes - 10' capacity, cardboard construction --
NX Size----------$ 0.85 per box
BX Size----------$ 0.75 per box
AX Size----------$ 0.75 per box

j) Drill mud and additives -- will be invoiced to you at our cost, f.o.b. jobsite.

k) Tank-truck service - Should it become necessary to employ a full-time truck driver in order to keep the drill amply supplied with water, it is understood and agreed that Longyear would be reimbursed for the resultant extra labor and payroll tax expense at the rate of $3.45 per hour, plus 12¢ per mile for each mile water truck is used.

6. We will accept your Geologist's breakdown of the formations drilled as a basis for setting up our invoices. Statements covering the work performed will be prepared as promptly as possible after the first of each month, and payment will be due twenty days after date of invoice.

7. Should it prove impractical for the Contractor to successfully ledge the surface pipe or casing at any given location due to the presence of heavy concentration of coarse, bouldery type glacial outwash or stream deposits, it is agreed that:

a) The Contractor would reserve the right to abandon the hole(s), and would receive payment for all footage drilled and other services supplied at such locations; and

b) The Richmond Hill Exploration Company Project Engineer would endeavor to spot a replacement hole at a location where bedrock was close to the surface or at a site where heavy overburden materials were not present.

8. Drill cores will be turned over to your representative at the jobsite in core boxes furnished by you, or by us in accordance with Paragraph 5. i) above.

9. We appreciate the opportunity to consider this project. If awarded the contract to perform this work, we would be prepared to commence the drilling operations, weather and ground conditions permitting, on May 1, 1965, and provided that satisfactory arrangements have been made with Longyear for financing the work performed by Longyear.

Sincerely,

E. J. LONGYEAR COMPANY

Vice President - Contract Drilling

MJGleason:bal

ACCEPTED:

RICHMOND HILL EXPLORATION COMPANY

By: _____

Date: _____

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

21

June 18, 1971

Cal 120 RU
~~130~~
HK ~~120~~
220

Memorandum

To: Chief, Office of Minerals Exploration

From: Assistant Chief, Office of Minerals Exploration

Subject: OME-6415 (Silver)
Rheco-Lenado, Inc., Assignee
Lenado Area
Pitkin County, Colorado
Contract 2236

Transmitted herewith is the final field report on the above-stated contract.

William L. Emerick

William L. Emerick,
Assistant Chief,
Office of Minerals Exploration

Enclosure

FINAL FIELD REPORT - OME EXPLORATION PROJECT

By W. L. Emerick

June 16, 1971

1. OME-6415 (Silver)
Rheco-Lenado, Inc., Assignee
Lenado Area
Pitkin County, Colorado
Contract 2236

Operator: Rheco-Lenado, Inc., Assignee
Box 939
Aspen, Colorado 81611

Property: Consisted of forty (40) patented lode mining claims, one (1) patented placer claim, and three (3) unpatented lode mining claims, including all rights pertaining thereto, in secs. 22, 23, 27 and 28, T. 9 S., R. 84 W., 6th Principal Meridian, Woody Creek mining district, Pitkin County, Colorado. A map showing the area of these claims was attached to the contract.

Ownership: The Operator (Richmond Hill Exploration Company, Inc.) was in possession of the patented claims under the terms of an Assignment of mining leases and option to purchase recorded February 2, 1965 in the Pitkin County records, and under the terms of a Mining Lease, dated April 26, 1965, from Anna E. Olson, owner of a part interest in five of the patented claims. The Operator was in possession of the unpatented claims by right of location. The assignee (Rheco-Lenado, Inc.) was in possession of all of the claims under the terms of an Assignment, dated July 1, 1967, from Richmond Hill Exploration Company, Inc., the assignor.

2. Purpose of Project: The purpose of the project was to explore by diamond core drilling from surface sites for silver-bearing ore bodies in and along transverse and bedding plane faults where the faults intersect or traverse limestone formations of Paleozoic age.

3. Contract: Dated February 6, 1967 for a term of 24 months, later extended by amendments to 31 months.
Original contract amount - $78,800.00.
Government participation - 75 percent - $59,100.00.

Amendments - No. 1 - April 8, 1968, to suspend work from 24 to 27 months, and to extend the maximum period for royalty payments from 10 to 11 years.

FINAL FLD. REPORT

No. 2 - June 20, 1968, to extend the period of work suspension under Amendment No. 1 for an additional 41 days.

No. 3 - April 23, 1969, to suspend work under the contract for 4 months and to extend the time for completion of the work from 27 to 31 months.

4. Project Work: Started May 22, 1967. A non-certification notice (closing letter), dated January 16, 1970, was sent to the Operator withdrawing the government's claim or lien against the property described in the contract or any future production therefrom.

Stages I and II

(Same schedule applies to both stages)

Cost Items	Authorized			Completed	
Actual Costs	Units	Rate	Amount	Units	Amount
Mobilization and demobilization, drilling equipment and personnel	-----	-----	$700.00	-----	$350.00
Bulldozing roads and drill sites, including mobilization and demobilization bulldozer	180 hours	$18.00/hr.	$3,240.00	60-1/2 hrs.	$882.00
Drilling 8 holes, estimated	4,300 feet	Various	$33,020.00	4,223 feet	$30,390.00
Reaming, including installing and removing casing	-----	Various	$4,440.00	183 feet	$695.00
Casing lost in hole	-----	Various	$3,000.00	-----	$2,252.00
Freight allowance	40 cwt.	$1.25/cwt.	$50.00	-----	-----
Cementing and redrilling	280 hours	$12.50/hr.	$3,500.00	747 hours	$9,463.00

Stages I and II (Continued)

Cost Items

Actual Costs	Authorized Units	Authorized Rate	Authorized Amount	Completed Units	Completed Amount
Additives	240 sacks	$7.50/sack	$1,800.00	605 sacks	$4,389.00
Water truck rental	8 months	$190.00/mo.	$1,520.00	6-1/2 months	$1,188.00
Water truck mileage	4,000 miles	$0.12/mi.	$480.00	447 miles	$54.00
Truck driver, including F.I.C.A., etc.	1,280 hours	$3.51/hr.	$4,500.00	920 hours	$2,830.00
Surveying	32 hours	$12.00/hr.	$380.00	75 hours	$900.00
In-hole surveying instrument, including transportation	10 days	$80.00/day	$800.00	10 days	$782.00
Standby time	80 hours	$11.00/hr.	$880.00	66 hours	$726.00
Core boxes	430 boxes	$1.00/box	$430.00	224 boxes	$224.00
Supervisor-geologist-engineer	8 months	$910.00/mo.	$7,280.00	8 months	$7,280.00
Engineer's assistant	8 months	$650.00/mo.	$5,200.00	7-1/2 months	$4,848.00
Explosives, including detonators	-----	-----	$150.00	-----	-----
Vehicle mileage	24,000 miles	$0.12/mile	$2,880.00	13,960 miles	$1,675.00
Accounting and office expense	8 months	$40.00/mo	$320.00	17 months	$673.00
F.I.C.A., payroll taxes, insurance	8 months	$266.00/mo.	$2,130.00	-----	$1,010.00
Assaying for gold, silver, lead and zinc	300 samples	Various	$2,100.00	408 samples	$2,855.00
Total - Stages I and II			$78,800.00		$73,466.00

Stages I and II (Continued)

Total Estimated Actual Costs, Stage I	- $39,400.00
Total Estimated Costs, Stage II	- $39,400.00
Total Estimated Costs of Project	- $78,800.00
Government Participation @ 75%	- $59,100.00
Paid to Operator	- $55,100.00 1/

1/ Operator overpaid $13.50 which was repaid by check to the Government.

Effectiveness of Work - The geology underground was more complicated than apparent from the surface and some of the proposed targets were never reached by the diamond core drilling. Other targets, however, appear to have been adequately explored. A different method of exploration, for example, crosscutting and drifting, might have given more conclusive results.

Efficiency of the Operation - Progress of the drilling was exceedingly slow and core recovery was low because of fragmented, clayey, and swelling ground that required almost constant cementing of the holes to maintain water circulation and to prevent sticking of the drilling tools. Weather problems and inability at times to obtain drilling crews when needed also contributed to the slow drilling progress.

5. Reports:

Operator's Final Report - A report submitted in March 1969 and an addendum to it, dated March 12, 1969, adequately reviewed the exploration work. The Field Officer, Region III, recommended that this report and the addendum be accepted as the Operator's Final Report.

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

Final Audit - A final audit was not requested inasmuch as no additional vouchers were submitted or paid after the Report of Review. The final voucher was paid on April 8, 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

- Some mineralized material was penetrated in one drill hole but because of the complicated geologic structures in the project area no reserves could be calculated on the basis of the one drill hole. The results of the drilling program therefore were considered essentially negative. No additional exploration was considered warranted and it was recommended that no further Government funds be expended in the project area.

Certification

- No ore was discovered by the OME work therefore no certification of possible production was issued.

Production

- There was no production of ore as a result of the OME work.

Royalties

- There was no ore or concentrate sold during the exploration project and no royalties were paid or due the Government.

7. Geologic Summary

- The ore deposits occur principally where steeply-dipping east-west faults intersect the north-south-trending unconformity between the Leadville dolomite and overlying Belden formation. The primary ores are sphalerite and galena rich in silver. Past production at Lenado for the years 1891 through 1898 amounted to 9,469 tons of ore valued at about $206.00 per ton. There has been no production of any kind since 1920 when there was a small production of high grade zinc.

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
1/15/70	Emerick	120
1/16/70	Kirkham	120
		220

January 15, 1970

MEMORANDUM

To: The File

From: William L. Emerick
Office of Minerals Exploration

Subject: OME-6415 (Silver)
Rheco Lenado, Inc., Assignee
Lenado Area
Pitkin County, Colorado
Contract 2236

Upon the Field Officer's recommendation contained in a letter dated December 12, 1969, the report of operations for 1967 to 1969 prepared by the Operator's geologist, J. N. Babcock, and the addendum to it dated March 12, 1969, adequately reviewed the exploration work under the contract and could be considered as the Operator's final report. It was further recommended that the contract be terminated.

The Field Officer in a memorandum dated October 6, 1969 reviewed the exploration work completed under the contract. No reserves were found by the exploration work, therefore no certification of discovery was recommended.

The Government's Report of Review dated September 1969 indicated an overpayment of $13.50 to the Operator. This amount was refunded to the Government by the Operator on January 12, 1970.

A final closing letter to the Operator has been prepared under this date.

William L. Emerick

William L. Emerick

cc: Director's Reading File
Mineral Resourees File
OME Docket
OME Reading File
Mr. Emerick

WLEmerick/bsl 1/15/70

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
1/15/70	Emerick	120
		120
		220

JAN 16 1970

Smuggler-Durant Mining Corporation
Suite 1101
4 West 58th Street
New York, New York 10019

Re: OME-6415 (Silver)
Rheco-Lenado, Inc., (Assignee)
Lenado Area
Pitkin County, Colorado
Contract 2236

Gentlemen:

Enclosed is a copy of a self-explanatory letter of today to the Operator under the subject contract.

This correspondence relates to the Lien and Subordination Agreements executed February 1, 1965, by Donald M. Hymand, president of your company, under the Office of Minerals Exploration program.

Sincerely yours,

Harold Kirkemo

Harold Kirkemo
Chief, Office of
Minerals Exploration

Enclosure

cc: Director's Reading File
Mineral Resources File
OME Docket
OME Reading File
OME Region III
Mr. Emerick
130

BSLpng/1 1/15/70

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
1/15/70	Emerick	120
		120
		220

JAN 16 1970

Flogaus Lumber Company
Woody Creek Post Office
Pitkin County, Colorado 81241

Re: OME-6415 (Silver)
Rheco-Lenado, Inc., (Assignee)
Lenado Area
Pitkin County, Colorado
Contract 2236

Gentlemen:

Enclosed is a copy of a self-explanatory letter of today to the Operator under the subject contract.

This correspondence relates to the Lien and Subordination Agreements executed December 31, 1964, by J. P. Flogaus, president of your company, under the Office of Minerals Exploration program.

Sincerely yours,

Harold Kirkemo (gla)

Harold Kirkemo
Chief, Office of
Minerals Exploration

Enclosure

cc: Director's Reading File
Mineral Resources File
OME Docket
OME Reading File
OME Region III
Mr. Emerick

HKK
BSLong/1 1/15/70

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
1/15/70	Emerick	120
		120
		220

JAN 16 1970

Mr. John L. Herron

Aspen, Colorado 81611

Re: OME-6415 (Silver)
Rheco-Lenado, Inc., (Assignee)
Lenado Area
Pitkin County, Colorado
Contract 2236

Dear Mr. Herron:

Enclosed is a copy of a self-explanatory letter of today to the Operator under the subject contract.

This correspondence relates to the Lien and Subordination Agreements executed January 1, 1965, by you, under the Office of Minerals Exploration program.

Sincerely yours,

Harold Kirkemo (gla)

Harold Kirkemo
Chief, Office of
Minerals Exploration

Enclosure

cc: Director's Reading File
Mineral Resources File
OME Docket
OME Reading File
OME Region III
Mr. Emerick
130

BSLong/1 1/15/70

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
1/15/70	Emerick	120
		120
		220

JAN 16 1970

Mr. Henry L. Stein
Box 480
Aspen, Colorado 81611

Re: OME-6415 (Silver)
Rheco-Lenado, Inc., (Assignee)
Lenado Area
Pitkin County, Colorado
Contract 2236

Dear Mr. Stein:

Enclosed is a copy of a self-explanatory letter of today to the Operator under the subject contract.

This correspondence relates to the Lien and Subordination Agreements executed January 1, 1965, by you, under the Office of Minerals Exploration program.

Sincerely yours,

Harold Kirkemo (gla)

Harold Kirkemo
Chief, Office of
Minerals Exploration

Enclosure

cc: Director's Reading File
Mineral Resources File
OME Docket
OME Reading File
OME Region III
Mr. Emerick
130

BSLong/1 1/15/70

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
1/15/70	Emerick	120
		120
		220

JAN 16 1970

Mr. Edward J. Grover
3264 F Road
Clifton, Colorado 81520

Re: OME-6415 (Silver)
Rheco-Lenado, Inc., (Assignee)
Lenado Area
Pitkin County, Colorado
Contract 2236

Dear Mr. Grover:

Enclosed is a copy of a self-explanatory letter of today to the Operator under the subject contract.

This correspondence relates to the Lien and Subordination Agreements executed January 6, 1965, by you, under the Office of Minerals Exploration program.

Sincerely yours,

Harold Kirkemo

Harold Kirkemo
Chief, Office of
Minerals Exploration

Enclosure

cc: Director's Reading File
Mineral Resources File
OME Docket
OME Reading File
OME Region III
Mr. Emerick
130

BSLong/1 1/15/70

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
1/16/70	Emerick	120
		120
		220

JAN 16 1970

Mrs. Anna E. Olson
9 Mill Trace Road
Youngstown, Ohio 44511

Re: OME-6415 (Silver)
Rheco-Lenado, Inc., (Assignee)
Lenado Area
Pitkin County, Colorado
Contract 2236

Dear Mrs. Olson:

Enclosed is a copy of a self-explanatory letter of today to the Operator under the subject contract.

This correspondence relates to the Lien and Subordination Agreements executed April 26, 1965, by you, under the Office of Minerals Exploration program.

Sincerely yours,

Harold Kirkemo (gfa)

Harold Kirkemo
Chief, Office of
Minerals Exploration

Enclosure

cc: Director's Reading File
Mineral Resources File
OME Docket
OME Reading File
OME Region III
Mr. Emerick
130

XXXXXX
BSLong/1 1/16/70

RHECO-LENADO, INC.
ASPEN, COLO.

DETACH AND RETAIN THIS STATEMENT
THE ATTACHED CHECK IS IN PAYMENT OF ITEMS DESCRIBED BELOW.
IF NOT CORRECT PLEASE NOTIFY US PROMPTLY. NO RECEIPT DESIRED.

Re: OME-6415 (Silver)
Rheco-Lenado, Inc. Assignee

Overpayment made to Rheco-Lenado Inc.

OFFICE OF MINERALS EXPLORATION
U.S. GEOLOGICAL SURVEY

TO: Budget and Finance

FROM: Office of Minerals Exploration

- ABSTRACT OF REMITTANCES -

Date	Amount	Bank, City and State	Name of Remitter	Docket & Contract Numbers	Purpose
1/12/70	$13.50	Bank of Aspen Aspen, Colo.	Rheco-Lenada Inc.	OME-6415 E-2236	Overpayment

REMARKS: (List smelter or mill lot numbers covered by royalties)

1/12/70
Date Prepared

C Curtis
Person Preparing Abstract

Date Received

Person Receiving Remittance

United States Department of the Interior

GEOLOGICAL SURVEY
WASHINGTON, D.C. 20242

DEC 19 1969

Mr. Henry Stein, President
Rheco-Lenado, Inc., Assignee
P. O. Box 939
Aspen, Colorado 81611

Re: OME-6415 (Silver)
Rheco-Lenado, Inc., Assignee
Lenado Area
Pitkin County, Colorado
Contract 2236

Dear Mr. Stein:

The Government's Report of Review on the subject contract, a copy of which was sent to you under date of November 25, 1969, indicates that an overpayment of $13.50 has been made to Rheco-Lenado, Inc.

You may make repayment to the Government of the above amount by mailing to this office a check or money order payable to the United States Geological Survey.

Sincerely yours,

Harold Kirkemo

Harold Kirkemo
Chief, Office of
Minerals Exploration

OFFICIAL
COPY
O. M. E.
RECEIVED
JAN 12 1970

INITIALS	CODE
fa	130
~~HK~~	~~120~~
	220

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

December 18, 1969

OFFICIAL COPY
O. K. E.
RECEIVED
DEC 22 1969

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6415 (Silver)
RHECO-LENADO (Assignee)
Lenado Area
Pitkin County, Colorado
Contract 2236

The Operator submitted a geologic report prepared by J. N. Babcock which was originally written as the Operator's final report, but erroneously entitled by the consulting geologist. This was indicated in my memorandum to you dated March 27, 1969 transmitting a copy of the report, as well as an addendum report dated March 12, 1969.

The request and the addendum adequately reviews the exploration work performed under the subject contract and can be considered as the Operator's final report. My recommendations concerning a certification and discovery are included in my memorandum to you dated October 6, 1969. It is recommended that the contract now be terminated.

J. William Hasler

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

OFFICIAL FILE COPY

Date	Surname	Code
12/19/69	Emerick	120
		120
12/19	cae	220
		120M

DEC 19 1969

Mr. Henry Stein, President
Rheco-Lenado, Inc., Assignee
P. O. Box 939
Aspen, Colorado 81611

Re: OME-6415 (Silver)
Rheco-Lenado, Inc., Assignee
Lenado Area
Pitkin County, Colorado
Contract 2236

Dear Mr. Stein:

The Government's Report of Review on the subject contract, a copy of which was sent to you under date of November 25, 1969, indicates that an overpayment of $13.50 has been made to Rheco-Lenado, Inc.

You may make repayment to the Government of the above amount by mailing to this office a check or money order payable to the United States Geological Survey.

Sincerely yours,

Harold Kirkemo (gla)

Harold Kirkemo
Chief, Office of
Minerals Exploration

cc: Director's Reading File
Mineral Resources File
OME Docket
OME Reading File
OME Region III
Mr. Emerick

WLEmerick/bsl 12/19/69

7

OFFICIAL FILE COPY

Date	Surname	Code
11/28/69		120
		120
11/28	cc	220
		120M

NOV 28 1969

Memorandum

To: Chief, Branch of Budget and Finance

From: Chief, Office of Minerals Exploration

Subject: OME-6415 (Silver)
Rheco-Lenado Inc., Assignee
Lenado Area
Pitkin County, Colorado
Contract 2236

Enclosed is a copy of the Field Officer's letter of November 25, 1969, forwarding a copy of the Report of Review issued in September 1969 to the subject Operator. Also enclosed is a copy of the report for your files.

Harold Kirkemo (gfa)

Harold Kirkemo

Enclosures

cc: Director's Reading File
Mineral Resources File
OME Docket
OME Reading File
OME Region III
Mr. Emerick
130

BSLong/1 11/28/69

Office of Minerals Exploration
Building 53 Room 200

November 25, 1969

OFFICIAL COPY
O. M. E.
RECEIVED
NOV 26 1969
INITIALS | CODE
130
Wel 130
HK 130

Mr. Henry Stein, President
RHECO-Lenado, Inc., Assignee
P. O. Box 939
Aspen, Colorado 81611

Subject: OME-6415 (Silver)
RHECO-Lenado, Inc., Assignee
Lenado Area
Pitkin County, Colorado
Contract 2236

Dear Mr. Stein:

Transmitted herewith is the "Operator's" copy of a Report of Review on the subject contract prepared by the Office of Survey and Review Audit Operations and issued in September 1969.

I have reviewed the Report of Review and concur in the facts stated in the report. If for any reason you do not concur in the facts stated herein please return the Report of Review to this office with appropriate comments. The report is for your files.

Sincerely yours,

J. William Hasler

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

Enclosure

cc: OME, Washington (2)
OME-6415
OME chron
Mr. Hasler

rm 7

OFFICIAL FILE COPY

Date	Surname	Code
11/3/69	Emerick	120
		120
11/5	cee	220
		120M

AIRMAIL

NOV 5 1969

Memorandum

To: Field Officer, Region III

From: Chief, Office of Minerals Exploration

Subject: OME-6415 (Silver)
Rheco-Lenado Inc., Assignee
Lenado Area
Pitkin County, Colorado
Contract 2236

Enclosed are the Field Office's and Operator's copies of a Report of Review issued in September 1969 on the subject contract.

If you concur in the facts as stated in this report, one 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.

Harold Kirkemo (glc)

Harold Kirkemo

Enclosures

cc: Director's Reading File
Mineral Resources File
OME Docket
OME Reading File
Mr. Emerick
130

BSLong/1 11/3/69

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

October 6, 1969

OFFICIAL COPY
O. M. E.
RECEIVED
OCT 8 1969

INITIALS	CODE
glo	20
bal	120
HK	~~120~~
WE	~~120~~

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6415 (Silver)
Rheco-Lenado Inc., Assignee
Lenado Area
Pitkin County, Colorado
Contract 2236

A review of the exploration work under the subject contract shows that a total of 4,223 feet of core and non-core drilling has been completed out of a total allowed footage of 4,300 feet in two stages, leaving a balance of 77 feet that could yet be utilized.

The purpose of the project was to explore by drilling from the surface for silver-bearing ore bodies below an elongate geochemical anomaly which is approximately coextensive with the outcrop areas of the Leadville limestone and of the transverse Woody Creek and Lenado faults between offset segments of the limestone.

Ore bodies are inferred in and along the transverse faults and possibly along bedding-plane faults intersect or traverse limestone strata of the Manitou, Dyer, Leadville, and Belden formations of Paleozoic age.

Drill holes 4 and 5 explored the east and west ends of the ground and the Leadville formation was not found to be mineralized. In the intervening area a downfaulted block of Pennsylvanian beds put the Leadville out of reach of the current drilling program.

The diamond drilling failed to substantiate the geochemical anomalies described by the U. S. Geological Survey in their open file report concerning the project area.

Diamond drill holes 5, 7, 8 and 1 offset hole penetrated the north strand of the Lenado fault, and drill holes 1 and 7 penetrated low-silver, high zinc mineralization along portions of the Lenado fault. Drill hole No. 5 was barren, and drill hole No. 8 did not penetrate the fault zone deep enough to find mineralization, however, some 27 feet of mineralized

material was penetrated between 163 and 190 feet in the hole that assayed 13.25 oz. Ag, 35.54% Pb, and 3.95% Zn. Core recovery in this interval was 66%, and the mineralized material appears to be drag ore along a fault with some replacement in fragments of Belden.

The south strand of the Lenado fault was never reached, and there may be an area of inferred mineralization for some 500 feet, however this is problematical because of the highly faulted, altered and otherwise complicated geologic picture. Certainly no reserves can be calculated on the basis of this one drill hole. Any additional exploration work, if warranted, should of necessity be completed by way of crosscutting and drifting however such work is not now warranted. No ore reserves can be calculated from the present findings. The geologic picture, at least by way of drilling becomes increasingly complicated and results are essentially negative. It is recommended that no further government funds be expended on the project area, and that no certification of discovery be made.

J. William Hasler

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

OME Region III
RECEIVED
JUL 2 - 1969
Denver, Colorado

June 30, 1969

OFFICIAL
COPY
O. M. E.
RECEIVED
JUL 7 1969

INITIALS	CODE
	130
bal	120
HK	120
	120

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

Re: OME-6415 (Silver)
Contract 2236
Lenado Area, Pitkin County, Colorado

Dear Mr. Hasler:

I wish to follow your instructions regarding final termination of the above contract.

The balance of about 250 feet of diamond drilling that was provided for on our original contract will not be undertaken. I therefore wish to formally request that this be acknowledged by your office.

I want very much to be in continuing contact with your office pending the possible need for a new OME contract which we may wish to undertake with OME assistance. A decision on this should be made within the next thirty days and will, of course, depend upon what kind and what extent a further exploratory project is indicated. I realize also that it will depend upon what fiscal policy your office will be operating under after July 1st.

Sincerely,

Henry L. Stein

HENRY L. STEIN
BOX 480
ASPEN, COLORADO

APR 28 1969
Denver, Colorado

OFFICIAL COPY
O. M. E.
RECEIVED
MAY 5 1969
INITIALS | CODE
~~HJ~~ | ~~120~~
GOL | 120
~~HK~~ | 120
WRE | 120

O. M. E.
Mr. J. William Hassler
Denver Colo.

Dear Mr. Hassler;

There will be no one here in Aspen of our Rheo-Lunado people until my return from abroad May 17th.

In case of any emergency or need for access to our office contact Judge Mary Johnston, Box 926 Aspen, phone 925-3239.

Sincerely
Henry L. Stein

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

OFFICIAL COPY
O. M. E.
RECEIVED
MAY 5 1969

INITIALS	CODE
gla	130
bal	120
HK	70
WE	120

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6415 (Silver)
Rheco-Lenado, Inc. Assignee
Lenado Property

Transmitted herewith are the Government's Copy, Budget and Finance's Copy, of Amendment No. 3 to the subject contract executed by the Operator.

I am retaining the Field Office Copy as well as the Extra Copy for Field use in this office. The operator retained the Operator's Copy of Amendment No. 3.

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

Office of Minerals Exploration
Building 53 Room 200

April 25, 1969

OFFICIAL COPY
O. M. E.
RECEIVED
APR 28 1969

INITIALS	CODE
	130
bal	120
HK	120
WE	120

Mr. Harry L.Stein, Vice President
Rheco-Lenado, Inc.
P. O. Box 1023
Aspen, Colorado 81611

Re: OME-6415 (Silver)
Rheco-Lenado (Assignee)
Lenado Area
Pitkin County, Colorado
Contract 2236

Dear Mr. Stein:

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 to you, all four copies should be signed by a duly authorized representative. Please retain the "Operator's copy and return the others to this office.

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.

As you will note, Amendment No. 3 extends the suspension period from February 15, 1969, to not later than June 20, 1969. This would give you time to appraise the work completed to date and to firm up your plans for future work.

Sincerely yours,

J. William Hasler

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

Enclosure

cc: Chief, OME
OME chron
Mr. Hasler
OME-6415

OFFICIAL FILE COPY

Date	Surname	Code
4/18/69	Emerick	120
4/21/69	Kirkemo	120
4/22	Kjelgaard	
4/22	[illegible]	
4/23	[illegible]	220
		120M

APR 23 1969

AIRMAIL

Memorandum

To: Field Officer, Region III

From: Chief, Office of Minerals Exploration

Subject: OME-6415 (Silver)
Rheco-Lenado, Inc., Assignee
Lenado Area
Pitkin County, Colorado
Contract 2236

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 a duly 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.

Harold Kirkemo

Harold Kirkemo

Enclosures

cc: Director's Reading File
Economic Geology File
OME Docket
OME Reading File
Mr. Emerick
130

BSLong/1 4/18/69

MME FORM 6 REFERENCE SLIP

REV. 2-59 OFFICE OF MINERALS EXPLORATION

TO:	DATE	INITIALS
1. ~~Assoc. Sol. - MR, Room 6554 (Through Room 6042)~~		
2. Mr. Emerick, Room 4460, Interior		
3.		
4.		
5.		
FROM: OME, Chief - Room 4459		

FOR: Check items for action desired

x Action	____ Reply for signature of ____	
x Approval	____ Investigate	____ Surname
____ Comment	____ Recommendations	____ Signature
____ Conference	x Rewrite	____ File
____ Instructions	Your information	

REMARKS:

15189-
3123

SOLICITOR

APR 16 1969

INTERIOR DEPT.

120 Emerick

120 Kirkemo

120M

DRAFT 4/14/69
WLEmerick/bsl

To Pepe 4/15/69

EXPLORATION CONTRACT
RHECO-LENADO, INC., ASIGNEE
OME-6415

Amendment No. 3

It is agreed this _____ day of _____, 1969, between the United States of America, acting through the Department of the Interior, U. S. Geological Survey, hereinafter called the "Government," and Rheco-Lenado, Inc., hereinafter called the "Operator," that Exploration Contract 2236 (OME-6415), dated February 6, 1967, as amended, is further amended effective February 14, 1969, as follows:

1.(a) Work under the contract may be suspended during the period beginning February 15, 1969, and ending not later than June 20, 1969.

(b) No costs incurred by the Operator during the period of suspension shall be allowable for contribution by the Government.

(c) The Government shall not contribute to the costs of rehabilitation or repair which in its opinion would not have occurred if there had been no suspension of the work.

(d) The Operator, at its own cost~~s~~ and expense, without contribution by the Government during the period of suspension shall preserve and protect the project work.

2. The time fixed by Article 1(a) of the contract for completion of the work is extended from 27 to 31 months from the date of the contract, or until September 6, 1969.

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

RHECO-LENADO, 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 200

March 27, 1969

OFFICIAL COPY
O. M. E.
RECEIVED
MAR 28 1969
INITIALS/CODE
gla 130
fol 120
HK 120
INC KOTE

Memorandum

To: Acting Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6415 (Silver)
Rheco-Lenado, Inc. Assignee
Lenado Area
Pitkin County, Colorado
Contract 2236

Transmitted herewith is a geologic report, originally written as a final report, but erroneously titled by the Operator's consulting geologist, J. N. Babcock. The report is a review of the exploration work completed under the subject contract to date, but the Operator did not intend this report to be used as the final report.

A letter dated March 12, 1969 by Mr. Babcock indicates that no reserves can be calculated as a result of the exploration work as Mr. Kellogg showed in a cross-section submitted some months ago. This letter should accompany the report submitted herein. Included with the report are copies of the following maps and geologic data:

Geologic log of Diamond Drill Hole No. 7.

Assay table on Diamond Drill Hole No. 8.

Geologic log of Diamond Drill Hole No. 8.

Memorandum by Bruce Bryant, Geologist, USGS containing comments on the report of operations to date.

Geologic map of the Lenado Area, Scale 1" = 50'

B. Bryant's memo is not a part of the Operator's report despite the margin tag.

Is there money left to continue work if a recess is granted?

When is a final report a Final Report ???

Geologic cross section DDH No. 1
" " " " No. 2
" " " " No. 3
" " " " No. 4
" " " " No. 5
" " " " No. 6
" " " " No. 7
" " " " No. 8

Transmitted also is a request for an amendment to recess the contract work from February 15, 1969 until June 30, 1969 because of inclement weather conditions. It is recommended that the amendment be executed.

The Operator wishes an appraisal of the project as it might pertain to a subsequent request for funds to explore the Lenado area at depth by crosscutting and drifting. He will submit this request at a later date.

I am in agreement with Mr. Bryant's comments in his memorandum dated March 11, 1969.

J. William Hasler

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

Enclosures

RHECO-LENADO, INC.
Box 1023
Aspen, Colorado
81611

March 12, 1969

OME Region III
RECEIVED
MAR 20 1969
Denver, Colorado

Mr. J. William Hasler
Office of Minerals Exploration
Denver, Colorado

Subject: OME-6415
Rheco-Lenado, Inc., Assignee
Lenado Area
Pitkin County, Colorado
Contract 2236

Dear Mr. Hasler:

This letter is to be regarded as an addendum to our final report, wherein we did not mention what ore reserves were discovered under our contract 2236. This letter is intended to remedy that defect.

Our single indication of ore is DDH 8 which encountered 27 feet of mineralized rock. We recovered 66% of this zone which shows a weighted average of 13.25 ounces of silver, 35.54% lead, and 3.95% zinc. We do not regard this one section on a possible ore body as indicative of reserves blocked out nor even inferred.

By the character of the cores, we infer the mineralized zone is a tabular fissure showing both drag features and some minor replacement. We are not able to predict the strike nor dip of the mineralized zone, therefore, we do not know its thickness.

A conservative geologist-engineer would not extrapolate the present data to form reserves.

Yours truly,

James N. Babcock

James N. Babcock
Consulting Geologist

Addendum to Operator Final Rept

RHECO-LENADO, INC.
Box 1023
Aspen, Colorado
81611

March 11, 1969

OME Region III
RECEIVED
MAR 20 1969
Denver, Colorado

Mr. J. William Hasler
U.S.G.S.
Office of Minerals Exploration
Denver, Colorado

Subject OME-6415
Rheco-Lenado, Inc., Assignee
Lenado Area
Pitkin County, Colorado
Contract 2236

Dear Mr. Hasler:

We are hereby requesting a third ammendment to contract 2236. We request a second recess for the period February 15, 1969 to June 20, 1969. Our drilling program has been halted by inclement weather. It is impossible to proceed until next June.

Yours truly,

Henry L. Stein

Henry L. Stein
Vice President

FINAL REPORT OF OPERATIONS 1967 TO 1969 IN EXPLORATION OF THE LENADO AREA, PITKIN COUNTY COLORADO

RHECO - LENADO, Inc., Operator
Docket No. OME-6415
Contract No. 14-23-090-2236

Acc Hosler memo 12/18/69

The original purpose of our Lenado exploratory activities was three fold: 1) to locate the down faulted segment of the Leadville formation north of the Lenado fault and to ascertain by means of diamond drilling whether commercial mineralization of the replacement type existed in this segment. 2) to test by diamond drilling certain geochemical anomalies indicated on an open file United States Geological Survey Report of 1966 by McCarthy and Gott. 3) to explore for fissure ore along trend of the Lenado fault.

We in part succeeded in testing item 1 in DDH 4 and 5 at the respective east and west ends of the prospective ground. In these drill holes the Leadville formation was unmineralized. In the intervening area we discovered a depressed block of Pennsylvanian rocks that put the Leadville beyond reach of our drill.

In part we succeeded in testing item 2 in all of our drill holes and conclude the geochemical anomalies in this instance are indicative of neither ore nor alteration.

We partially tested item 3 in DDH 5, 7, 8, and 1 offset. These drill holes penetrated the north strand of the Lenado fault. Holes 1 and 7 demonstrated low-silver higher-zinc mineralization along portions of this fault. DDH 5 was barren, and DDH 8 did not penetrate the fault zone far enough to encounter the possible mineralization. We did not succeed in reaching the south strand of the Lenado fault in any drill hole.

Operator's Final Report

Should one wish to further test the original premise of a mineralized segment of the Leadville formation north of the Lenado fault, we would suggest a series of shallow vertical holes north of the Aspen Contact mine and along the trend of Silver Creek. These holes should be drilled with a conventional rotary rig employing a shaker screen. We feel that the diamond drill method is not suitable in the Lenado area because of very low recovery, circulation problems, squeezing rocks, and exceedingly slow progress. We believe the shallow vertical hole method would perhaps serve: 1) to resolve the structural complications 2) to discover shallow ore bodies 3) to delineate areas of alteration 4) to provide positive information at the lowest unit cost.

We recognize a rather high probability of error in our stratigraphic determinations in portions of DDH 1, 4, 6, 7, and 8. We also acknowledge lack of control on the majority of stratigraphic and fault attitudes as inferred by apparent dips in the cores.

We believe we have shown the mineralization of the Aspen Contact mine area decreases abruptly to the west and gradually to the east along the trend of the north strand of the Lenado fault as does the alteration and mineralization of the narrow interfault block. We believe we have shown the mineralization along the north strand of the fault to be that of low-silver and higher-zinc.

This brings us to our most important indication of possible ore reserves. DDH 8 showed an interval of 27 feet with a core recovery of 66% between 163 and 190 feet. The weighted assay averages for

this zone show 13.25 ounces of silver, 35.54 % lead, and 3.95% of zinc. The character of cores indicates a fault fissure with both drag ore and replacement mineralization in fragments of a middle Belden formation stratigraphic horizon. A possible strike length would be highinferential but may not run more than 500 feet. Should this fault be vertical, the mineralized zone would be a maximum of 17 feet wide on a horizontal projection.

We suggest the indications of ore may justify a 550 foot adit and an additional 500 feet of cross-cutting. Should this option be elected, we suggest the adit be driven as indicated on the 1" equals 40' geologic map included in this report. Vertical holes would not test a vertical fissure, and diamond drilling has failed both to achieve proper recovery and a satisfactory unit cost.

James N. Babcock
Consulting Geologist

	N.	E.	Elev.	
S. 22° E - DDH 7 Reported:	4682'	5221'	8758'	-51°
Corrected	4690.46	5232.87	"	

DDH 7 - set up Mon. July 15 had to reverse rig, faced wrong way for support wire for tilted tower.
Tues. July 16 - set up pumps, line, braced rig, etc.
(above with help Jack Flogaus and D-4)

Wed. July 17 - started collaring hole, drilled with rock bit.

July 18 - hole dipping at 55°; stopped it to cement and redrill to correct dip. At 10'.

July 19 - rechecked rig dip; O.K. at 52°

" 24 - depth 37' NC Wireline; all overburden Sawatch Quartzite - very hard boulders

25 - depth 50' O'burden quartzite; going to cement, to drill down NC casing

26 - drillers just to top of cement @ 25'; 25' to go

29 - " still in cement at 48' (NC bit)

30 - " " " " " - ?; trouble shooter, Ray _____; ready for NX

August 5 - No drillers by 10:30; unloaded cartons and Cox books shed; long hike; Back 1:30 - drillersNX to 53'; NC casing to 48'

7 - drill down again w/broken clutch; NX to 56'; water return

9 - No drillers; note: "To 66' and cemented."

13 - " " ; no info. nothing; eve. call to Doyle: "Down to 76' - went fast; no core - no sludge; left 12.30"

15 - 86' - 102' No Core, no sludge; Ray there; "possibly tube did not latch."

16 - Call to Doyle: Cased to 100'; drilled BX to 120'; got sludge, 12" sandy yellow core to 110'; no core 110' to 120'; pulled 9 times."

19 - "B" to 133' 100% sludge, 6 - 8% core yllw brn

21 - core spl. 160' - 163' for assay; several short runs; no good - 1% recov. at best

23 - to 183' slightly better core recov. & sludges; brn - blk - yllw muddy gouge cores; some grn

Flogaus requested Hippies out

Note: Survey @ 143' - dips -48°; Brg. read N. 70° E. - ?

Aug. 26 - Eve. Call to Doyle: "Cemented tonight; water gone. fr. 213 - 218 no core, no sludge. Good core up to 213 - still clay but more rock. Lost water at 200'. 193' end Fri. 183' - 193' notmuch

AUG. 27 - Turned in Woody Cr. Rd 2:05 P.M - To Drillsite. No drillers. No not
New (Flogaus?) cstwork on Rd. To Shed: BX Box To 223' -
Some Core To 215' (FIT. Gouge from 183 - 215') No Core 215 - 223'
Got Note at Woody Stre ± 3:45. After 4 P.M - home HLS call - Drillers
Note: "Johs (John?) didn't drill Cement job didn't hold Recemented.
WED AUG. 28 - P.M call fr. Doyle: Still 223'. lost water; fr. 170' - 223' Now No water. Doyle
Hq called To Ray — decided Try +15' w/BX - then if no results,
Please down. 223' SURVEY: S 30° E - 49°

Thurs. 8/29 – 7:30 Call To Doyle – N.A. Then 10 P.M – "Water back –
Drilled fr. 170-223 BX, then to 231 (8') with about
18" core – black-gry – more rocky + pebbles

SUNDAY SEPT. 1 HIPPIE FIRE – all cabin, records, cores –
LOST completely – cores & sludges to 253'
Recovered (?) last run 245-253 in rubble –
Sampled: 245-253 –
253-254 –
254-255 –
(See log)

CORE LOG

RICHMOND HILL EXPLORATION COMPANY, INC.

~~HIGHLAND TUNNEL~~ PROJECT

-51°
S 22° E

Hole No. 7 Date Logged _____ Logged By _____

0-100' O'Burden
95% Sawtooth QTZ.

100-120 BX - 12" = (5%)
sandy yllw altered
bedrock — Sludges

Brg S20E
Survey
@143'
-48°
Brg N.G.

120-133' (8%)
Same yllw brn
Same to 160'

#281
Tr. AU
0.0 AG
0.8% Pb
1.0 % ZN

160-163' 25%
Brn, yllw, leached
Oxid. sstone

161-163 HARD Dol.?

163-183' Skut runs (5-10%)
brn-blk-yllw-muddy
Grg cores; Some greenish

sludge
304
192-195
Tr. AU.
0.1 AG
0.8 Pb
2.3 ZN

183-231 Blk-Grey- (5%)
rocky pebbles — Belden

Somewhere (in Fire)
231-245
Silver FIT contact
Belden to Leadville

No!

245-253 (Burned) (80%)
Dol. Leadville Core
Red - fine Oxid?
Sz - Breccia

#284
Tr AU
0.2 AG
0.9% Pb
2.2% ZN

253-254 (50%)
Pebbly Leadville Dol
+ Gouge -
core split
Visible Sz

#283
Tr AU
1.4 AG
5.6% Pb
13.7% ZN

254-255 (80%)
Dol. Breccia Gry
w/ Sulfides —
Visible PbS + ZnS
core split

#282
Tr AU
1.4 AG
6.8% Pb
8.9% ZN

255-257 (100%)
Dried "Mud", pebbly
Gry Brn - fine
some visible Sz

#285
0 AU
1.0 AG
3.0 Pb
9.6 ZN

#302 sludge
Tr. AU. 1.6 Pb
0.7 AG 5.42 ZN

257-258 (100%)
"Rotten" leached
Brn - Tan; fine-gr. Mud
sandy - silty

#286
0 AU
1.1 AG
0.7 Pb
7.8 ZN

#303 sludge 257-259
Tr. AU. 0.2 AG 0.6 Pb
1.9 ZN

258-259 (100%)
Sndy - Red Fe Oxid.
Some brilliant red ox "Paint"
Gitman Sand?

#287
0 AU
0.1 AG
0.6 Pb
6.6 ZN

Hole No. _____ Sheet No. _____

CORE LOG

RICHMOND HILL EXPLORATION COMPANY, INC.
HIGHLAND TUNNEL PROJECT

Hole No. 7 Date Logged_____ Logged By_____

#288 0 Au 0 AG 0.6 Pb 0.6 ZN	259-261 100% Dk. Cad. yllw Speckled Red. Umber Dark Sand - no weight Ox. Fe & Mn ?	
#289 0 Au 0 AG 0.4 Pb 0.7 ZN	261-263 100% Soft crumbly Speckled S.S. ZnS ? Weathered Ox. yllw. brn fades To lt. Greenish	
	263-267 60% Soft Lt. yllw - Grn. Sand silty - fine Gr. (Speckles Gray - dark are sparse) (if #289 runs, this should be sampled)	
	267-270 50% Same - darker + Greener almost carnotite yllw (No effect Geiger Counter on any of this area)	
	270-273 90% Sandy, finer - fading To Sandy lime breccia (strong fizz) @272 Brilliant Orange - silty SS.	

Hole No. Sheet No.

CORE LOG

RICHMOND HILL EXPLORATION COMPANY, INC.
HIGHLAND TUNNEL PROJECT

Hole No. 1 Date Logged 9/13 Logged By VPK

273 — 283 (50%)
Soft Silty ss - Gouge - Breccia w/ Dol. fragments (NO LIME)
Grn-yllw - Tan -
sparse QTzite f'ments

283-289 (50%)
Dense fine Gr, Grn-Gry ss. sparse Dol. f'ments

289 - 293 (75%)
Change to Dof. Flt. Breccia — Much weathered-altered- Oxid. yllw - (some bright)
Much more QTzite + Dol. fragments
(If any other Gouge runs — Sample this interval

— END OF BOX —

293 — 303 (50%)
Dense silty f. Gr. SS, breccia yllw - Rd. Brn - highly altered - Green silt

303 - 304 (100%)
Highly altered - FeOx — Breccia - Much QTzite frag. Still Sandy - Brn, yllw

304 - 308 (50%)
Hard QTzite pebbles Bull QTz
- Lost Matrix ?

— END OF BOX —

(308)
308 — 314 (45%)
QTzite breccia, pebble & bull QTz. wht + Blue-Gry
@ 314 BLK MN (?) Alter.

314 — 318 GRND (45%)
FLT. Breccia (50% QTzite ?)

318 - 328 (40%)
Fine, dense, silty fluvial (?) SS - breccia - yllw To Green

328 - 330 (100%)
Same - dense wet SS breccia - Cd. yllw + Red Brn silty -

— END OF BOX —

330 - 340 (40%)
Same Dense Silty ss. breccia — MUD GRN. yllw

— END OF BOX —

END OF BX

Hole No. _____ Sheet No. _____

CORE LOG

RICHMOND HILL EXPLORATION COMPANY, INC.
HIGHLAND TUNNEL PROJECT

Hole No. 1 Date Logged 9/13 Logged By JPK

Survey @ 393: 50° S17°E

— AX — (25%)

0 Au
0 Ag
0.4 Pb
1.1 Zn
#290

340 — 346
Same as above —
w/ fine FeS_2 -? —
Gently Grn - Soft Mud

Tr Au
.6 Ag
1.0 Pb
1.1 Zn
#291

346 — 353 (25%)
Hard blue-Gry - Mnl?
pebbly Pol. Breccia
(fine - Gr.)
(splitter required)
small specks Defin. Pb S

#292
0 Au
2.2 Ag
0.8 Pb
1.0 Zn

353 — 378 (21%)
Gry to Blk banded
Breccia
FeS_2 - Other S_2?
(17 | 3.50 .21% 34 1.0)
Fine Gr — Blk Sand
Silty - Grnd. Belden?

— End Box —

Tr Au
0.7 Ag
1.7 Pb
2.6 Zn
#293

373 — 383 (45%)
Gry - Blk Sandy Pol. (No 122)
breccia - fine Gr.
FeS_2 (very fine) Banded
Gry - Wht - Blk

#294
Tr Au
0.9 Ag
2.8 Pb
[illegible] Zn

383 — 393 (40%)
Same — Darker 383-388
More FeS_2 Fine Pb S - ?
383-393
#295
Tr Au
9.0 Ag
1.3 Pb
3.2 Zn

— End Box —

393 — 403 (25%)
Same - darker - More S_2 —
Brassy Fe - Ag - S? - #295
Softer. more Gouge
larger FeS_2 cubes
Tr Au
0.6 Ag
1.8 Pb
11.2 Zn

403 — 405 (100%)
Same More fragmented
Breccia - Much fine
FeS_2 —
#296
Tr Au
0.6 Ag
2.2 Pb
16.1 Zn

405 - 413 (45%)
Real Breccia
Visible Seams Pb S
+ FeS_2
#297
0 Au
1.0 Ag
3.2 Pb
19.0 Zn

413 - 423 (2%)
Tube Didn't Latch?

— END BOX — (9/18)
413 - 423 3" core (2½%)
9/24
#298
Tr Au
2.0 Ag
8.2% Pb
36.3% Zn !!

Hole No. Sheet

CORE LOG

RICHMOND HILL EXPLORATION COMPANY, INC.

HIGHLAND TUNNEL PROJECT

Hole No. 7 Date Logged Oct '68 Logged By J PK

(DDH 7 Redrilled 380 to 423 To Reflect around lost core barrel)

380-393 7" core
Brn-Yllw altered Ox-?
Sandy

393-403 (40%)
Same as other log
poss. harder Pol. Gry

403-405 (100%)
Same as other log
much more fine S_2

405-410 (10%)
coarser S_2
Visible PbS

410-413 (90%)
Increase PbS + other S_2

413 End New Box

#642 ← 413-416.5 (85%)

416.5-420 (75%) → #643

420-423 (60%) #644

423-425 (100%) #299
Soft Gry-Blk Flt. Gouge
Increase FeS_2
Visible Pb + ZN (Decrease?)
Spots hard Gry Dol.
Purplish spots
Tr AU
0.4 AG
1.3 Pb
19.0 ZN.

END BOX

425-430 (10%) #300
Tube did not latch
Def. Breccia w/ Qtzite pebbles - Drusy Qtz
S_2 in Pol. Visible Pb, ZN, Fe -
Pink Rhodocrosite? (Fizzes) Run for Mn
0 AU
0 AG
6.5 Pb
23.7 ZN
2.99 MN

END ORE

430-432.5 (50%) #305
Crumbly, Granular
Gry-Lt. + Dark
Sandy Breccia
Sparse S_2
Tr AU
0 AG
0.6 Pb.
0.5 ZN.

432.5-435 (80%) #306
Soft Gge - Gry - Grn
Bright yellow - Run for Cd
Sparse S_2
Tr AU
0.6 AG
0.6 Pb
0.5 ZN
0 Cd.

435-443 (40%) #307
Granular yllw Sand
Highly altered - Oxid
90% yllw 10% Red Brn
Very sparse S_2 - Cd?
Tr AU
0 AG
0 Pb
Tr ZN
0 Cd

CORE LOG

RICHMOND HILL EXPLORATION COMPANY, INC.
HIGHLAND TUNNEL PROJECT

Hole No. 7 Date Logged Oct '68 Logged By JPK

#308
Tr. Au
0.7 AG
1.2 Pb
1.2 ZN

443-445 (120%-?)
if values, check this?
Blk Breccia w/lt. f'ment>
Carbonaceous do not f122
Much fine S_2 - Mostly Fe?

#309
Tr. Au.
0.4 AG
0 Pb
1 ZN

445-447 (100%+)
Dk. Gry-Blk-"Wet Bakelite"
Carbonaceous
soft much increase S_2
Mostly Fe?

#310
Tr. Au.
AG.
Pb.
2 ZN.

447-450 (100%+)
Same - Wet Bakelite
Carb. Blk - Breccia 6qe
Heavy FeS_2 - Other S_2?

#641
Tr. Au.
6 AG.
8 Pb
1.5 ZN

450-455 (85%)
"Wet Bakelite" Carb.
Breccia - More Granular,
Sandy. Dol. fragments
Much S_2

#645
Tr Au
0.2 AG
1.3 Pb
1.0 ZN

455-456 Dk. Gry (50%)
Carb. Dol. Blending into
altered yllw, pebbly SiO_2
Congl. some S_2 - Fe?

#646
Tr. Au
0.4 AG

456-457 (85%)
yllw - Pebbly Congl. Altered
Qtzite Inclusions
Some S_2.

459-461 (55%)
yllw pebbly sand - Alt.
Qtzite pebbles - clear or
Gry-purple m grain fract.
No visible S_2

#647
Tr. Au
0.2 AG
1.6 Pb
0.8 ZN

461-462 (100%)
Alt. yllw - sand
w/quartzite pebbles

#648
Tr. Au
0.4 AG
0 Pb
Tr. ZN

462-468 (30%)
Qtzite Sand
Sawtooth pebbles
fine, spare S_2

#649
0 Au
0.2 AG
0 Pb
0 ZN

468-470 (100%)
Alt. yllw Sawtooth
Quartzite last few
inches solid Quartzite
- unaltered

#650
Tr. Au
0.1 AG
0 Pb
0.1 ZN

END OF DDH 7
Oct. 16, 1968

Note: Entire core of DDH 7 checked w/ Geiger Counter, with negative results
JPK.

% Recovery

DDH 8

Depth Interval		Ft. Width		Oz. Silver	% Lead	% Zinc
163 -- 165	40	.8	2	16.6	16.9	4.4
165 -- 167	40	.8	2	8.1	26.3	9.7
167 -- 170	35	1.5	3	18.8	65.8	2.1
170 -- 173	30	.9	3	9.3	19.4	6.6
173 -- 174	100	1.0	1	2.4	17.6	2.0
174 -- 176.5	90	1.35	2.5	17.7	48.0	14.0
176.5 - 177.5	60	.6	1	16.7	65.4	3.7
177.5 - 179.5	100	2.0	2	20.5	60.7	0.3
179.5 - 182	90	2.25	2.5	14.8	25.4	1.0
182 -- 184	90	1.8	2	5.7	12.1	1.0
184 -- 185	100	1	1	6.5	14.3	1.1
185 -- 187	100	2	2	14.7	45.0	1.0
187 -- 188.5	100	1.5	1.5	15.6	44.2	1.1
188.5 - 190	100	.5	1.5	7.9	23.3	1.2
163 --- 190		18.0 27.0		13.25	35.54	3.95

66% Recovery

Average Copper: 0.072

Oz. Gold: from Trace to 0.01

Nil $BaSO_4$ 174 - 176.5

Nil Moly 174 - 176.5; 176.5 - 177.5

Cosine - 51° = .62932 = 17 feet true width

CORE LOG

RICHMOND HILL EXPLORATION COMPANY, INC.

HIGHLAND TUNNEL PROJECT

Hole No. 8 Date Logged late '68 NOV. Logged By JPK

NX CORE

0-89'
SAWATCH
QUARTZITE
BOULDERS
OVER BURDEN

#656 Tr Au. 0.4 Ag 0.9 Pb 0 ZN
89-89½ 65%
4" Highly Altered yllw-wht. Brn Dolomite-sandy, w/ Black specks

#657 Tr Au 0.2 Ag 0.5 Pb 0.2 ZN
89½-90 100%
Siliceous. Altered, yllw. Dol Qtzite pebbles

#658 Tr Au. 0.4 Ag. 2.0 Pb 1.1 ZN
90-91 100%
Altered, Siliceous, Muddy yllw Dol. Much visible S_2 PbS-?

#659 Tr Au 8.7 Ag 2.0 Pb. 3.9 ZN
91-92 Gry. Sandy Mud-nothing discernible 100%

#660 ½1 .005 Au 0 Ag 0.6 Pb 3.3 ZN
92-93 Gry-Brn Dried Mud 100%

#661 ½2 Tr Au 0 Ag 1.7 Pb 2.3 ZN
93-95.5 70%
Soft Brn. Gry Sandy Mud

95.5-97 60% ½2 #662
yllw-Brn Sandy Mud
.005 Au 0 Ag 0 Pb 1.2 ZN

97-100 65% ½2 #663
Same-More Altered-Red Fe?
Tr Au 0 Ag 0 Pb 0.8 ZN

100-107 60% ½3 #664
Pulverized sandy Mud-Gouge - Bands Gry. + Red - Silty - pieces altered Dol.
Tr. Au 0 Ag 0.2 Pb 1.0 ZN

END BOX #2-108' 100%

107-110 Alt. Banded yllw-Red Min'l SAND - Bl-Red-yllw-alt. spots 100% ½3 #665
0 Au 0 Ag 0.4 Pb 0.8 ZN

110-114 50% ½3 #666
Soft silty Rotten SAND Gry-yllw-dirty wht
NEGATIVE GEIGER COUNT ALL THIS SAND
0 Au 0 Ag 1.3 Pb 0.82 N

114-122 65% ½3 #667
Soft silty yllw-brn-red SAND - alt. + Min'l Sparse Qtzite inclusions
0 Au 0 Ag 0.4 Pb 1.0 ZN

END BOX #3-122'

Hole No. 8 Sheet No. 1

CORE LOG

RICHMOND HILL EXPLORATION COMPANY, INC.

HIGHLAND TUNNEL PROJECT

Hole No. 8 Date Logged Late Nov. & Early '68 DEC. Logged By JPK

668 11/29
0 Au.
0.3 AG
2.7 Pb
1.1 ZN
0.44 Al.

122-125 4' of core - 100%+
Soft, light yllw - "scoria - sponge holes, Argillaceous - Pisolitic Bauxite?
Run for Al_2O_3 also

669 11/29
0 Au.
0.8 AG
9.2 Pb
2.5 ZN

125-127 100%
Same - pisolitic clay w/ Bl. + Pink Stain

670 11/29
0 Au.
1.9 AG
2.0 Pb
1.5 ZN

127-133 60%
Hard Gray Silic. Dolomite can't break in core-splitter
Red Hard pebbles - Black "lichen" spots. Thin PbS Seams - ?

671 11/29
0 Au.
0.9 AG
0.9 Pb.
1.0 ZN

133-139 20%
Hard Gray Sandy - Silic. Dol
Sparse PbS specks

END Box No. 4 @ 139'

676 12/2
0 Au
0.3 AG
1.0 Pb
1.6 ZN

139-144 65%
Gry Cherty Dol. Very HARD
Sparse, thin seams PbS
fine-grained, specular

677 12/2
0 Au.
0.5 AG.
1.2 Pb.
1.1 ZN

144-149 45%
Same - Some Brn. yllw alteration
increase S_2 - ?

678 12/2
0 Au.
0.6 AG.
0.8 Pb.
1.3 ZN

149-153 80%
149-150 Same as #677
150-150.5 Brn Mud Gge
150.5-153 yllw lt. wt. Hard Bauxite-like Sparse S_2

END Box No. 5

153-163 15%
yllw-Brn-Lt. weight HARD 12/2
Bauxite-like
No visible S_2
#679
0 Au
1.6 AG.
1.2 Pb.
0 ZN.

163-165 40%
Cherty Breccia "ORE
Argentite ?
SiO_2, $CaCO_3$ - Dol. + Chert
Gently Gry - Banded Blk + Pinks - No Fizz Too
Soft for Jasper, seems soft for Barite
possib. Mn - ?
#673 11/30
Tr. Au.
16.6 AG.
16.9 Pb
4.4 ZN

165-167 40%
Same as above with More AGS
Heavy Black S_2
#674 11/30
Tr. Au.
8.1 AG.
26.3 Pb
9.7 ZN

167-170 35%
Hi-Grade - Very Heavy
Core disintegrated on stove into Heavy S_2 Sand-Gry Dol.
#672 11/29
Tr. Au.
18.8 AG.
65.8 Pb.
2.1 ZN

170-173 30%
More Altered SiO_2 Breccia
More Color - QZ + S_2
Hi-Grade AG ?
#675 11/30
0 Au
9.3 AG
19.4 Pb.
6.6 ZN.

Note: #672, 673, + 674 To Have Qualit. Spec. Compos.
No Geiger Quantonary of this.
No sludge - Cotting's Report on

Hole No. 8 Sheet No. 2 of 2

CORE LOG

RICHMOND HILL EXPLORATION COMPANY, INC.

HIGHLAND TUNNEL PROJECT

Hole No. 8 Date Logged DEC. '68 Logged By JPK

Cu #680-689, INCL

#680 .010 AU 2.4 AG 17.6 PB 2.0 ZN .025 Cu — 12/10 — 173-174 100%
Heavy Black-Red-yllw Soft Gouge "Ore" w/S2

#681 Tr AU 7.1 AG 8.0 Pb 1.0 ZN .08 Cu — 174-176½ 90%
Heavy, Rich, Black Lead-Silver S2 w/wht. inclusions — No Fizz
Run for BaSO4 — Nil BaSO4 Nil Moly

#682 .005 AU 6.9 AG 5.4 Pb 1.2 ZN .08 Cu — 176½-177½ 60%
Same - Black Heavy Rich AG-Pb S2 w/white Cu + Moly? — Nil Moly

#683 Tr AU 20.5 AG 10.7 Pb 1.3 ZN .018 Cu — 177½-179½ 100%
Black-yllw-Breccia Mud — Heavy S2

#684 Tr AU 1.8 AG 5.4 Pb 1.0 ZN .012 Cu — 12/13 — 179½-182 90%
Mixture - Hard Sil. Dol. + Soft yllw altered - Much S2

#685 Tr AU 1.1 AG 2.1 Pb 1.0 ZN 0 Cu — 182-184 90%
All altered, Oxid. Grd-up Breccia - w/scattered S2 (H. Wall of Vein?

#686 Tr AU .5 AG 1.3 Pb 1.12 ZN .12 Cu — 12/14 — 184-185 100%+
Scattered Pods Rich S2 in Predom. very hard qtzite - or Siliceous Dol. Lt. Gry-wht.

185-187 100%+ — #687 .010 AU 14.7 AG 45.0 Pb 1.0 ZN 0.25 Cu
Grd-up brecciated Mud-Rock-Silic. Dol Much heavy Black S2

187-188.5 100%+ — #688 .010 AU 15.6 AG 44.2 Pb 1.1 ZN 0.25 Cu
Grd-up - Gry breccia - Bl. Red-pink yllw-altered Much Black S2

188.5-190 100%+ — #689 .005 AU 9.9 AG 23.3 Pb 1.2 ZN 0.37 Cu
More altered + more solid yllw-wht-red Black S2 Bands + pods, + in pebbles

@190 - END Box No. 8, + END OF NX SIZE CORE

190-192' 100%+ Bx — 12/17 — #690 0 AU 0.2 AG 1.6 Pb 1.6 ZN
Lt Gry wht yllw silty, sandy clay - Pebbles S2 - Sparse

192-194 100%+ (5' core) — #691 0 AU 0.6 AG 1.5 Pb 1.4 ZN
Dry, crumbled SAND - Lt. Gry wht - some yllw - purple alterations.

194-196 100%+ (2½' core) — #692 0 AU 0.1 AG 2.7 Pb 1.2 ZN
Same as 190-194 but more altered silty SAND - Gry, yllw, purple - wht.

196-198 100% — #693 0 AU 0 AG 2.3 Pb 1.3 ZN
Same: silty clay sstone slightly finer - more purple in weathering

END Box No. 9

Hole No. Check No.

OPTIONAL FORM NO. 10
MAY 1962 EDITION
GSA FPMR (41 CFR) 101-11.6

UNITED STATES GOVERNMENT

Memorandum

OME Region III
RECEIVED
MAR 13 1969
Denver, Colorado

TO : Bill Hasler

DATE: 3/11/69

FROM : Bruce Bryant

SUBJECT: Comments on Final Report of operations 1967 to 1969 in exploration of the Lenado area, Pitkin County, Colorado by RHECO-LENADO, Inc.

It does not appear to me that downfaulted Leadville in the Woody Creek valley north of the Lenado fault has been tested. DDH-4 was the only hole to hit the Leadville outside of the Lenado fault zone, and core recovery in it was so poor that we do not know what was there. A small amount of ore was recovered. The other holes beneath the valley just showed that the structure is much more complicated than we imagined and that there is not a large amount of ore in the Belden. Poor core recovery prevents us from saying that there is no ore in the Belden. (Where is the cross section for DDH-5; wasn't that on the Lenado fault zone west of the Aspen Contact-Leadville workings, rather than in the main downfaulted block?)

The signifigance of the geochemical anomalies is not known. The analyses of the samples collected the first year, on which the open file report was based, gave much higher values than the analyses on samples collected a year later to furnish better control on the anomalies. The gros pattern remains the same, but the economic signifigance of the anomaly cannot be judged because there isn't overlap in samples collected at the two different times in the immediate area of the Aspen Contact Mine. Because of this we cannot evaluate to what degree the anomalies have been tested. It still looks as if there is an untested anomaly along the Woody Creek fault where the numerous faults found during drilling merge going west. Howard McCarthy and I consulted on this.

I agree that the Lenado falt has been partly tested, and it does not appear that mineralization of high grade continues more than 400 feet east of the old Aspen Contact workings and less far to the west, at the levels tested.

I agree with their proposal to delineate the Leadville under the Woody Creek valley by shallow vertical holes with a rotary rig. The high costs and poor results of core drilling in that area have been discouraging.

I think that reasonalble interpretations of the structure could be made using a steep dip hypothesis. I have a prejudice that the most reasonable interpretation of strike in the fault blocks under the valley is N 10E and a west dip, and I would like to see sections based on this interpretation. It would make a big difference where one finds the Leadville at various depths. However, variations in the attitudes of the Belden where exposed on the surface north and south of the Woody Creek valley could support the flatter dip interpretation.

5010-108

Buy U.S. Savings Bonds Regularly on the Payroll Savings Plan

The hypothesis of a unit of sedimentary breccia in the upper part of the Belden is an interesting one. How can one tell it is a sedimentary breccia rather than a tectonic one? Can one be sure that it is parallel with bedding rather than cutting it.? If it is parallel with bedding could it be along a regional bedding plane fault- the Elk Range thrust? Or does the breccia represent strands of the Woody Creek fault zone?

It appears to me that the proposal to look at the Lenddo fault zone underground has merit at this stage of the game, but the costs, possible returns, and willingness to take risks have all to be weighed. Overall it appears that more tonnage would carry substantial zinc values than substantial silver values.

JOHN P. KELLOGG
CONSULTING MINING AND GEOLOGICAL ENGINEER
P.O. BOX 939, ASPEN, COLORADO 81611

Feb. 22 '69

OME Region III
RECEIVED
FEB 25 1969
Denver, Colorado

Bill Hasler
Office of Minerals Exploration
Room 203 - Bldg. 53
Denver, Colo. 80225

Box 1 of Tucson Ariz.

OFFICIAL COPY
O. M. E.
RECEIVED
MAR 6 1969
INITIALS CODE
WPC 220

Dear Bill:

After Henado drilling stopped, and our Aspen home finally sold I came down here out of howling blizzard, with assorted ailments and a dead-beat exhaustion to take some time out (in the last 8 mos. of '68 I was out of Aspen 2 nights — & one of those was O.M.E. business) — and I have just been advised by RHECO-HENADO, INC. that I am fired.

Apparently, now that they have their mine they don't need me.

Well — now I have seen 'em all.

It's been great working with you, & I hope you get more out of Henado than I have so far.

I'll be around Parker, Ariz. (85344) Gen'l Delivery, for awhile. Would appreciate hearing from a friend.

Regards, John

OME - 641.5 ?

DIAMOND CORE DRILLING
DIAMOND DRILLING EQUIPMENT
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FOUNDATION TESTING
MINING
QUARRYING
SHAFT SINKING
TUNNEL DRIVING
MINE PLANT DESIGN
AND FABRICATION

Boyles Bros.
DRILLING COMPANY
CONTRACTORS-ENGINEERS-GEOLOGISTS
15865 West 5th Avenue
GOLDEN, COLORADO 80401
Phone (303) 279-7913

General Offices and Plant
1624 Pioneer Road P. O. Box 58
SALT LAKE CITY, UTAH 84110
Phone 487-7595

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OME Region III
RECEIVED
JAN 31 1969
Denver, Colorado

OME-6415

January 28, 1969

OFFICIAL
COPY
O. M. E.
RECEIVED
FEB 3 1969
INITIALS CODE
430
120 M
120 E

Mr. John Kellogg - General Manager
Richmond Hill Exploration Company, Inc.
P.O. Box 939
Aspen, Colorado 81611

Dear Mr. Kellogg:

I have requested the discontinuation of the drilling program on your Lenado properties, for Richmond Hill Exploration Company. This request has been granted verbally by Mr. Henry Stein, Vice President, on January 25, 1969.

This hole has been extremely difficult for many reasons, including the depth of the overburden and the faulty ground. However, the hole was advancing slowly and at approximately 400 feet in depth we ran into what appeared to be clay and very sticky. On January 13th, we stuck the rods four times without any advance in the hole. Upon my visit to the site on January 15th, it was decided to case the hole to AX size to eliminate sticking. After doing so, we still had the same problems and the possibility of sticking the rods and loosing the hole remained. In addition, the recent heavy snowfall is causing considerable delay in drilling, which is to your account, also the avalanche danger is mounting. Therefore, to continue there would be the risk of loosing men and machinery and with the problems of the hole, it would be like sending good money after bad. With all concerned in mind, I felt justified in my request.

Your cooperation in this program has been appreciated as well as helpful. I trust you will understand my position.

Very truly yours,
BOYLES BROS. DRILLING COMPANY

George E. Lensch

George E. Lensch, District Manager

cc Mr. Henry Stein - Vice President

(Xerox copies sent: J.C.Voorhees, J.P.S.Griffith, C.F.Urschel, Bill Hasler (O.M.E.)
jpk

Office of Minerals Exploration
Building 53 Room 200

OFFICIAL COPY
O. M. E.
RECEIVED
JAN 24 1969
INITIALS CODE

out, see letter 2/2/69

January 21, 1969

Mr. John Kellogg, Manager
Richmond Hill Exploration Company, Inc.
P. O. Box 939
Aspen, Colorado 81611

Re: OME-6415 (Silver)
Rheco-Lenado (Assignee)
Lenado Area
Pitkin County, Colorado

Dear John:

Enclosed is a brief description of the portion of core you supplied us with, from Diamond Drill Hole No. 8, that Bruce Bryant you and I looked over yesterday.

Footage Interval	Description
126'	Limestone, probably Belden.
133' - 169'	Silicified limestone, Belden
139' - 150'	Silicified limestone, altered carbonate rock
150' - 153'	Silicified sandy limestone with FeOx
153' - 163'	Silicified sandy limestone with FEOx
170'	Fragment Pb + Ag bearing material.
190' - 198'	Altered limestone and clay, possibly Belden.
198' - 220'	Clayey Belden
220' - 226'	Limestone, Belden
226' - 250'	Limestone, Belden
250' - 260'	Limestone, Belden.
260' - 268'	Dolomitic limestone with mica
268' - 273'	Dolomitic limestone with mica (May be Peerless?)
273' - 281'	Brecciated Limestone
281' - 295'	Brecciated Limestone
295' - 310'	Dolomitic limestone with mica
310' - 317'	Recrystallized dolomite and breccia

Footage Interval	Description
317' - 323'	Recrystallized dolomite and breccia.
323' - 330'	Recrystallized limestone - Belden
330' - 338'	Limestone, Belden.
338' - 343'	Limestone, Belden
343' - 345'	Limestone, Belden
345' - 353'	Belden shale
353' - 366'	Brecciated Belden limestone
366' - 371'	Brecciated Belden limestone
371' - 380'	Brecciated Belden limestone
380' - 383'	Brecciated Belden limestone containing sulfide

Sincerely yours,

J. William Hasler

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

cc: Chief, OME ✓
OME - 6415
OME chron
Mr. Hasler

January 2, 1969

OFFICIAL COPY
O. M. E.
RECEIVED
JAN 28 1969
INITIALS | CODE
120

Mr. J. William Hasler, Field Officer
Office of Minerals Exploration
U. S. Department of the Interior
Building 53, Room 203, Federal Center
Denver, Colorado 80225

Re: OME-6415 (Silver)
Lenado Area
Contract 2236

Dear Bill:

Enclosed are two copies of a one-page summary of assays, and weighted average, of the Lead-silver vein found in DDH 8, and one complete set of Assay Reports, with corresponding core intervals, for all of DDH 8, from the top of bedrock to 198 feet.

This is separate from the wide zinc interval we had in DDH 7. Our current hole will, hopefully, also cross this zinc later on.

I wish you could see this core - it is beautiful, heavy galena.

I will get out full reports, vouchers, maps, etc. in the near future.

Looks like we have a mine.

When are you coming to visit?

Happy New Year - John P. Kellogg

John P. Kellogg

DDH 8

Depth Interval	Ft. Width	Oz. Silver	% Lead	% Zinc
163 -- 165	2	16.6	16.9	4.4
165 -- 167	2	8.1	26.3	9.7
167 -- 170	3	18.8	65.8	2.1
170 -- 173	3	9.3	19.4	6.6
173 -- 174	1	2.4	17.6	2.0
174 -- 176.5	2.5	17.7	48.0	14.0
176.5 - 177.5	1	16.7	65.4	3.7
177.5 - 179.5	2	20.5	60.7	0.3
179.5 - 182	2.5	14.8	25.4	1.0
182 -- 184	2	5.7	12.1	1.0
184 -- 185	1	6.5	14.3	1.1
185 -- 187	2	14.7	45.0	1.0
187 -- 188.5	1.5	15.6	44.2	1.1
188.5 - 190	1.5	7.9	23.3	1.2
163 --- 190	27.0	13.25	35.54	3.95

Average Copper: 0.~~072~~

Oz. Gold: from Trace to 0.01

Nil $BaSO_4$ 174 - 176.5

Nil Moly 174 - 176.5; 176.5 - 177.5

Cosine - 51° = .62932 = 17 feet true width

Telephone 363-3302

Hand Sample Serial 43602-43605

ASSAY REPORT

UNION ASSAY OFFICE, Inc.

W. C. WANLASS, President
L. G. HALL, Vice President
G. P. WILLIAMS, Treasurer
GERALDINE A. WANLASS, Secretary

P. O. Box 1528
Salt Lake City, Utah 84110

Mine Richmond Hill Exploration
Box 939
Aspen, Colorado 81611

RESULTS PER TON OF 2000 POUNDS Dec. 23, 1968

NUMBER	GOLD Ozs. per Ton	SILVER Ozs. per Ton	LEAD Wet on Ore	COPPER Per Cent	INSOL. Per Cent	ZINC Per Cent	SULPHUR Per Cent	IRON Per Cent	LIME Per Cent	Per Cent	Per Cent
686	Trace	6.5	14.3	0.012		1.1	184' - 185'				
687	0.010	14.7	45.0	0.025		1.0	185' - 187'				
688	0.010	15.6	44.2	0.025		1.1	187' - 188.5'				
689	0.005	7.9	23.3	0.037		1.2	188.5' - 190'				

Remarks

Charges $ 35.00

G. P. Williams

Telephone 363-3302

Hand Sample Serial 43732-43735

ASSAY REPORT

UNION ASSAY OFFICE, Inc.

W. C. WANLASS, President
L. G. HALL, Vice President
G. P. WILLIAMS, Treasurer
GERALDINE A. WANLASS, Secretary

P. O. Box 1528
Salt Lake City, Utah 84110

Mine Richmond Hill Exploration Co.
Box 939
Aspen, Colorado 81611

RESULTS PER TON OF 2000 POUNDS Dec. 24, 1968

NUMBER	GOLD Ozs. per Ton	SILVER Ozs. per Ton	LEAD Wet on Ore	COPPER Per Cent	INSOL. Per Cent	ZINC Per Cent	SULPHUR Per Cent	IRON Per Cent	LIME Per Cent	Per Cent	Per Cent
690	None	0.2	1.6			1.6	190' - 192'				
691	None	0.6	1.5			1.4	192' - 194'				
692	None	None	2.7			1.2	194' - 196'				
693	None	None	2.3			1.3	196' - 198'				

Remarks

Charges $ 28.00

G. P. Williams

Telephone 363-3302

Hand Sample Serial 40879

Mine Richmond Hill Exploration Co.
Box 939
Aspen, Colorado 81611

UNION ASSAY OFFICE, Inc.

W. C. WANLASS, President
L. G. HALL, Vice President
G. P. WILLIAMS, Treasurer
GERALDINE A. WANLASS, Secretary
P. O. Box 1528
Salt Lake City, Utah 84110

RESULTS PER TON OF 2000 POUNDS

Dec. 4, 1968

NUMBER	GOLD Ozs. per Ton	SILVER Ozs. per Ton	LEAD Wet on Ore	COPPER Per Cent	INSOL. Per Cent	ZINC Per Cent	SULPHUR Per Cent	IRON Per Cent	LIME Per Cent	Per Cent	Per Cent
672	Trace	18.8	65.8			2.1	167' - 170'				

Remarks

Charges $ 7.00

Glen P. Williams

Telephone 363-3302

Hand Sample Serial 40894-40900

Mine Richmond Hill Exploration Co.
Box 939
Aspen, Colorado 81611

ASSAY REPORT

UNION ASSAY OFFICE, Inc.

W. C. WANLASS, President
L. G. HALL, Vice President
G. P. WILLIAMS, Treasurer
GERALDINE A. WANLASS, Secretary
P. O. Box 1528
Salt Lake City, Utah 84110

RESULTS PER TON OF 2000 POUNDS

Dec. 4, 1968

NUMBER	GOLD Ozs. per Ton	SILVER Ozs. per Ton	LEAD Wet on Ore	COPPER Per Cent	INSOL. Per Cent	ZINC Per Cent	SULPHUR Per Cent	IRON Per Cent	LIME Per Cent	Per Cent Al	Per Cent
668	None	0.3	2.7			1.1	122' - 125'			0.44	
669	None	0.8	5.2			2.5	125' - 127'				
670	None	1.9	2.0			1.5	127' - 133'				
671	None	0.9	0.9			1.0	133' - 139'				
673	Trace	16.6	16.9			4.4	163' - 165'				
674	Trace	8.1	26.3			9.7	165' - 167'				
675	None	9.3	19.4			6.6	170' - 173'				

Remarks

Charges $ 54.00

Glen P. Williams

Telephone 363-3302

Hand Sample Serial 41537-41540

UNION ASSAY OFFICE, Inc.

W. C. WANLASS, President
L. G. HALL, Vice President
G. P. WILLIAMS, Treasurer
GERALDINE A. WANLASS, Secretary
P. O. Box 1528
Salt Lake City, Utah 84110

Mine Richmond Hill Expl. Co.
Box 939
Aspen, colorado 81611

RESULTS PER TON OF 2000 POUNDS

Dec. 9, 1968

NUMBER	GOLD Ozs. per Ton	SILVER Ozs. per Ton	LEAD Wet on Ore	COPPER Per Cent	INSOL. Per Cent	ZINC Per Cent	SULPHUR Per Cent	IRON Per Cent	LIME Per Cent	Per Cent	Per Cent
676	None	0.3	1.0			1.6	139'	- 144'			
677	None	0.5	1.2			1.1	144'	- 149'			
678	None	0.6	0.8			1.3	149'	- 153'			
679	None	1.6	1.2			None	153'	- 163'			

Remarks

Charges $ 28.00

G. P. Williams

ASSAY REPORT

Telephone 363-3302

Hand Sample Serial 42670-42675

UNION ASSAY OFFICE, Inc.

W. C. WANLASS, President
L. G. HALL, Vice President
G. P. WILLIAMS, Treasurer
GERALDINE A. WANLASS, Secretary
P. O. Box 1528
Salt Lake City, Utah 84110

Mine Richmond Hill Exploration Co.
Box 939
Aspen, Colorado 81611

RESULTS PER TON OF 2000 POUNDS

Dec. 18, 1968

NUMBER	GOLD Ozs. per Ton	SILVER Ozs. per Ton	LEAD Wet on Ore	COPPER Per Cent	INSOL. Per Cent	ZINC Per Cent	SULPHUR Per Cent	IRON Per Cent	LIME Per Cent	Per Cent	Per Cent
										BaSO	Mo
680	0.010	2.4	17.6	0.025		2.0	173'	- 174'			
681	Trace	17.7	48.0	0.018		14.0	174'	- 176.5		None	None
682	0.005	16.7	65.4	0.018		3.7	176.5	- 177.5			None
683	Trace	20.5	60.7	0.018		0.3	177.5	- 179.5			
684	Trace	14.8	25.4	0.012		1.0	179.5	- 182'			
685	Trace	5.7	12.1	None		1.0	182'	- 184'			

Remarks

Charges $ 68.50

G. P. Williams

Telephone 363-3302

Hand Sample Serial 40201-40204

ASSAY REPORT

UNION ASSAY OFFICE, Inc.

W. C. WANLASS, President
L. G. HALL, Vice President
G. P. WILLIAMS, Treasurer
GERALDINE A. WANLASS, Secretary
P. O. Box 1528
Salt Lake City, Utah 84110

Mine Richmond Hill Exploration Company
Box 939
Aspen, Colorado 81611

RESULTS PER TON OF 2000 POUNDS Nov. 29, 1968

NUMBER	GOLD Ozs. per Ton	SILVER Ozs. per Ton	LEAD Wet on Ore	COPPER Per Cent	INSOL. Per Cent	ZINC Per Cent	SULPHUR Per Cent	IRON Per Cent	LIME Per Cent	Per Cent	Per Cent
660	0.005	None	0.6			3.3	92' - 93'				
661	Trace	None	1.7			2.3	93' - 95.5'				
662	0.005	None	None			1.2	95.5' - 97'				
663	Trace	None	None			0.8	97' - 100'				

Remarks

Charges $ 28.00

Glen P. Williams

Telephone 363-3302

Hand Sample Serial 40244-40247

ASSAY REPORT

UNION ASSAY OFFICE, Inc.

W. C. WANLASS, President
L. G. HALL, Vice President
G. P. WILLIAMS, Treasurer
GERALDINE A. WANLASS, Secretary
P. O. Box 1528
Salt Lake City, Utah 84110

Mine Richmond Hill Exploration Company
Box 939
Aspen, Colorado 81611

RESULTS PER TON OF 2000 POUNDS Nov. 29, 1968

NUMBER	GOLD Ozs. per Ton	SILVER Ozs. per Ton	LEAD Wet on Ore	COPPER Per Cent	INSOL. Per Cent	ZINC Per Cent	SULPHUR Per Cent	IRON Per Cent	LIME Per Cent	Per Cent	Per Cent
664	Trace	None	0.2			1.0	100' - 107'				
665	None	None	0.4			0.8	107' - 110'				
666	None	None	1.3			0.8	110' - 114'				
667	None	None	0.4			1.0	114' - 122'				

Remarks

Charges $ 28.00

Glen P. Williams

Telephone 363-3302

Hand Sample Serial 38628

UNION ASSAY OFFICE, Inc.

W. C. WANLASS, President
L. G. HALL, Vice President
G. P. WILLIAMS, Treasurer
GERALDINE A. WANLASS, Secretary
P. O. Box 1528
Salt Lake City, Utah 84110

Mine Richmond Hill Exploration Co.
Box 939
Aspen, Colorado 81611

RESULTS PER TON OF 2000 POUNDS

Nov. 19, 1968

NUMBER	GOLD Ozs. per Ton	SILVER Ozs. per Ton	LEAD Wet on Ore	COPPER Per Cent	INSOL. Per Cent	ZINC Per Cent	SULPHUR Per Cent	IRON Per Cent	LIME Per Cent	Per Cent	Per Cent
656	Trace	0.4	0.9			None		89'	- 89.5'		

Remarks

Charges $ 7.00

W. C. Wanlass

Telephone 363-3302

Hand Sample Serial 39412-39414

ASSAY REPORT

UNION ASSAY OFFICE, Inc.

W. C. WANLASS, President
L. G. HALL, Vice President
G. P. WILLIAMS, Treasurer
GERALDINE A. WANLASS, Secretary
P. O. Box 1528
Salt Lake City, Utah 84110

Mine Richmond Hill Exploration Co.
box 939
Aspen, Colorado 81611

RESULTS PER TON OF 2000 POUNDS Nov. 25, 1968

NUMBER	GOLD Ozs. per Ton	SILVER Ozs. per Ton	LEAD Wet on Ore	COPPER Per Cent	INSOL. Per Cent	ZINC Per Cent	SULPHUR Per Cent	IRON Per Cent	LIME Per Cent	Per Cent	Per Cent
657	Trace	0.2	0.5			0.2		89.5'	- 90'		
658	Trace	0.4	7.0			1.1		90'	- 91'		
659	Trace	8.7	2.0			3.9		91'	- 92'		

Remarks

21.00

RHECO - LENADO, INC.
P. O. Box 939
Aspen, Colorado 81611

November 4, 1968

OME Region III
RECEIVED
NOV 5 - 1968
Denver, Colorado

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NOV 7 1968
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bal 120
120
WR 120

Mr. J. William Hasler
Office of Minerals Exploration
U. S. Department of the Interior
Building 53, Room 203, Federal Center
Denver, Colorado 80225

Re: OME-6415 (Silver)
Lenado Area
Contract 2236

Dear Bill:

What I regard as a most significant assay has just come in, and knew you would be interested.

A composite of the pulps from 383' - 423' (our samples # 294 - 298, incl.) has assayed 0.30% Oxide Lead, and 2.10% Oxide Zinc. The weighted average for this same composite assayed 3.95% total Lead, and 18.9% total Zinc. Thus, on the weighted average total for 40 feet we have 3.65% non-oxide Lead and 16.8% non-oxide Zinc. This would just about have to be Sphalerite (or Wurtzite), ZnS, with possibly some Willemite, Zn_2SiO_4. The Lead, of course, is galena (PbS).

On an arithmetical average the percent of oxide lead and zinc is slightly higher, but still under 10% of the total.

This makes our lead-zincs readily amenable to treatment without sulfidization or expensive leaches. In simple terms - <u>sulfide ore</u>.

My back is better, I can draft once more, and will soon have the maps I promised, including vertical profiles.

Sincerely yours,

John P. Kellogg

John P. Kellogg

r. c. RHECO - LENADO Stockholders

Office of Minerals Exploration
Building 53 Room 203

September 16, 1968

Mr. Bill E. Pemberton, Special Agent
Federal Bureau of Investigation
Federal Building
20th and Stout Streets
Denver, Colorado 80202

Re: OME-6415 (Silver)
RHECO-LENADO (Assignee)
Lenado Area
Pitkin County, Colorado
Contract 2236

Dear Mr. Pemberton:

This letter is in reference to our telephone conversation this morning on the above-captioned property.

Mr. John Kellogg, General Manager, Rheco-Lenado (Assignee) called my residence at Golden, Colorado during the first weekend of September to report that a number of "Hippies" had burned down the core-storage shack, and the field office at the Lenado exploration project. He reported that all or most of the diamond drill core and sludge samples that had been obtained during the course were destroyed in the fire as well as a supply of diamond drill core boxes, and some field records. During that conversation Mr. Kellogg asked what recourse might be taken in view of the fact that Rheco-Lenado was operating under the terms of an exploration contract with the United States Government. I informed him I would confer with our OME office in Washington, D. C., about the matter.

Contracts under the Office of Minerals Exploration do not normally include Government-owned equipment, nor are they involved in Federally-owned property. In almost every contract the Applicant, or the Operator, in this case Rheco-Lenado (Assignee), complete the exploration work by contract, or may rent the equipment, or may use their own equipment on a depreciation basis. The government in turn

places a lien on the property, which insures the Government's right for repayment of its share of the loan from production if ore is discovered, as a result of the exploration work. The contracts usually specify that the Operator may be required to obtain split samples of the Diamond Drill Core and or the diamond drill sludge if requested by the government, otherwise there is no ownership. Occasionally, equipment may be purchased under a Short Form, Fixed Unit Cost contract but the government retains no equity in such equipment at the time of the completion of the contract work.

The Washington Office of Minerals Exploration informed me by telephone that there was not enough equipment, property or other items to become involved as a result of the destruction of the buildings, equipment, and supplies.

Enclosed is a copy of MME Form 50, July 1965 "Exploration Contract (Long Form)", and a copy of MME Form 51, July 1965, "Exploration Contract (Short Form) as well as a pamphlet entitled "Exploration Assistance" and included application forms and a Title 30 "Regulations" form for your perusal.

Sincerely yours,

J. William Hasler

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

cc: Chief, OME
OME-6415
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
C. L. E.
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JUL 3 1968
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July 2, 1968

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6415 (Silver)
RHECO-LENADO (Assignee)
Pitkin County, Colorado
Contract 2236

Transmitted herewith are the "Government's Copy" and the "Budget and Finance's Copy" of Amendment No. 2 signed for the Government and by the Vice President of the Company on the above-stated subject.

J. William Hasler

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

Office of Minerals Exploration
Building 53 Room 203

OFFICIAL
COPY
O. M. E.
RECEIVED
JUN 26 1968
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June 25, 1968

Mr. John P. Kellogg
P. O. Box 939
Aspen, Colorado 81611

Subject: OME-6415 (Silver)
Rheco-Lenado, Inc., Assignee
Lenado Area
Pitkin County, Colorado
Contract 2236

Dear Mr. Kellogg:

Enclosed are the original and three copies of proposed Amendment No. 2 (2 pages), to the subject contract, signed for the Government.

If the proposed amendment is satisfactory, all four copies should be signed by a duly authorized representative of the Operator, then retain the "Operator's Copy" and return the other three copies to this office.

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 chron
Mr. Hasler
OME-6415

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
6/17/68	R M Smith	120
6/17/68	Kirkham	120
"	Johnson	110
6/19	Kulsgaard	
6/19	Wagner	
		110
		220
		120M

JUN 20 1968

AIRMAIL

Memorandum

To: Field Officer, Region III

From: Chief, Office of Minerals Exploration

Subject: OME-6415 (Silver)
Rheco-Lenado, Inc., Assignee
Lenado Area
Pitkin County, Colorado

Enclosed are the original and three copies of proposed Amendment No. 2 (2 Pages), 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 a duly 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

Frank E. Johnson

Enclosures

cc: Director's Reading File
Division File
Economic Geology File
OME Docket
OME Reading File
Mr. Smith
130

BSLong/1 6/17/68

120 R M Smith
120 HK
~~110~~ JZ
120M

To Legal 6/11

EXPLORATION CONTRACT
RHECO-LENADO, INC., ASSIGNEE
OME-6415

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 Rheco-Lenado, Inc., hereinafter called the "Operator," that Exploration Contract 2236 (OME-6415), dated February 6, 1967, as amended, is further amended effective June 19, 1968, as follows:

1. (a) Work under the contract ~~shall~~ may be suspended during the period beginning June 20, 1968, and ending not later than August 1, 1968.

(b) No costs incurred by the Operator during the period of suspension shall be allowable for contribution by the Government.

(c) The Government shall not contribute to the costs of rehabilitation or repair which in its opinion would not have occurred if there had been no suspension of the work.

(d) The Operator, at its own cost and expense, without contribution by the Government, during the period of suspension shall preserve and protect the project work.

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 designed 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

RHECO-LENADO, 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

April 16, 1968

O. M. E.
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APR 18 1968
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Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6415 (Silver)
RHECO-LENADO, Assignee
Pitkin County, Colorado
Contract 2236

Transmitted herewith are the original and two copies of the March, 1968 MME Form 60 (Operator's Monthly Voucher), MME Form 61 (Operator's Progress Report) and narrative on the above-stated subject.

J. William Hasler

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

Enclosures

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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June 4, 1968

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6415 (Silver)
Richmond Hill Exploration Company Inc.
RHECO - Lenado Area
Pitkin County, Colorado
Contract 2236

The operator, in a letter dated May 28, 1968, requested an amendment to the subject contract to allow for an extension of the suspended period to end as of July 15, 1968, rather than the June 20, 1968 date as stipulated in Amendment No. 1. Two additional drill holes should be drilled to complete the exploration project on the Lenado area project but the operator is unable to obtain a drill rig and crews until after the first of July due to prior drilling commitments by the drilling contractor.

In my memorandum of January 25, 1968, I reviewed the drilling completed to date, and recommended the drilling of drill hole No. 6 to drill through the "Camp Bird" fault and further explore the mineralized zone in the Leadville that was penetrated in drill hole No. 4.

The advisability of completing the originally proposed holes in the area to the south is now questionable as a result of the drilling completed to date and its resultant complex geology, and as stated in my January 25 memorandum we feel additional drilling in the south is not now warrented.

Diamond drill hole No. 6 was completed and it was thought that a considerable section of the Leadville formation was penetrated but no mineralized material was penetrated beyond the "Camp Bird" fault.

In a letter dated April 3, 1968, the operator requested that two holes, holes 7 and 8, now be drilled to test the area beneath the "Silver Fault" in both the hanging and footwall sides of the Lenado fault (section showing proposed hole No. 7 attached), and to test the block of ground below the Aspen-Contact tunnel level stopes and winzes (section showing proposed hole No. 8 attached). These holes were proposed originally by the operator but they were thought to be essentially development drilling, however, this is not now the case as all prior drilling has shown the Lenado area to be additionally complex. It now appears that the origin of the rich "drag" ore mined along faults in the Aspen-Contact and Leadville Mines is not at any great distance from the workings, and any ore should that may be found could be at depth under or near the workings, at the Silver Fault Contact of the Leadville Dolomite.

It is recommended that the operator be given permission to complete the newly proposed holes 7 and 8 near their proposed locations as shown on the cross sections (included) as well as on the plan map submitted with the operator's request of April 8, 1968. The holes are to be drilled approximately as follows:

Hole No.	Inclination	Bearing	Estimated Depth
7	-55°	S. 23 1/2° E.	375'
8	-52°	S. 58° W. 32	600'

J. William Hasler

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

Richmond Hill Exploration Company Inc.

P. O. Box 939

ASPEN, COLORADO 81611

Telephone 925-3717

May 28, 1968

OME Region III
RECEIVED
MAY 29 1968
Denver, Colorado

Mr. J. William Hasler, Field Officer
Office of Minerals Exploration
U. S. Department of the Interior
Building 53, Room 203, Federal Center
Denver, Colorado 80225

Re: OME-6415 (Silver)
Lenado Area
Contract 2236

Dear Bill:

Reference is made to the subject contract AMENDMENT NO. 1, dated April 8, 1968, in which section 1. (a) states:

> "Work under the contract shall be suspended during the period beginning March 20, 1968, and ending not later than June 20, 1968."

Despite our readiness to recommence drilling a month earlier than June 20, we have been unable to line up a drilling crew for mobilization before July 1. We should like, therefore, to have the wording in the above amendment change to read as follows:

> "Work under the contract shall be suspended during the period beginning March 20, 1968, and ending not later than July 15, 1968."

We hope to get under way around July 1, but we request the extra 15 days to cover possible delays due to our subcontractor's prior commitments. Although we have attempted to interest other drill contractors, we are having Boyles Bros return. The same driller will do the work - a distince advantage since he now knows this very difficult coring ground, and should give us much better recovery than one not conversant with it.

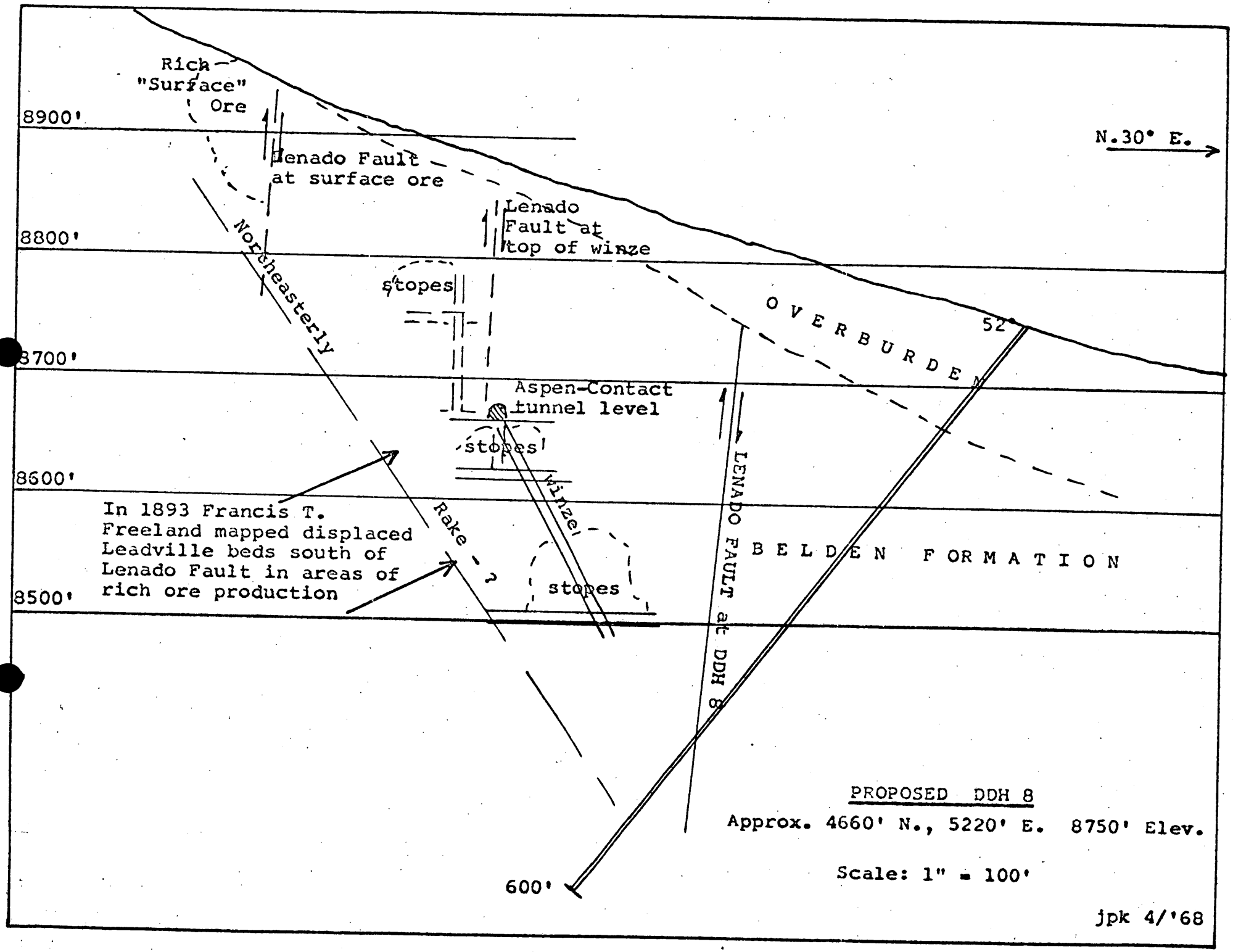
Enclosed are extra prints of sectional views for the proposed DDHoles 7 and 8.

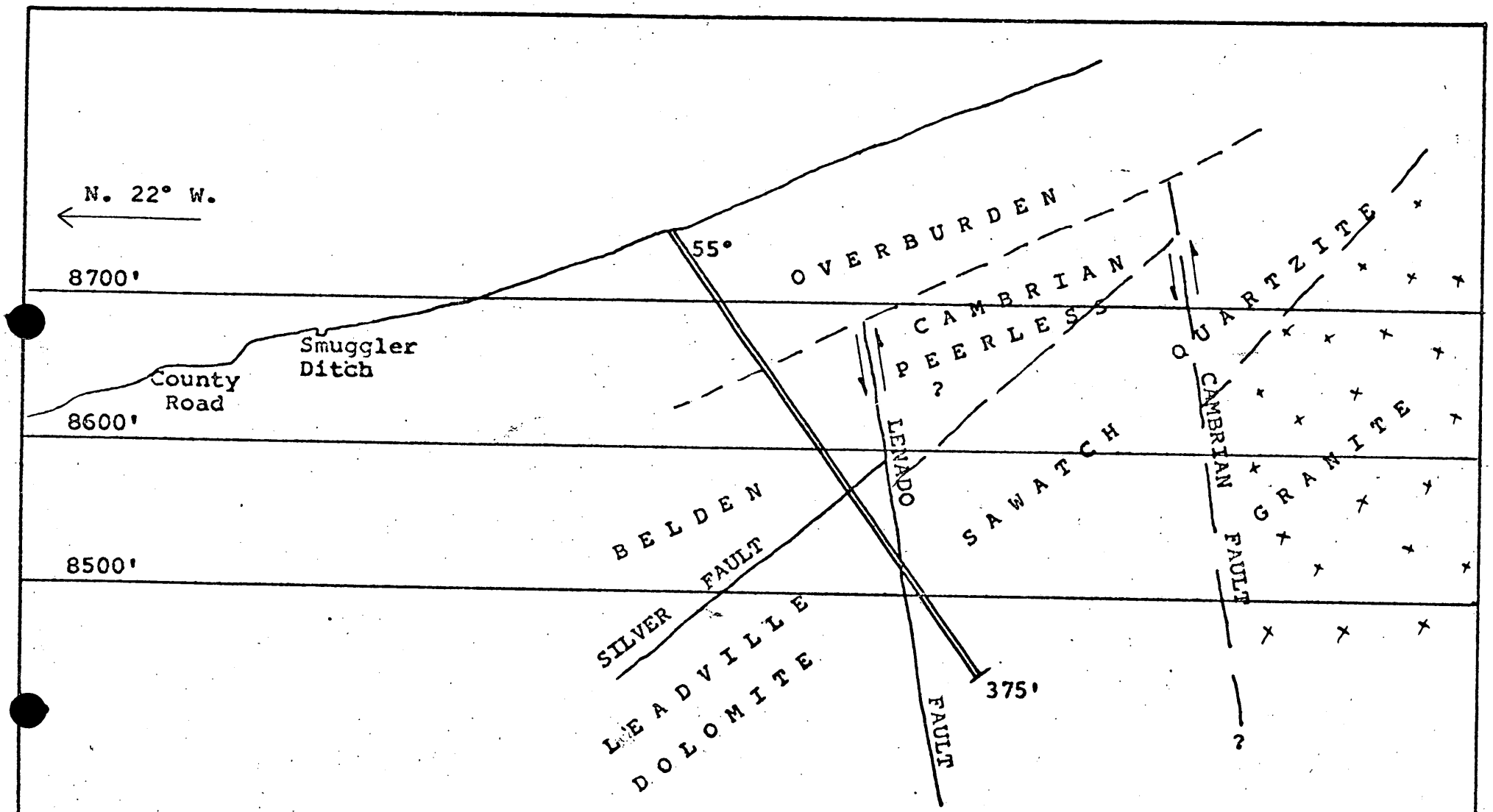
Sincerely yours,

John P. Kellogg

John P. Kellogg,
General Manager

cc: J. C. Voorhees
H. L. Stein


Rich "Surface" Ore
8900'
Lenado Fault at surface ore
N.30° E.
Lenado Fault at top of winze
8800'
Northeasterly
stopes
OVERBURDEN
52°
8700'
Aspen-Contact tunnel level
stopes
8600'
In 1893 Francis T. Freeland mapped displaced Leadville beds south of Lenado Fault in areas of rich ore production
Rake ?
winze
LENADO FAULT at DDH 8
BELDEN FORMATION
stopes
8500'
PROPOSED DDH 8
Approx. 4660' N., 5220' E. 8750' Elev.
Scale: 1" = 100'
600'
jpk 4/'68



PROPOSED DDH 7 - Approx. 4660' N., 5220' E. 8750' Elev.

Scale: 1" = 100'

jpk 3/'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

April 15, 1968

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O. M. E.
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APR 18 1968
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fcj | 110
R7nd | 130 S

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6415 (Silver)
RHECO-Lenado, Assignee
Pitkin County, Colorado
Contract 2236

Transmitted herewith are the "Government's Copy" and "Budget and Finance's Copy" signed for the Government and by an official of the company on the above-stated subject. The operator retained the "Operator's Copy" and the "Field Office's Copy" and "Extra Copy for Field Use" have been retained for use in the Region III field office files.

J. William Hasler

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

Enclosures

See left side of folder

Office of Minerals Exploration
Building 53 Room 203

April 11, 1968

APR 12 1968

Mr. John Kellogg, General Manager
RHECO-Lenado, Assignee
P. O. Box 939
Aspen, Colorado 81611

Subject: OME-6415 (Silver)
RHECO-Lenado, Assignee
Pitkin County, Colorado
Contract 2236

Dear Mr. Kellogg:

Enclosed are the original and three copies of proposed Amendment No. 1 (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 official of the company, retain the "Operator's Copy" and return the others to this office.

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,
Field Officer, Region III
Office of Minerals Exploration

Enclosures

cc: Chief, OME
OME chron
OME-6415
Mr. Hasler

Richmond Hill Exploration Company Inc.

P. O. Box 939

ASPEN, COLORADO 81611

Telephone 925-3717

April 3, 1968

OME Region III
RECEIVED
APR 9 - 1968
Denver, Colorado

Mr. J. William Hasler, Field Officer
Office of Minerals Exploration
U. S. Department of the Interior
Building 53, Room 203, Federal Center
Denver, Colorado 80225

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O. M. E.
RECEIVED
APR 11 1968
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Re: OME-6415 (Silver)
Lenado Area
Contract 2236

Dear Bill:

In accordance with your requests expressed at yesterday's meeting in your Denver offices we are submitting herewith outline of our proposed summer drilling program for continuance and completion of the captioned contract. Also at your request we are forwarding representative cores from DDH 6 of the unidentified material below the Camp Bird Fault. The cores are marked for depths.

Illustrating our proposed drilling at Lenado are three maps: the 100-scale base Plan of Lenado Exploration, with geology and completed drilling, and the approximate locations of the two remaining contemplated holes, and a vertical section map of each of these holes. Two prints of each of the three maps are enclosed.

At this stage of the project's progress, with approximately 75% of the work completed, it is fairly evident that the origin of the rich "drag" ore mined along faults in the Aspen-Contact and Leadville Mines is not at any great horizontal distance from the workings. Should there be such a source it can now only be at depth under, or nearly under the workings, at the Silver Fault Contact of the Leadville Dolomite. This has always been the popular supposition of eminent geologists who made firsthand studies of Lenado's underground ore zones. In the 1890's Josiah Spurr first advanced this theory in print; later in agreement were Otto Sussman (for the American Metals Company in 1905), Adolph Knopf, Chas. E. Anderson, D. P. Rohlfing, and John Vanderwilt.

It is probably true to state that this now remains the only place left to diamond drill. In view of the fact that down instead of sideways should have been our number one target in the first place, there is something of rueful defeatism in

this thinking. The results of our drilling practically remove all doubts, and should accelerate enthusiasm to see the prime target. Our best hole, DDH 1, with hi-zinc cores and exciting silver sludges, is the hole closest to the old workings - and it is 600 feet northeast of the Aspen-Contact winze. Had there been no Aspen-Contact, we would have been led to this ore through DDH 1.

"Drag" along fault planes is rarely confined to the vertical; there is normally a horizontal component. The productive ore zones in and near the Lenado transverse fault were all south of the main fault, and the horizontal displacement south is to the west - in other words, from the east. We may therefore assume that the location of ore in place is not only at depth, in the Leadville Dolomite, but also somewhat east of the Aspen Contact stopes - toward our DDH 1. A vertical "front-view" section of the mine workings suggests this northeasterly rake.

At 600 feet northeast, our DDH 1 was too distant, however, and was not deep enough to locate the Leadville. We therefore propose to locate our next hole, DDH 7, about half way between DDH 1 and the Aspen Contact winze, or 300 feet closer, and to incline the hole steeply to gain depth. The final hole, DDH 8, will depend upon the results from DDH 7. Should they be negative, we propose to locate DDH 8 to explore under the eastern end of the workings. The approximate location of DDH 7 and two alternate locations for DDH 8 are shown on the attached Plan Map. The exact locations, and hence exact bearings and dips, cannot be determined until drill sites have been prepared in this verydifficult terrain.

enclosures: maps

Sincerely yours,

John P. Kellogg

John P. Kellogg,
General Manager

OME Region III
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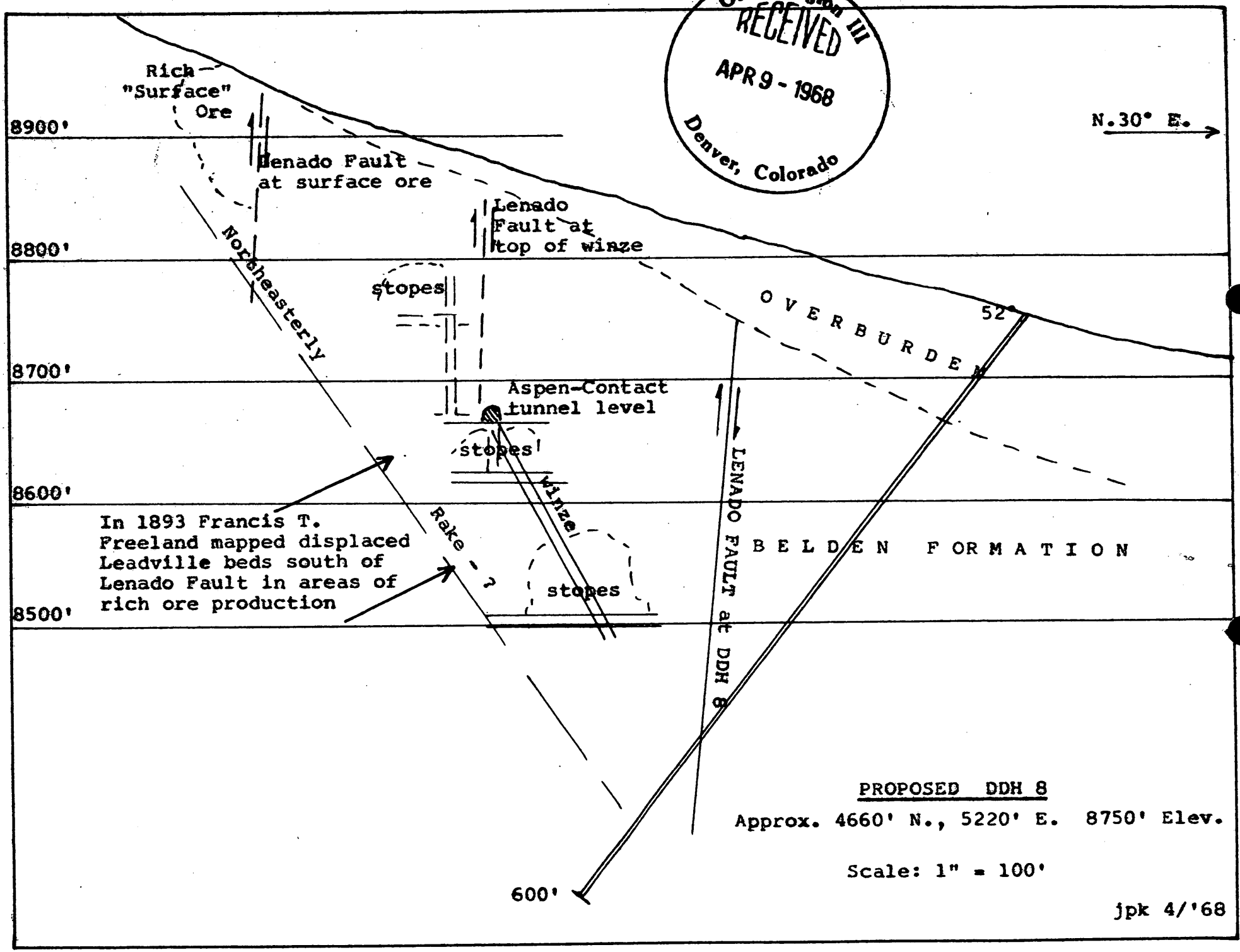
APR 9 - 1968
Denver, Colorado



OME Region III
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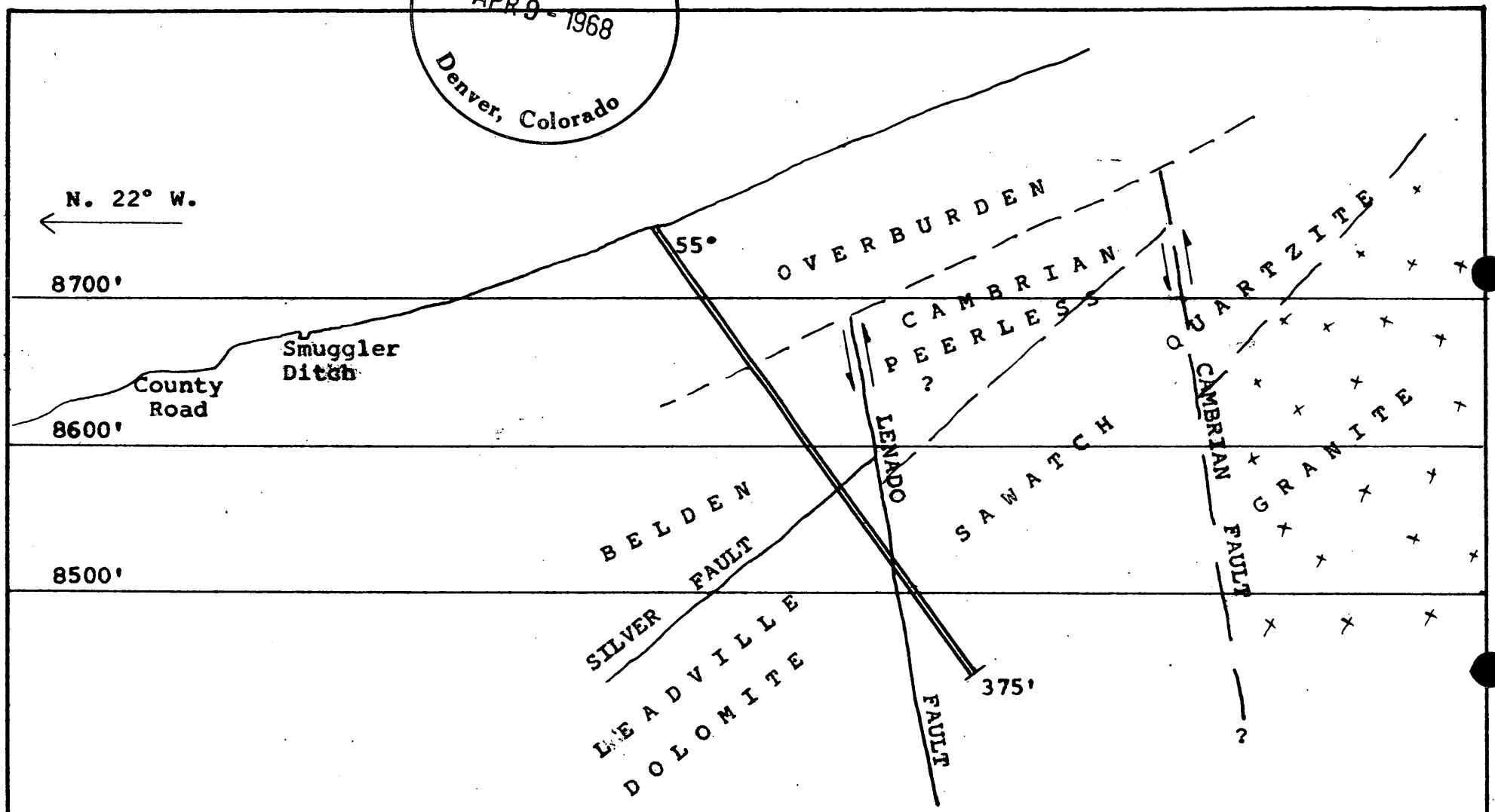
APR 9 - 1968
Denver, Colorado



PROPOSED DDH 7 - Approx. 4660' N., 5220' E. 8750' Elev.

Scale: 1" = 100'

jpk 3/'68

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
4/4/68	RMSmith	
0/5	Kirkgard	
4/5	[illegible]	
9/8	Johnson	

AIRMAIL

APR 8 1968

Memorandum

To: Field Officer, Region III

From: Assistant Chief, Office of Minerals Exploration

Subject: OME-6415 (Silver)
Rheco-Lenado, Inc., Assignee
Lenado Area
Pitkin County, Colorado
Contract 2236

Enclosed are the original and three copies of proposed Amendment No. 1 (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 a duly 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.

Harold Kirkemo (gla)

Harold Kirkemo

Enclosures

cc: Director's Reading File
Division File
Economic Geology File
OME File
OME Reading File
Mr. Smith
130

RMSmith/bsl 4/4/68

To legal 4/2

3/29/68 RMS 4/1/68 HK

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RMSmith/bsl

EXPLORATION CONTRACT
RHECO-LENADO, INC., ASSIGNEE
OME-6415

AMENDMENT NO. 1

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 Rheco-Lenado, Inc., hereinafter called the "Operator," that Exploration Contract 2236 (OME-6415), dated February 6, 1967, is amended effective March 19, 1968, as follows:

1. (a) Work under the contract shall be suspended during the period beginning March 20, 1968, and ending not later than June 20, 1968.

(b) No costs incurred by the Operator during the period of suspension shall be allowable for contribution by the Government.

(c) The Government will not contribute to any cost of rehabilitation or repair which in its opinion would not have occurred had there been no suspension of the work.

(d) The Operator at its own cost and expense, without contribution by the Government, during the period of suspension shall preserve and protect the project work.

2. The time fixed by Article 1 of the contract for the completion of the work is extended from 24 to 27 months from the date of the contract, or until May 6, 1969.

3. The maximum period for royalty payments and for the lien to secure the payment thereof provided for in Article 7 of the contract is extended from ten (10) to eleven (11) years from the date of the contract.

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

RHECO - LENADO, INC.

By_____

Title_____

IN REPLY REFER TO:

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

Office of Minerals Exploration

March 26, 1968

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6415 (Silver)
Richmond Hill Exploration Company
Lenado Area
Pitkin County, Colorado
Contract 2236

A copy of a letter from the operator, dated March 20, 1968, was transmitted to the Washington Office of Minerals Exploration March 22, 1968. The letter contained a request to recess the subject contract from March 20, 1968 to June 20, 1968 due to increasing costs to combat winter conditions, as well as to assess the drilling completed to date. It is recommended that an amendment be prepared to recess the operations for the period requested.

J. William Hasler

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

Richmond Hill Exploration Company Inc.

P. O. Box 939

ASPEN, COLORADO 81611

Telephone 925-3717

March 20, 1968

OFFICIAL COPY
O. M. E.
RECEIVED
MAR 28 1968

INITIALS	CODE
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Mr. J. William Hasler, Field Officer
Office of Minerals Exploration
U. S. Department of the Interior
Building 53, Room 203, Federal Center
Denver, Colorado 80225

Re: OME-6415 (Silver)
Lenado Area
Contract 2236

Dear Bill:

As a follow-up to our recent telephone conversation, we would like to request an Amendment to the captioned Contract for Recess of Operations until summer.

The recess period would be for three months, from today, March 20, to June 20, 1968. Today Boyles Bros should be winding up their demobilization from DDH 6 and from Lenado. As drill contractor, Boyles will continue at their contract prices when we recommence next summer.

Justification for this request is threefold: added winter expenses have become excessive inversely as the drilling has slowed; the danger of snowslides now in the drill area; and the need for careful reassessment by the Operator and the O.M.E. of results already obtained before completion of the contract. Regarding the first, the water truck costs ($824 in February) would be removed when the Lenado-Smuggler ditch is running in June. The convenient bulldozer at Lenado is no longer available for snow removal, and there would be much standby time waiting for a cat from Aspen or Snowmass to remove the already heavy March snows. The need to thaw out frozen equipment has cut down on drilling time. Regarding the second: the only place the Operator can now locate the drill rig to the best advantage is under a series of cornices hanging from Sawatch cliffs. These could be "shot" down, but there again is added expense for a helicopter. Before continuing the drilling the Operator wants to present a carefully worked-out plan, requiring sections, costs, and a new geological concept, based on past drilling, of possible orebody location. This last should be submitted shortly.

With the completion of DDH 6 we have a balance footage in the captioned contract of 976 feet, or roughly 23% remaining.

Based on past performance, this should be completed in from 2½ to 3 months. We will outline a plan for two holes.

Until Boyles' invoice comes in for March we do not have the total Voucher charges before recess, but we estimate a fund balance of about $22,000, or roughly 28% of the contract total.

Sincerely yours,

John P. Kellogg

John P. Kellogg,
General Manager

x.c: RHECO - LENADO officers

Office of Minerals Exploration
Building 53 Room 203

OFFICIAL COPY
O. M. E.
RECEIVED
JAN 31 1968

INITIALS	CODE
gla	30
bsl	120
FJ	110
PMS	120 S

January 29, 1968

Mr. John Kellogg
Richmond Hill Exploration Company
P. O. Box 939
Aspen, Colorado 81611

Subject: OME-6415 (Silver)
Richmond Hill Exploration, Inc.
RHECO- Lenado Area
Pitkin County, Colorado
Contract 2236

Dear Mr. Kellogg:

Your letter dated January 18, 1968 was received in this office January 23, 1968 in which you requested approval to drill a new drill hole No. 6, in lieu of drill hole No. 8, as shown on your illustration accompanying the request. I have reviewed your request with Bruce Bryant and I have informed our Washington office that you were given verbal approval by me, on January 18, 1968 to drill the new hole No. 6 at its proposed location. This constitutes written approval to you to complete new hole No. 6, to further explore the Leadville formation near Drill Hole No. 4 which intersected eleven feet of mineralized material, some of which assayed 10.05 oz. Ag, 28.5% Pb, 18.2% Zn and 0.16% cadmium. The new drill hole No. 6 should be collared in the location you proposed and is to be drilled on a bearing of N. 58° E. at an inclination of a -60° for an estimated total depth of 360 feet.

Sincerely yours,

J. William Hasler

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

cc: Chief, OME
OME-6415
OME chron
Hasler chron

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 26, 1968

OFFICIAL COPY
O. M. E.
RECEIVED
JAN 29 1968

INITIALS	CODE
	130
BSB	120
~~FJ~~	~~110~~
BMS	120

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6415 (Silver)
Richmond Hill Exploration Company, Inc.
Lenado Area
Pitkin County, Colorado
Contract 2236

Mr. John Kellogg was in this office on January 9, 1968 and discussed the geologic problems relative to the subject contract with Bruce Bryant and myself. He requested that Drill Hole No. 5 presently being drilled be terminated since the Belden, and Leadville formations had been penetrated to a depth of some 500 feet and little or no alteration or mineralization has been discovered. Mr. Bryant and I advised that he continue drilling at least a few tens of feet further to ascertain the possible position of another fault that might be mineralized.

The operator continued to drill hole No. 5 until January 18, 1968 and had obtained a depth of 604 feet. According to the operator, he penetrated an unusual thickness of Gilman sand, some 41 feet, then penetrated nearly 40 feet of Dyer dolomite, then penetrated a large fault and drilled into what appears to be "upper" Belden formation. Neither the Gilman, Dyer or Belden formation in the lower part of the hole show any alteration or mineralized material. The present drilling in hole No. 5 indicates a possibility of further geologic complications, at least it appears that to continue Drill Hole No. 5 in order to reach the mineralized portion of Leadville dolomite may require considerable additional footage, depending of course on how thick the Belden might be, and if it in turn is faulted still additional drilling would be required. If the Operator's Geologic Section No. 2 (based on Francis T. Freeland's work in the Leadville Tunnel, figure accompanied the November, 1967 voucher) is correct, the Cambrian fault may be penetrated and the sediments would then have been drilled, and still no ore would have been found.

The results of drilling to date indicate that the most northerly area is the most promising. Diamond Drill Hole No. 4 penetrated an 11-foot mineralized zone from which a 6" fragment of core assayed 11.05 oz. Ag, 28.5% Pb, 18.2% Zn, and 0.16% cadmium. Diamond

Drill Hole No. 1, even though it is in a different fault block penetrated an unusually thick zone of mineralized material although it is high in zinc. Drill hole No. 2 penetrated only Quaternary gravels and Parting quartzite and Drill Hole No. 3 appeared to penetrate essentially Minturn of upper Belden rocks.

The drilling to date has added to the geologic picture in that the geology has proven to be more complicated than appears from surface mapping and from the relatively uncomplicated picture derived from Spurr's work in the Bimetallic Tunnel. Little has been added economically.

The applicant was given verbal approval by me by telephone January 18, 1968 to proceed to drill the new location, Drill Hole 6, as shown on the accompanying map. The hole is designed to drill through the "Camp Bird" fault and further explore the mineralized zone in the Leadville that was penetrated in Drill Hole No. 4. Inclement winter weather, snow and frozen ground precludes the preparation of drill hole Nos. 6, 7 and 8 to the south, and with the current information from Drill Hole No. 5 it is highly questionable that Drill Hole No. 8 should be drilled.

amendment not needed

It is the opinion of Mr. Bryant and myself that the area to the south does not now appear as favorable as the area to the north, largely due to the increased complex geology obtained from Drill Hole No. 5 and that the entire project be further appraised upon completion of the "new" Hole No. 6.

J. William Hasler

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

Richmond Hill Exploration Company Inc.

P. O. Box 939

ASPEN, COLORADO 81611

Telephone 925-3717

January 18, 1968

Mr. J. William Hasler, Field Officer
Office of Minerals Exploration
U. S. Department of the Interior
Building 53, Room 203, Federal Center
Denver, Colorado 80225

Re: OME-6415 (Silver)
Lenado Area
Contract 2236

Dear Bill:

As a follow-up to our meeting with you and Bruce Bryant in your offices on January 9 we would like to request that we abandon our current hole, DDH 5 as soon as possible, and to set up on new location DDH 6, using the footage from DDH 8, as shown on the Contract Map, the usefulness of which has been precluded, for now, by the information from DDH 5. This means moving back to the Phase I Area, where we had mineral showings, from the present Phase II area, where we have had zero shows.

Two Plan Maps of Exploration, scale 1" = 100', are attached, illustrated with tabs of explanation, and the current geology of DDH 5. As did all previous holes, this hole deflected about the same number of degrees to the left, or East, but with very little change in dip; hence the curve in its bearing on the map.

For more detailed explanations: DDH 5 crossed the Lenado Fault at 290', as shown, continued in Belden to 370', where we crossed into the Leadville to 490', then the Leadville - Gilman sand from 490' to 531 feet. From 531' to 570' we had a dolomite typical of Dyer, but then we crossed a major fault, and drilled back into Belden to this morning's depth of 584 feet. This indicates a normal fault between and roughly parallel to the north and south Lenado Faults, with duplication of down-thrown beds as we drill south. This supports the Freeland sections you saw at our meeting and argues a "second" Leadville possibility ahead of us. Trouble is we will likely hit the southernmost, "Cambrian" fault first, which will cut off the Leadville, and lead us into Manitou or even, at our depth, Sawatch, because this "new" Belden is lithologically in the top half of the formation, with nothing typical of basal Belden. Due to the

complex, three-dimensional nature of this geometry it is most difficult to describe in text; in fact, two-dimensional plan maps, with sections, are unclear. We had to make a three-dimensional scale model to see it. By any method of projection the downdropped Leadville ahead of us, or the Cambrian fault, whichever is first, will be at a prohibitive distance considering the questionable value of this exploration. This hole could continue to over 850 feet before leaving the Belden. It seems inadvisable to continue.

The strongest argument for discontinuing this hole is that there had been no sign of mineral or rock alteration. Where mineral should have been, such as the Belden-Leadville contact, our assays were nil. The Leadville itself is barren.

Due to the geological data from DDH 5 we would like to use the footage planned for DDH 8 (an extension of DDH 5 as located on the Contract Map) to be applied to our proposed hole, DDH 6 (see Map). This should not be over 400' in depth, at a minus 60° dip, bearing N. 58° E. This hole is aimed to cross the heretofore unexplored Camp Bird Transverse Fault as well as the high-grade Leadville zone cored in DDH 4. The steep angle of - 60° has been dictated by a number of factors: (1) we cannot bulldoze to the drill site as far west as we had hoped; in your office I estimated a 75 foot extension to the existing road, based on the quadrangle sheet's topography which is not accurate at this point; we have only managed to doze an additional 25 feet for a drill pad; beyond this an extremely steep hillside precludes excavation of a level 20' X 20' site. (2) Because of (1) we must settle for a pad too far east for our usual 45° or 50° angled hole which could well be in overburden above the Camp Bird Fault, and miss it. We have to find bedrock south and west of the fault. (3) Whipstocking a diamond-core string of wireline tools, with <u>any</u> sort of wedge, can be dismissed on technical grounds as a possibility of drilling steep to bedrock then flattening on bearing to our targets.

We would like your approval at your earliest convenience. We are using precious footage to little avail, and everything is in readiness for a move to DDH 6.

Sincerely yours,

John P. Kellogg

John P. Kellogg,
General Manager

x.c. RHECO-LENADO Officers

rd Form No. 1034a
7 GAO 5000
1034-209

PUBLIC VOUCHER FOR PURCHASES AND SERVICES OTHER THAN PERSONAL

DEPARTMENT, BUREAU, OR ESTABLISHMENT AND LOCATION

U.S. Department of Interior
Geological Survey
Washington, D.C. 20242

DATE VOUCHER PREPARED: December 13, 1967

CONTRACT NUMBER AND DATE: 14-23-090-2236 Feb. 6, 1967

REQUISITION NUMBER AND DATE: OMR-6415

VOUCHER NUMBER: 84021

PAID BY

OFFICIAL COPY O. M. R. RECEIVED DEC

DATE INVOICE RECEIVED

DISCOUNT TERMS: Cal 1/2 10 P

PAYEE'S ACCOUNT NUMBER: 150

PAYEE'S NAME AND ADDRESS: Rheco-Lenado, Inc.
P. O. Box 939
Aspen, Colorado 81611

SHIPPED FROM | TO | WEIGHT

GOVERNMENT B/L NUMBER

NUMBER AND DATE OF ORDER	DATE OF DELIVERY OR SERVICE	ARTICLES OR SERVICES (Enter description, item number of contract or Federal supply schedule, and other information deemed necessary)	QUANTITY	UNIT PRICE COST	UNIT PRICE PER	AMOUNT
		Payment for items suspended on vouchers for period June 1967 and July 1967. Sch. # 81339 & 82672.				
		Payroll taxes				$ 128.54
		Casing lost in hole	42	3.00	ft.	126.00
						$254.54
		Government participation 75%				$ 190.90
(Use continuation sheet(s) if necessary)		(Payee must NOT use the space below)			TOTAL	$ 190.90

PAYMENT:
- [ ] COMPLETE
- [ ] PARTIAL
- [ ] FINAL
- [ ] PROGRESS
- [ ] ADVANCE

DIFFERENCES

Amount verified; correct for

(Signature or initials) JDM

MEMORANDUM

ACCOUNTING CLASSIFICATION (Appropriation symbol must be shown: other classification optional)

14X0804

PAID BY

CHECK NUMBER	ON TREASURER OF THE UNITED STATES	CHECK NUMBER	ON (Name of bank)
CASH $	DATE		

OFFICIAL FILE COPY

Date	Surname	Code
12/4/67	RMSmith	120
		120
	(on leave)	110
		220
		120M

Memorandum

To: Budget and Finance

From: Assistant Chief
Office of Minerals Exploration

DEC 4 1967

Subject: QMX-6415 (Silver)
Richmond Hill Exploration, Inc.
RMMCO - Lenado Area
Pitkin County, Colorado
Contract 2236

Enclosed is a letter of November 20, 1967 from the Operator reclaiming two items of costs, one each from the June and July 1967 vouchers, which had been disallowed. The original Suspension Statement for June was returned last month and is now in your files; the Statement for July is enclosed.

The two items are as follows:

1. June: $128.54 for FICA etc., disallowed for lack of documentation, which was subsequently furnished with the July voucher.

2. July: $126.00 for lost casing, disallowed because it was not certain whether casing was lost or left in hole at Operator's request. This question is answered in the enclosed letter.

Both items are actual and allowable costs, and are now proper for payment in the amounts specified above. We suggest that the total of $254.54 be paid by separate check rather than included with the next regular voucher payment in order to clarify this unusually complicated account.

Harold Kirkemo

Harold Kirkemo

Enclosure

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

RMSmith/bsl 12/4/67

23263

Original to B+J 12/4/67

November 20, 1967

Mr. J. William Hasler, Field Officer
Office of Minerals Exploration
U. S. Department of the Interior
Building 53, Room 203, Federal Center
Denver, Colorado 80225

Re: OME-6415 (Silver)
Lenado Area
Contract 2236

Dear Bill:

With the aid of a large anarlysis pad and an uninterrupted Saturday I reduced, to our satisfaction and complete agreement, Administrative Suspension Statement #82672. As a result our 8/24 Reclaim for May of $1,227.70 has been paid in full, and July has become intelligible. The confusion, for us, was in having two months combined in one Statement.

In keeping with instructions from Budget and Finance we are submitting the original of this Statement for reclaim for one item deducted. That isthe 42 feet of casing claimed in July; this casing was definitely lost, and was not left at our request. Weare, therefore, formally submitting a reclaim for the $126.00 for lost casing for July.

There is no other reclaim for May or July.

We have no record of having received payment for our June reclaim of $128.54, our reclaim letter dated August 30 to which was attached the original Suspension Statement.

To summarize the Voucher history to date, together with the above: August's claim of $5,859.11 was paid in full with no reclaim. September's voucher of $6,724.67, dated and mailed October 24 has not yet been answered with a check, and our need for this is now critical. October's voucher of $7,337.52, dated November 13, was mailed on the 14th. (All figures herein are the 100% totals, not 75%).

cc: M. L. Stein
J. C. Voorhees

Sincerely yours,

encl. Suspension Statement

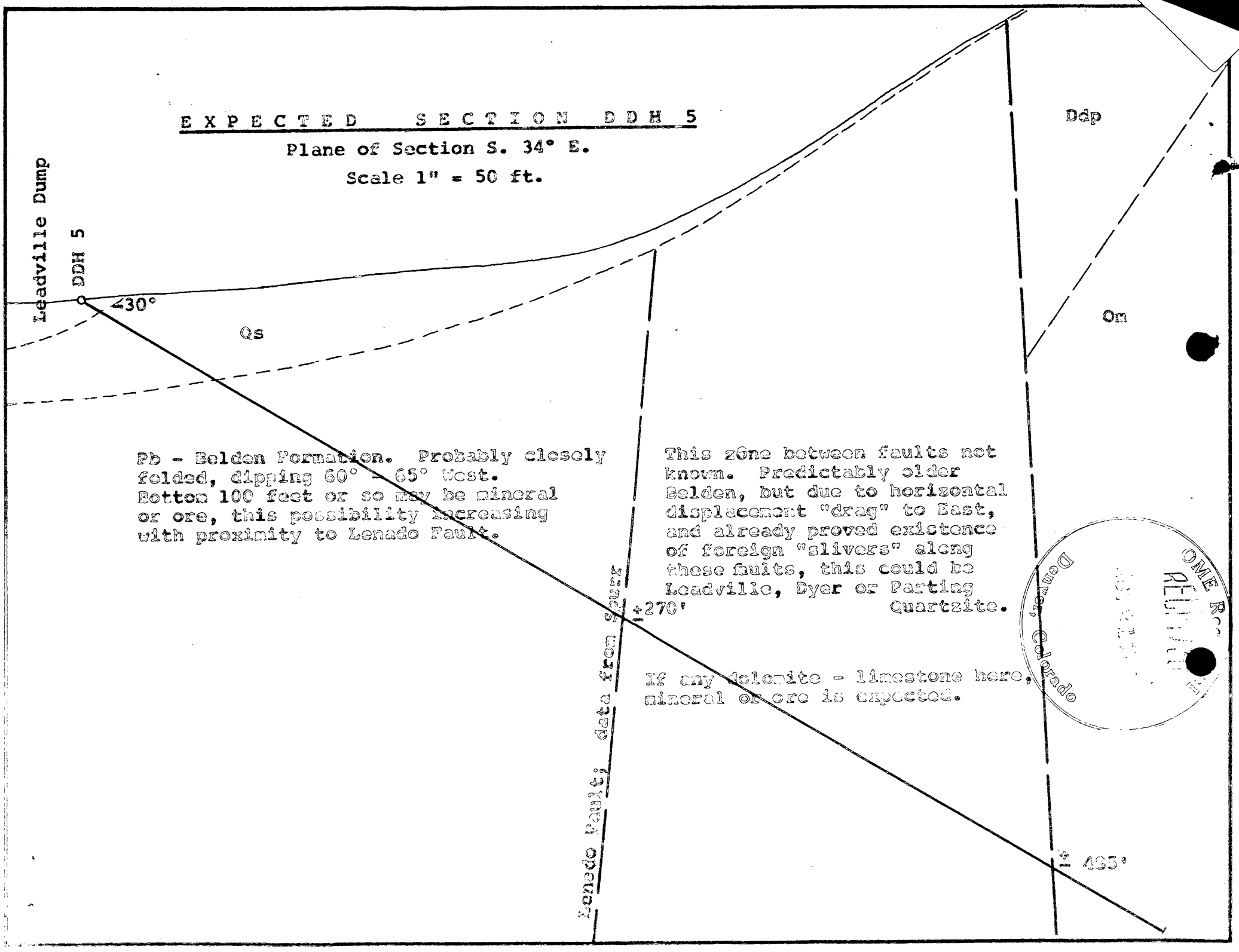
John P. Kellogg,
General Manager

$8082.56 $1,[illegible].61 [illegible] vernment

[illegible] May 67, July 67

Bulldozing	[illegible]	
Diamond core-drilling	[illegible]	
Cementing time	175.00	
Mobilisation 50%	[illegible]	
Cement additives	[illegible]	[illegible]
Vehicle mileage		
Disallowed (Pr[illegible]	[illegible]	
Labor paid May 67 v[illegible]	[illegible]	
" allowable May [illegible]		[illegible]
Disallowed		
Vehicle mileage paid [illegible]	[illegible]	
" " allow[illegible]		[illegible]
Disallowed		
Disallowed 42' casing in hole [illegible]	[illegible]	[illegible]
left in hole at Operator's request. If [illegible]	[illegible]	
Analytical Work claimed		
Allowed 99 silver samples [illegible] ea	[illegible]	
" 98 lead & zinc samples @ [illegible].00 ea.	[illegible]	[illegible]
Disallowed		[illegible]

[illegible] ister


EXPECTED SECTION DDH 5
Plane of Section S. 34° E.
Scale 1" = 50 ft.
Leadville Dump
DDH 5
<30°
Qs
Ddp
Om
Pb - Belden Formation. Probably closely folded, dipping 60° - 65° West. Bottom 100 feet or so may be mineral or ore, this possibility increasing with proximity to Lenado Fault.
This zone between faults not known. Predictably older Belden, but due to horizontal displacement "drag" to East, and already proved existence of foreign "slivers" along these faults, this could be Leadville, Dyer or Parting Quartzite.
±270'
If any dolomite - limestone here, mineral or ore is expected.
Lenado Fault; data from Squire
Denver, Colorado
± 485'

Copy sent to Washington 11/1/67

Richmond Hill Exploration Company Inc.

P. O. Box 939

ASPEN, COLORADO 81611

Telephone 925-3717

October 30, 1967

OFFICIAL COPY
O. M. E.
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Mr. J. William Hasler, Field Officer
Office of Minerals Exploration
U. S. Department of the Interior
Building 25, Room 2284, Federal Center
Denver, Colorado 80225

Re: OME-6415 (Silver)
Lenado Area
Contract 2236

Dear Bill:

Attached is copy of letter to Bruce (USGS), with same 100 scale Plan Map. I plan to add this map to our October Report and Voucher, and there are only two days more drilling this month with notmuch likelihood of hitting Leadville (the present Belden does not look like basal stuff). So, I'll send three instead of the usual four with October's report, unless you request another print. Henceforth, we will refer primarily to this new map.

With the completion of our present hole (3), we will move the rig to DDH 7 (approx. same as DDH 7 on Contract map) at 3725.33' North, 3712.48' East on our coordinates, and drill for the Leadville south of the Lenado Fault.

The letter to Bruce is a crude and incomplete analysis of Phase I drilling - which in itself is incomplete. At the moment I am pretty sold on this picture, but new ideas will undoubtedly emerge based on Bruce's comments and rock identifications, on the completion of vertical sections with their always possible clues to different concepts, and assays. We still haven't seen the Leadville, except in DDH 4, where the recovery was poor, and the richest mineral was found. We only crossed the Lenado fault once, in DDH 3, No (DDH 1) where the most values werefound. The intersection of the Leadville with the Lenado Fault, a major objective, has eluded us due to unforeseen crossfaulting. More about all this in October voucher.

Hope you have checked on why all of our May claim was disallowed on the Suspension Statement.
Most of it was paid

Sincerely, John

Copy to Washington 11/1/67

October 30, 1967

Mr. Bruce Bryant
Geological Survey
U. S. Department of the Interior
Bldg. 25, Federal Center
Denver, Colorado 80225

Dear Bruce:

Thank youffor your letter of Oct. 24, and for the helpful ideas in it. In answer to your question about the sandstone in the upper part of DDH 3 we are sending you several representative pieces of this core. Jim and I have certainly thought of the Minturn, but not with much enthusiasm, since it would make the horizontal displacement of the "Camp Bird" Fault (between DDH 3 and DDH 4) an almost prohibitive amount. If you can identify this sandy material it would help considerably in our overall picture.

Attached with this letter is my preliminary 100 scale Plan Map, based on accurate, closed surveys, of the immediate project area. Based on everything available, including yours and Jim's invaluable help, this is my personal interpretation of the picture at this time, and I alone will take the blame for the almost certain deviations and outright contradictions that are sure to exist. It is presented merely as a possible explanation, and invites all the criticism that you, or anyone else, can give it. The two northern faults (if there are two) on either side of DDH 2 I have called "North" and "South" Woody Faults, and they both have a north-south "play" area of possible location of about 250 feet. The north cross-fault conforms to your mapping from the bridge east. The south fault's existence is based on normal, regional strikes; without it there would have to be some anomalous and unlikely curving of the beds (or with possibly attending several smaller crossfaults between the County Road and DDH 2). Remember, DDH 2 entered Parting at 147', just out of overbudren, and 147' does not represent the top of the Parting, so we do not know the throw here.

Moving on south to DDH 4, and its "block", we have some established facts, and one important difference of opinion. The cores showed identified Belden and Leadville in normal sequence, and what was presumably expected Dyer in the last section of the hole.

If the dips are normal, this conforms to our original concept of the surface location of Leadville, from Spurr et al, north of the Lenado Fault. And this puts the Parting Quartzite, as shown of my map, not only in perfect alignment with the P.Q. north of the County Road and the river, but exactly where Jim and I believe it outcrops just north of the Lenado Fault. You call this Manitou, and move the Parting west to where we have projected Leadville. Again, if the dips are normal, the Parting couldn't be here, or it would have appeared in DDH 4. To me, going back five years, this location (on the map north of Lenado Fault) has always been the marker bed of Parting quartzite, as it must have been with Spurr et al. Because Jim's section of DDH 4 strongly suggests nearly vertical dips in the Leadville cores (which I distrust), it could be that your picture still obtains, and your familiarity with these rocks, including Manitou, is much closer than ours. Also, your interpretation does away with the South Woody Fault. It's too bad we can't trench, due to excessive overburden, for the Leadville in this area. Anyhow, for the nonce, I am assuming our interpretation because (1) I prefer "conjugate" cross-faulting, so typical of the entire Aspen District, to vertical dips, and (2) I still think that it Parting Quartzite north of the Lenado Fault, some 70 feet southeast of my station 1-f. Would greatly appreciate your comments on this most important point.

I think we can assume without question that another major fault exists between Holes 4 and 3 (our current hole). After overburden of 117 feet, we had all Belden (or some Minturn at top) down to the present depth of about 512 feet. I have named this the "Camp Bird" fault because we "found" it on that Claim. I have curved it to go down Woody Creek because no fault of this magnitude appears north or west of the river. Unless you can identify Minturn in the samples we sent, or unless we hit Leadville before we bottom (or before we hit the Lenado Fault) we have no measurement for the horizontal throw, but in any case it is considerable. If your Om is where we have Dcp the throw would have to be an additional 300 feet. The possible north-south "play" area of this fault's location is not much over 100 feet, and if our Dcp is correct, its location should be approximately as shown.

Moving south to DDH 1, we proved another fault (extraordinary) that out of four holes, three should have been in unexpected fault blocks). This fault, south of and more or less parallel

to the Lenado Fault, we have called the "Cambrian" Fault. Its existence is argued by (1) the last 364 feet of DDH 1 being Sawatch instead of granite if the fault were not there), (2) Jim's mapping of it on the surface, assuming more vertical displacement than the considerable horizontal proved by DDH 1, and (3) the mapping of Spurr et al of two faults in the Aspen Contact workings.

The altered and leached, washed-out dolomites in DDH 1 (which carried the best, and widest, values of any hole yet) must have been Belden, according to the data from DDH 3, although at the time of completion of DDH 1 we assumed some Leadville. The extreme alteration of this dolomite makes visual age determination difficult, if not impossible.

Also attached is a print of Jim's log of DDH 3, with lithology and % recovery, to 501' depth. A number of assays will be added to the final log when returns are in, but so far we have seen no important mineral shows. In addition, Jim is preparing a number of vertical sections, and some composite sections, that will be forwarded to you shortly. He has put much emphasis on "apparent dips" in the cores, which is certainly one datum source. Personally, I distrust reading dips in cores, based primarily on cases in which I was involved in the following of core drilling with actual mine development, where measurable dips underground did not at all correspond with core "readings". You have had more experience with these Paleozoics - what is your opinion?

On the 100 scale Plan, lemon yellow is overburden, and red lines are mineral. All other colors are labelled. The Leadville - Aspen Contact workings are taken from Spurr, and fit to our survey. The core holes were surveyed at depth, and found to curve 6° - 7° easterly, with a uniform tendency to steepen (in DDH 3 this was most marked: from 45° dip at collar to 55° at 435 feet).

Meanwhile, we are anxious to hear if you think that sand is Minturn; if so, call collect and we will stop the hole. Anxious to hear all comments, objections, additions, etc.

Sincere regards,

John P. Kellogg

cc: J. W. Hasler

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
9/8/67	R M Smith	120
9/8/67	Kirkham	120
		110
9/8	cal	220
		120M

AIRMAIL

SEP 8 1967

RHECO-LENADO, INC.
P. O. Box 939
Aspen, Colorado 81611

Re: OME-6415 (Silver)
RHECO-LENADO, INC. (Assignee)
Lenado Area
Pitkin County, Colorado
Contract 2236

Gentlemen:

Enclosed is the duly executed Operator's copy of the Assignment of Contract, Assignee's Acceptance, and Government's Consent, in reference to the subject contract.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

Enclosure

cc: Director's Reading File
Division File
Econ. Geol. File
OME Docket
OME Reading File
OME Region III w/ Field Office's copy of Assignment document
Branch of Budget & Finance, w/ copy of Assignment document
Mr. Smith
130

GLAult/a 9-8-67

23263

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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O. M. E.
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Rmd | 120 S
Jg | 110
| 120 S

September 1, 1967

Memorandum

To: Chief, OME

From: Field Officer, Region III

Subject: OME-6415 (Silver)
Richmond Hill Exploration Company
Lenado Area
Pitkin County, Colorado
Contract 2236

Enclosed are 4 copies of an Assignment of Contract executed by both the Assignor and the Assignee. The Assignment of Contract is now ready for Government approval.

J. William Hasler

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

Office of Minerals Exploration

August 17, 1967

Mr. John Kellogg, General Manager
Richmond Hill Exploration Co., Inc.
P. O. Box 939
Aspen, Colorado 81611

Subject: OME-6415 (Silver)
Richmond Hill Exploration Company
Lenado Area
Pitkin County, Colorado
Contract 2236

Dear Mr. Kellogg:

Transmitted herewith are the original and three copies of the assignment of contract on the above-stated subject. Please have the authorized representative of the Assignee sign the original with his title, and insert the date of the assignee's acceptance on all copies. Then please return all copies for signature by the Government and distribution of the copies.

Sincerely yours,

J. William Hasler

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

Enclosures

cc: Chief, OME
Hasler chron
OME chron
2236

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
8/17/67	R.M. Smith	120
8/17/67	Kirkham	120
		110
		220
		120M

AIRMAIL

Mr. John P. Kellogg
General Manager
Richmond Hill Exploration Company, Inc.
P. O. Box 939
Aspen, Colorado 81611

AUG 17 1967

Re: OME-6415 (Silver)
Richmond Hill Exploration Company, Inc.
Lenado Area
Pitkin County, Colorado
Contract 2236

Dear Mr. Kellogg:

Your letter of July 29, 1967, to Mr. J. William Hasler, OME Field Officer, relating to our Suspension Statement for May 1967, receipt of which is hereby acknowledged, has been referred to this office for reply to your request for additional explanation.

As background information, please refer to Article 6(b)(3) on page 5 of the contract which reads: ". . . the Government will not contribute to . . . costs incurred before the date of the contract," to Exhibit A, Estimated Costs of the Work, which specifies that all costs are Actual Costs, and to Article 6(a)(2) which states that "The Government will not contribute to costs under any category or subcategory omitted from the estimate of costs in Exhibit A."

The following comments refer paragraph-by-paragraph to your letter:

The starting date of the project was May 22, 1967, because the advance preparation did not include any items of work specified in Exhibit A. It follows that supervision of non-allowable work is not an allowable cost.

"Proper invoices" are any documents which show that the costs claimed were actually incurred. Certified copies or transcripts of payrolls, invoices, and receipted bills are all "Proper invoices". To reclaim the items disallowed on the May voucher, please submit an additional voucher on the usual forms (MME Forms 60 and 61) showing cost items, units, rates and amounts computed for the last 10 days of May, and supported by proper invoices as follows:

1. Supervision and technical services--payroll record showing job description, names, dates of employment, and amount paid.

2. Payroll taxes--a list of the rates used to compute the employer's share (not the employee's share withheld) of FICA, employee liability insurance, unemployment insurance, and any other State or Federal payroll taxes. These costs are computed as a percentage of the payroll. No invoices are required because the payroll is prima-facie evidence that the taxes were incurred. Premiums paid for property insurance are not allowable costs. This item was disallowed because (a) the payroll was disallowed, and (b) the costs claimed were the employees' Income Taxes and Social Security which are not allowable.

3. Accounting and office expense--the invoice from the Elks Club accompanying your letter of July 29 is sufficient support for this claim.

4. Core boxes--a statement of warehouse inventory will suffice. Core boxes were disallowed because they were purchased prior to the date of the contract. We can determine administratively, however, that the cost has become an obligation (Article 1(b) and compute it each month on the basis of footage drilled and percent core recovery. Since you have already paid for the boxes, we suggest that a warehouse inventory of core boxes be submitted each month with your voucher. When your boxes are used up, the cost of additional boxes will doubtless be included on Boyles Bros.' invoice. We see no point in separating your boxes from Boyles' stock.

In the interests of better and faster service, we would like to suggest that you include with your monthly vouchers an extra page showing the basic figures used to compute the costs not shown on formal invoices. Such items as payroll, payroll taxes, vehicle mileage, water truck mileage, and warehouse inventory with dates, names, rates, and amounts would be most helpful.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director'S Reading File
Division File
Economic Geology File
OME Docket
OME Reading File
Branch of Budget and Finance
OME Region III

Mr. Smith

RMSmith/gla 8-16-67

Office of Minerals Exploration

August 11, 1967

ORIGINAL COPY
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gla | 120M
RMA | 120S

Mr. John P. Kellogg, General Manager
Richmond Hill Exploration Co., Inc.
P. O. Box 939
Aspen, Colorado 81611

Subject: OME-6415 (Silver)
Richmond Hill Exploration Company, Inc.
Lenado Area
Pitkin County, Colorado
Contract 2236

Dear Mr. Kellogg:

Enclosed are the original and three copies of the proposed Amendment of Contract (3 pages). If the assignment is satisfactory to you all copies should be signed by authorized representatives of the Operator and the assignee in the indicated places. All copies should be returned to this office for signature by the Government and distribution of the copies.

assignment

Sincerely yours,

J. William Hasler

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

Enclosures

cc: Chief, OME
Hasler chron
OME chron
2236

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225
Office of Minerals Exploration

August 8, 1967

OFFICIAL COPY
O. M. E.
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Memorandum

To: Chief, OME

From: Field Officer, Region III

Subject: OME-6415 (Silver)
Richmond Hill Exploration, Inc.
Lenado Area
Pitkin County, Colorado
Contract 2236

The Operator completed 53 feet of drilling in Diamond Drill Hole #4 during May, 1967 and during June an additional 223 feet was drilled for a total footage of 276 feet. In a letter dated July 29, 1967, the Operator reported significant assays in Diamond Drill Hole No. 4 between 441 feet and 452 feet that showed 10.05 oz. Ag, 28.5% Pb, and 18.2% Zn. Belden was penetrated to a depth of 293 feet; Leadville was penetrated from 293 feet to 287 feet. The Lenado fault was not intersected and it was deemed advisable to terminate the hole at a total depth of 580 feet.

Diamond Drill Hole No. 2 penetrated overburden from 0 - 147 feet, then penetrated the Parting quartzite rather than the usual Belden Leadville sequence as was expected. In a telephone conversation on August 2, 1967 Mr. Kellogg of the operating company requested termination of the hole and that a proposed Hole No. 1 be relocated and collared some 500 feet south and 10 degrees east of the Diamond Drill Hole #4 drill site and that the hole be drilled on a bearing of S. 45° E. at a -45° for a total of approximately 600 feet. This new location puts the hole up hill and will have considerably less overburden, the Belden should be approximately 50 feet thick here, and then should be as much as 275 feet of the Leadville formation. Since Diamond Drill Hole No. 4 failed to intersect the Woody Creek fault then there may be a chance that the Woody Creek fault may have swung northward beyond the confines of Hole No. 4, also, Diamond Drill Hole No. 2 did not penetrate the fault, but went directly into the Parting quartzite, which means that there may be another fault that underlies the overburden, or there may be a 245 to 250 foot throw on the Lenado fault.

A consultation between the Operator and Mr. Bruce Bryant, Geologist, U. S. Geological Survey who is presently mapping the Aspen Quadrangle, concerning the drilling program and subsequent geology it was ascertained that the proposed Hole No. 1 should be located as described above. The new location of Diamond Drill Hole No. 1 was verbally approved by the Field Officer, Region III.

The results obtained thus far in Stage I drilling indicates that additional Stage I drilling is not warranted at this time and it is recommended that the Operator be given permission to proceed with proposed drill holes 5, 6, 7 and 8 which now appear to be more favorably located geologically than were Stage I holes. The latter drilling was requested in a letter from the operator dated July 29, 1967, a copy of which is attached.

The contract under Exhibit A, General Provisions, paragraph 11, on page 2 states "The work shall be divided into two stages. The Operator shall complete all of Stage I and as much of Stage II as is authorized in advance by the Government and confirmed in writing. Approval of Stage II shall depend upon the results obtained in Stage I."

J. William Hasler

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

Enclosure

Stage I was designed to explore what was thought to be the most favorable target; Stage II the less favorable target. Although Hole 4 found ore the principal ore controls (Leadville contact Woody Creek fault) were not found. The Stage II target now becomes the prime target. The Operator suspects that the ore in hole 4 is localized in the "Gilman sand" which will be further explored by Stage II holes. It appears that the results of Stage I justify Stage II. RMH.

Richmond Hill Exploration Company Inc.

P. O. Box 939

ASPEN, COLORADO 81611

Telephone 925-3717

July 29, 1967

OME Region II
RECEIVED
AUG 1 X 1967
Denver, Colorado

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

Re: OME-6415 (Silver)
Lenado Area
Contract 2236

Dear Bill:

Under cover of this letter is our Reclaim for the moneys disallowed for May. In accordance with our July 25 conversation, in anticipation for the need for the same supporting invoices for June's Voucher (which you are holding), these are attached also.

Our DDH 2 is progressing slowly due to an unforeseen depth of overburden - 151' Saturday. This is all being cased with difficulty because quartzite boulders are just too hard for the relalively thin casing bits. We hope this is about the bottom of overburden because, by projection, we are about due to enter the top of the Leadville, and should have little or no squeezing Belden shaly gouge.

In assay returns for DDH 4 we had one interesting one: from 441 to 452 feet depth we had 10.05 oz Silver, 28.5% Lead, and 18.2% Zinc, which is high grade in anyone's mine. Only trouble, in this 11 foot interval we only had about 4" of ground-up core, and no cuttings return, so there is no way of knowing this ore width. The "A" size hole is too small for any known "side-hole sampler" that I can locate.

We have had meetings with Bruce Bryant and his assistant. He admits that core recovery in DDH 4 was too poor to be certain of anything (other than definite Leadville) and also agrees that moving our next hole location up hill to intercept his Woody Fault, which must be farther south since DDH 4 did not find it, cross the full width of Leadville, and also explore the known Lenado Fault (location of all rich past production). We will call

this hole either DDH 1 or DDH 3, depending upon whether we want to angle 40° or 45° (one more day's field work will determine this). Both holes are estimated at 600 feet depth in the captioned contract, and all of this distance may be required to cross the Lenado Fault Zone (probably a "double" fault at this point as it was in the Aspen Contact Mine) and enter the Pre-Cambrian. We have made arrangements to bulldoze the access road and site this Thursday.

Now, perhaps you can help or advise us on a major problem. At the rate this drilling is progressing we may be the rest of this season completing the first four holes. We can get two rigs going fairly soon, but after we get the present rig set up on the third hole, described above, we will have no location for the second rig, promised by Boyles Bros, since the fourth and last hole of Phase I will almost certainly depend upon the results of the third hole. The subject Contract stipulates (Page 2, under General Provisions): "The work shall be divided into two stages. The Operator shall complete all of State I and as much of State II as is authorized in advance by the Government and confirmed in writing. Approval of Stage II shall depend upon the results obtained in Stage I." If the Operator could so be authorized to commence Stage II (DDHoles 5,6,7 & 8 on Proposed Exploration Map), it should be to everyone's advantage. Overhead, supervision, vehicular mileage, accounting and office expense, payroll taxes, etc. would not increase one penny. Also, the geological environment of Phase II, with the two general drilling areas 2,000 feet apart, may be entirely independent of each other. Also, we feel that the above high assay could be in the Gilman Sand Member, which should be mighty encouraging to explore it in the last four holes. The drilling contractor wants to use two rigs, and so does the Operator. Should the O.M.E. concur we could, hopefully, have appreciable silver reserves by the first heavy snowfall.

Sincerely yours,

John P. Kellogg

John P. Kellogg,
General Manager

z.c.: J. W. Hasler
W. B. Rubey
H. L. Stein
J. C. Voorhees
C. F. Urschel, Jr.
J. P. S. Griffith

Office of Minerals Exploration

August 3, 1967

Mr. John P. Kellogg, General Manager
Richmond Hill Exploration Company, Inc.
P. O. Box 939
Aspen, Colorado 81611

Subject: OME-6415 (Silver)
Richmond Hill Exploration Co., Inc.
Lenado Area
Pitkin County, Colorado
Contract 2236

Dear Mr. Kellogg:

I have been informed of the following concerning your request for an amendment to the contract to authorize an increase of $1,200.00 for cementing and redrilling, and a corresponding decrease in bulldozing expenditures.

Both of these work items are listed under Actual Costs, Category (1) Independent Contracts. All estimated costs within this category are flexible--only the unit costs (rate per hour, per foot, etc.) and the total dollars for the entire category are maximum. You may claim all actual costs for all items listed so long as neither the rates or the total ($29,370.00) is exceeded. An amendment, therefore is not required.

Sincerely yours,

J. William Hasler

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

cc: Chief, OME
Hasler chron
OME chron
2169

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
7/31/67	[illegible]	120
8/1/67	[illegible]	120
"	Johnson	110
8/1/67	Dower	
8/2	[illegible]	
		110
		220
		120M

Memorandum

To: Field Officer, Region III

From: Chief, Office of Minerals Exploration

Subject: OME-6413 (Silver)
Richmond Hill Exploration Company
Lenado Area
Pitkin County, Colorado
Contract 2236

Enclosed are the original and three copies of the proposed Assignment of Contract (three pages). Also enclosed is an extra copy for field use.

If the assignment is satisfactory to you and the Operator, all copies should be signed by authorized representatives of the Operator and the Assignee in the indicated places. All copies should be returned to this office for signature by the Government and distribution of the copies.

FRANK E. JOHNSON

Frank E. Johnson

Enclosures

cc: Director's Reading File
Division File
Economic Geology File
OME Docket
OME Reading File
Mr. Smith
130

GLAult/a 7-31-67

OME Form 7
(2/63)

a-67-2087.3192

SOLICITOR

JUL 28 1967

INTERIOR DEPT.

OFFICIAL FILE COPY

Date	Surname	Code
7/28/67	RM Smith	120
7/28/67	Kirkham	120
"	Johnson	110
	Long	~~140~~
		~~140~~
7/31	Col	720
		120 M

JUL 31

AIRMAIL

Memorandum

To: Field Officer, Region III

From: Chief, Office of Minerals Exploration

Subject: OME-6415 (Silver)
Richmond Hill Exploration Company, Inc.
Lenado Area
Pitkin County, Colorado
Contract 2236

Please refer to your memorandum of July 24, 1967, and the Operator's request of July 18 for an amendment to the contract to authorize an increase of $1200 for cementing and redrilling, and a corresponding decrease in bulldozing expenditures.

Both of these work items are listed under Actual Costs, Category (1), Independent Contracts. All estimated costs within this category are flexible--only the unit costs (rate per hour, per foot, etc.) and the total dollars for the entire category are maximums. The Operator may claim all actual costs for all items listed so long as neither the rates nor the total ($29,370.00) is exceeded. An amendment, therefore, is not required.

FRANK E. JOHNSON (gla)

Frank E. Johnson

cc: Director's Reading File
Division File
Econ. Geol. file
OME Docket
OME Reading File
Mr. Smith
130

RMSmith/gla 7-28-67

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.
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JUL 26 1967

INITIALS	CODE
[illegible]	170
[illegible]	110
[illegible]	120

July 24, 1967

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6415 (Silver)
Richmond Hill Exploration Company, Inc.
Lenado Area
Pitkin County, Colorado
Contract 2236

During the course of an interim examination at the subject property on July 17, 1967 the Operator discussed the possibility of transferring funds from one particular category in the subject contract to facilitate additional funds in the use of cementing and redrilling.

In the course of drilling diamond drill hole No. 4, the first hole to be drilled under the current contract, the Belden formation was found to be an extremely incompetent formation and required a total of 132 hours time for cementing and redrilling. It is anticipated that the remaining drilling will encounter similar problems in drilling the Belden formation although the thickness of Belden to be drilled is not excessive. It is however felt that certainly the excess of 140 hours of cementing and redrilling will be required to complete the project. The required amount of bulldozing at present has proven to be much less expensive than was originally planned, consequently the operator has requested that funds be transferred from Category 1 (Independent Contracts -- "Bulldozing, roads and drill sites") be transferred to the "cementing and redrilling" category. Of the 90 hours of bulldozing and drill sites allowed under the contract only 7 hours have been utilized. The operator estimates that they will require some 20 hours of bulldozing and drill site preparation time.

They therefore request that some $1200.00 be transferred from the category of bulldozing roads and drill sites to the cementing and redrilling category. The Operator estimates that some 32 hours of cementing and redrilling in some 3 separate holes will be sufficient to complete that phase of the contract.

It is requested that the applicant's request for an amendment to transfer these funds be executed. Enclosed is a copy of the applicant's request for the transfer of funds.

J. William Hasler

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

Enclosure

OME Region III
RECEIVED
JUL 19 1967
Denver, Colorado

July 18, 1967

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

Re: OME-6415 (Silver)
Lenado Area
Contract 2236

Dear Mr. Hasler:

The purpose of this letter is to request an Amendment to the subject contract. As you know, our experience with the first core hole, DDH 4, showed extremely incompetent, crushed ground, particularly in the swelling Belden formation. Recovery was poor and water circulation was lost, resulting in the need for an unexpected large amount of cementing. Of the total 140 contract hours of "Cementing and Redrilling", anticipated for four holes, the drilling contractor has used 132 hours up to July 1 in the first hole. It is likely that July's final invoice from him will show more than the total 140 O.M.E. contract hours.

This was necessary for hole completion, but it was unforeseen. It was likewise unforeseen that bulldozing would be as rapid and inexpensive as it has been. Of the contract total of $1,620.00 (or 90 hours @ $18.00), we bulldozed the access roads and sites for four holes for only $112.00 (7 hours @ $16.00). We will require some bulldozing in the future, but not 83 hours. It is therefore proposed to transfer Bulldozing funds to "Cementing and Redrilling" funds.

With a better knowledge now of what to expect of lost circulation in the Belden, together with the fact that the next three holes should have considerably less Belden to penetrate than did the first hole, it is our estimate that 32 hours of "Cementing and Redrilling" should be a minimum for each of the next three holes. This will

require a transfer of $1,200.00 (32 x 3 x $12.50/hr.) from bulldozing. The present bulldozing balance is $1,508.00. After transfering $1,200.00 there will be a balance of $308.00, which, at the local price of $16/hr., will give us nearly 20 hours for other access roads and sites. This may not be "ample" but it should be close.

Regarding "Additives", the contract total of sacks is 120. For the 132 hours of cementing time up to July 1 there were 28 sacks used, or 4.71 hours per sack. With 92 allowable sacks remaining for the requested additional 96 hours there should be no shortage in additives, and there is no request for change in this category.

Should this meet with your approval we would appreciate an early processing of our request.

Sincerely yours,

William B. Rubey

William B. Rubey, President
RICHMOND HILL EXPLORATION COMPANY, INC.

MME FORM [redacted] REFERENCE SLIP

REV. 2-59 [redacted] OFFICE OF MINERALS EXPLORATION

TO:	DATE	INITIALS
1. ~~Assoc. Sol. - MR, Rm. 6554 (Through Rm. 6042)~~		
2. Mr. Smith, RM. 4459 a-67-2087.319r		
3. INTERIOR DEPT.		
4. JUL 25 1967		
5. SOLICITOR		
FROM: Chief, OME		

FOR: Check items for action desired

____ Action ____ Reply for signature of _____

____ Approval ____ Investigate ____ Surname

____ Comment ____ Recommendations ____ Signature

____ Conference ____ Rewrite ____ File

____ Instructions ____ Your information

REMARKS:

Long

DRAFT 7/21/67
RMSmith/gla

EXPLORATION CONTRACT
RICHMOND HILL EXPLORATION COMPANY, INC.
OME-6415

ASSIGNMENT OF CONTRACT

WHEREAS, Richmond Hill Exploration Company, Inc., a Colorado corporation, hereinafter called the "Assignor," and the United States of America, acting through the Department of the Interior, U. S. Geological Survey, hereinafter called the "Government," entered into Exploration Contract 2236 (Docket OME-6415), dated February 6, 1967, hereinafter called the "Contract," and

WHEREAS, RHECO-LENADO, INC., ~~A~~ a Colorado corporation, whose address is P. O. Box 939, Aspen, Colorado 81611, hereinafter called the "Assignee," pursuant to an Assignment of leases and lode claims effective July 1, 1967, has acquired the Assignor's interest in the land which is the subject of the Contract and the Assignee desires to perform the work under the Contract;

NOW, THEREFORE, effective July 1, 1967, the Assignor, subject to the acceptance by the Assignee and consent of the Government, in consideration of the sum of One Dollar ($1.00) and other good and valuable consideration received from the Assignee, does hereby sell, assign, transfer, and convey to the Assignee all of its right, title, and interest in the Contract, including such sums which might be paid by the Government as its share of the costs of the work performed under the terms of the Contract: Provided, that the Government shall be and is hereby released by the Assignor from all claims under the Contract.

RECEIVED
JUL 25 1967
Division of Mineral Resources
and Renenral Legal Services

The Assignor consents to all future amendments (including a termination agreement) and assignments of the Contract, and waives notice thereof.

Dated this _____ day of _____, 1967.

RICHMOND HILL EXPLORATION COMPANY, INC.

By_____

Title President

I, _____, certify that I am the _____ secretary of the corporation named herein; that _____ who signed this instrument on behalf of the corporation was then _____ of said corporation; that said instrument was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

_____ Corporation Seal

ASSIGNEE'S ACCEPTANCE

The Asignee hereby accepts the foregoing assignment and agrees to be bound by the terms, provisions, and conditions of the Contract. The Assignee expressly assumes and agrees to pay to the Government any royalty that may accrue under the provisions of the Contract.

Dated this _____ day of _____, 1967.

RHECO-LENADO, INC.

By_____

Title_____

I, _____, certify that I am the _____secretary of the corporation named herein; that _____who signed this instrument on behalf of the corporation was then _____of said corporation by authority of its governing body, and is within the scope of its corporate powers.

GOVERNMENT'S CONSENT

The Government, this _____ day of _____, 1967, hereby consents to the above assignment without releasing the Assignor from any of the terms, provisions, and conditions of the Contract, or any amendment (including a termination agreement) or assignment thereof.

THE UNITED STATES OF AMERICA

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

120 7/24/67/RMS

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~~110~~

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DRAFT 7/21/67
RMSmith/gla

EXPLORATION CONTRACT
RICHMOND HILL EXPLORATION COMPANY, INC.
OME-6415

ASSIGNMENT OF CONTRACT

WHEREAS, Richmond Hill Exploration Company, Inc., a Colorado corporation, hereinafter called the "Assignor," and the United States of America, acting through the Department of the Interior, U. S. Geological Survey, hereinafter called the "Government," entered into Exploration Contract 2236 (Docket OME-6415), dated February 6, 1967, hereinafter called the "Contract," and

WHEREAS, RHECO-LENADO, INC., ~~A~~ a Colorado corporation, whose address is P. O. Box 939, Aspen, Colorado 81611, hereinafter called the "Assignee," pursuant to an Assignment of leases and lode claims effective July 1, 1967, has acquired the Assignor's interest in the land which is the subject of the Contract and the Assignee desires to perform the work under the Contract;

NOW, THEREFORE, effective July 1, 1967, the Assignor, subject to the acceptance by the Assignee and consent of the Government, in consideration of the sum of One Dollar ($1.00) and other good and valuable consideration received from the Assignee, does assign, transfer, and convey to the Assignee all its right, title, and interest in the Contract, including such sums which might be paid by the Government as its share of the costs of the work performed under the terms of the Contract.

The Assignor consents to all future amendments (including a termination agreement) and assignments of the Contract, and waives notice thereof.

Dated this _____ day of _____, 1967.

RICHMOND HILL EXPLORATION COMPANY, INC.

By_____

Title President

I, _____, certify that I am the _____ secretary of the corporation named herein; that _____ who signed this instrument on behalf of the corporation was then _____ of said corporation; that said instrument was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

_____ Corporation Seal

ASSIGNEE'S ACCEPTANCE

The Asignee hereby accepts the foregoing assignment and agrees to be bound by the terms, provisions, and conditions of the Contract. The Assignee expressly assumes and agrees to pay to the Government any royalty that may accrue under the provisions of the Contract.

Dated this _____ day of _____, 1967.

RHECO-LEMADO, INC.

By_____

Title_____

I, _____, certify that I am the _____ secretary of the corporation named herein; that _____ who signed this instrument on behalf of the corporation was then _____ of said corporation by authority of its governing body, and is within the scope of its corporate powers.

GOVERNMENT'S CONSENT

The Government, this _____ day of _____, 1967, hereby consents to the above assignment without releasing the Assignor from any of the terms, provisions, and conditions of the Contract, or any amendment (including a termination agreement) or assignment thereof.

THE UNITED STATES OF AMERICA

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

LAW OFFICES
CLARK, WENDT & SCOTT
THE PROFESSIONAL BUILDING
BOX 1591
ASPEN, COLORADO 81611

WILLIAM E. CLARK
JOHN A. F. WENDT
FITZHUGH SCOTT III

July 13, 1967

AREA CODE 303
925-2600
OFFICIAL COPY
O. M. E.
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JUL 14 1967
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JS | 110
RMA | 120-S

AIR MAIL

Mr. Frank E. Johnson, Chief
Office of Minerals Exploration
United States Department of the Interior
Washington, D. C. 20025

Re: OME - 6415 (Silver)
Richmond Hill Exploration Company
Lenado Area
Pitkin County, Colorado
Contract 2236

Dear Mr. Johnson:

Your letter dated May 23, 1967 addressed to Richmond Hill Exploration Company, Inc. setting forth the requirements for Assignment of Contract to RHECO-LENADO, INC., was referred to me for compliance with your requirements. To this end I enclose the following:

1. Photocopy of letter from RHECO-LENADO, INC. to the Bank of Aspen, Aspen, Colorado, the assignee's bank of account, dated June 6, 1967, asking for a loan of $60,000.

2. Original letter from the Bank of Aspen to RHECO-LENADO, INC., declining to make the loan.

3. Photocopy of letter from RHECO-LENADO, INC. to the First National Bank of Glenwood Springs, Colorado dated June 6, 1967, asking for a $60,000 loan.

4. Original letter from the First National Bank of Glenwood Springs dated June 8, 1967 declining to make the loan.

5. Duplicate Original Assignment of Mining Leases and Mining Lode Claims from Richmond Hill Exploration Company, Inc. to RHECO-LENADO, INC. dated July 1, 1967.

Copy w/attachments to R-III 7/21/67

If there is anything further I can do to expedite this matter please so advise me. Thank you for your assistance and cooperation.

Sincerely yours,

Secretary and General Counsel
for Richmond Hill Exploration
Company, Inc. and RHECO-
LENADO, INC.

JAFW:cc

Enclosures

cc: Mr. W. B. Rubey, President
Richmond Hill Exploration
Company and RHECO-LENADO, INC.

June 6, 1967

Mr. Logan Bailor
Executive Vice President
The Bank of Aspen
P.O. Box O
Aspen, Colorado 81611

Re: Lenado Exploration Project

Dear Logan:

RHECO LENADO, INC. is undertaking an exploration program in the Lenado Mining District, Pitkin County, Colorado on those mining leases which we own. The program will consist of a diamond core drilling program from the service in an attempt to delineate the location of silver bearing ore bodies. As you are aware, silver is in short supply and the demand is great. Our geologic reports indicate that high quality ore exists in the area.

Our engineering staff indicates that the total cost of the program will approximate ninety thousand dollars. We seek a loan from you, at current interest rates, of sixty thousand dollars ($60,000.). The loan would be repaid from future production.

Can and will the Bank make us the loan? Your early reply will be appreciated.

Sincerely yours,

RHECO-LENADO, INC.

By _____
Secretary and General Counsel

The Bank of Aspen

ASPEN, COLORADO 81611

LOGAN L. BAILOR
EXECUTIVE VICE PRESIDENT

June 8, 1967

RHECO-LENADO, INC.
P. O. Box 1591
Aspen, Colorado

Attention John A. F. Wendt

Gentlemen:

Re: Lenado Exploration Project

I regret that the Bank of Aspen is not in a position to make a commercial loan to your company in the amount of $60,000.00 for your contemplated project.

We appreciate the establishment of your company's account with our bank, and we will endeavor to give you proper service in the future.

Sincerely,

Logan L. Bailor
Executive Vice President

LLB:bb

June 6, 1967

Mr. Ernest Gerbaz
Vice President
First National Bank of Glenwood Springs
Glenwood Springs, Colorado 81601

Re: Lenado Exploration Project

Dear Mr. Gerbaz:

RHECO-LENADO, INC. is undertaking an exploration program in the Lenado Mining District, Pitkin County, Colorado on those mining leases which we own. The program will consist of a diamond core drilling program from the service in an attempt to delineate the location of silver bearing ore bodies. As you are aware, silver is in short supply and the demand is great. Our geologic reports indicate that high quality ore exists in the area.

Our engineering staff indicates that the total cost of the program will approximate ninety thousand dollars. We seek a loan from you, at current interest rates, of sixty thousand dollars ($60,000.). The loan would be repaid from future production.

Can and will the Bank make us the loan? Your early reply will be appreciated.

Sincerely yours,

RHECO-LENADO, INC.

By _____
Secretary and General Counsel

FIRST NATIONAL BANK
GLENWOOD SPRINGS, COLORADO 81601

ERNEST J. GERBAZ
VICE PRESIDENT

June 8, 1967

Mr. John Wendt
Rheco-Lenado, Inc.
Aspen, Colorado, 81611

Dear Mr. Wendt:

I received your letter with regards to a borrowing of $60,000.00 for exploration in the Lenado mining district of Pitkin County, Colorado.

After consideration, we would be unable to make this type of loan at the present time.

Thank you very much for your inquiry.

Yours very truly,

Ernest Gerbaz
Vice President

lm

ASSIGNMENT

KNOW ALL MEN BY THESE PRESENTS, that in consideration of the sum of ten dollars and other valuable consideration, the receipt and sufficiency of which is acknowledged, RICHMOND HILL EXPLORATION COMPANY, INC., A Colorado corporation with offices in Aspen, Colorado (hereafter referred to as Assignor), has, and by these presents does sell, assign, transfer, convey and deliver to RHECO-LENADO, INC., a Colorado corporation with offices in Aspen, Colorado (hereafter referred to as Assignee) all of Assignor's right, title and interest in and to the mining leases and lode mining claims described as follows:

Lease No. 1

Lessor: Anna E. Olson

Lessee: Richmond Hill Exploration Company, Inc.

Dated: April 26, 1965

Recorded: Book 212 at Page 446 of the records of the Clerk and Recorder of Pitkin County, Colorado.

Lease No. 2

Lessor: Smuggler-Durant Mining Corporation

Lessee: Floodtide, a joint venture

Dated: October 31, 1963

Recorded: Book 204 at Page 550 of the records of the Clerk and Recorder of Pitkin County, Colorado.

Lease No. 3

Lessor: Flogaus Lumber Co.

Lessee: E. J. Smart, Trustee

Dated: April 3, 1963

Recorded: Book 203 at Page 519 of the records of the Clerk and Recorder of Pitkin County, Colorado.

Lease No. 4

Lessor: Edward J. Grover

Lessee: E. J. Smart, Trustee

Dated: August 24, 1963

Recorded: Book 203 at Page 526 of the records of the Clerk and Recorder of Pitkin County, Colorado.

Lease No. 5

Lessor: Henry Stein

Lessee: E. J. Smart, Trustee

Dated: August 12, 1963

Recorded: Book 206 at Page 490 of the records of the Clerk and Recorder of Pitkin County, Colorado.

Lease No. 6

Lessor: John L. Herron

Lessee: E. J. Smart, Trustee

Dated: August 7, 1963

Recorded: Book 203 at Page 500 of the records of the Clerk and Recorder of Pitkin County, Colorado.

Lode Claim No. 1

Claim Name: Silver Tide

Locater: Richmond Hill Exploration Company, Inc.

Date of Certificate: April 8, 1966

Recorded: Book 220 at Pages 53 and 54 of the records of the Clerk and Recorder of Pitkin County, Colorado.

Lode Claim No. 2

Claim Name: Ebb Tide

Locater: Richmond Hill Exploration Company, Inc.

Date of Certificate: May 13, 1966

Recorded: Book 220 at Page 395 and 396 of the records of the Clerk and Recorder of Pitkin County, Colorado.

Lode Claim No. 3

Claim Name: Neap Tide

Locater: Richmond Hill Exploration Company, Inc.

Date of Certificate: May 13, 1966

Recorded: Book 220 at Pages 397 and 398 of the records of the Clerk and Recorder of Pitkin County, Colorado.

TO HAVE AND TO HOLD the above-described mining leases and lode mining claims unto RHECO-LENADO, INC, its successors and assigns, forever, subject only to the following:

1. Assignee covenants it will keep each of the above-described mining leases in full force and effect throughout its primary term and will do the annual labor required to be done to keep each of the above-described lode mining claims in full force and effect for not less than five years from the date hereof.

2. This assignment expressly is made subject to any and all Lien and Subordination Agreements entered into between the United States of America and Richmond Hill Exploration Company, Inc. with respect to any or all of the interests hereinabove assigned. Assignee covenants that it shall perform any and all undertakings required to be performed by Assignor under any such Lien and Subordination Agreements.

3. Assignor warrants the title to each mining lease and lode mining claim from the date of Assignor's acquirement of said lease or claim until the date of this assignment.

IN WITNESS WHEREOF, ASSIGNOR HAS CAUSED THIS INSTRUMENT TO BE EXECUTED WITH EFFECTIVE DATE OF JULY 1, 1967.

Attest:

Secretary

RICHMOND HILL EXPLORATION COMPANY, INC.

By Wm B Rubey
Its President

STATE OF COLORADO)
)ss.
County of Pitkin)

12th The foregoing instrument was acknowledged before me this day of July, 1967 by William B. Rubey, as President of Richmond Hill Exploration Company.

My commission expires: 2-8-70

Gretchen Cooper
Notary Public

OFFICIAL FILE COPY

Date	Surname	Code
5/23/67	RM Smith	120
5/23/67	Ker Romo	120
		110
		220
		120M

AIRMAIL

Richmond Hill Exploration Company, Inc.,
P. O. Box 939
Aspen, Colorado 81611

MAY 23 1967

Re: OME-6415 (Silver)
Richmond Hill Exploration Company
Lenado Area
Pitkin County, Colorado
Contract 2236

Gentlemen:

Your letter of May 12, 1967, from your General Counsel, Mr. Wendt, requesting authorization to assign the referenced contract to RHECO-LENADO, Inc., has been referred to this office for reply.

Before the proposed assignment is approved by the Government, the assignee should establish its financial eligibility in the same manner as required of the original Applicant. Therefore, please furnish this office with evidence of efforts made within 90 days preceding its submittal to obtain credit from private commercial sources. This evidence should include true copies of correspondence with the assignee's bank of account and at least one other private source of credit which shows (1) date of loan request, (2) amount and terms requested, (3) proposed use of loan funds, and (4) the replies from the credit sources.

Upon determining the assignee's eligibility and upon receipt of a true copy of an assignment of those mining claims owned by right of location by the Operator (assignor), we shall prepare an Assignment of Contract for your acceptance.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

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

RMSmith/gla 5-23-67

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 22 1967

INITIALS	CODE
	170
JD	110
RMS	120

Memorandum

To: Chief, OME

From: Field Officer, Region III

Subject: OME-6415 (Silver)
Richmond Hill Exploration Company
Lenado Area
Pitkin County, Colorado
Contract 2236

The operator informed this office in a telephone conversation May 10th that the figure, attached to the contract showing the property boundary was in error due to erroneous plotting, and that Diamond Drill Hole No. 1 as proposed would collar off the operator's property. If the Diamond Drill Hole No. 1 were moved to within 150 feet of the outer boundary of the project area Diamond Drill Hole No. 1 may collar too near, or even across the Woody Creek fault.

Mr. Bruce Bryant and Howard McCarthy, geologists, USGS, also participated in the conference with Mr. Kelogg and me. The first impression was to recommend an amendment to the contract to allow drilling to be performed not less than 100 feet from the outer boundary of the project area, then it was thought advisable to drill Diamond Drill Hole No. 4 first, and to move the collar from its present proposed site, 100 feet northwest along the same bearing to insure penetration of the Woody Creek fault, then to drill Diamond Drill Holes 2 and 3 in succession. After holes 2, 3, and 4 have been drilled and more data are available on the position of the Woody Creek fault then Diamond Drill Hole No. 1 can be located at a more advantageous place, or it may not be necessary to drill it at all, depending of course upon the results of the previous drilling. The operator has been requested to inform us of the error by submitting a map showing the correct boundary location with an accompanying explanation.

Enclosed is a letter of request, dated May 12, 1967, and delivered to this office by Mr. Kellogg May 15, 1967 concerning a possible assignement of contract (Article 1 (d) current contract) and I refer the request and data to you for appropriate action.

1. Bank letters
2. Drill hole sequence
No amend. required.

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

May 13, 1967

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

Re: OME-6415 (Silver)
Contract 2236
Lenado Area, Pitkin County, Colorado

Dear Bill:

Because Mr. Wendt's letter refers to me, and there have been some changes, I feel that I should add a note.

It has been unanimously decided, including myself, that I shall not hold any stock in RHECO-LENADO, INC.

This in no way affects Mr. Wendt's request for approval of assignment of the captioned contract.

Sincerely yours,

John P. Kellogg

John P. Kellogg,
General Manager

cc: J. A. F. Wendt

May 18, 1967

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

Re: OME-6415 (Silver)
Contract 2236
Lenado Area, Pitkin County, Colorado

Dear Bill:

In response to your request at our meeting in your offices in Denver on May 15 we are submitting the attached sketch map. It is the same scale as the Lenado Project Map attached to the captioned contract.

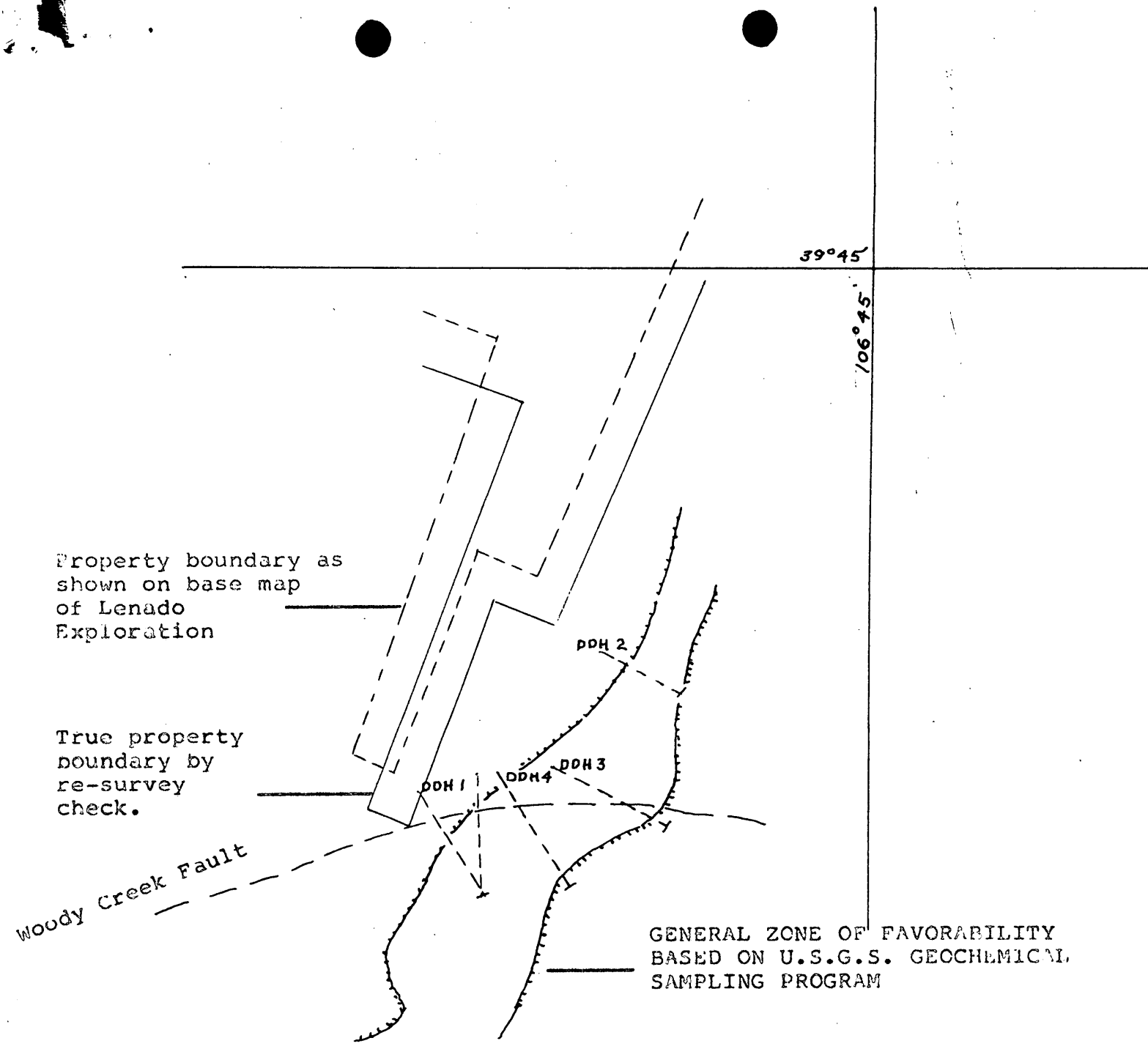
Due to an oversight in this office our Revised Map of Proposed Exploration, scale 1" = 300' showed an incorrect property boundary in the area of Diamond Drill Hole No. 1. This error was due to drafting, and not surveying. A recent field check brought this to light, as was discussed at the meeting in your office.

The corrected boundary put the collar of Hole No. 1 just outside of our subordinated lands. Since the contract states that no hole should be located closer than 150 feet to the property boundary we requested a relocation of Hole No. 1. The attached sketch shows the original and one recommended, agreed-upon location for this hole, the latter over 150 feet from our boundary. Then it was agreed, upon recommendation by Bruce Bryant, to first drill DDH 4, and setting its collar some 75 feet north of its position on the contract map, in order to be certain of the location of the Woody Creek Fault before deciding on the location of Hole No. 1. You and Howard McCarthy also agreed to this, as did we. Consequently, we are planning to bulldoze roads and sites this week-end based on this decision. Boyles Bros. drilling crews should be in early next week.

cc: W. B. Rubey
H. L. Stein

Work started May 22, 1967

Sincerely yours,
John P. Kellogg
John P. Kellogg,
General Manager



Scale approx. 1" = 500 feet

May 12, 1967

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

Re: Exploration Contract No. 2236, Pitkin County, Colorado, OME. Docket No. 6415, Operator: Richmond Hill Exploration Company, Inc., a a Colorado corporation

Dear Mr. Hasler:

With respect to the captioned contract we request permission to assign the contract pursuant to Article 1(d) of the contract.

The stockholders of Richmond Hill Exploration Company, Inc. have caused the formation of RHECO-LENADO, INC., a Colorado corporation. The stockholders, Board of Directors and officers are identical at this time; however, it is contemplated that Mr. John Kellogg may become a stockholder in RHECO-LENADO, INC. The new corporation is capitalized at $100,000.00 and has a paid in surplus at this time of $20,000.00. It has no current liabilities. The corporation has been formed for the sole purpose of development of the Lenado project. In view of the tax and financial structuring of Richmond Hill Exploration Company, Inc. there is no way to reward Mr. Kellogg for his work in the Lenado project in the original corporation. Further, the formation of the new corporation will greatly simplify the accounting procedures involved in the Lenado project.

We will, of course, follow proper procedures with respect to the title to the lands in the project upon approval of assignment of the captioned contract.

If approval is granted by the OME we will prepare and submit the requisite instruments of assignment on such forms as may be prescribed by the OME.

Your early advice in this matter will be greatly appreciated. Thank you for your cooperation.

Very truly yours,

RICHMOND HILL EXPLORATION COMPANY, INC.

and

RHECO-LENADO, INC.

By _____
their Secretary and General Counsel.

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225
Office of Minerals Exploration

May 5, 1967

OFFICIAL COPY
O. M. E.
RECEIVED
MAY 8 1967
INITIALS | CODE

Memorandum

To: Chief, OME

From: Field Officer, Region III

Subject: OME-6415 (Silver)
Richmond Hill Exploration Company
Lenado Area
Pitkin County, Colorado
Contract 2236

Mr. John Kellogg, General Manager, of the Richmond Hill Exploration Company informed me by telephone on May 3, 1967, that the exploration work under the subject contract would commence sometime within the next ten days and certainly prior to June 1, 1967. He also informed me that they would notify this office of the date of the commencement of the subject contract.

The Exploration Research Branch, under the direction of Ralph Erickson, is interested in following the progress of this contract relative to the geochemical work that has been completed to date in the Lenado area. They would like to have a mobile unit stationed at the exploration site, and this way obtain additional data to give them a third dimension to their study. They are also desirous of obtaining a split of the diamond drill core to facilitate their studies. Provisions probably should be made for the government to retain a split of the core upon the completion of the contract.

J. William Hasler

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

This copy for Washington

Richmond Hill Exploration Company, Inc.
P. O. Box 939
ASPEN, COLORADO 81611
Telephone 925-3717

March 15, 1967

OFFICIAL COPY
O. M. E.
RECEIVED
MAR 22 1967
INITIALS | CODE
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EJ 110
RMJ 120
HK 120K

Mr. J. William Hasler
Office of Minerals Exploration
Department of the Interior
Federal Center
Denver, Colorado 80225

Subject: OME-6415 (Silver)
Richmond Hill Exploration
Company, Inc.
Lenado Area
Pitkin County, Colorado

Dear Mr. Hasler:

Enclosed herewith you will find signed original and two copies of the subject contract.

I am leaving tomorrow for a three weeks trip. Mr. Kellogg is in Arizona, but will return for a week the end of this month, and will no doubt be in touch with you at that time.

We expect to have our office open on a full time basis by May 1st and will, at that time, start preparing the drill sites if weather permits.

Boyles Bros. has been notified that we expect to start drilling on or before June 1st.

I suppose that we should have from you some official notification of cancellation of the Highland Tunnel contract and release of the Lien and Subordination Agreements on this.

Please continue to send any correspondence to the above address. Mr. Stein and Mr. Kellogg are checking this box.

Thanking you, I am,

Very truly yours,

William B. Rubey

WBR:rlh
Enc.

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225
Office of Minerals Exploration

March 17, 1967

COPY
RECEIVED
MAR 20 1967
INITIALS
RMA 120

Memorandum

To: Chief, OME

From: Field Officer, Region III

Subject: OME-6415 (Silver)
Richmond Hill Exploration Company, Inc.
Lenado Area
Pitkin County, Colorado
Contract 2236

Transmitted herewith are the Government's copy and Budget and Finance's copy of the contract on the above-stated subject. All copies of the contract have been signed for the Government and the applicant. The date for commencement of work has been inserted. The Operator retained the "Operator's copy", and both the "Field Office copy" and the "Extra copy for field use" have been kept for the OME Region III field office files.

J. William Hasler

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

Office of Minerals Exploration

OFFICIAL COPY O. [illegible] MAY 8 [illegible]

February 28, 1967

Mr. William B. Rubey, President
Richmond Hill Exploration Company, Inc.
P. O. Box 939
Aspen, Colorado 81611

Re: OME-6415 (Silver)
Richmond Hill Exploration Company, Inc.
Lenado Area
Pitkin County, Colorado
Contract 2236

Dear Mr. Rubey:

Thank you for the acknowledgement of having received copies of the proposed subject contract in your letter of February 25, 1967. We shall await hearing from you relative to the deduction in total allowable costs of the work by some $11,300.00 after a review by Mr. Kellogg.

A copy of this letter is being forwarded to the Chief, Office of Minerals Exploration in Washington, D. C.--and we shall await arrival of the contract either signed by you, or returned with the suggested changes you propose.

Sincerely yours,

J. William Hasler

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

cc: Chief, OME
OME chron
Hasler chron
OME-6415

Washington

Richmond Hill Exploration Company, Inc.
P. O. Box 939
ASPEN, COLORADO 81611
Telephone 925-3717

OME Region III RECEIVED FEB 27 1967 Denver, Colorado

OFFICIAL COPY O. M. E. RECEIVED FEB 28 1967 INITIALS CODE

February 25, 1967

Mr. J. William Hasler
Office of Minerals Exploration
Department of the Interior
Federal Center
Denver, Colorado 80225

Subject: OME-6415 (Silver)
Richmond Hill Exploration
Company, Inc.
Lenado Area
Pitkin County, Colorado

Dear Mr. Hasler:

I have received the proposed subject exploration contract and am today circulating copies to the Richmond Hill stockholders for their comment.

I note that the total allowable cost of the work has been reduced by some $11,300.00 and Mr. Kellogg is making an analysis to determine where the differences are so that we may evaluate them.

I will make every effort to return the contracts to you by March 15th, either signed or with suggested changes for your consideration.

Very truly yours,

RICHMOND HILL EXPLORATION
COMPANY, INC.

William B. Rubey
President

WBR:rlh

Office of Minerals Exploration

February 21, 1967

Mr. William B. Rubey, President
Richmond Hill Exploration Company, Inc.
P. O. Box 959
Aspen, Colorado 81611

Subject: OME-6415 (Silver)
Richmond Hill Exploration Company, Inc.
Lenado Area
Pitkin County, Colorado

Dear Mr. Rubey:

Enclosed are the original and three copies of a proposed contract for the subject property. The contract consists of MME Form 30 (7 pages), Annex I (3 pages), 6 Lien and Subordination Agreements, Exhibit A (3 pages), Exhibit B (1 page), and two maps (Figures 1 and 2). All copies of the contract have been signed for the Government. The date for commencement of the work has been inserted.

If the proposed contract is satisfactory to you all four copies should be signed by an authorized representative of the company. Will you please return all of the copies, except for the operator's copy to this office.

Please be advised that the 6-1/2 percent interest accrues from the date 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 is not satisfactory to you, the original and all copies are to be returned to this office together with proposed changes for consideration.

Sincerely yours,

J. William Hasler

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

Chief Omer

cc: OME chron
Hasler chron
OME-6415

OME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
1/17	Kenneth	
2/1/67	Kirkemo	
2/2	Johnson	
	Long	
	Kielsgard	
2/3	Lewis	
2/3	Kuper	
	Bailey	
		170M

Memorandum

To: Field Officer, Region III

From: Chief, Office of Minerals Exploration

Subject: OME-6415 (Silver)
Richmond Hill Exploration Company, Inc.
Lenado Area
Pitkins County, Colorado

Enclosed are the original and three copies of a proposed contract for the subject property. The contract consists of MMX Form 50 (7 pages), Annex I (3 pages), 6 Lien and Subordination Agreements, Exhibit A (5 pages), Exhibit B (1 page), and two maps (Figures 1 and 2). All copies of the contract have been signed for the Government. The date for commencement of the work has been 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 6½ 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 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
130

MMerrithew/mm (1/17/67)

23263

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

Denver Federal Center-Building 25- Room 2284
Denver, Colorado 80225

OFFICIAL COPY
O. M. E.
RECEIVED
JAN 27 1967

January 27, 1967

Memorandum

To: Chief, OME

From: Field Officer, Region III

Subject: OME-6415 (Silver)
Lenado Area
Pitkin County, Colorado

Enclosed is a copy of a letter dated January 25, 1967 from the applicant in reply to my letter of January 23, 1967 requesting addresses of lessors who signed the lien and subordination agreements for the Lenado exploration.

J. William Hasler

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

Enclosure

Richmond Hill Exploration Company Inc.

P. O. Box 939

ASPEN, COLORADO 81611

Telephone 925-3717

January 25, 1967

OME Region III
RECEIVED
JAN 26 1967
Denver, Colorado

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

Re: OME-6415 (Silver)
Lenado Area
Pitkin County, Colorado

Dear Bill:

In reference to your letter of January 23, requesting addresses of our lessors who signed the lien and subordination agreements for Lenado exploration, they are:

Henry L. Stein, Box 480, Aspen, Colorado 81611

Flogaus Lumber Company, Woody Creek Post Office, Pitkin County, Colorado.

Smuggler-Durant Mining Corporation, Suite 1101, 4 West 58th Street, New York, N. Y.

John L. Herron, Aspen, Colorado 81611

We hope this information adequately answers your question.

Sincerely yours,

John P. Kellogg

John P. Kellogg,
General Manager

encl. copy
Copies: W. B. Rubey
H. L. Stein

Denver Federal Center-Building 25-Room 2284
Denver, Colorado 80225

OFFICIAL COPY
O. M. E.
RECEIVED
JAN 25 1967

January 23, 1967

Richmond Hill Exploration Company
P. O. Box 939
Aspen, Colorado 81611

Subject: OME-6415 (Silver)
Richmond Hill Exploration Company, Inc.
Lenado Area
Pitkin County, Colorado

Gentlemen:

I have been requested from the Washington office in a memorandum dated January 20, 1967 to request you to obtain addresses of the signers of the lien and subordination agreements listed below:

Henry L. Stein
Flegaus Lumber Company
Smuggler Durant Mining Corporation
John L. Herron

Upon receipt of these addresses the processing of your application may be completed.

Sincerely yours,

J. William Hasler

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

cc: Chief, OME
Hasler chron
OME chron
OME-6415

WILLIAM BONNER RUBEY
P. O. BOX R
ASPEN, COLORADO 81611

Copy of Phone Call to Spokane 1-23-67

January 18, 1967

6415

OFFICIAL COPY
O. M. E.
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JAN 1967
INITIAL SCORN

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

Dear Bill:

I have been out of town and have just seen your letter of January 13 to John Kellogg.

John is in Arizona and is returning here this weekend, and I will have him reply and give you the required information.

We are quite anxious to hear concerning the Lenado application. I doubt that we could get started on it much before June 1 because of weather, but it would help a lot to have the contract so that we could have all of the details worked out.

With best wishes and kindest personal regards, I am

Sincerely,

Billy

Jan 5

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
1/20	R M Smith	
1/20/67	Kirkemo	
		120 M

JAN 20 1967

Memorandum

To: Field Officer, Region III

From: Chief, Office of Minerals Exploration

Subject: OME-6415 (Silver)
Richmond Hill Exploration Company, Inc.
Lenado Area
Pitkin County, Colorado

Please contact the Applicant and request it obtain the addresses of the signers of the Lien and Subordination Agreements listed below.

Henry L. Stein
Flogaus Lumber Company
Smuggler-Durant Mining Corporation
John L. Herron

Upon receipt of these addresses, they will be inserted on the agreements and the proposed contract will be forwarded for your approval and transmittal to the Applicant.

FRANK E. JOHNSON

Frank E. Johnson

cc: Director's Reading File
Division File
Economic Geology File
OME Docket
OME Reading File
130

MMerrithew/mm (1/20/67)

23263

MME FORM 6 REFERENCE SLIP

REV. 2-59 OFFICE OF MINERALS EXPLORATION

TO:	DATE	INITIALS
1. ~~Assoc. Sol. - MR, Rm. 6554, Through Room 6042~~		
2. Mr. Smith, Rm. 4459		
3.		
4.		
5.		
FROM: Chief, OME		

FOR: Check items for action desired

____ Action ____ Reply for signature of _____

____ Approval ____ Investigate ____ Surname

____ Comment ____ Recommendations ____ Signature

____ Conference ____ Rewrite ____ File

____ Instructions ____ Your information

REMARKS:

RECEIVED
JAN 1967
Division of Mineral Resources
General Legal Services

A-67-20811

INTERIOR DEPT.

31962

JAN 9 1967

SOLICITOR

FROM SOLICITOR

JAN 13 1967

FOR SIGNATURE

DUP. SEC., WASH., D.C. M56300-62

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-6415	Silver		Pitkin	Colorado

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

Richmond Hill Exploration Company, Inc., a Colorado corporation

whose mailing address is **P. O. Box 939, Aspen, Colorado 81611**, 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 15, 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 $78,800.00. The Government will contribute 50 percent of the allowable costs as they are incurred, in a total sum not in excess of $39,100.00 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.

THE UNITED STATES OF AMERICA

RICHMOND HILL EXPLORATION COMPANY, INC.
(Operator)

By _____

Arthur A. Baker

By _____
Acting Director, U. S. Geological Survey

Title _____

_____

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]

DRAFT 12/27/66
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120
HK 120
Jeg 120m

EXPLORATION CONTRACT
RICHMOND HILL EXPLORATION COMPANY, INC.
OME-6~~3~~15
4

ANNEX I

The land, including all rights thereto, referred to in Article 2 of the contract consists of five groups of patented and unpatented lode and placer mining claims in secs. 22, 23, 27, and 28, T. 9 S., R. 84 W., 6th Principal Meridian, Woody Creek mining district, Pitkin County, Colorado. The five groups are identified as the RHECO, Smuggler-Durant, Flogaus, Stein, and Herron-Grover groups on Figure 1 entitled "Richmond Hill Exploration Company, Inc., Lenado Project, . . . Claim Map," attached and made part hereof.

The RHECO group consists of three unpatented lode mining claims owned by Richmond Hill Exploration Company, Inc., and recorded in the office of the Pitkin County Recorder, Aspen, Colorado, as follows:

Name of Claim	Book	Pages
Silver Tide	220	53, 54
Ebb Tide	220	395, 396
Neap Tide	220	397, 398

The remaining four groups consist of 43 patented lode claims and one patented placer claim as follows:

Smuggler-Durant group owned by Smuggler-Durant Mining Corporation:

Claim	Survey No.	Claim	Survey No.
Leadville	6576	Tenderfoot	5759
Alma	5293	River	5759
Daisy	5293	Annex	5759
Last Chance	5759	Lamokin	5759
Last Chance #2	5759	Mollie	5759
Eureka	5759	Tillie	6635

Flogaus group owned by Flogaus Lumber Co.:

Claim	Survey No.	Claim	Survey No.
Silver City	6828	Nestor	5854
Boston	6828	Nettie	5854
Discovery	5244	Moscow	5854
Ajax	5244	Court of Chancery	4615
Black Metallic	5244	Blue Diamond	4615
Tripod	5244	Atlantic Cable	5853
Logan	5853	Barefoot	5854
Cape Nome	16559	Snow Shoe	5854
Tunnel	5854	Bridal Chamber	5245
Brook	5854	Little Maggie	5245
Lenado Placer	6039	Don	5853

Stein group owned by Henry L. Stein:

Claim	Survey No.	Claim	Survey No.
Alpine	6783	Brooklet	6783
Ide	6783	Brookside	6783
Boaze	6783		

Herron-Grover group owned by Anna E. Olson, John L. Herron, and Edward J. Grover :

		Interests		
Claim	Survey No.	Olson	Herron	Grover
Apex	6122	23/72	46/72	3/72
Hidden Treasure	6122	23/72	46/72	3/72
Sea Bird	6122	23/72	46/72	3/72
Camp Bird	14176	23/72	46/72	3/72
Highland	6500	1/3	2/3	--

The Operator is in possession of the RHECO group of unpatented claims by right of location.

The Operator is in possession of the four groups of patented claims under the terms of (a) an undated Assignment of mining leases and option to purchase recorded February 2, 1965, Pitkin County records, Book 211, page 35 (?) executed by Henry L. Stein, Managing Director of Floodtide, a joint venture and lessee, and (b) a Mining Lease executed April 26, 1965, by Anna E. Olson, owner of a part interest in the Herron-Grover group.

Floodtide obtained rights to the Smuggler-Durant group by a 10-year Mining Lease executed October 31, 1963, by Smuggler-Durant Mining Corporation, the owner.

Floodtide obtained rights to the remaining interests in the Herron-Grover group and to the Flogaus and Stein groups by an Assignment executed July 15, 1964, by Edwin J. Smart, lessee.

Edwin J. Smart obtained rights to the Flogaus group by a 10-year Mining Lease executed April 3, 1963, by Flogaus Lumber Co., the owner.

Edwin J. Smart obtained rights to the Stein group by a 10-year Mining Lease executed August 12, 1963, by Henry L. Stein, the owner.

Edwin J. Smart obtained rights to the remaining part interest in the Herron-Grover group under the terms of two leases as follows: ~~(1)x~~

(1) Lease with option to purchase executed August 7, 1963, for three years and extended August 4, 1966, until August 7, 1968, by John L. Herron, a part owner.

(2) Lease of Mining Property executed August 24, 1963, for five years by Edward J. Grover, a part owner.

Lien and Subordination Agreements executed by the following owners covering all interests in all the patented claims are attached and made part hereof:

Smuggler-Durant Mining Corporation
Flogaus Lumber Company
Henry L. Stein
Anna E. Olson
John L. Herron
Edward J. Grover

EXPLORATION CONTRACT
RICHMOND HILL EXPLORATION COMPANY, INC.
OME-6415

EXHIBIT A

The purpose of the project is to explore by drilling from sites to be prepared on the land surface for silver-bearing ore bodies below an elongate geochemical anomaly which is approximately coextensive with the outcrop areas of the Leadville limestone and of the transverse Woody Creek and Lenado faults between offset segments of the limestone.

Ore bodies are inferred in and along the transverse faults and possibly along bedding-plane faults where the faults intersect or traverse limestone strata of the Manitou, Dyer, Leadville, and Belden formations of Paleozoic age.

General Provisions

A bulldozer no smaller than a Caterpillar D-7 shall be used for preparation of access roads and drill sites.

All drill holes shall be cased as necessary. The Government will not contribute to the cost of casing left in a hole at the Operator's request.

Facilities shall be provided for recovering drill slude, and such sludge shall be retained when drilling in significantly mineralized rock.

All drill core shall be stored in boxes identified as to hole number with markers in the core sections indicating the depths represented. Significantly mineralized core shall be split and one

split assayed for gold and silver and for lead and/or zinc as warranted. Whenever core recovery is less than 60 percent, a split of the corresponding retained sludge shall be assayed separately. The remaining core shall be stored in proper sequence with the unsampled core, and the remaining sludge shall be stored in suitable containers properly identified as to hole number and depth. Stored samples shall be made available for Government inspection and possible use, and may be disposed of with prior Government approval.

All drill core shall be logged and copies of the logs showing locations of all samples taken and the geological formations and structures traversed by the drill holes shall be furnished monthly to the Government.

True copies of assay certificates of all samples shall be submitted with the Operator's monthly report.

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

The Government will not contribute to the cost of any holes closer than 150 feet to the outer boundary of the project area or closer than 50 feet to the ore intercept in any other hole.

The location, direction, and extent of each work item shall be subject to Government approval.

The work shall be divided into two stages. The Operator shall complete all of Stage I and as much of Stage II as is authorized in advance by the Government and confirmed in writing. Approval of Stage II shall depend upon the favorable results having been obtained in Stage I.

Description of the Work

Stage I

The work shall consist of bulldozing access roads to, and the levelling of a maximum of four drill sites, core drilling an estimated 2150 feet in four inclined holes, and evaluating the results.

The holes shall be drilled to intersect the Woody Creek fault, the Lenado fault, or the upper or lower contact of the Leadville limestone near one of these faults.

The approximate inclinations and depths of the holes are as follows:

Hole No.	Inclination	Depth
1	-45°	600 feet
2	-45°	400 feet
3	-40°	600 feet
4	-40°	550 feet

Any drilling footage or costs not used in completing Stage I may be applied to Stage II.

The approximate locations of the drill sites and bearings of the drill holes are shown on Figure 2 entitled, "Lenado Project" attached and made part hereof.

Stage II

The work under Stage II shall consist of bulldozing access roads to, and the levelling of drill sites, drilling an estimated 2150 feet in four or more holes, and evaluating the results.

The locations of the drill sites and the bearings, inclinations, and depths of the drill holes may be selected either

to further delineate any ore bodies discovered in Stage I by offset drilling or to explore the favorable geologic setting southwest of the Leadville Tunnel by holes 5, 6, 7, and 8 approximately as illustrated on Figure 2.

Any footage not used in completing the foregoing options in Stage II may be used to core drill in the area of the Tillie shaft at sites to be selected by the Operator and approved by the Government in writing in advance.

Estimated Costs of the Work

Stage I

Actual Costs

Category (1) Independent Contracts

Mobilization and demobilization, drilling equipment and personnel	$ 350.00
Bulldozing roads and drill sites, including moving bulldozer in and out, 90 hours @ $18.00/hour	1,620.00
Drilling four holes, est. 2150 feet	16,510.00

Depth, feet	NC	NX	BX	AX-EX
0 - bedrock	$7.85			
Bedrock-250	7.75	$7.40	$6.50	$6.00
250 - 500		$8.20	$7.10	$6.60
500 - 750			$8.00	$7.30
750-1,000			$8.95	$8.20

Category (1) Independent Contracts (continued)

Reaming, including installing and removing casing		$2,220.00
Rates, all sizes:		
0 - 500 feet,	$3.80/foot	
500-1,000 feet	$5.40/foot	
Casing lost in hole		1,500.00

Sizes:	4-inch	NX	BX	AX	EX
Cost/foot:	$4.14	$3.31	$3.00	$1.81	$1.62

Freight allowance 20 cwt. @ $1.25/cwt.	25.00
Cementing and Redrilling,	
14 hours @ $12.50/hour	1,750.00
Additives,	
120 sacks @ $7.50/sack	900.00
Water truck rental,	
4 months @ $190.00/month	760.00
Water truck mileage - 500 miles/month	~~240.00~~
2000 miles @ $0.12/mile	240.00
Truck driver, including F.I.C.A., etc.,	
640 hours @ $3.51/hour (rounded)	2,250.00
Surveying, 16 hours @ $12.00/hour (rounded)	190.00
Surveying instrument, including transport,	
5 days @ $80.00/day	400.00
Standby time, 40 hours @ $11.00/hour	440.00
Core boxes, 215 boxes @ $1.00/box	215.00
	$17,595.00

Category (2) Personal Services

Subcategory (a) Supervision and Technical Services

None except:

1 Supervisor-geologist-engineer,		
4 months @ $910.00/month	$3,640.00	
Subcategory (b) Labor		
1 Engineer's assistant,		
4 months @ $650.00/month	2,600.00	$ 6,240.00
Category (3) Operating Materials and Supplies		
None except:		
Explosives, including detonators	75.00	75.00
Category (7) Miscellaneous		
None except:		
Samples assayed for gold and silver,		
150 samples @ $3.00/sample	$ 450.00	
Samples assayed for lead and zinc,		
150 samples @ $4.00/sample	600.00	
Vehicle mileage (3,000 miles/month),		
12,000 miles @ $0.12/mile	1,440.00	
Accounting and office expense,		
4 months @ $40.00/month	160.00	
F.I.C.A., payroll taxes, insurance,		
etc., 4 months @266.00/month (rounded)	1,065.00	3,715.00
Total estimated Cost of Stage I		$39,400.00

Stage II

Actual Costs

The schedule for Stage I applies

Total Estimated Actual Costs - Stage II	$39,400.00
Total Estimated Actual Costs of the Work	$78,800.00
Government Participation @ 75%	$59,100.00

Richmond Hill Exploration Company Inc.

P. O. Box 939

ASPEN, COLORADO 81611

Telephone 925-3717

December 17, 1966

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O. M. E.
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DEC 20 1966

INITIALS	CODE
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JJ	~~140~~
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HK	

Mr. Harold Kirkemo, Acting Chief
Office of Minerals Exploration
U. S. Department of the Interior
Washington 25, D. C.

Re: OME-6415 (Silver)
Lenado Area
Pitkin County, Colorado

Dear Mr. Kirkemo:

In reference to your question about what size or make bulldozer our bidders have, the only one that will efficiently give Boyles' Bros. the necessary road width is the Stutsman-Gerbaz D C - 7. Jones' cat is D a 6, with an 8' blade. To get a ten foot road, and the necessary area for drill sites I'm afraid Jones would take at least twice the time, and hence would be more expensive in the long run.

18.00/hour bid ($18.00 in Ariz.)
10.00/hour bid

Sincerely yours,

John P. Kellogg

John P. Kellogg,
General Manager

cc: J. W. Hasler

Office of Minerals Exploration

December 14, 1966

Mr. John F. Kellogg, General Manager
Richmond Hill Exploration Company
P. O. Box 939
Aspen, Colorado 81611

Subject: OME-6415 (Silver)
Lenado Area
Pitkin County, Colorado

Dear Mr. Kellogg:

We have received your bids relative to the construction of the access roads regarding the proposed work on the Lenado property. The bid should show the size of the equipment to be used, for example, a D-7 cat bulldozer or equivalent size of another make, whichever equipment the bidder has. In your letter of December 5, 1966 you mention the size of the blades, but we will need to know the type of equipment.

Mr. Rubey, who called this afternoon, was given the above information. Please send your reply directly to the Washington office, with a copy to the Denver office.

Sincerely yours,

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

cc: Chief, OME
W. B. Rubey

Hasler chron

OME chron
OME-6415

DIAMOND CORE DRILLING
DIAMOND DRILLING EQUIPMENT
GROUTING
FOUNDATION TESTING
MINING
QUARRYING
SHAFT SINKING
TUNNEL DRIVING
MINE PLANT DESIGN
AND FABRICATION

Boyles Bros. DRILLING COMPANY

CONTRACTORS-ENGINEERS-GEOLOGISTS

~~2960 W. 7th Avenue~~
~~DENVER, COLORADO 80204~~
15865 W. 5th. Ave.
Golden, Colorado 80401
Phones: 255-9244
255-0855

General Offices and Plant
1624 Pioneer Road P. O. Box 58
SALT LAKE CITY, UTAH 84110
Phone 487-7595

BRANCH OFFICES
PHOENIX
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SANTIAGO, CHILE
LIMA, PERU

December 5, 1966

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O. M. E.
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DEC 12 1966
INITIALS | GO TO
120 M
JED 110
RMD 120 S

Mr. John P. Kellogg - General Manager
Richmond Hill Exploration Company Inc.
P. O. Box 939
Aspen, Colorado 81611

Dear John:

Thank you for your letter of December 2, 1966 confirming the drilling contract.

The road should be approximately 10 feet wide and enough room at each set up to turn the water truck around. We should also have an area about 30 foot square for the drill and equipment.

I have re-submitted my bid to cover all questions the O.M.E. had. I'm sure you have received it by now.

Very truly yours,

BOYLES BROS. DRILLING COMPANY

George E. Lensch

George E. Lensch - District Manager

GEL/bf

Richmond Hill Exploration Company Inc.

P. O. Box 939

ASPEN, COLORADO 81611

Telephone 925-3717

December 5, 1966

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INITIALS | CODE
120 M
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RMS 120S

Mr. Harold Kirkemo, Acting Chief
Office of Minerals Exploration
U. S. Department of the Interior
Washington 25, D. C.

Re: OME-6415 (Silver)
Lenado Area
Pitkin County, Colorado

Dear Mr. Kirkemo:

Attached are copies of Boyles Bros. "summer" bid prices for drilling, and two bulldozer bids based on 180 (Stage I = 90) hours of work, as we estimated in our Revised Application. see p.12

$10 Mr. Jones' machine has an eight foot blade, and (D7?)
$18 Stutsman-Gerbaz, Inc. has a twelve. We have requested of Boyles Bros. what width road they will require. ?

We have advised Boyles Bros. that they have been awarded the work drilling. The two other, higher, bidders, have so been advised.

The applicant feels that it were preferable to wait until spring or early summer, 1967, to commence this exploration. Our considerable experience in this area has shown the average winter to be too severe for efficient surface exploration.

Hoping to receive favorable word regarding our application, we remain

Sincerely yours,

John P. Kellogg

John P. Kellogg,
General Manager

zc: J. W. Hasler, w/ copies of bids.
W. B. Rubey
H. L. Stein

encl. 2 copies ea. of 3 bids

Richmond Hill Exploration Company Inc.

P. O. Box 939

ASPEN, COLORADO 81611

Telephone 925-3717

December 5, 1966

~~ORIGINAL~~
COPY
O. M. E.
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DEC 7 1966
FILE CODE

Mr. Harold Kirkemo, Acting Chief
Office of Minerals Exploration
U. S. Department of the Interior
Washington 25, D. C.

Re: OME-6415 (Silver)
Lenado Area
Pitkin County, Colorado

Dear Mr. Kirkemo:

Attached are copies of Boyles Bros. "summer" bid prices for drilling, and two bulldozer bids based on 180 hours of work, as we estimated in our Revised Application.

Mr. Jones' machine has an eight foot blade, and
D7-Stutsman-Gerbaz, Inc. has a twelve. We have requested of Boyles Bros. what width road they will require.

We have advised Boyles Bros. that they have been awarded the work drilling. The two other, higher, bidders, have so been advised.

The applicant feels that it were preferable to wait until spring or early summer, 1967, to commence this exploration. Our considerable experience in this area has shown the average winter to be too severe for efficient surface exploration.

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John P. Kellogg

John P. Kellogg,
General Manager

zc: J. W. Hasler, w/ copies of bids.
W. B. Rubey
H. L. Stein

encl. 2 copies ea. of 3 bids

Stutsman-Gerbaz, Inc.
Earthmoving Contractors
Box 188
Aspen, Colorado

Jerry Gerbaz—WA 5-7382

Richard Stutsman—WA 5-7326

December 2, 1966

To-Richmond Hill Exploration Co.

Location-Lenado

Proposal:

Grading roads and leveling sites with cleanup work to follow later.

Bid price:

$18.00 per hour working time and also travel time.

OFFICIAL COPY
O. M. E.
RECEIVED

STUTSMAN-GERBAZ, INC.

Richard D. Stutsman

Richard D. Stutsman

Stutsman-Gerbaz, Inc.
Earthmoving Contractors
Box 188
Aspen, Colorado

Jerry Gerbaz—WA 5-7382

Richard Stutsman—WA 5-7326

December 2, 1966

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STUTSMAN-GERBAZ, INC.

Richard D. Stutsman

Richard D. Stutsman

COPY
O. M. N.

DIAMOND CORE DRILLING
DIAMOND DRILLING EQUIPMENT
GROUTING
FOUNDATION TESTING
MINING
QUARRYING
SHAFT SINKING
TUNNEL DRIVING
MINE PLANT DESIGN
AND FABRICATION

Boyles Bros. DRILLING COMPANY

CONTRACTORS-ENGINEERS-GEOLOGISTS

~~2900 W. 7th Avenue~~
~~DENVER, COLORADO 80204~~
15865 W. 5th. Ave.
Golden, Colorado 80401

Phones: 255-9244
255-0855

General Offices and Plant
1624 Pioneer Road P. O. Box 58
SALT LAKE CITY, UTAH 84110
Phone 487-7595

BRANCH OFFICES
PHOENIX
RENO
SPOKANE
DENVER
SACRAMENTO
SANTIAGO, CHILE
LIMA, PERU

November 30, 1966

OFFICIAL COPY
O. M. E.
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DEC 8 1966
EXPTRANS | COMM

Mr. John P. Kellogg - General Manager
Richmond Hill Exploration Company Inc.
P. O. Box 939
Aspen, Colorado 81611

Dear John:

The following rates and conditions will apply to core drilling in the summer of 1967 on your Lenado properties, Pitkin County, Colo..

Mobilization and demobilization of men and equipment
Lump sum - $ 350.00

1. Drilling overburden, per linear foot 7.85

2. Core drilling

	NC	NX	BX	AX & EX
Bedrock to 250 feet	$ 7.75	$ 7.40	$ 6.50	$ 6.00
250 to 500 feet		8.20	7.10	6.60
500 to 750 feet			8.00	7.30
750 to 1000 feet			8.95	8.20

Reaming 0 to 500 feet, all sizes 3.80
500 to 1000 feet 5.40

Cementing plus cost of cement or drilling mud per hour - 12.50

Surveying plus cost of instrument - per hour 12.00
Instrument charge is - 5 day minimum charge of $ 75.00 and each additional day thereafter $ 8.00 per day, plus transportation charge to and from Denver.

Standby time, if requested - per hour 11.00

Cardboard core boxes to hold 10 feet of core each - 1.00

Casing left in hole will be charged for at our cost at job site.

Rates:	4 inch	$ 4.14	per foot plus freight
	NX size	? 3.00	per foot plus freight
	BX size	3.31	per foot plus freight
	AX size	1.81	per foot plus freight
	EX size	1.62	per foot plus freight

Installing and pulling casing - No charge
Water hauling will be charged at our truck rental rate of $ 190.00 per minth and .12¢ per mile. If driver is required, his wages of approximately $ 3.00 per hour and all payroll taxes in the amount of 17.046 % of wages, will be charged to your account. = $0.51/hr.

This letter is a firm quotation and will supersede any previous quotations.

Thank you for your consideration. Please give us as much notice as possible to proceed with operations.

Very truly yours,

BOYLES BROS. DRILLING COMPANY

George E. Lensch

George E. Lensch - District Manager

GEL/bf

DIAMOND CORE DRILLING
DIAMOND DRILLING EQUIPMENT
GROUTING
FOUNDATION TESTING
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BRANCH OFFICES
PHOENIX
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SANTIAGO, CHILE
LIMA, PERU

COPY

November 30, 1966

Mr. John P. Kellogg - General Manager
Richmond Hill Exploration Company Inc.
P. O. Box 939
Aspen, Colorado 81611

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This letter is a firm quotation and will supersede any previous quotations.

Thank you for your consideration. Please give us as much notice as possible to proceed with operations.

Very truly yours,

BOYLES BROS. DRILLING COMPANY

George E. Lensch

George E. Lensch - District Manager

GEL/bf

Woody Creek, Colo.
Nov. 29, 1966

Mr. John Kellogg
Richmond Hill Exploration Co.
Aspen,
Colo. 81611

Dear Sir:

Please consider this letter as my bid on roads above Lenado:

120 hrs. excavating roads to drill locations	-@$10	1200.00
60 hrs. clean-up time	-$10	600.00
		1800.00

Very truly yours,

Ernest L. Jones

ERNEST L. JONES

ELJ:vj

Woody Creek, Colo.
Nov. 29, 1966

Mr. John Kellogg
Richmond Hill Exploration Co.
Aspen,
Colo. 81611

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Very truly yours,

Ernest L. Jones

ERNEST L. JONES

ELJ:vj

Richmond Hill Exploration Company Inc.

P. O. Box 939

ASPEN, COLORADO 81611

Telephone 925-3717

November 30, 1966

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DEC 6 1966

INITIALS	CODE
KG	110
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Mr. Harold Kirkemo, Acting Chief
Office of Minerals Exploration
U. S. Department of the Interior
Washington 25, D.C.

Re: OME-6415 (Silver)
Lenado Area
Pitkin County, Colorado

Dear Mr. Kirkemo:

This letter is in answer to a call from Mr. Hasler, in Denver, regarding some questions re the subject application.

We called Boyles Bros. in Golden, Colorado regarding the questions on water haulage. They said that while the monthly water truck rental lowered from $225 in winter to $190 in summer, the 12¢ a mile still applied in summer. Also, that they would not only submit their estimated cost for a truck driver for wages and payroll taxes, but that they wanted to make out a new bid based on drilling next summer instead of this winter. It would conform to what they bid in their letter of November 17 - i.e., 25¢/foot less, but they said they wanted to change this in each category for their own bookkeeping, and would send us a copy. Allthis we will have duplicated and forwarded to you, when we receive it.

How many miles damit

We have requested two local bulldozer operators to submit new bids for next summer's work. As yet we have not received these, but upon receipt we will also forward to you.

The justification for increasing the travel mileage under "Supervision, Overhead & Travel" from 20 miles a day in the original application to 100 miles a day in the revised application is as follows:

(a) The 20 miles were inadequate in any case; it is approximately 17 miles one way from the applicant's Aspen offices to the exploration area, and two round trips are contemplated on day shift. ?

(b) The necessity of drilling two shifts a day in order to complete Phase I during the summer months. This

will require at least one round trip for supervisory purposes on swing shift.

(c) The applicant's decision to utilize its oven-crushing-pulverizing facilities set up in its field office at the portal of Highland Tunnel. This is an additional round trip of 15 miles. Here the cores will be dried, split, one half boxed, the other half examined, logged, tests made, and split again if samples are to be submitted for assay. For better sample preparation the sample will be crushed, quartered through a Jones splitter, then sacked three ways. There are also excellent core box storage facilities. At least one round trip a day is contemplated.

In summary, then, on the transportation:

Two round trips to Lenado, day shift: 34 x 2	= 68 miles
One round trip to Lenado, swing shift:	34 miles
One round trip to H. Tunnel field office:	15 miles
Total daily mileage, exclusive of driving around on the job:	117 miles

117
- 34
83

Regarding the Supervision costs: a minimum of two trained technical men will be required to cover a minimum of 96 hours of drilling each week, in addition to hours spent logging, core-splitting, drafting, office work, etc. It is felt that salaries equal to $35/day each for this skilled work is not unreasonable (with no time and a-half for Saturdays, as is the case with hourly wages). This leaves only $5/day for all other overhead, including office rent and utilities, drafting supplies, etc. Thus, the applicant has asked for $75 a day.

35
6
210
4
840 + 70

25
5
125
3750
16250
4
650.00

Sincerely yours,

John P. Kellogg

John P. Kellogg,
General Manager

cc: J. W. Hasler
W. B. Rubey
H. L. Stein

Richmond Hill Exploration Company Inc.

P. O. Box 939

ASPEN, COLORADO 81611

Telephone 925-3717

November 21, 1966

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NOV 28 1966
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RMA 120S

Mr. Harold Kirkemo, Acting Chief
Office of Minerals Exploration
U. S. Department of the Interior
Washington 25, D. C.

Re: OME-6415 (Silver)
Lenado Area
Pitkin County, Colorado

Dear Mr. Kirkemo:

Attached is a copy (2) of Boyles Bros. letter in answer to our questions about summer prices, as mentioned in our letter of November 7.

Sincerely yours,

John P. Kellogg

John P. Kellogg,
General Manager

cc, w/letter copy:
J. W. Hasler
W. B. Rubey
H. L. Stein

DIAMOND CORE DRILLING
DIAMOND DRILLING EQUIPMENT
GROUTING
FOUNDATION TESTING
MINING
QUARRYING
SHAFT SINKING
TUNNEL DRIVING
MINE PLANT DESIGN
AND FABRICATION

Boyles Bros.
DRILLING COMPANY

CONTRACTORS-ENGINEERS-GEOLOGISTS

~~2968 W. 7th Ave.~~ 15865 W. 5th. Ave.
~~DENVER, COLORADO 80204~~ Golden, Colorado 80401

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BRANCH OFFICES
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LIMA, PERU

November 17, 1966

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NOV 28 1966
INITIALS | CODE

Mr. John P. Kellogg - General Manager
Richmond Hill Exploration Company, Inc.
P. O. Box 939
Aspen, Colorado

Dear John:

Since Smitty is out of town, I'll answer the questions in your letter of November 1st..

There would be no demobilization charge, and no charge for placing and recovering casing. The cost of the survey instrument is:

> 5 day minimum charge of $ 75.00 and each additional day there-after $ 8.00 per day plus transporation charge, to and from Denver.

For summer time operation, we would charge .25¢ per foot less than prices quoted for drilling, and the water truck charge would be $ 190.00 per month, instead of $ 225.00. The reaming charge would be as quoted in letter of October 5th..

I trust this will satisfactorily answer your questions.

Very truly yours,

BOYLES BROS. DRILLING COMPANY

George E. Lensch

George E. Lensch, District Manager

GEL/bf

DIAMOND CORE DRILLING
DIAMOND DRILLING EQUIPMENT
GROUTING
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Boyles Bros. DRILLING COMPANY

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SACRAMENTO
SANTIAGO, CHILE
LIMA, PERU

November 17, 1966

Mr. John P. Kellogg - General Manager
Richmond Hill Exploration Company, Inc.
P. O. Box 939
Aspen, Colorado

Dear John:

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BOYLES BROS. DRILLING COMPANY

George E. Lensch

George E. Lensch, District Manager

GEL/bf

Richmond Hill Exploration Company Inc.

P. O. Box 939

ASPEN, COLORADO 81611

Telephone 925-3717

November 14, 1966

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NOV 17 1966
INITIALS | CODE

Mr. Harold Kirkemo, Acting Chief
Office of Minerals Exploration
U. S. Department of the Interior
Washington 25, D. C.

Re: OME- 6415 (Silver)
Lenado Area
Pitkin County, Colorado

Dear Mr. Kirkemo:

Attached is correspondence with the Bank of Aspen, and the First National Bank of Glenwood Springs indicating that these concerns are not making loans of this nature at this time.

Our letters to their loan departments, and their answers, are included.

We hope that this concludes the necessary Exhibits for our application.

We thank you for an early consideration for our request.

Sincerely yours,

John P. Kellogg

John P. Kellogg,
General Manager

cc: J. W. Hasler, w/copies of correspondence
W. B. Rubey
H. L. Stein

Richmond Hill Exploration Company Inc.

P. O. Box 939

ASPEN, COLORADO 81611

Telephone 925-3717

November 10, 1966

The First National Bank
Glenwood Springs, Colorado

attn: Loan Department

Gentlemen:

Our organization is planning an exploration program at Lenado, in Pitkin County. The program will consist of surface diamond core drilling in a search for silver. This metal was mined in high quality in the 1890's, and we feel that there are appreciable reserves remaining.

Our engineering staff has estimated that the total cost of the program will be $89,845.61. We are prepared to spend 25% of this, or $22,461.41. We are seeking a loan, at current interest rates, of 75%, or $67,384.20. This would be paid back out of future production.

Would the First National Bank be interested in making a loan of this nature?

We would appreciate hearing from you at the earliest opportunity.

Sincerely yours,

William B. Rubey

William B. Rubey,
President

WBR:jpk

THE FIRST NATIONAL BANK

GLENWOOD SPRINGS, COLORADO 81601

ERNEST J. GERBAZ
VICE PRESIDENT

NOVEMBER 14, 1966

MR. WILLIAM B. RUBEY, PRESIDENT
RICHMOND HILL EXPLORATION COMPANY, INC.
P. O. BOX 939
ASPEN, COLORADO, 81611

DEAR MR. RUBEY:

WE HAVE RECEIVED YOUR REQUEST FOR A $67,384.20 LOAN FOR AN EXPLORATION PROGRAM AT LENADO IN PITKIN COUNTY.

WE MUST DECLINE THIS TYPE OF BORROWING AT THE PRESENT TIME.

YOURS VERY TRULY,

ERNEST GERBAZ

LM

THE FIRST NATIONAL BANK

GLENWOOD SPRINGS, COLORADO 81601

ERNEST J. GERBAZ
VICE PRESIDENT

NOVEMBER 14, 1966

MR. WILLIAM B. RUBEY, PRESIDENT
RICHMOND HILL EXPLORATION COMPANY, INC.
P. O. BOX 939
ASPEN, COLORADO, 81611

DEAR MR. RUBEY:

WE HAVE RECEIVED YOUR REQUEST FOR A $67,384.20 LOAN FOR AN EXPLORATION PROGRAM AT LENADO IN PITKIN COUNTY.

WE MUST DECLINE THIS TYPE OF BORROWING AT THE PRESENT TIME.

YOURS VERY TRULY,

ERNEST GERBAZ

LM

The Bank of Aspen
ASPEN, COLORADO 81611

THOMAS J. KELLOUGH
ASSISTANT VICE PRESIDENT

November 14, 1966

Mr. William B. Rubey,
President
Richmond Hill Exploration Company, Inc.
P. O. Box 939
Aspen, Colorado

Dear Mr. Rubey:

In regard to your request for a loan in the amount of $67,384.20; we are very sorry that we are unable to comply with your request at this time.

If we can be of further service please let us hear from you.

Sincerely,

Thomas J. Kellough

Thomas J. Kellough
Assistant Vice President

TJK:pc

The Bank of Aspen
ASPEN, COLORADO 81611

THOMAS J. KELLOUGH
ASSISTANT VICE PRESIDENT

November 14, 1966

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Sincerely,

Thomas J. Kellough
Assistant Vice President

TJK:pc

Richmond Hill Exploration Company Inc.

P. O. Box 939

ASPEN, COLORADO 81611

Telephone 925-3717

November 10, 1966

The Bank of Aspen
P. O. Box O
Aspen, Colorado

attn: Loan Department

Gentlemen:

Our company is planning an exploration program at Lenado, in Pitkin County. The program will consist of surface diamond core drilling in a search for silver. This metal was mined in high quality in the 1890's, and we feel that there are appreciable reserves remaining.

Our engineering staff has estimated that the total cost of the program will be $89,845.61. Of this amount we are prepared to spend 25%, or $22,461.41. We are seeking a loan, at current interest rates, of 75%, or $67,384.20. This would be paid back out of future production.

Would the Bank of Aspen be interested in making a loan of this nature?

We would appreciate hearing from you at the earliest opportunity.

Sincerely yours,

William B. Rubey

William B. Rubey,
President

WBR:jpk

Richmond Hill Exploration Company Inc.

P. O. Box 939

ASPEN, COLORADO 81611

Telephone 925-3717

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William B. Rubey

William B. Rubey,
President

WBR:jpk

Richmond Hill Exploration Company Inc.

P. O. Box 939

ASPEN, COLORADO 81611

Telephone 925-3717

November 10, 1966

The First National Bank
Glenwood Springs, Colorado

attn: Loan Department

Gentlemen:

Our organization is planning an exploration program at Lenado, in Pitkin County. The program will consist of surface diamond core drilling in a search for silver. This metal was mined in high quality in the 1890's, and we feel that there are appreciable reserves remaining.

Our engineering staff has estimated that the total cost of the program will be $89,845.61. We are prepared to spend 25% of this, or $22,461.41. We are seeking a loan, at current interest rates, of 75%, or $67,384.20. This would be paid back out of future production.

Would the First National Bank be interested in making a loan of this nature?

We would appreciate hearing from you at the earliest opportunity.

Sincerely yours,

William B. Rubey

William B. Rubey,
President

WBR:jpk

Richmond Hill Exploration Company Inc.

P. O. Box 939

ASPEN, COLORADO 81611

Telephone 925-3717

November 7, 1966

OFFICIAL COPY
O. M. E.
RECEIVED
NOV 9 1966
INITIALS | CODE

Mr. Harold Kirkemo, Acting Chief
Office of Minerals Exploration
U. S. Department of the Interior
Washington 25, D. C.

Re: OME-6415 (Silver)
Lenado Area
Pitkin County, Colorado

Dear Mr. Kirkemo:

Attached are copies of three bids for drilling for silver at Lenado. They are from Boyles Bros., Sprague & Henwood, and Joy Manufacturing. Each contractor had a field engineer here to look over the ground conditions. We have also made up a comparison sheet on their prices, which is attached.

It would appear, from the differences in winter and summer prices, that it might be preferable to wait until May or June, 1967, before commencing this work. We have requested Boyles to clarify their position in regard to winter and summer prices, and will forward copies of their answer when we receive it. Winters at Lenado can be severe.

As soon as we have proof of financial eligibility from two banks we will forward copies of this correspondence.

Sincerely yours,

John P. Kellogg

John P. Kellogg,
General Manager

cc: J. W. Hasler, with copies of bids and comparison sheet.
W. B. Rubey
H. L. Stein

COMPARISON OF DRILLING BIDS FOR LENADO

		Boyles Bros	Sprague & Henwood Summer	Sprague & Henwood Winter	Joy Mfg. Co. Summer	Joy Mfg. Co. Winter
Mobilization		350.00	425.00	575.00		
Demobilization			425.00	575.00		
Overburden Drilling		8.10	11.50	13.50		
Core Bedrock - 250'	NX	7.65	7.40	9.35	8.90	17.50
Core 250' - 500'	BX	7.35	7.80	10.30	8.70	17.30
Core 500' - 750'	BX	8.25	8.60	11.10	8.70	17.30
Reaming, per foot		3.80	4.25	5.50	5.80	6.00
" , over 500' depth		5.40				
Casing, placing & recovering			17.00/hr.	18.50/hr		
Casing, lost or left by request of operator-owner		Job site cost	50% job site cost at current listing		NX lost or left-$3.00/ft BX " " " - 2.00/ft	
Water haulage		$225/mo.plus 12¢/mi, and possible wages for driver	Laying water line: $15/hr	16.50/hr	Truck rental $400/mo.	
Cementing, per hour		$12.50 plus cost of cement	$17.00	$18.50	$15.00 plus $2 for each 50 lb. bag.	
Surv. hole, per hour		$12.00 plus cost of inst.			$15.00	
Standby time. per hour		$11.00	$15.00	$16.50	$12.00	

DIAMOND CORE DRILLING
DIAMOND DRILLING EQUIPMENT
GROUTING
FOUNDATION TESTING
MINING
QUARRYING
SHAFT SINKING
TUNNEL DRIVING
MINE PLANT DESIGN
AND FABRICATION

Boyles Bros. DRILLING COMPANY

CONTRACTORS-ENGINEERS-GEOLOGISTS

~~2980 W. 7th Avenue~~ 15865 W. 5th. Ave.
~~DENVER, COLORADO 80204~~ Golden, Colorado 80401
Phones: 255-9244
255-0855

General Offices and Plant
1624 Pioneer Road P. O. Box 58
SALT LAKE CITY, UTAH 84110
Phone 487-7595

BRANCH OFFICES
PHOENIX
RENO
SPOKANE
DENVER
SACRAMENTO
SANTIAGO, CHILE
LIMA, PERU

October 5, 1966

Mr. John P. Kellogg - General Manager
Richmond Hill Exploration Company, Inc.
P. O. Box 939
Aspen, Colorado 81611

Dear John:

The following rates and conditions would apply to drilling your Lenado properties, Pitkin County, Colorado.

Mobilization of men and equipment, lump sum, $ [350.00] None

1. Drilling overburden, per linear foot, $ [8.10 -.25] 7.85

2. Core Drilling:

	NC	NX	BX	AX and EX	
Bedrock to 250 feet,	$ 8.00	$ 7.65	$ 6.75	$ 6.25	less $0.25/ft
250 to 500 feet,		8.45	7.35	6.85	"
500 to 750 feet,			8.25	7.55	"
750 to 1000 feet,			9.20	8.45	"

see letter Nov. 17/66

Reaming:
0 to 500 feet, all sizes, $ 3.80
500 to 1000 feet, all sizes 5.40
No charge for install or remove casing

Cementing, plus cost of cement or drilling mud, per hour $12.50

Surveying, plus cost of instrument, $12.00

Standby time, if requested, $11.00

Cardboard core boxes to hold 10 feet of core, each $ 1.00

Casing left in hole will be charged for at our cost at job site.

Water haul would be charged at our truck rental rate of [$225.00] 190.00 per month plus .12¢ per mile. We would expect to use drill helper as driver, but should this interfer with drilling operations and require a driver, his wages, payroll taxes and insurance would be charged to your account.

We would intend to use wireline equipment, and two eight hour shifts per day if possible. It could be possible to do this in the winter of '66 and '67, providing the roads are kept open causing no delay to operations.

Thank you for your consideration.

Very truly yours,

BOYLES BROS. DRILLING COMPANY

W. D. Smith
Field Superintendent

WDS;bf

SPRAGUE & HENWOOD, Inc.
Contract Division
REGIONAL OFFICE
2151 North Redwood Road (P.O. Box 2556)
Salt Lake City 10, Utah DAvis 8-4271
DIAMOND DRILLING • MINERAL EXPLORATION • SOIL SAMPLING • PRESSURE GROUTING
S & H SINCE 1883
EXECUTIVE OFFICES & PLANT
SCRANTON, PENNSYLVANIA

October 17, 1966

Richmond Hill Exploration Co., Inc.
P. O. Box 939
Aspen, Colorado 81611

Attn: John P. Kellog

Gentlemen:

Enclosed herewith are two proposals for drilling a minimum of 4,300 ft. using coring methods, on your Lenado Examination near Aspen, Colorado, in Pitkin County.

Proposal I sets forth drilling rates and conditions which would apply if your project should begin in May or June, 1967, and continue through the summer season. Under this proposal, we would provide two wireline equipped drill rigs, four drill crews, and a non-drilling foreman.

Proposal II sets forth rates and conditions which would apply should Richmond Hill desire to mobilize and commence operations approximately February 1, 1967. Under this proposal, we would provide only one wireline equipped drill rig, three drill crews and a foreman.

It should be pointed out that should you desire to begin operations in February, 1967, the rates in Proposal II would apply for the entire 4,300 ft. of drilling, even though the work may continue into May, 1967. Should additional drilling be required, beyond the minimum stated above, provisions and prices for the additional drilling could be revised, based on conditions encountered in the initial drilling.

We wish to thank you for the opportunity of submitting these proposals, and trust they are in keeping with your request.

In order to permit scheduling of crews and equipment, we would appreciate your decision at the earliest possible date, and no later than December 1, 1966.

Very truly yours,

SPRAGUE & HENWOOD, INC.

B. B. Williams
Ass't. Vice Pres.

BBW:vn

SPRAGUE & HENWOOD, INC.

Salt Lake City, Utah

Richmond Hill Exploration Co.
Aspen, Pitkin County, Colorado

PROPOSAL I

1.	Mobilization and demobilization	Lump Sum	- - -	$850.00
2.	Overburden drilling	Per foot	- - -	11.50

3. Core drilling

	NX	BX
0 - 250' depth	$7.40/ft.	$7.10/ft.
250 - 500' "	8.10	7.80
500 - 750' "	8.90	8.60
750 -1000' "	10.20	9.90

4.	Reaming	Per foot	- - -	4.25
5.	Placing or drilling cement, recovering circulation	Per hour	- - -	17.00
6.	Moving, setting up, laying water line	Per hour	- - -	15.00
7.	Placing, or recovering casing	Per hour	- - -	17.00
8.	(a) Casing left in holes at request	@ current list price		
	(b) " lost in holes	@ 50% " " "		
9.	Drilling mud materials, cement, additives	@ invoice cost f.o.b. jobsite PLUS 10%		
10.	Standby time, or delays caused by customer	Per hour	- - -	15.00

Conditions

1. Adequate drillsites will be constructed and access roads constructed and maintained by Richmond Hill, at no cost to Sprague & Henwood, Inc.

2. Although initial set-up on first hole for each rig is included in the mobilization charge, all time consumed in laying waterline will be chargeable. Also, all moves between sites, including tearing down, moving, and setting up, will be chargeable under Item 6.

3. Sprague & Henwood, Inc. will deliver samples to Richmond Hill representative, at drillsites, in containers provided by Richmond Hill.

4. Work under this proposal would begin in May or June, 1967, and would be conducted on a two-rig, four-crew schedule.

5. Work will be invoiced monthly, within 10 days following last shift worked in month. Our terms are net 30 days. Satisfactory credit arrangements are to be established before commencement of operations.

Richmond Hill Exploration Co.
Aspen, Pitkin County, Colorado

SPRAGUE & HENWOOD, INC.
Salt Lake City, Utah

PROPOSAL II

1.	Mobilization and demobilization		Lump Sum	- - -$1,150.00
2.	Overburden drilling		Per foot	- - - 13.50
3.	Core drilling	NX	BX	
	0 - 250' depth	$9.35/ft.	$9.05/ft.	
	250 - 500' "	10.30	10.00	
	500 - 750' "	11.40	11.10	
	750 -1000' "	12.70	12.40	
4.	Reaming		Per foot	- - - 5.50
5.	Placing or drilling cement, recovering circulation		Per hour	- - - 18.50
6.	Moving, setting up, laying water line		Per hour	- - - 16.50
7.	Placing, or recovering casing		Per hour	- - - 18.50
8.	(a) Casing left in place at request		@ current list price	
	(b) Casing lost in holes		@50% " " "	
9.	Drilling mud materials, cement, additives		@ invoice cost f.o.b. jobsite PLUS 10%	
10.	Standby time, or delays caused by customer		Per hour	- - - 16.50

Conditions

1. Adequate drillsites will be constructed, and access roads constructed and maintained passable, by Richmond Hill, at no cost to Sprague & Henwood, Inc.

2. Although initial set-up on first hole is included in the mobilization charge, all time consumed in laying waterline, will be chargeable. Moving between sites, including tearing down, moving, and setting up, will be chargeable under Item 6.

3. Sprague & Henwood, Inc. will deliver samples to Richmond Hill representative, at drillsites, in containers provided by Richmond Hill.

4. Work under this proposal would begin during winter of 1966-67, and would be conducted on a one-rig, three-crew schedule.

5. Work will be invoiced monthly, within 10 days following last shift worked in month. Our terms are net 30 days. Satisfactory credit arrangements are to be established before commencement of operations.

(219) 872-7221

JOY MANUFACTURING COMPANY
900 WOODLAND AVENUE • MICHIGAN CITY, INDIANA 46360

November 1, 1966

Richmond Hill Exploration Company, Inc.
P. O. Box 939
Aspen, Colorado 81611

Attention: Mr. John P. Kellogg, General Manager

Gentlemen:

Based on the conditions outlined in your invitation to bid and Mr. Trujillo's inspection of the proposed drilling area, we submit the following prices.

		NX	BX
0 to 750 feet	Winter Rates	$17.50/ft.	$17.30/ft.
	Summer Rates	$8.90/ft.	$8.70/ft.
Reaming, if necessary		$6.00/ft.	$5.80/ft.

Plugging and/or cementing drill holes @ $15.00/hour.

Drilling Mud Used @ $2.00 per 50-lb. bag.

Standby Time @ $12.00 per hour.

Survey Time @ $15.00 per hour.

Water Truck Rental @ $400.00 per month.

NX Casing lost or ordered left in place @ $3.00 per foot.

BX Casing lost or ordered left in place @ $2.00 per foot.

If the work is to be performed in the winter months, we would run the drill three (3) shifts per day, six (6) days per week or until the hole was completed. We estimate the average overall footage at approximately ten (10) feet per shift in the winter months. If the work is performed in the summer, we will operate the drill six (6) days per week, two shifts per day. We estimate an overall average

of twenty (20) feet per shift for summer drilling.

We will use wireline equipment for this work.

We would prefer to do this work in the summer months. We feel that there would be excessive delays in the winter months.

Thank you for asking us to quote on your requirements. We hope that our bid will receive favorable consideration.

Yours truly,

JOY MANUFACTURING COMPANY

J. M. Murray, Manager
JOY MANUFACTURING COMPANY

JMM:rh

On the granite rests a conformable series of sedimentary beds, the descriptive details of which may be found in the Aspen monograph. The formations extending up to and including the Maroon formation, which are those of main interest because they underlie the productive part of the district, aggregate 6,200 feet in thickness. Their sequence and general features are shown in Figure 1. The identification of the sedimentary formations at Aspen and the establishment of their sequence are the results of the work of Lakes, S. F. Emmons, Brunton, Henrich, Newberry, and Spurr, as shown by Girty.[2]

The Sawatch quartzite, or Cambrian quartzite, as it is invariably called in the district, overlies the granite. It is a hard vitreous white rock. The basal beds are obscurely cross-bedded and locally are current rippled; and as the top beds also are cross-bedded it is evident that the whole Cambrian section was laid down in a shallow sea. The Cambrian is succeeded by thin-bedded dolomite, designated "Lower Silurian" in the Aspen monograph but now referred to the Ordovician—a mere change in terminology, however, Ordovician being the name adopted to replace "Lower Silurian" of early usage. Locally this formation is always called the "Silurian dolomite." In the Aspen monograph it was designated the Yule formation, but it represents only the lower part of the typical Yule limestone. Above this dolomite is the "Parting" quartzite, which was thought by Spurr to be Devonian but is believed by Girty,[3] on cogent evidence, to be Ordovician, and which is now treated as a member of the Yule limestone. The Leadville limestone lies above the "Parting" quartzite and is divided into a lower dolomite member and an upper pure limestone member. The upper member is the blue limestone, which, as is well known, has been preeminently the ore-producing rock at Aspen, as well as in other districts in Colorado. The Leadville limestone is overlain by the black shales and thin-bedded limestones designated Weber formation in the Aspen monograph and Weber (?) formation in this report, because they are now generally regarded as probably not equivalent to any part of the typical Weber quartzite of Weber Canyon, Utah. The name Weber is, however, here retained, with a question mark, for the convenience of the mining public, which has long known these rocks under that name. The Weber (?) formation as here mapped corresponds to only the lower part of the rocks to which the name Weber has been applied in the Leadville and other districts of central Colorado—that is, to the rocks designated in earlier reports "Weber shales," the equivalent of the overlying "Weber grits" of

[2] Girty, G. H., The Carboniferous formations and faunas of Colorado: U. S. Geol. Survey Prof. Paper 16, pp. 15–17, 52–53, 1903.
[3] Idem, p. 161.

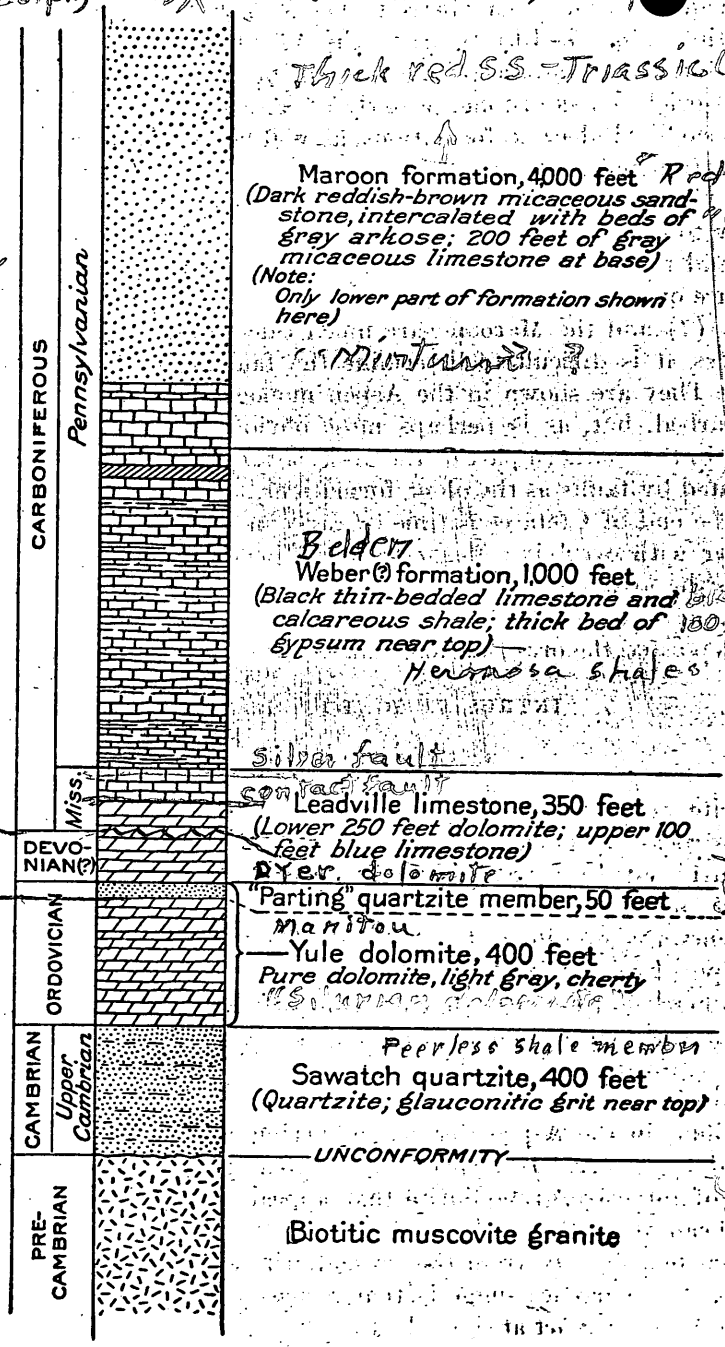


FIGURE 1.—Generalized columnar section of Carboniferous and older rocks in the Aspen district, Colo. Stratigraphic units as defined in Aspen monograph; names and lithologic designations modified to conform with present usage.

the folding and is accordingly the youngest igneous rock in the Aspen district. The sequence of events at Aspen is accordingly in the main like that in the districts east of Aspen as given by Crawford. Spurr, on the other hand, correlated the diorite porphyry of Aspen with the granodiorite ("diorite") of the Elk Mountains,[13] but this correlation appears to be erroneous, because the rocks are unlike in composition and because the diorite porphyry was intruded before the epoch of powerful folding and faulting and the granodiorite was intruded after the epoch of folding.

Spurr believes that the marked doming up of the rocks at Aspen, amounting to 5,000 feet at the center of greatest uplift, was the result of a "very local uplift, such as would arise from a vertically exerted force."[14] To account for this remarkable feature of the district "it was reasoned out that this domal uplift was due to the upward propulsion of a column or pipe of molten igneous rock, which never reached the surface." Possibly the stocks of granodiorite porphyry in the southern part of the district are the tops of cupolas on an underlying body of granodiorite, whose emplacement domed up the rocks in the productive part of the Aspen district in the way described by Spurr.

THE ORE BODIES

GENERAL FEATURES

The ore bodies of the Aspen district are silver-bearing lead deposits that have been formed mainly through the replacement of limestone. Most of the ore bodies were situated along one or the other of two faults, both of which are essentially parallel to bedding planes—the Silver fault, between the Leadville limestone and the overlying Weber (?) formation and the Contact fault, which separates the dolomite member of the Leadville formation from the overlying blue limestone. Particularly large ore bodies occurred where the Silver or Contact faults were cut by cross faults. So well is this mode of occurrence of the ore understood and so much more readily are faults found at the surface than outcrops of ore bodies, that the usual method of exploring for new ore bodies is to drive tunnels for such intersections, regardless of whether ore is known to occur at the surface or not.

The remarkable control that the structure has exerted in determining where the ore bodies were deposited is the outstanding feature of the geology of Aspen. Although most of the ore bodies along the two main productive faults have been found and exhausted, it is nevertheless probable that the future output will be

[13] Spurr, J. E., Econ. Geology, vol. 4, p. 305, 1909.
[14] Idem, p. 308.

derived chiefly from the Silver and Contact faults and from the minor parallel or "sympathetic" bedding faults in the zones adjoining those faults.

The ore worked in early days was rich in silver, owing to its content of native silver, pearceite ("arsenical polybasite"), argentiferous tennantite, and argentite. Barite is a characteristic associate of such ore. Bastin,[15] who visited the district in 1913, when some ore of this kind was still to be seen in place, concludes from his detailed study of the microstructure of the high-grade silver ore that the rich silver-bearing minerals are essentially of primary (hypogene) origin; that supergene enrichment has been most marked in those ores in which primary silver minerals were abundant; that the chief silver mineral of supergene origin was native silver, but in some places supergene pearceite and argentite were also deposited; and that the native silver disappears at depth and has clearly been deposited from descending water of surface origin. Spurr,[16] on the other hand, believes that the native silver has grown in place as the result of the oxidation of rich silver compounds and that there has been little downward migration and enrichment of silver. The fact, noted by both Spurr and Bastin, that the native silver is mainly associated with the rich primary silver-bearing minerals appears to favor Spurr's interpretation; but quantitative proof of either proposition is not at hand.

Native silver was found by Bastin to occur to a vertical depth of 1,200 feet. In the southern part of the district it persists to an even greater depth—1,500 feet; it is in tight ground in which the ore shows no other sign of alteration. Small bodies of such ore were found in the Hope tunnel, consisting chiefly of galena in barite with polybasite and a little chalcopyrite; the native silver is in prongs and wires, which are striated and grooved and thus appear as if they had been extruded from the polybasite upon which they are implanted.

Ore, to pay for shipment and smelter charges, must carry from 15 to 20 "points" (ounces of silver per ton plus units of lead), or, roughly, $15 to $20 a ton in silver and lead. Most of the ore mined in the last decade, however, has not been shipping ore but has been milling ore that carried a moderate percentage of lead in the form of galena and a few ounces of silver to the ton.

The chief producer has been the Molly Gibson mine. The ore from the deeper levels of this mine, according to Mr. Charles E. Anderson, manager, averaged from 2 to 3 per cent of lead and

[15] Bastin, E. S., Observations on the rich silver ores of Aspen, Colo.: U. S. Geol. Survey Bull. 750, pp. 41–62, 1924.
[16] Spurr, J. E., Econ. Geology, vol. 4, p. 316, 1909.

3 ounces silver to the ton; it contained but little zinc, which did not increase in amount in depth.

The deepest workings in the Aspen district—those in the Molly Gibson mine—reached a vertical depth of 1,450 feet below the collar of the Molly Gibson shaft, or 2,880 feet below the outcrop. The Molly Gibson mine is regarded as exhausted, and it was closed down in July, 1923.

An enterprise of comparatively recent date is that of the Park Mining & Milling Co., which in 1921 completed a tunnel 3,165 feet long driven from the head of Keno Gulch to tap the large bodies of oxidized ore under Tourtelotte Park. Extensive bodies of highly limonitic ore were found, but previous operators had already removed through numerous devious workings the more valuable portions. On account of the low prices of silver and lead it did not pay the company to extract the remaining low-grade material, and in 1923 operations were at a standstill.

The Cowenhoven tunnel, which penetrates Smuggler Mountain somewhat north of the Molly Gibson mine for a distance of 2¾ miles, was being reopened by the Silver Mines Co. of America in 1923. It had been made accessible to a distance of 5,000 feet from the portal, and some prospecting was undertaken to find bodies of ore in or adjacent to the old workings. It was reported that the main purpose, however, was to explore some unprospected ground at 10,000 feet from the portal.

OXIDATION OF THE ORES AS RELATED TO THE GLACIAL HISTORY

There were plainly two epochs of alpine glaciation at Aspen. The earlier of these gave rise to ice streams that were by far the larger. An immense amount of erosion was done by the ice streams in drastically remodeling a region already deeply trenched by stream canyons, yet, remarkably enough, oxidized ores are common in the district, and the effects of oxidizing solutions have extended to great depths. It is purposed to discuss briefly the problem that is thus presented.

The moraines of the earlier epoch appear at altitudes above 9,000 feet, for below this they are covered by the younger moraines, and they extend up as high as 10,800 feet. The long summit of Richmond Hill is free from any evidence of glaciation, negativing Spurr's idea that a continuous ice sheet once covered the whole region. The older moraines consist of granite and quartzite boulders, but the granite boulders have crumbled to a coarse sand, so that only quartzite débris appears at the surface over large areas, and the normal forms of the moraines have been considerably subdued. The weathered state of the older moraines is excellently shown in the

large pit formed by the caving of the Boulder shaft on Smuggler Mountain. The granite boulders are oxidized and stained by limonite through and through, and in the sides of the pit the boulders do not project in relief, as they do in cuts in the younger moraines. As the sides of the pit slumped the crumbly granite boulders broke as readily as the finer material in which they are embedded.

In contrast to this thoroughly weathered condition the granite boulders of the younger glaciation, consisting of the granite of the same kind as that in the older moraines, are firm, coherent, and brilliantly fresh. Manifestly, a long time separated the two epochs of ice action. Other evidence of a considerable interglacial interval is afforded by the gullies that are deeply cut in bedrock above the younger lateral moraines on the northwest extension of Red Mountain but hardly notch these moraines where they cross them. This anomalous condition that the headward portions of the gullies are cut deeper in bedrock than the lower portions are cut in loose morainal material indicates that the headward portions were eroded during interglacial time. Presumably they could not have been formed before the earlier glaciation, because the ice of that epoch extended far above their upper limits, and therefore glacial erosion would undoubtedly have obliterated them. The lower stretches of these bedrock gullies were buried by the morainal detritus of the subsequent glaciation. Postglacial erosion has been too feeble to exhume the buried portions and has succeeded only in faintly notching the top of the lateral moraine. On the basis of the comparative amounts of erosion done, the interglacial interval must have been many times as long as the time that has elapsed since the retreat of the last glacier.

The ice streams obviously accomplished a large amount of erosion at Aspen. This is indicated by the great breadth and depth of the U-shaped troughs of Roaring Fork and its tributaries. A minimum measure of the amount of the deepening of the Roaring Fork Valley by ice action appears to be afforded by the hanging condition of the Hunter Creek valley, just northeast of the town of Aspen. This fine glacial trough stands 500 feet above the floor of Roaring Fork. Accordingly at least 500 feet of glacial downcutting was accomplished at the site of Aspen.

When was this work done? The glacier of the last epoch was not over 1,000 feet thick at Aspen and probably terminated a short distance below the site of the town, as shown by the large moraine partly spanning the valley just below the confluence of Maroon Creek. Near their ends glaciers as a rule have weak erosive power. The earlier glacier was nearly three times as thick at Aspen as the later one. Consequently most of the downcutting, as measured by

the hanging valley of Hunter Creek, was probably done during the earlier glaciation.

Notwithstanding the great stream and glacial erosion so plainly indicated in the Aspen district, oxidized ores are common, and the effects of descending waters of surface origin are perceptible at considerable depths. Bastin has recently discussed the depth of oxidation at Aspen, and has shown that notable oxidation occurs in or adjacent to the ore bodies to a depth of 1,000 feet, though in distribution this oxidation is markedly spotty.[17] Analysis of the data presented by Bastin shows that all the deep oxidation he observed was above the level of Roaring Fork, the master stream of the district. Similarly, the wire silver seen by the writer at a vertical depth of 1,500 feet in the Hope tunnel is above the level of Castle Creek. According to Spurr, wire silver is abundant to considerable depths below water level, occurring at least as deep as 900 to 1,000 feet below the surface, even in places where the water level originally stood only a few hundred feet down.[18] But whether any notable quantity of oxidized ore or wire silver occurs below the level of the master streams of the district is not recorded.

The Aspen district is an area of abrupt, high relief, underlain by carbonate formations, and consequently it has a vigorous circulation of underground waters, especially along solution channels. Doubtless this combination of great relief and active movement of surface waters charged with oxygen along solution channels has produced the great depth of oxidation recorded by Bastin.

In the highest mines in the district, in Tourtelotte Park, all the ore is oxidized, as was noted by Spurr. For example, the ore bodies recently cut by the Park tunnel 600 feet below the outcrop are completely oxidized to porous, highly limonitic material, although in places they are 40 feet thick. This extensive oxidation is not wholly of postglacial origin but dates back at least to interglacial time. Tourtelotte Park lies above the upper limit of the last main glaciation, so the outcrops were not planed off by the ice erosion of that epoch. As Tourtelotte Park is the floor of a wide, shallow cirque high above Roaring Fork, it was not deeply eroded during the earlier, more mighty glaciation, as its shallowness proves. Therefore the oxidized ores of the park may date back to preglacial time.

The amount of glacial erosion in the Aspen district and the depth to which oxidized ores extend form but one side of a larger problem. That problem is the rate of oxidation as contrasted with the rate of erosion. One of the dominant impressions that the Aspen district makes, with its great canyons 3,000 and 4,000 feet deep intrenched

[17] Bastin, E. S., Observations on the rich silver ores of Aspen, Colo.: U. S. Geol. Survey Bull. 750, pp. 56–57, 1924.

[18] Spurr, J. E., Ore deposition at Aspen, Colo.: Econ. Geology, vol. 4, p. 315, 1909.

below an older surface of erosion, is the enormous amount of degradation that has been effected in geologically recent time. Nevertheless, the rate of oxidation of the ores has more than kept pace with the rapid rate of degradation. Possibly the reason is, as already hinted, that the great relief produced by the profound canyon cutting has so strongly stimulated the downward movement of oxygen-charged waters as to accelerate oxidation of the ores far beyond the rate of areal denudation.

ORE DEPOSITS IN THE SOUTHERN PART OF THE DISTRICT

MODE OF OCCURRENCE

The ore in the southern part of the district, on the west flank of Richmond Hill, just south of the area mapped by Spurr, occurs under different conditions from those in the near vicinity of Aspen. Extensive prospecting, both near the surface and at great depth, has disclosed no ore along the Silver and Contact faults in this area, in spite of the fact that the bulk of the ore near Aspen was obtained along these faults. It must be accepted as demonstrated that in this part of the district these faults are not favorable places for ore. This conclusion was already apparent to Spurr,[19] and it has been amply corroborated by the large amount of exploratory work subsequently undertaken. Spurr thought that some ore might be found along the Castle Creek fault, but this possibility still remains unrealized.

Ore occurs, however, in association with a steeply dipping sill of albite alaskite porphyry, which is peculiarly distinguished by its unfailing content of stout prisms of muscovite. This sill, because of its strong local importance, may be called the Little Annie sill, from the name of the mine that has yielded practically the only output on Richmond Hill.

The Little Annie mine, at an altitude of 10,540 feet on the west slope of Richmond Hill, is popularly credited with having produced $1,000,000 from silver-lead ore. To cut at considerable depth the ore body from which this ore was taken is the goal set for two long adits that are now being driven—the Hope tunnel and the Midnight tunnel, described on pages 24–28. The southward extension of this sill is being prospected at the Jewell shaft, at the Orinogo tunnel, in Lime Gulch, and at the tunnels of the Hurricane Mining & Milling Co., south of Lime Gulch.

The ore at the Little Annie mine occurs in a zone of shattered Weber (?) formation forming the hanging wall of the Little Annie sill of alaskite porphyry. As it has been assumed by the operators that the porphyry contact was the main factor in determining the

[19] Op. cit. (Mon. 31), p. 168.

Some of the ore from the Midnight shaft is notable mineralogically, in that it contains galena graphically intergrown with a resinous sphalerite, the scale of intergrowth being sufficiently coarse to be easily apparent to the unaided eye. The galena, which predominates in the intergrowths, forms rather narrow individuals as much as 0.7 inch long.

NATURE OF THE ORE-DEPOSITING SOLUTIONS

Microscopic examination of the ore from the Midnight mine throws some unexpected light on the nature of the ore-forming solutions of this part of the Aspen district. Along with the minerals recognizable in the ore by the unaided eye—galena, sphalerite, pyrite (extremely rare), quartz, barite, and calcite—there occur minute prisms of tourmaline and a little sericite. The prisms of tourmaline are nearly colorless where embedded in quartz, but where they project from the quartz into the fragments of country rock inclosed in the ore they show the distinctive deep-brown pleochroism of tourmaline.

The aplite inclosing the baritic galena-polybasite veinlets recently found in the Hope tunnel (see p. 25) has obviously been profoundly altered by the ore-forming solutions. Under the microscope it is seen to have been largely replaced by coarse sericite, barite, quartz, and dolomite, all these minerals being essentially of contemporaneous origin.

From this association of minerals—sericite, barite, and dolomite with tourmaline—it follows that the ore-depositing solutions were at a fairly high temperature, between "high" temperature and "moderate." The ore deposits are accordingly in the transition range between hypothermal and mesothermal deposits, to use the terms recently proposed by Lindgren.[21]

The ore-forming solutions are probably related genetically to the granodiorite porphyry. The evidence for this conclusion is as follows: The granodiorite, as has been shown, appears to have been intruded after the epoch of folding and faulting and is consequently the youngest igneous rock in the district. The ore deposits also were formed after the epoch of folding and faulting, and as the ore-forming solutions had a fairly high temperature it is reasonable to link them in origin with the granodiorite porphyry. More definite or conclusive evidence as to the nature of this relation has not yet been obtained at Aspen.

Spurr interpreted the mineralization at Aspen as having occurred in three stages—(1) deposition of barite veins; (2) deposition of sulphides, sulphantimonides, and sulpharsenides of silver or silver and copper; (3) deposition of galena poor in silver and sphalerite.[22] Bastin's careful study of the microstructure of the ores can not be said to confirm this interpretation, but it indicates that the barite and other minerals were deposited essentially contemporaneously.[23] The evidence from the southern part of the district, which affords the new item that the ore-forming solutions were hot enough to develop tourmaline, favors the interpretation that the several minerals of the ore bodies were deposited during one stage.

PRACTICAL CONCLUSIONS

The Annie fault, not the hanging-wall contact of the alaskite porphyry sill with the Weber (?) formation, was the feature that determined where the ore bodies were formed. Therefore the fault and not the contact should be prospected. It happens that at and near the surface the Annie fault, where it is ore bearing, is also the contact of the porphyry and the Weber (?) formation, and because of this obvious association of porphyry and ore, the erroneous conclusion has been drawn (and acted upon during the last 15 years) that ore is likely to occur anywhere along the hanging-wall contact of the porphyry sill and the overlying Weber (?) formation.

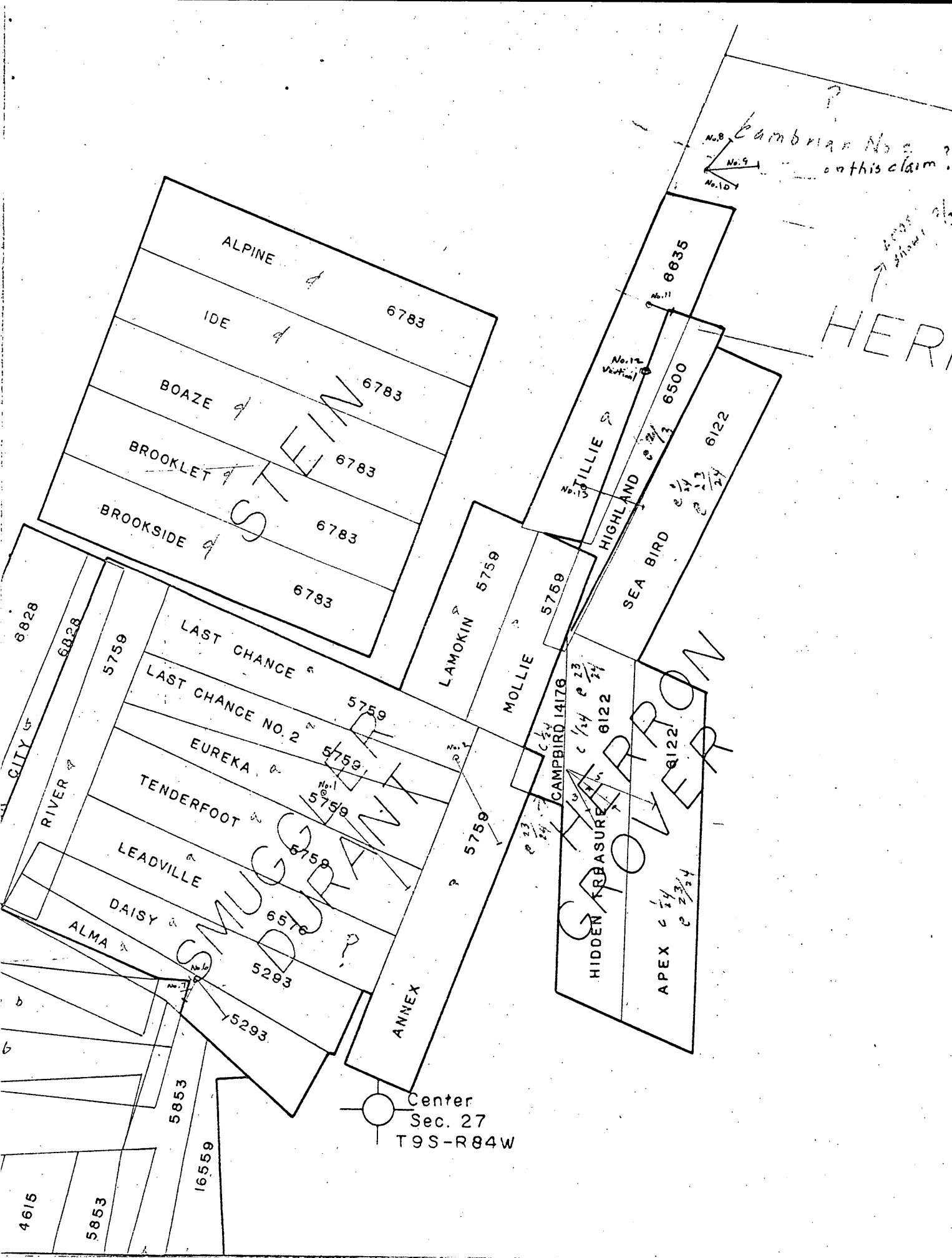
A question of practical interest is whether any ore will be found to occur along the Annie fault as the fault passes in depth wholly into the alaskite porphyry. In view of the fact that the ore elsewhere in the Aspen district has been developed mainly by the replacement of limestone, the probabilities are strongly adverse to the occurrence of ore wholly inclosed in porphyry. Where the fault has passed entirely through the porphyry into the underlying formations, however, especially into the limestone of the Leadville formation, the probability that ore bodies occur is greatly increased.

The only valuable ore body so far known is that of the Little Annie mine, and it occurs in the fault block bounded on the north by the Winnie fault and on the south by the Hope fault. It can not be too strongly emphasized that the deep-level exploratory work so far done has not yet entered this fault block. Therefore, future work should be so prosecuted as to enter this known ore-bearing block as soon as possible. The intersections of the cross faults—the Hope and Winnie faults—with the Annie fault are possibly the most favorable places to search for ore in the unprospected portions of the fault block.

[21] Lindgren, Waldemar, A suggestion for the terminology of certain mineral deposits: Econ. Geology, vol. 17, pp. 202–204, 1922.

[22] Spurr, J. E., Econ. Geology, vol. 4, pp. 313–314, 1909.

[23] Bastin, E. S., Observations on the rich silver ores of Aspen, Colo.: U. S. Geol. Survey Bull. 750, p. 49, 1924.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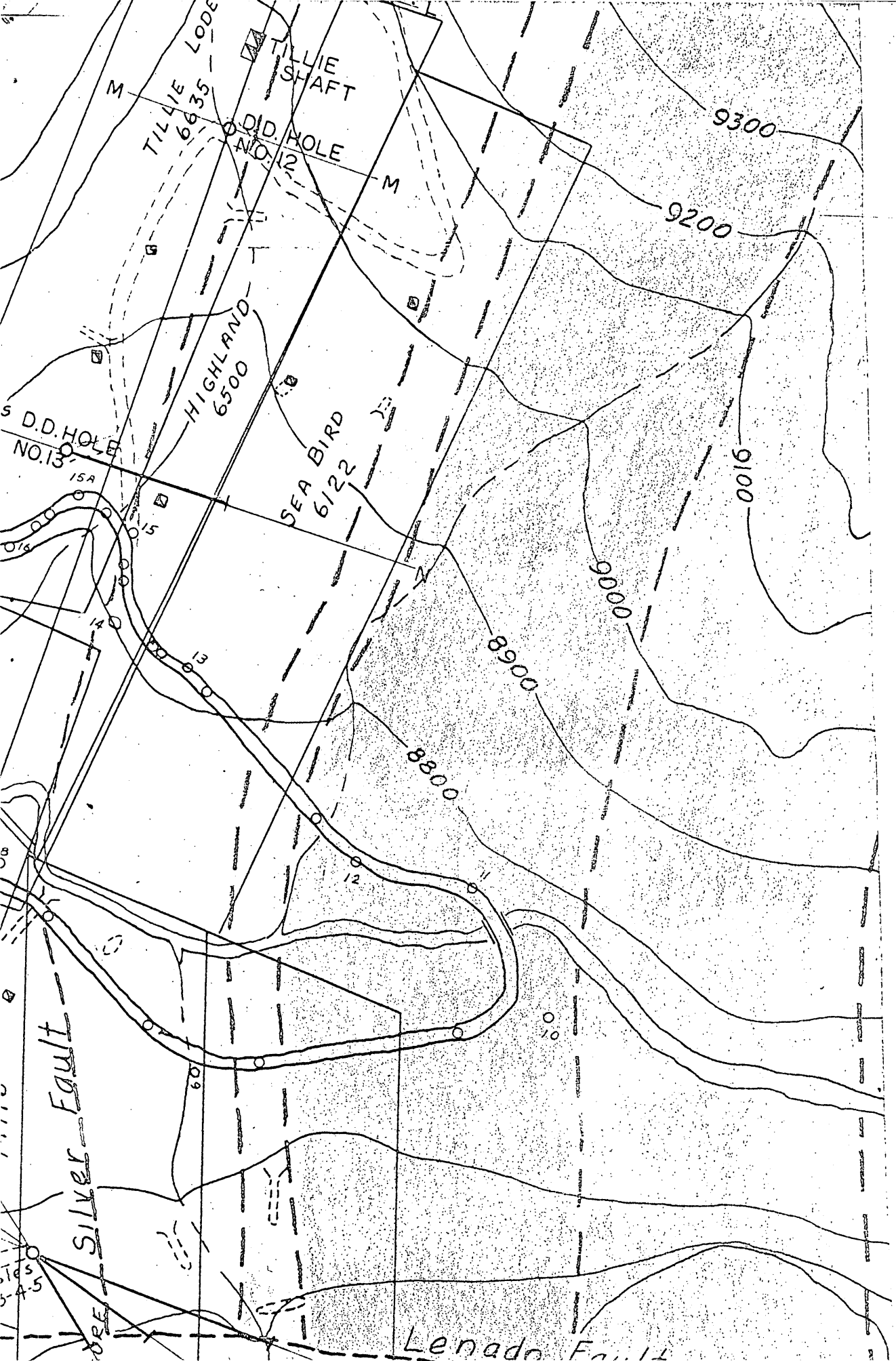
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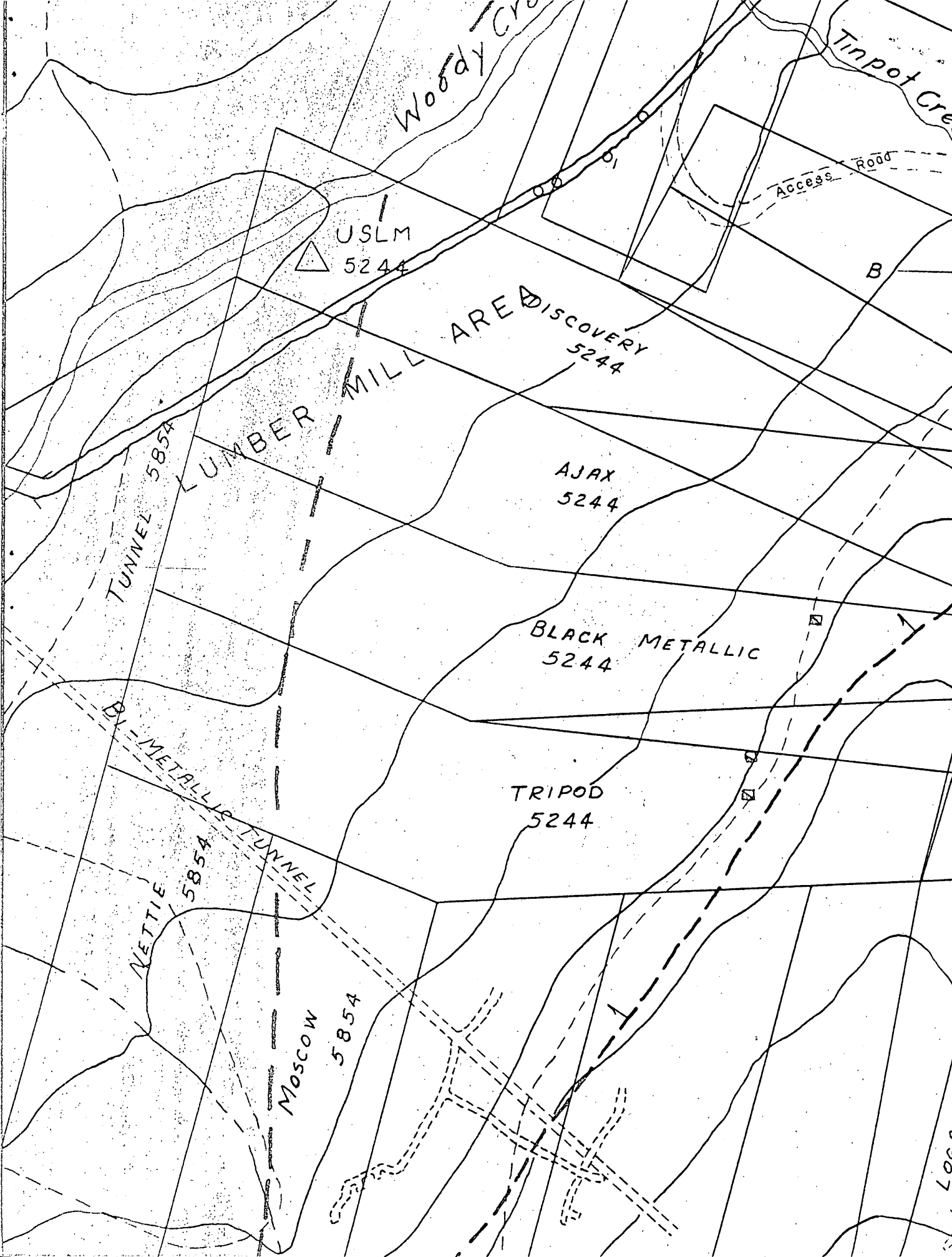
Lenado Fault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MOSCOW 5854

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225
Office of Minerals Exploration

October 19, 1966

OFFICIAL COPY
O. M. E.
RECEIVED
OCT 27 1966

Memorandum

To: Chief, OME

From: Field Officer, Region III

Subject: OME-6415 (Silver)
Richmond Hill Exploration Company, Inc.
Lenado Area
Pitkin County, Colorado

Transmitted herewith are copies of two memos from Howard McCarty, Branch of Exploration Research and Bruce Bryant, Southern Rocky Mountains Branch, both of whom are familiar with the Lenado Area and were kind enough to review the above-stated docket.

J. William Hasler
mc

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

Washington copy

J. William Hasler
Office of Mineral Exploration
Bruce Bryant

Bruce Bryant
Southern Rocky Mountains Branch

10/18/66

Revised application OME 6415, Lenado Districts, Pitkin Co. Colo.

The geologic and geochemical work done in the Lenado District since the original application, part of which became available to the applicant in an Open File Report last June, suggests to me a somewhat better than 50/50 chance to find another deposit like that previously mined in the district. However, at least one favorable area is outside the land controlled by the applicant.

The locations of the drill holes in the amended proposal seem reasonable on the basis of the geology and geochemistry. Values based on a field test for heavy metals on soil samples collected this past summer support the anomalies shown on the preliminary maps by McCarthy and Gott, issued in the Open File Report last June. Spectrographic analyses of those samples have not yet been run.

If the applicant contemplates geochemical or geophysical studies, these should be carried out in the initial part of Phase I. These techniques are more useful for exploration than blocking out ore, which is usually done by core drilling. The selection of a geophysical technique must take into account the possibility that any potential ore deposits in this area may contain a large proportion of sphalerite.

It appears that the applicant has guessed the formation at the bottom of the drill holes on the basis of the horizontal projection of the hole on the geologic map rather than taking into account the dip of the beds. The holes should bottom, if they are of the stated lengths, one or two formations below those stated in the application.

dip of beds unknown, lines of contacts are inferred (dashed lines)

I agree that the drilling program should be flexible.

Holes # 3 and 4 are most interesting because of the occurrence of a fault and apparently associated high geochemical anomaly in as yet unprospected ground.. A possible more economical approach might be to drill these holes first and, if they intersected ore, to use the rest of the contract money in roughing out the extent of such ore. If they did not, then proceed with holes 5,6, and 7 and do additional drilling there if ore intersected. Then, if not, drill hole 1 and 2. Holes 5,6, and 7 are in areas of fairly numerous surface prospects and a few adits, which apparently did not reveal ore to the old timers, but a strong geochemical anomaly does show in that area. Holes 1 and 2 are in areas where there are a few prospects and a somewhat lower geochemical anomaly. Ore, or at least a show, depending on whose story you believe, is said to have been found in the Tillie Shaft, but it was never mined because of a labor dispute.

Page 10- I doubt that there is a well defined intersection between the Lenado fault and the "silver fault".

Page 11- It is puzzling that the Bimetallic Tunnel and associated drifts along the Lenado fault were barren, as reported by Spurr because on the surface above the workings is a fairly high geochemical anomaly.

Probably Phase II cannot be planned and budgeted until one knows the results from Phase I.

STANDARD FORM NO. 64

Office Memorandum • UNITED STATES GOVERNMENT

TO : Bill Hassler, Field Officer O.M.E. DATE: Oct. 10, 1966

FROM : Howard McCarthy

SUBJECT: Revised application for Exploration at Lenado

The drilling program outlined in this latest O.M.E application for Lenado looks OK. However, additional geochemical sampling and the geophysical survey (IP) proposed in their earlier application would probably increase the chances for a succesful program.

Richmond Hill Exploration Company Inc.

P. O. Box 939

ASPEN, COLORADO 81611

Telephone 925-3717

September 16, 1966

OFFICIAL COPY
O. M. E.
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SEP 19 1966
INITIALS | CODE

Mr. Harold Kirkemo, Acting Chief
Office of Minerals Exploration
U. S. Department of the Interior
Washington 25, D. C.

Re: OME-6415 (Silver)
Lenado Area
Pitkin County, Colorado

Dear Mr. Kirkemo:

left side of docket

Thank you for your letter of September 7. We are enclosing the completed and signed MME Form 40 Application with the corrected estimated costs of $89,845.61. We thank you for furnishing the three copies.

Regarding the other items to be furnished in order to complete the application, we are getting up-to-date bank correspondence and fresh Invitations to Bid are being mailed.

I have just returned from a directors' meeting on this matter and it was decided that we would like to start this fall, provided the application can be processed and provided a contract is awarded within a reasonably short time. It is impossible to forecast the severity of winters here, and while surface drilling in midwinter is not unheard of, it has definite drawbacks. If we can commence before the ground is frozen we can bulldoze roads and drill sites with no trouble. The drilling contractor can start at least, and continue until it is mutually agreed to call it quits. My guess is that once he starts, he will complete the entire program no matter what the conditions. However, if it becomes necessary to shut down during some of the winter months we would continue next spring.

Regarding the conclusion of our OME project at the Midnight-Little Annie property we are undecided at this time. We are shut down now, with only the ventilation system in operation. I am preparing some final maps to illustrate our findings from the last core drilling, and want to take this up with Mr. Hasler. You should hear of our decision on this in the near future.

Enclosures

cc: W. B. Rubey

Cy of ltr & Form 40 to Hasler 9/21/66

Sincerely yours,

John P. Kellogg

John P. Kellogg,
General Manager

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
9/7	[illegible]	110
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9/7	Cal	21
		12
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Mr. John P. Kellogg
Richmond Hill Exploration Company, Inc.
P. O. Box 939
Aspen, Colorado 81611

SEP 7 1966

Re: CME-6415 (Silver)
Richmond Hill Exploration Company, Inc.
Lenado Area
Pitkin County, Colorado

Dear Mr. Kellogg:

Thank you for the revised application for financial assistance to explore the Lenado area. The second copy you sent us will be forwarded to Mr. J. W. Nasler, CME Field Officer, Region III.

We have not yet reviewed the new data for geologic information or to consider the exploration possibilities involved but we note that some items necessary to complete the application are missing, and the question as to when the program would be undertaken is important. These items either were overlooked or not available to you when the revised application was prepared.

The application (Form 40) shows an estimated cost of $46,218.00 for Phase I of a project whereas pages 3 and 12 of the narrative show estimated costs to be $89,843.61. We consider the estimate on the front of Form 40 as your official request, but we doubt that it is the figure you intended. Incidentally, since the estimated cost is for drilling eight holes regardless of possible subsequent exploration, the project need not be identified as Phase 1. Three copies of Form 40 are enclosed for your use in the event you wish to show a new estimate of total cost.

Are you planning to undertake the proposed drilling program before concluding work on the CME project at the Midnight-Little Annie property? Also, are you planning to start the drilling at the Lenado property this fall or would you wait until next spring? If your plan is to start this fall, evidence to satisfy the requirements for up-to-date evidence of correspondence to and from banks as well as bids from contractors to support your estimate of costs should be submitted now. If you plan to wait until the field season in 1967, we suggest that the revised application (Form 40), correspondence to and from banks, and contract bids be submitted next winter or early spring.

23263

It may be to your advantage to request bids from contractors in the winter when equipment and labor are not fully employed.

These questions are not intended to suggest that a contract will be granted upon receipt of the information requested. The answers are needed to satisfy the application requirements.

Sincerely yours,

Harold Kirkemo

Harold Kirkemo
Acting Chief, Office of
Minerals Exploration

Enclosures

cc: Director's Reading File
Division File
Economic Geology File
OME Reading File
Region III w/cy of revised application
Kirkemo

HKirkemo/mm (9/7/66)

Richmond Hill Exploration Company Inc.

P. O. Box 939

ASPEN, COLORADO 81611

Telephone 925-3717

August 26, 1966

OFFICIAL COPY
O. M. E.
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Mr. Harold Kirkemo, Chief
Office of Minerals Exploration
U. S. Department of the Interior
Washington 25, D.C.

Re: OME-6415 (Silver)
Lenado Area
Pitkin County, Colorado

Dear Mr. Kirkemo:

folder II-A

Under cover of this letter are two copies of our revised application report for Lenado. Mr. Hasler advised us that we should mail directly to you. It is a nearly complete revision, based upon geological data presented by the U. S. Geological Survey.

The applicant is aware that the total costs, and the total amount of estimated work items, such as casing, cementing, etc., may perhaps seem excessive. At today's inflated prices, and with the applicant's experience in exploring for silver in this district, including core drilling, we do not feel that the unit work prices are excessive. Our original bidders for drilling at Lenado (whose bids are attached to the original application) have assured us that there will be a substantial increase added to their bids of nearly two years ago. Since it is impossible to estimate with accuracy the exact amount of work or time in each category, the applicant has computed the optimum for his own protection - again, based on costly experience. The actual total costs should be considerably lower, and the O.M.E. by contract will only reimburse the applicant for its share of the actual units of work done.

Mend bids? [illegible] new bank letters?

We would appreciate your early consideration of this application. Should consideration of Phase II, because of its necessary lack of clear definition, be cause for much delay, we would like to wave Phase II altogether at this time. Or you might prefer to modify Phase II to include offset drilling only, which we can do.

Sincerely yours,

John P. Kellogg

John P. Kellogg
General Manager

cc: J. W. Hasler

U. S. Geological Survey--Denver Federal Center
Building 25-Room 2284
Denver, Colorado 80225

AIR MAIL

March 18, 1966

Mr. John P. Kellogg
Richmond Hill Exploration Company, Inc.
P. O. Box 939
Aspen, Colorado 81611

Re: OME-6415 (Silver)
Lenado Area
Pitkin County, Colorado

Dear John:

This letter is in reply to your application for financial assistance in the Lenado Area, Pitkin County, Colorado and your correspondence of the subject area dated March 8 in which you discuss the eleven points in question in Mr. Connors letter of August 5.

I will review the application and perhaps we can have some discussion on it during my visit next week. In the meantime, I will forward a copy of your March 8 letter and the bid for geochemical work in connection with your Lenado Area application by Manning W. Cox Associates to our Washington office.

Sincerely yours,

C. William Hasler

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

cc: Chief, OME
6415
Chron
Hasler

MANNING W. COX ASSOCIATES consulting geologists

57 post street san francisco, california YU 2-1436

April 10, 1964

Mr. John Kellogg
Richmond Hill Exploration Company
Box 939
Aspen, Colorado

Lenado Project
Pitkin County, Colorado

Dear John:

Although I have not yet received the Lenado map from you on which I can scale "line miles" for geophysical work, I will make a preliminary proposal so that you can discuss it with your principals. As Mr Lindsey, my geophysicist, summer schedule looks fairly tight with two firm jobs in the Northwest, we would appreciate an early decision from you.

The following proposal is based on the idea of setting up und r the planning and direction of Lindsey, your own locally staffed lab for permanent use. Your staff is to do all access work including basic surveying for control. Geochemical soil and rock sampling will be done first. Check work over two known areas will be done with I-P, S-P, Resistivity techniques If this is successful, the combined method will be extended elsewhere.

General Considerations

Despite several authoritative recent text books "the state of the art" in geochemical-geophysical prospecting is such that emperical checks are required for evaluation. Geochemical work is quick and cheap and is the best sorting tool the profession now has available. We recommend geochem work over the known Lenado area to aid in interpretation, but we recommend geochem work over all the area which you wish to prospect. Line spacing may be 200'-300' but point spacing should be 100' and where anomalous metal content is found, be still closer.

Basic surveying required is a transit control centerline with brunton-tape offset picket lines. The picket men will also take the soil samples. Your geologist (or Cox if you prefer) should use the picket line to make a 1" = 200' surface map showing all outcrops, mine workings, dumps, vegetable cover by types, drainage, etc. for these items sstrongly influence geochemical interpretation. To these details should be fitted the topographic map available.

We do not recommend cold citrate geochemical work unless and until a check can be run in a hot lab to determine under local conditions how much metal is citrate soluble We will purchase and assemble an entire portable hot geochem lab such as we have successfully used since 1963. The charge will be our invoice cost, plus $100, or a total of $600 - $700, perhaps less.

Lindsey and I doubt that self-potential work will be useful to indicate deep ore, but feel it should be read over the known Lenado zones at the same time as resistivity and induced potential work is done. We have a 400-volt direct current generator coupled to a multivibrator rectifier that permits DC or 5-150 cycle AC output and we have two highly sensitive read out meters. Resistivity and induced potential work should follow geochemical work over those areas shown to be anomalous.

Time Schedule

1. Twenty samples should be taken at four different depths to determine prior to setting picket lines, what depth geochemical work should be done. You and I can take these samples and Lindsey can run them.

2. Basic surveying and picket lines should be at least half done prior to setting up the geochem lab. I suggest a 2 week lead time This will require a surveyor and two helpers for base control, then two picket line crews of two men each to set the points and pick up the samples The lines are to be set on 200' centers and the picket points on 100' centers. A two-man picket crew, in my experience, can set 1500 to 3000 feet of line per day and collect the samples.

3. Working from memory, it looks like 8000' to 10,000' of base control, or 40 to 50 lines, with a maximum of 20 points per line, or a maximum of 1000 points need to be set and sampled The total surveying, plus picketing, plus sampling time should not exceed 30 days.

4. Geochemical assaying. Two men in a lab can process 80 to 100 samples per day, or will require approximately two weeks.

5. Fill in points and assays should take another 10 days maximum.

6. Forty-five days total time should complete geochemical work. I am estimating that it will be done in less than this.

7. Induced potential and resistivity surveying should start at the same time as geochemical work and I am allowing seven days check time, using vertical profile method on lines 400' apart.

8. Follow-up induced potential and resistivity work will depend upon the results of the above work, that is geochemical and test work, but 28 days should be ample to cover anomalous areas to be expected.

9. I am setting up my estimates on the basis that you will furnish all labor, all surveying, all facilities with the exception of such services as I may perform and the work of my geophysicist

Preliminary Cost Estimate

1. Equipment		
Geochem lab, installed	$ 800.00	
2. Local Furnishments (Richmond Hill Exploration Co)		
a. Geochem picket lines and surveying,		
surveyor + 1 helper @$70 x 14 days	980.00	
4 picket men @$20 x 30 days	2400.00	
b. Geochemical Analyses		
materials @ 30¢ x 1000 samples	300.00	
2 men @$20 x 14 days	560.00	
c. I-P Labor - 3 men @$20 x 35 days	2100.00	
Sub-total, labor only		$6040.00
d Add 20% for FICA, insurance & overhead		1200.00
Total furnishments		$7240.00
3 Professional Contract Work (Manning Cox Associates)		
a. Geochem test work	150.00	
b. Set up, monitor & interpret geochem @$105 x 8 days	840.00	
c. IP-R test work including equipment rental 7 days @$150	1050.00	
d. I-P extension work (maximum) @$130 x 28 days	3640.00	
e. Travel and subsistence, estimated 15¢/truck mile - $10/day	300.00	
f. Drafting and report preparation, flat charge	600.00	
Total contract		$7170.00
4. Total Project Cost -		$14,410.00

(Total Elapsed Time 8 weeks - 2 months)

MANNING W. COX ASSOCIATES consulting geologists

Time Schematic

LENADO GEOPHYSICAL PROGRAM
Pitkin County, Colorado

Week

Item	1	2	3	4	5	6	7	8	# laborers
Geochem check									0
Surveying									2 plus surveyor
Picket lines									4
Outcrop mapping									0 plus geologist
Geochem analyses									2
Set up geochem									0 plus geophysicist
I-P Reconn.									3 " "
I-P extension									3 " "
Report preparation									0 " " and geologist
Total Labor	6	6	9	9	3	3	3		
Geophysicist									
Geologist									
Surveyor									

In order to schedule this work we would want as early as possible confirmation of assignment. As is usual in such contracts, we ask a retainer of roughly 1/3 of the estimated cost, in this case $2500.

I expect to return to Aspen April 18th and will be happy to discuss the matter with you at that time.

Sincerely,

M W Cox

MWC:jmj
cc: EHLindsey
Files

U. S. Geological Survey -- Denver Federal Center
Building 25-Room 2284
Denver, Colorado 80225

March 14, 1966

GEOLOGY
COX

Mr. John P. Kellogg
Richmond Hill Exploration Company, Inc.
P. O. Box 939
Aspen Colorado 81661

Re: OME-6415 (Silver)
Lenado Area
Pitkin County, Colorado

~~110~~
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Your letter dated March 8, 1966 regarding the subject application arrived the 10th and I have not yet had a chance to review your previous application to get an up-to-date view of your points in question from Mr. Conners letter to you dated August 5, 1965. I will have Bruce Bryant review it this week and give you our ideas by the end of the week if possible.

I plan to get over to your project before the first of the month and we could review the program at that time also.

Sincerely yours,

J. William Hasler

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

cc: Chief, OME
OME-6415
Chron
Hasler

March 8, 1966

Mr. J. William Hasler, Field Officer
Office of Minerals Exploration, Region III
U. S. Department of the Interior
Room 2284, Building 25, Federal Center
Denver 25, Colorado

Re: OME-6415 (Silver)
Lenado Area
Pitkin County, Colorado

Dear Bill:

Reference is also made to our correspondence on the subject application with Buck Connors, and particularly to his letter of August 5 in which he outlined eleven points of recommendations for a revised application.

First, we would like to assure you that we are still very much interested in Lenado exploration. There have been some problems posed by Buck's requests, however, that have kept our application in a sort of temporary state of limbo.

His points (1) and (2) are somewhat confusing. We agree completely with (2), that surface geology is not sufficiently exposed for a complete and accurate map. It must have been exposed enough for (1) Bruce Bryant to have shown inaccuracies in our application map which, together with our own field work, was taken from Spurr, Roelfing, and Anderson. But (and I refer to Buck's follow-up letter of August 11) we can't show "the latest geological information" based on Bruce's work because Bruce wouldn't divulge classified information. I did walk over the area with Bruce, and he was most helpful. Other than an apparent fault following east-west along the course of Woody Creek, and the suspicions of other cross faults of small displacement north of Woody Creek, there did not appear to be major differences. Still, satisfying in every detail a work of geology that cannot be shown to us is something of a problem.

We have done considerable additional field work, however, since submitting our original map. This will be submitted in its revised form after we have

COPY

agreed upon a revised plan of exploration. I am hopeful that this will satisfy Buck's request in his August 11 letter. Also, we can add information regarding east west cross faults by mapping the Four Friends Tunnel, which has advanced northerly some distance this past winter.

Regarding point (3), that this is a "basic question" there can be no argument. I don't quite understand how "a careful study of the dumps and old prospect holes might provide some basis for decision." If there is a lithologic difference in drag ore and ore "broken up by post-ore fault movement" I would not recognize it. Perhaps brecciation-fragmentation studies might show distances that ore has been moved, but I would not think this would be very conclusive. What is your opinion? In the first place, all prospect holes are caved and inaccessible in this vicinity; there are only dumps. Buck's last sentence, "If not, then first exploration should be directed toward an answer to this question" does not suggest how. All I can think of is by drilling, which we have proposed, or by opening up the old mine workings, which is pretty well excluded in Buck's point (8).

Point (4) is in line with our revised thinking about Lenado exploration. There are undoubtedly places where trenching would be of value, but I'm afraid in general the cover is too deep. There is not only alluvium and glacial till, but an indeterminate amount of talus and rock slump, particularly on the north-facing south slopes. We are pleased that Buck suggested geochemical exploration, which we had on our first draft application, but discarded, thinking the O.M.E. would not go for it. Concurrently with the geochem. work we would like to run a geophysical survey, induced potential - polarization technique. I am attaching two copies of a proposal made by Bill Cox for this combined work, with cost and time estimates. This was submitted to us nearly two years ago, and a revision in costs may be in order. Would the O.M.E. consider something like this? Bill estimated two full months, which would not leave much time for core drilling in one Lenado summer. Concurrently, then, with the geochemical and geophysical work we would like to drill short

COPY

surface holes with a small portable rig, like a Hossfeld, that can be wheeled around without the need for elaborate and expensive access roads. Actually, this drilling can follow up the geochemical and geophysical work to check anomalies located. A rig like this can drill 75, perhaps 100 feet. A Jeep-mounted "wagon drill" is another possibility.

Point (5) confirms our plan to start drilling in the vicinity of the Aspen Contact and Leadville mines. If we do the work cited above for the first phase, however, we will have to move fast to do any deep, large diameter core drilling this coming summer. If Bill Cox's estimate of two months is close, we will only have another 2 to 2½ sure months for the "big" drill.

Points 6 through 9 are eithered covered in the above, or no comment. The answer to (10) is "No". The cardboard core boxes would be a separate item.

Point (11) has been our major headache. There are a large number of local people involved in the staking and ownership of the Cambrian No. 2 lode location. They are suspicious, or something, of being involved with us and the O.M.E. in any way. We have done about everything we can to get a lease short of offering each of these individuals a gold-plated Cadillac, but they won't budge. Unless there is a drastic change in their feeling, and soon, we would like to withdraw plans for drilling holes 8, 9, & 10. This may be temporary; perhaps when they see we are diligently proceeding with serious exploratory work without them they may change their collective minds. We plan to locate a claim between the Hidden Treasure and Annex, as Buck recommends, as soon as melting snows permit.

We would appreciate an early answer to these plans and questions, and I can start immediately on a formally revised application.

COPY

Sincerely yours,

John P. Kellogg

John P. Kellogg

enclosures: 2
cc: W. B. Rubey
H. L. Stein

Bldg. 20, Denver Federal Center
Denver, Colo. 80225
GEOLOGICAL SURVEY

OFFICIAL
COPY
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AUG 16 1965
INITIALS | CODE
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August 11, 1965

Mr. John Kellogg
P. O. Box 939
Aspen, Colorado 81611

Re: OME-6415 (Silver)
Richmond Hill Exploration Co., Inc.
Lenado Area
Pitkin County, Colorado

Dear John:

This is to confirm our discussion yesterday on the subject application.

In view of the findings of the USGS in the area and your continued interest in the property you should prepare a revised application showing the sites of the proposed exploration based on the latest geological information.

Be sure to include the dates, page, and book of recording on the locations you make to cover the open ground.

Yours very truly,

ORIGINAL SIGNED BY

Hugh M. Connors
Acting Field Officer, OME
Region III

cc: W. S. Rubey
Henry Stein

H.M.C. (8-11-65)
cc: Chief, OME
6415
Chron

Bldg. 20, Denver Federal Center
Denver, Colo. 80225
GEOLOGICAL SURVEY

August 5, 1965

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AUG 11 1965

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Mr. John Kellogg
P. O. Box 939
Aspen, Colorado 81611

Re: OME-6415 (Silver)
Richmond Hill Exploration Co., Inc.
Lenado Area
Pitkin County, Colorado

Dear John:

Billy Rubey called me yesterday and stated that you people are still interested in Lenado. I plan to be in Aspen soon and I would like to discuss the following points with you.

(1) Geologic work by Bruce Bryant, U.S.G.S., this summer makes parts of the application inexact, particularly the geologic map.

(2) Heavy surface cover and lack of access to old workings make it impossible to obtain a really good and complete geologic map in advance of exploration.

(3) A basic question at Lenado is whether the ore was dragged into the Lenado fault, as Spurr thought and you assume, or whether this was a fissure vein with ore broken up by post-ore fault movement. It is suspected that a careful study of the dumps and of old prospect holes might provide some basis for decision. If not, then first exploration should be directed toward an answer to this question.

(4) Rather than relying on drilling alone, some trenching might profitably be done both to establish geologic relations more definitely and to help answer the question of vein vs. dragged-in replacement ore; some geochemical exploration of this heavily covered area might help define targets; and especially, every bit of information possible should be extracted from the old diggings, including the prospect holes, and this evidently has not been done.

(5) Any drilling done should start in the vicinity of the Aspen Contact and Leadville mines which, perhaps significantly, are in the area of sharpest curvature of the Lenado fault. Such drilling should be on a "feel the way" basis. If fault curvature proves to be of importance, the fault on the north edge of the area also is sharply curved, roughly in mirror image of the Lenado.

(6) Bryant finds a fault on Woody Creek, approximately parallel to the more easterly trending portion of the Lenado. This, and the dolomite beds near it, may be worthy of exploration.

(7) The use of Spurr's misleading term "Silver Fault" for the unconformity between the Leadville Dolomite and the Belden (so-called "Weber") gives a spurious impression of cross-faulting on applicant's map. Bryant found only the three faults noted above, and the principal exploration targets should be the intersections of these faults with dolomite strata. If the deposits mined in the past turn out to have been vein deposits, then the faults might be explored also at other horizons below the Belden ("Weber").

(8) Your proposed Phase III, if in the project at all, should be reserved for underground exploration of deposits discovered by drilling and not for rehabilitation of old workings.

(9) A full-time assistant to the exploration geologist is not allowed on a project of this size. Soil sampling is an added activity which does not have a bearing on the location of the proposed drill sites.

(10) Cardboard boxes are included in the bids offered by Longyear and Boyles Bros. Is this cost duplicated in the summary of core drilling costs?

(11) Your rights to land in the vicinity of some drill sites are not well protected. Look at the open ground near hole 5 between the Hidden Treasure and Annex claims, also near hole 9 on the Cambrian No. 2 claim.

Nothing in the foregoing should be construed as a commitment by the Government to grant an exploration contract.

Yours very truly,

Hugh M. Connors
Acting Field Officer, OME
Region III

H.M.C. (8-5-65)
cc: Chief, OME
6415
Chron

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2/63)

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8/4/65	Kirkemo	120
	Selfridge	130
8/4	Johnson	110
8/5	Cole	220
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AUG 5 1965

Memorandum

To: Acting Field Officer, Region III

From: Chief, Office of Minerals Exploration

Subject: OME-6415 (Silver)
Richmond Hill Exploration Company, Inc.
Lenado Area
Pitkin County, Colorado

Mr. Ogden Tweto's memorandum of July 27, 1965, on the subject area lends support to our earlier suggestion that the logical exploration targets appear to be associated with cross faults and certain favorable strata. The Applicant has a different, and we believe erroneous, interpretation of the ore controls. Some of his original exploration program, therefore, is not acceptable for further consideration.

The facts and interpretations assembled by the Government on the geology of this area can be discussed with the Applicant. If the Company wishes to continue with the proposal, it should prepare a revised application which will show the sites of proposed exploration and support their locations with geologic reasons based on geologic field work.

(signed) FRANK E. JOHNSON

Frank E. Johnson

HKirkemo/mm (8/4/65)
cc: Director's Reading File
Division File
Economic Geology File
OME File
OME Reading File
Kirkemo
Selfridge

23263

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
Bldg. 20, Denver Federal Center
Denver, Colo. 80225
GEOLOGICAL SURVEY

July 27, 1965

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Memorandum

To: Chief, Office of Minerals Exploration

From: Acting Field Officer, OME, Region III

Subject: OME-6415 (Silver)
Richmond Hill Exploration Company, Inc.
Lenado Area
Pitkin County, Colorado

Attached are the valuable comments on the subject application by Ogden Tweto.

It is my understanding that Kellogg has the same backers, Billie Rubey and Henry Stein, in this venture that he has in Aspen on Contract 2169. The last I heard was that they are in no hurry on this application and furthermore it is questionable if they will be interested at all if they don't find ore in the Highland Tunnel.

This will give me time to get the information you requested in your memorandum of May 11, 1965 on my next trip to Aspen.

Hugh M. Connors

Hugh M. Connors

H.M.C. (7-27-65)
cc: Ogden Tweto
6415
Chron

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER 25, COLORADO

July 26, 1965

Memorandum

To: Hugh M. Connors, Region III, OME

From: Ogden Tweto, U.S. Geological Survey

Subject: OME-6415 Lenado area, Pitkin County, Colo.

OME
DEPARTMENT OF THE INTERIOR
JUL 27 1965
REGION III
DENVER, COLORADO

As you know, I have delayed comment on this application until Bruce Bryant, one of our Survey men who is working in the Aspen area, could map the Lenado area. This has been done, and Bryant has given me some notes on his own work, on the data presented in the application, and on the proposed exploration. We have the following comments.

(1) In view of its geologic location and past history, the Lenado area is worthy of further exploration.

(2) The data presented in the application and particularly on the geologic map are in part inexact if not erroneous, and they are thus inadequate for defining several of the exploration targets, or for laying out some of the proposed drill holes.

(3) Heavy surface cover and lack of access to old workings make it impossible to obtain a really good and complete geologic map in advance of exploration.

(4) A basic question at Lenado is whether the ore was dragged into the Lenado fault, as Spurr thought and the applicants assume, or whether this was a fissure vein with ore broken up by post-ore fault movement. I suspect that a careful study of the dumps and of old prospect holes might provide some basis for decision. If not, then first exploration should be directed toward an answer to this question.

(5) Rather than relying on drilling alone, some trenching ? might profitably be done both to establish geologic relations more definitely and to help answer the question of vein vs. dragged-in replacement ore; some geochemical exploration of this heavily covered area might help define targets; and especially, every bit of information possible should be extracted from the old diggings, including the prospect holes, and this evidently has not been done.

(6) Any drilling done should start in the vicinity of the Aspen Contact and Leadville mines which, perhaps significantly, are in the area of sharpest curvature of the Lenado fault. Such drilling should be on a "feel the way" basis. If fault curvature proves to be of importance, Bryant finds that the fault on the north edge of the area also is sharply curved, roughly in mirror image of the Lenado.

(7) Bryant finds a fault on Woody Creek, approximately parallel to the more easterly trending portion of the Lenado. This, and the dolomite beds near it, may be worthy of exploration.

(8) Finally, the use of Spurr's misleading term "Silver Fault" for the unconformity between the Leadville Dolomite and the Belden (so-called "Weber") gives a spurious impression of cross-faulting on applicant's map. Bryant found only the three faults noted above, and the principal exploration targets should be the intersections of these faults with dolomite strata. If the deposits mined in the past turn out to have been vein deposits, then the faults might be explored also at other horizons below the Belden ("Weber").

Ogden Tweto

Ogden Tweto, Chief
Southern Rocky Mountains Branch

IN REPLY REFER TO

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER 25, COLORADO

Box 739
Aspen ,Colo.
July 19, 1965

OME
DEPARTMENT OF THE INTERIOR
JUL 1965
REGION III
DENVER, COLORADO

Mr. Hugh M. Conners
Acting Field Officer OME Region III
U. S. Geological Survey
Building 20
Denver Federal Center
Denver, Colo. 80225

OME-6415

Dear Mr. Conners:

I have returned the Lenado area OME application with my comments to Ogden Tweto, and I assume that he will pass them back to you. I thought he might find it useful to have the application in conjunction with my comments.

Sincerely yours,

Bruce Bryant

Bruce Bryant
Geologist
Southern Rocky Mountains Branch

Copy to G.C. Selfridge

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JUL 21 1965

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Bldg. 20, Denver Federal Center
Denver, Colo. 80225
GEOLOGICAL SURVEY

July 13, 1965

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JUL 14 1965

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pending	

Mr. Bruce H. Bryant
USGS
General Delivery
Aspen, Colorado

Re: OME-6415 (Silver)
Richmond Hill Exploration Company, Inc.
Lenado Area
Pitkin County, Colorado

Dear Mr. Bryant:

Attached is the subject OME application which we have held pending completion of your work in the area.

I know that Ogden Tweto has told you about this application and I assure you that any help you can give us on it will be greatly appreciated.

Yours very truly,

ORIGINAL SIGNED BY

Hugh M. Connors
Acting Field Officer, OME
Region III

H.M.Connors (7-13-65)
cc: G. C. Selfridge
Ogden Tweto
6415
Chron

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
Bldg. 20, Denver Federal Center
Denver, Colo. 80225

June 28, 1965

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Memorandum

To: George C. Selfridge, Chief
Division of Exploration Operations
Washington, D. C.

From: Acting Field Officer, OME, Region III

Subject: OME 6415 (Silver)
Richmond Hill Exploration Co., Inc.
Lenado Area
Pitkin County, Colorado

Mr. Ogden Tweto, U.S.G.S., has just returned the subject application to this office. He has a crew of geologists starting in the Lenado Area and he will advise us of their findings.

The Applicants know this and are happy to wait for further information.

Accordingly, this application will be held in abeyance pending word from Ogden Tweto.

Hugh M. Connors

Hugh M. Connors

H.M.Connors (6-28-65)
cc: 6415
Chron

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
Bldg. 20, Denver Federal Center
Denver, Colo. 80225

May 27, 1965

Memorandum

To: George C. Selfridge, Chief
Division of Exploration Operations
Washington, D. C. 20240

From: Acting Field Officer, OME, Region III

Subject: OME-6415 (Silver)
Richmond Hill (Lenado)
Pitkin County, Colorado

I visited Mr. Ogden Tweto in his office May 25, 1965 and discussed the subject application.

He wanted to keep it and study it. He is a very busy man and he thought it would be the week of June 14, 1965 before he could give us his thoughts on the matter.

I have placed an out card in our file showing Mr. Tweto has the application.

Hugh M. Connors

Hugh M. Connors

H.M.C. (5-27-65)
cc: 6415
Chron

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JUN 1 1965

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5/10	[illegible]	110
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5/11	[illegible]	220
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Memorandum

To: Acting Field Officer, Region III

From: Chief, Division of Exploration Operations

Subject: OME-6415 (Silver)
Richmond Hill Exploration Company, Inc.
Lenado Area
Pitkin County, Colorado

The application is referred to you for recommendations based on field examination or consultation with geologists familiar with the district or both.

Geology

The Applicant's program is based solely on the theory proposed by Spurr in 1898 that ore deposits in the Aspen district are localized in bedding plane faults along two formational contacts. An interpretation offered by Emmons in the mid-1880's and supported by Rohlfing and Vanderwilt in the 1930's suggests that the deposits occur in a number of zones or contacts in sedimentary rocks or porphyry sills near crosscutting faults which served as ore channels. Similar ore controls are recognized in other districts as well.

In view of the credibility of the latter interpretation of ore control, we suggest that you consider discussing with the Applicant changes in the program. First priority should be given to holes which will crosscut the greatest number of formations near crosscutting faults. This would include proposed holes 5, 6, 9, 11, and 13. The last two would be included only if there are crosscutting faults nearby.

Additional holes could be drilled on Phase II as needed to extend discoveries made in the first priority holes or to test similar target areas elsewhere such as the intersection of the Lenado fault with the contact between the Weber and Leadville formations on the

Court of Chancery and Moscow claims. We strongly urge that you discuss the geologic aspects of exploration in the Lenado area with Mr. Ogden Tweto, U. S. Geological Survey, Federal Center, Denver. Tweto is well informed on the economic geology of this section of Colorado. Perhaps the geology of the Lenado area differs from that published on the Aspen area, and other exploration targets would be more appropriate.

Proposed Phase III

If in the project at all, this should be reserved for underground exploration of deposits discovered by drilling and not for rehabilitation of old workings.

Mobilization and Preparation

We reject the proposal for a full-time assistant to the exploration geologist. One man should be able to manage a project operating one drill rig. Soil sampling is an added activity which does not have a bearing on the location of the proposed drill sites.

Assay Determination

Cardboard boxes are included in the bids offered by Longyear and Boyles Bros. Is this cost duplicated in the summary of core drilling costs?

Property

Applicant's rights to land in the vicinity of some drill sites are not well protected. There is open ground about 120 feet south of proposed drill hole 5 between the Hidden Treasure and Annex claims. The area about 120 feet west of proposed drill hole 9 on the Cambrian No. 2 claim is likewise open ground.

George C. Selfridge

HKirkemo/mm (5/10/65)
cc: Director's Reading File
Review Committee
Docket
Mr. Kirkemo

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	Selfridge	130
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		120 m

MAY 1 1 1965

Richmond Hill Exploration Company, Inc.
P. O. Box 939
Aspen, Colorado 81611

Re: OMX-6415 (Silver)
Richmond Hill Exploration Company, Inc.
Lenado Area
Pitkin County, Colorado

Gentlemen:

The application for assistance in exploring the subject property has been reviewed by the Division of Exploration Operations of the Office of Minerals Exploration and referred to Mr. H. M. Conners, Acting Field Officer, Office of Minerals Exploration, Region III, Bldg. 20, Federal Center, Denver, Colorado, 80225.

The Regional Office will notify you in case additional information concerning the application is needed.

Sincerely yours,

George Fumich, Jr.

Acting Director

MMerrithew/mm (5/10/65)
cc: Director's Reading File
Region III
Docket

23263

6415

Published references on the Aspen district, Colorado

Emmons, S. F., 1885-87, Preliminary notes on Aspen, Colorado: Colo. Sci. Soc. Proc., vol. 2, pp. 251-277.

Spurr, J. E., 1898, Geology of the Aspen Mining district, Colorado: U. S. Geol. Survey, Mon. 31 (with atlas).

_____1909, Ore deposition at Aspen, Colorado: Economic Geology, vol. IV, No. 4, (June-July 1909) p. 301-320.

Bastin, E. S., 1925, Observations on the rich silver ores of Aspen, Colorado: U. S. Geol Survey Bull. 750, pt. 1, p. 41-62.

Knopf, Adolph, 1926, Recent developments in the Aspen district, Colorado: U. S. Geol. Survey Bull. 785, pt. 1, p. 1-28.

Vanderwilt, J. W., 1935, Revision of structure and stratigraphy of the Aspen district, Colorado, and its bearing on the ore deposits: Economic Geology, vol. XXX, no. 3 (May 1935), p. 223-241.

Rohlfing, D. P., 1938, The Colorado Mineral Belt and the Aspen mining district, Pitkin County, Colorado: Colorado Min. Assoc. Min. Year Book, Colorado Mining Assoc., vol. 25, pp. 16-17.

Richmond Hill Exploration Company, Inc.
P. O. Box 939
ASPEN, COLORADO 81611
Telephone 925-3717

April 27, 1965

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O. M. E.
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Mr. George C. Selfridge, Chief
Division of Exploration Operations
Office of Minerals Exploration
U. S. Department of the Interior
Washington 25, D. C.

Re: OME-6415 (Silver)
Lenado Area
Pitkin County, Colorado

Your letter of March 19

Our letter of April 9

Dear Mr. Selfridge:

Enclosed are five copies each of our Mining Lease with Anna E. Olson, and the Lien and Subordination Agreements, MME Form 52, completed and signed by Mrs. Olson.

The Mining Lease was recorded on the afternoon of April 26, Pitkin County book of records number 212, beginning at page 446.

We hope this completes the information needed for the processing of our Lenado exploration application.

Sincerely yours,

John P. Kellogg

John P. Kellogg,
General Manager

enclosures: as stated

cc: H. M. Connors
W. B. Rubey

Richmond Hill Exploration Company, Inc.
P. O. Box 939
ASPEN, COLORADO 81611
Telephone 925-3717

April 9, 1965

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Mr. George C. Selfridge, Chief
Division of Exploration Operations
Office of Minerals Exploration
U. S. Department of the Interior
Washington 25, D. C.

Re: OME-6415 (Silver)
Lenado Area
Pitkin County, Colorado

Dear Mr. Selfridge:

Reference is made to your letter of March 19, in which you requested correspondence to and from two banks regarding our financial eligibility status, and the Mining Lease and executed Lien and Subordination Agreements from Mrs. Olson.

Attached are three copies each of our letters of request for a loan of $30,000 to the First National Bank of Glenwood Springs and the Bank of Aspen. Also attached are one original and two copies each of both return answers from these banks.

Regarding the Olson lease, we are currently working out some minor disagreements and changes with Mrs. Olson and her son. She is in Youngstown, Ohio, and he is in Chicago, which is inconvenient to expedition. We hope to have the Lease and Lien and Subordination Agreement forms soon.

Sincerely yours,

John P. Kellogg

John P. Kellogg,
General Manager

cc: W. B. Rubey

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
3/18	Murphy	120M
	GCS	120
3/19	[illegible]	110
[illegible]	[illegible]	100
11	[illegible]	220
		120M

MAR 1 9 1965

Mr. John P. Kellogg
General Manager
Richmond Hill Exploration Company, Inc.
P. O. Box 939
Aspen, Colorado

Re: OME-6415 (Silver)
Richmond Hill Exploration Company, Inc.
Lenado Area
Pitkin County, Colorado

Dear Mr. Kellogg:

This is in reference to your letter of March 11, 1965, submitting in part the additional information requested in our letter of February 15, 1965.

Your statement that, "Inasmuch as the banks were contacted in person, there is no correspondence from Applicant," is not acceptable. Under the regulations that govern the conduct of OME, we may not waive this requirement. Therefore, will you kindly submit two copies of letters to two banks. The letters need not contain the entire substance of your conversations with the banks. A one-page letter will suffice showing (1) the date of the request, (2) the amount and terms requested, and (3) the proposed use of the funds in general terms. — RECEIVED 4/1/65

In regard to Mrs. Charles A. Olson's 23/72 percent interest in the Apex, Camp Bird, Hidden Treasure, and Sea Bird claims, the Mining Lease and executed Lien and Subordination Agreements pertaining to this interest should be submitted as soon as possible. (see Apex letter 4/1/65)

Sincerely yours,

George C. Selfridge (g/a)

George C. Selfridge, Chief
Division of Exploration Operations

FMMurphy/mm (3-17-65)
cc: Director's Reading File
Region III w/cy of incoming letter and enclosures
Docket

23263

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
2/15	Murphy	120 m
	[illegible]	120
"	Culeare	110
	[illegible]	100
2/15	cal	220
		120 m

FEB 15 1965

Mr. William B. Rubey
President
Richmond Hill Exploration Company, Inc.
P.O. Box 939
Aspen, Colorado

Re: GMX-6415 (Silver)
Richmond Hill Exploration Company, Inc.
Lenado Area
Pitkin County, Colorado

Dear Mr. Rubey:

To continue the processing of the subject application for exploration assistance in the Lenado area, this office needs the following additional information item for item as requested in the application form.

1(a) Financial Eligibility: Under this item you state that copies of the correspondence between the Applicant and two banks are included in Exhibit No. 1; however, we have not received the copies. Please forward these letters as soon as possible. You will note in the application form that these transactions must be made within 90 days preceding the filing of the application.

3/17 — received bank letters only; Bank letters submitted 4/1

2(b) Applicant's Rights in Land: In reference to the information submitted will you kindly submit the following additional information:

(1) The Herron lease lists 2/3 of Highland 6500 claim. The claim map submitted shows it is about 2/3 of a claim but this should be clarified as to full ownership of the area shown.

Approx. [illegible] Sea Bird, Camp Bird. 23/72

(2) In the Smuggler-Durant lease the survey number for the Leadville claim is 5376, whereas on the claim map it is 6576. Also, in the Flogaus lease one claim is listed as Snowshoe, whereas on the map it is shown as Snow Shoe. Please submit the correct number and name for these claims.

ok

ok

23263

(3) The application states plans have been made to locate the open ground adjacent to the area shown on the claim map. We note on the Base Map submitted that D.D. Holes 8, 9, and 10 are to be drilled from a station in the southwest corner of Cambrian No. 2 claim. This claim is not listed in the application or shown on the claim map; therefore, will you please clarify its status.

2(c) We have received only one copy each of the Lien and Subordination Agreements executed by Flegaus Lumber Company, Henry S. Stein, John L. Herron, and Edward J. Grover, and two copies executed by Smuggler-Durant Mining Corporation. We require five executed copies of each agreement; hence, if the additional copies have not already been forwarded to Mr. Connors, please submit them to this office.

5(a) Exploration Work: The application does not state the interval between holes when drilling offsets. Please advise the distance you anticipate will be required for such holes.

7(a) Estimate of Costs:

(1) Please submit bids from three independent contractors for the bulldozer work, if possible. Also, the size and make of the dozer should be given.

(2) In reference to the Phase I, Item IV, Core Drilling Costs, we require a breakdown of such estimated costs into separate items similar to those listed in the drilling bids. The breakdown should show the footage or hours anticipated for each item except for mobilization and demobilization of the drilling equipment and crews.

Sincerely yours,

George C. Selfridge

George C. Selfridge, Chief
Division of Exploration Operations

FMMurphy
~~xxxxxxxxxxx~~/mm (2/15/65)
cc: Director's Reading File
Region III
Docket

February 11, 1965

Richmond Hill Exploration
Company, Inc.
Post Office Box 939
Aspen, Colorado

Subject: OME-6415

Gentlemen:

Your application for exploration assistance, dated February 4, 1965 submitted to our office at Denver, Colorado has been assigned Docket Number OME - 6415.

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

Sincerely yours,

George C. Selfridge, Chief
Division of Exploration
Operations

Copy to Region III

February 8, 1965 Richmond Hill (Lenado) OME ? 6415

OFFICIAL COPY
O. M. E.
RECEIVED
FEB 12 '65
INITIALS | CODE
170 M

Mr. Hugh M. Connors, Acting Field Officer
Office of Minerals Exploration, Region III
U. S. Department of the Interior
Building 20 - Federal Center
Denver 25, Colorado

Dear Buck:

I know I speak for all here in saying that we enjoyed seeing and talking to you again. The Convention seemed to be a success. ? need 3 more

I am enclosing two completed and signed MME Form 52, Lien And Subordination Agreements for the Smuggler-Durant Mining Corporation Lease, to be affixed to our Application for Exploration at Lenado. I note that Mr. Hyman affixed his seal up by his signature; I trust that is satisfactory.

Still haven't received a firm third bid from a drilling company. When I do, it shall be forwarded to you to complete our application - unless we need two more letters from banks.

Dick and I dug a lot of interesting references from the School of Mines' library Saturday. They were mostly reports and articles on Aspen mining and geology from old periodicals, out of print, defunct, or unavailable publications. As soon as I compile this list in some recognizable form I'll send it to you (as well as to those second-hand bookstores) to see if you can do any good there.

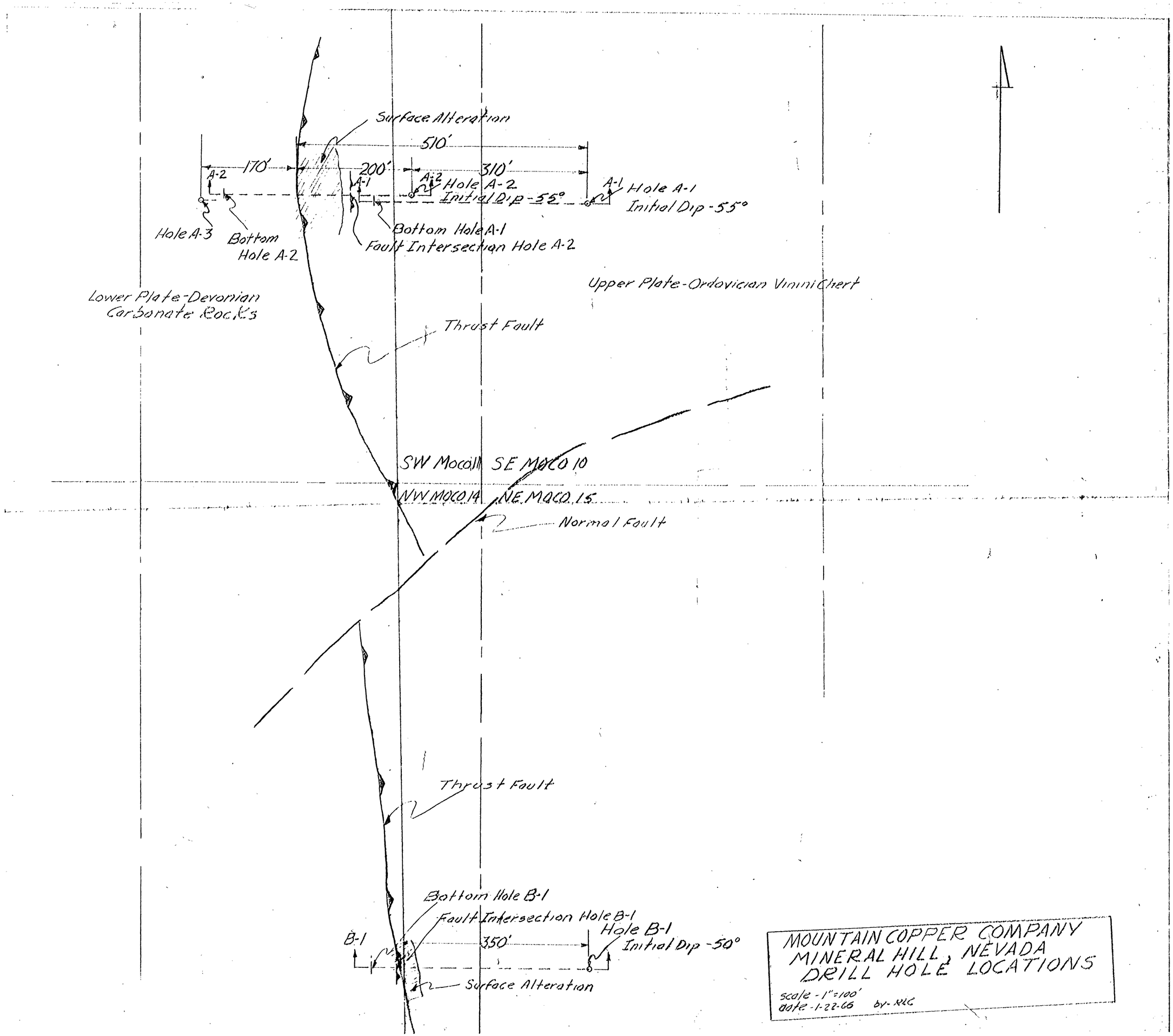
The gentleman - whose name I have unfortunately forgotten - who you referred us to at the Bureau, and who dug out a Bureau report on the Montezuma at Ashcroft, had a copy of this report waiting at our P. O. Box here when I arrived. Would appreciate it if you thanked him for us.

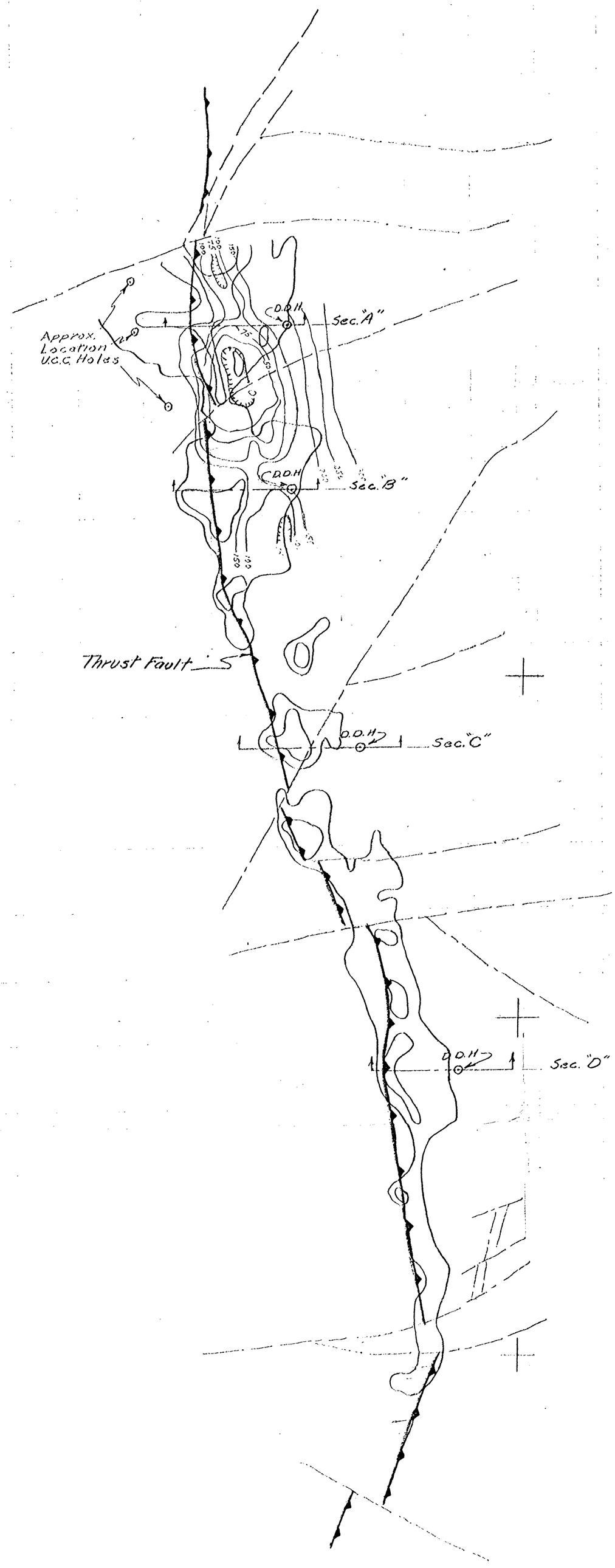
Sincere regards,

John P. Kellogg

COPY

WEST
LAST CHANCE
5759
LAST CHANCE
5759
No. 2
A
4
4A
Smuggler Ditch
C
MOLLIE
5759
F
D.D. Hole
No. 2
8700
Proposed Access Road
D.D. Hole
No. 1
EUREKA
5759
8800
TENDERFOOT
5759
ASPEN
TUNNEL
CONTACT
8900
LEADVILLE
6376
9000
LEADVILLE
SHAFT
LEADVILLE
TUNNEL
High grade Zn in the 1920's
ANNEX
5759
9100
A
DAISY
5293
9200
HOLES
9300
B
ALMA
5293
G
H
Center
Sec. 27

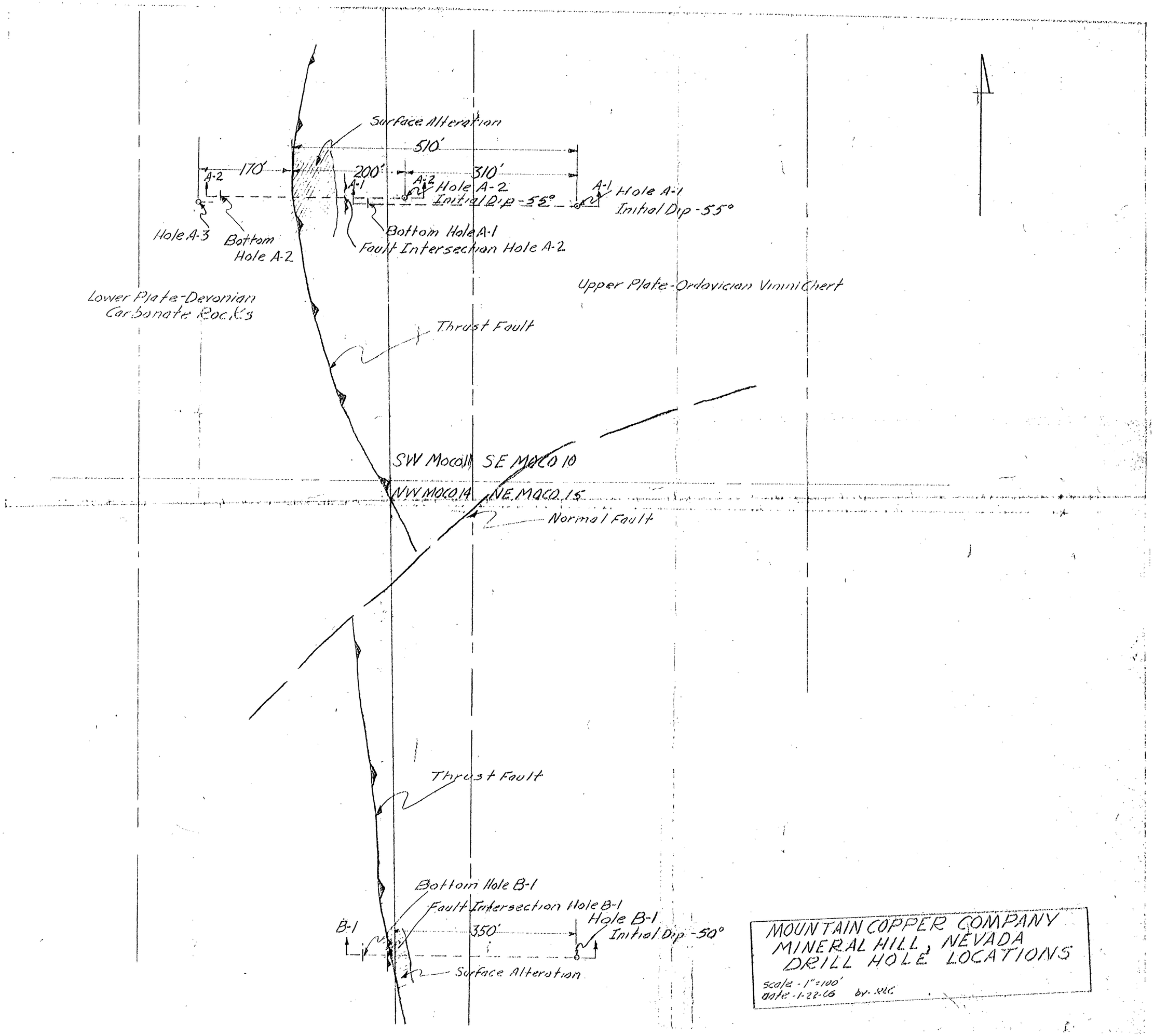

Surface Alteration
510'
170'
200'
310'
A-2
A-1
A-2
Hole A-2
Initial Dip - 55°
A-1
Hole A-1
Initial Dip - 55°
Hole A-3
Bottom Hole A-2
Bottom Hole A-1
Fault Intersection Hole A-2
Upper Plate-Ordovician Vinini Chert
Lower Plate-Devonian Carbonate Rocks
Thrust Fault
SW MOCO 11
SE MOCO 10
NW MOCO 14
NE MOCO 15
Normal Fault
Thrust Fault
Bottom Hole B-1
Fault Intersection Hole B-1
Hole B-1
Initial Dip - 50°
B-1
350'
Surface Alteration
MOUNTAIN COPPER COMPANY
MINERAL HILL, NEVADA
DRILL HOLE LOCATIONS
scale - 1" = 100'
date - 1-22-66 by - RLG

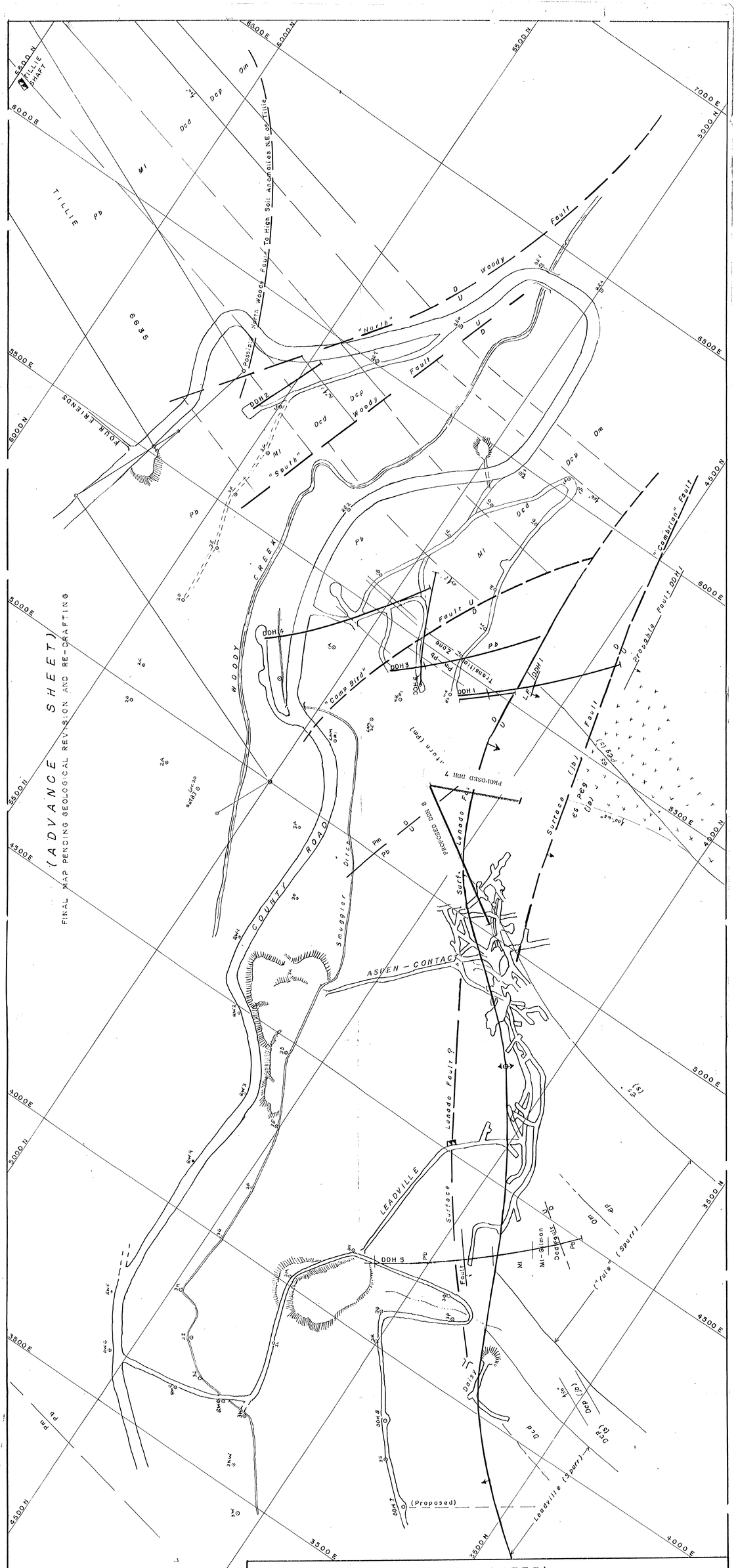


LEGEND
Devonian Sedimentary Rocks
Ordovician Vinini Shale
Thrust Fault
Normal Fault

N

MINERAL HILL NEVADA COMPOSITE MAP
SHOWS: Faults, Geochemical & Geophysical Anomalies, & Proposed Drill Sites
1" = 500' 8-13-65 VPB


Surface Alteration
510'
170'
200'
310'
A-2
A-1
A-2
Hole A-2
Initial Dip - 55°
A-1
Hole A-1
Initial Dip - 55°
Hole A-3
Bottom Hole A-2
Bottom Hole A-1
Fault Intersection Hole A-2
Upper Plate-Ordovician Vinini Chert
Lower Plate-Devonian Carbonate Rocks
Thrust Fault
SW Moco 11
SE MOCO 10
NW MOCO 14
NE MOCO 15
Normal Fault
Thrust Fault
Bottom Hole B-1
Fault Intersection Hole B-1
B-1
350'
Hole B-1
Initial Dip - 50°
Surface Alteration
MOUNTAIN COPPER COMPANY
MINERAL HILL, NEVADA
DRILL HOLE LOCATIONS
scale - 1" = 100'
date - 1-22-66
by. NLC



(ADVANCE SHEET)

LENADO EXPLORATION PROJECT

SURVEY PLAN MAP

RHECO-LENADO, Inc. Pitkin County, Colorado Oct. 1967 jpk

scale 1" = 100'

OME-6415 (Silver)

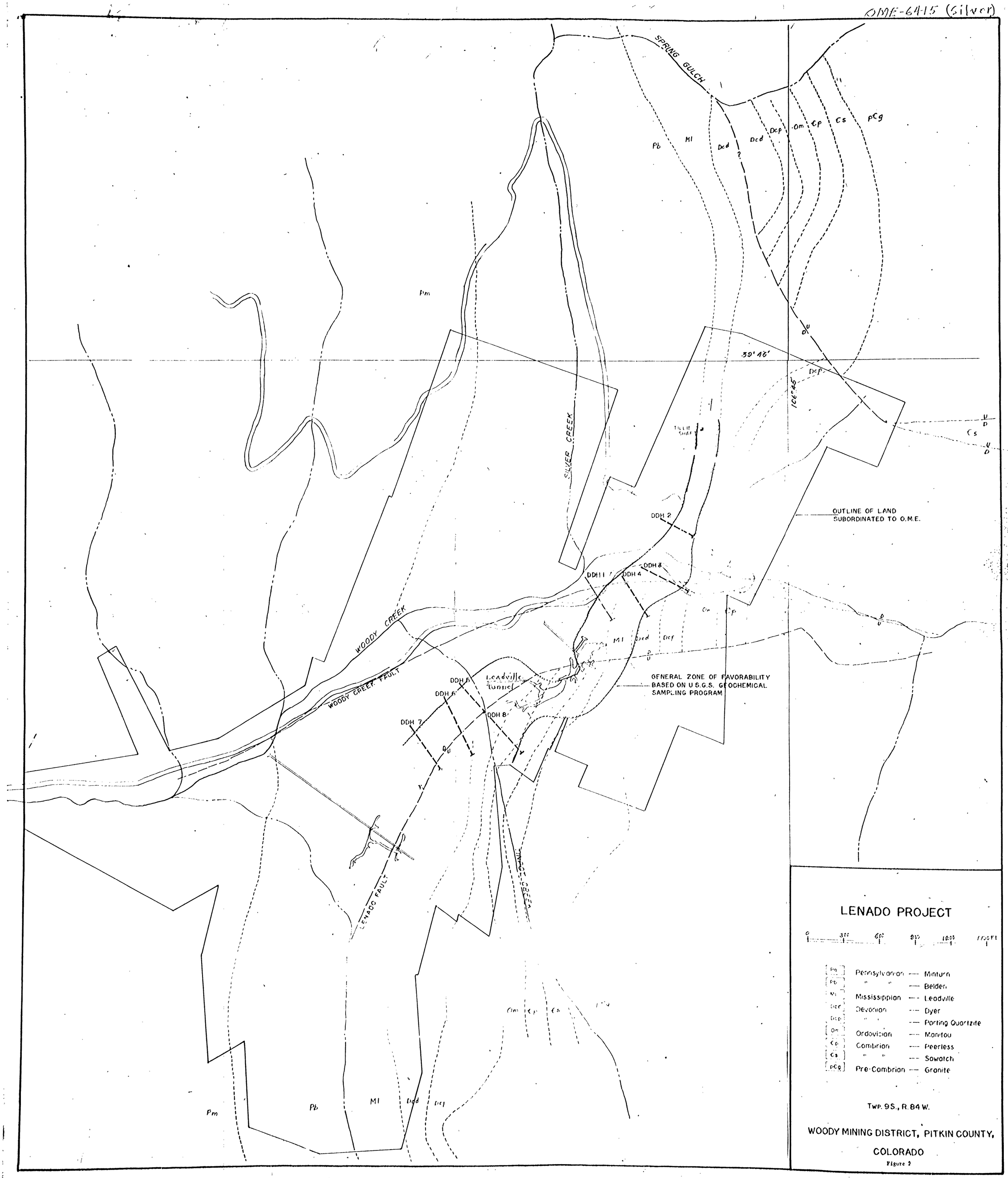
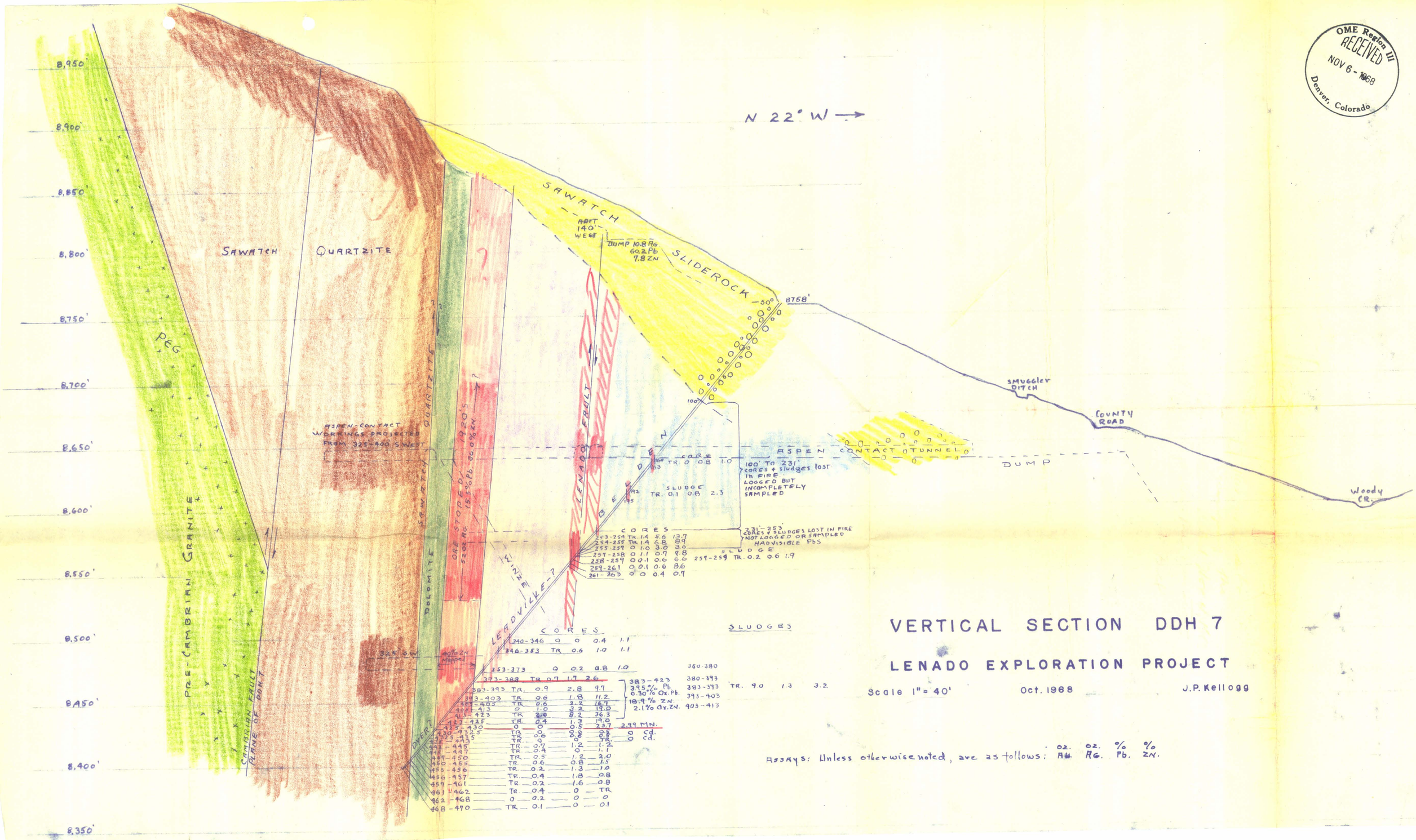
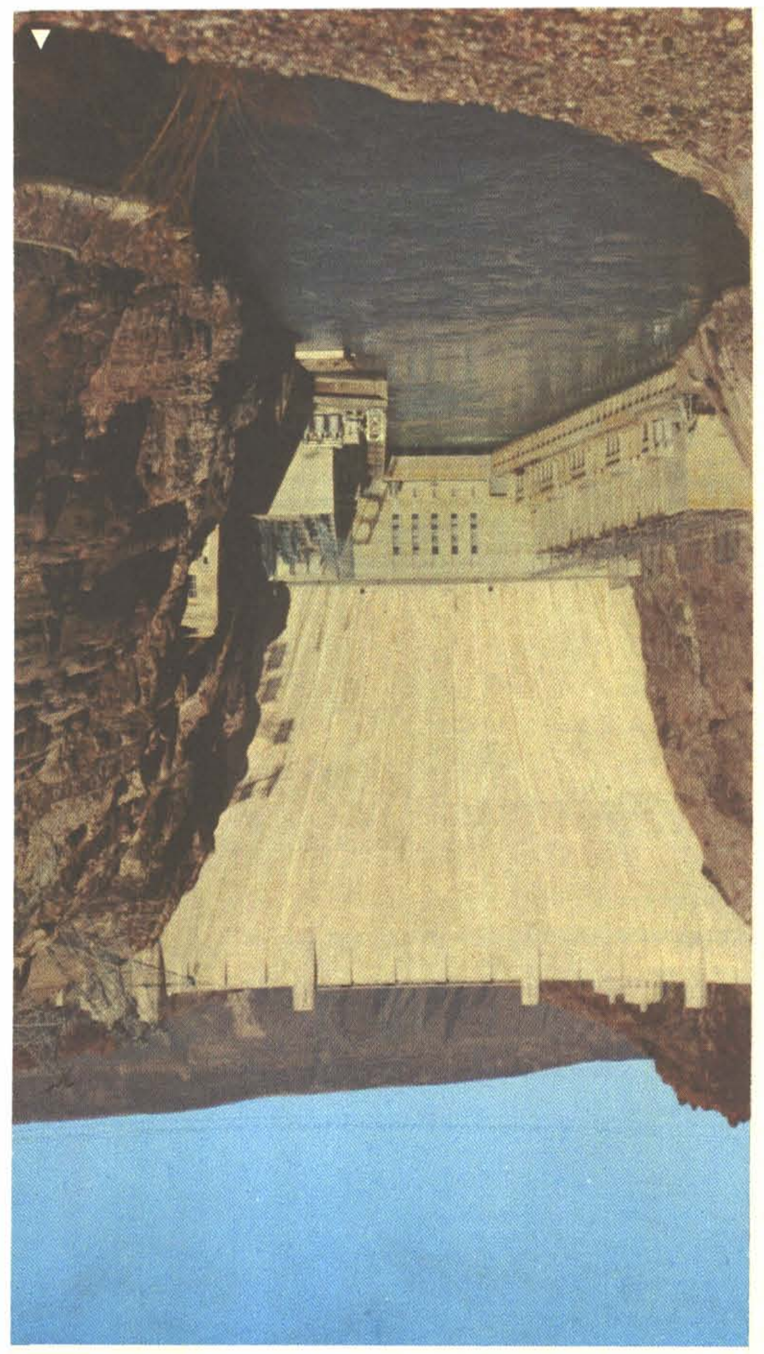


Figure 2

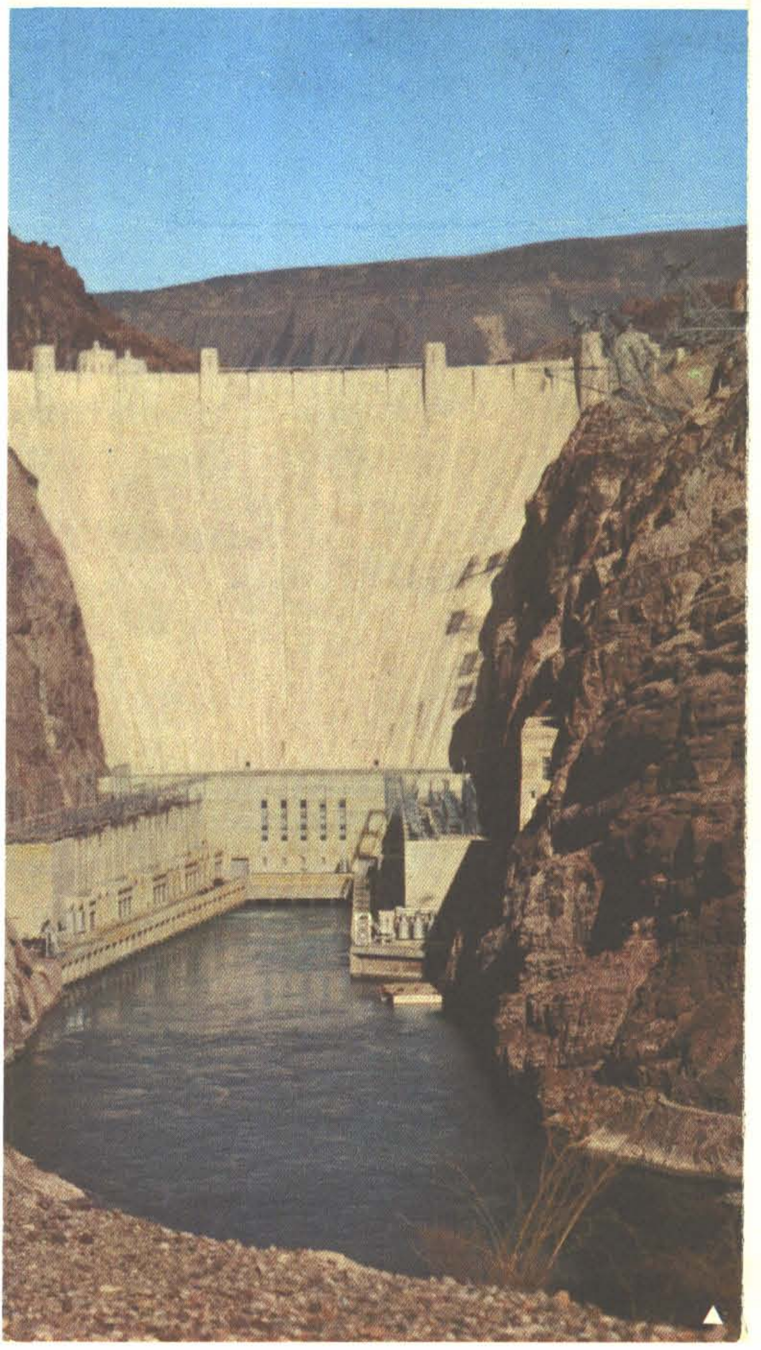
OME Region III
RECEIVED
NOV 6 - 1968
Denver, Colorado





Nevada

Nevada



PUBLIC RECREATIONAL AREAS

NEVADA	Map Location	Hotel or Lodge	Cabins	Campsites	Trailer Space	Refreshments	Shelter	Picnicking	Swimming	Boating	Fishing	Hunting	Winter Sports	Historic Interest	Scientific Interest
STATE PARKS															
BEAVER DAM	G-7			•				•			•	•			
CATHEDRAL GORGE	G-6			•			•	•							
FORT CHURCHILL HISTORIC	E-2			•				•			•			•	
ICHTHYOSAUR FOSSIL AREA	E-3			•				•							•
VALLEY OF FIRE	I-6			•			•	•							•
STATE RECREATION AREAS															
KERSHAW-RYAN	G-6			•	•			•							
SAND HARBOR	E-1							•	•						
STATE MONUMENTS															
MORMON STATION HISTORIC	E-1							•						•	
WARD CHARCOAL OVENS HISTORIC	E-6			•			•	•						•	
NATIONAL FOREST RECREATION AREAS *For additional information on National Forests, inquire at the office of the District Ranger.*															
HUMBOLDT NATIONAL FOREST															
ANGEL LAKE	B-6			•				•		•	•	•			
BAKER CREEK	E-7			•	•			•			•	•			•
BERRY CREEK	E-6			•	•			•			•	•			
BIRD CREEK	D-6							•			•	•			
CLEAR CREEK	E-6			•				•			•	•			
CLEVE CREEK	E-6			•				•			•	•			
CURRANT CREEK	E-6			•				•			•				
EAST CREEK	D-6			•				•							
GOLD CREEK	A-5							•			•	•			
JACK CREEK	A-5			•				•			•	•			
JARBIDGE CREEK	A-6			•				•			•	•		•	
KALAMAZOO	D-6			•				•							
LEHMAN CREEK	E-7			•	•			•			•	•			•
LOWER LAMOILLE	C-5			•				•			•	•			
LYE CREEK	A-3			•				•			•	•		•	
MARTIN CREEK	A-3			•				•			•	•		•	
NORTH FORK	A-5			•				•			•	•		•	
PINE CREEK	A-6			•				•			•	•		•	
SNAKE CREEK	E-7			•	•			•			•	•			
THOMAS CANYON	C-6			•				•			•	•			
TIMBER CREEK	E-6			•				•			•	•			
WARD MOUNTAIN	E-6			•	•			•				•	•		•
WHITE RIVER	E-6			•				•			•	•			
WILDHORSE	A-5			•	•			•		•	•	•			
TOIYABE NATIONAL FOREST															
BIG CREEK	E-4			•	•			•			•	•			
BOB SCOTT	D-4			•	•			•							
CLEAR CREEK	E-1			•				•				•			
DEER CREEK	I-5				•			•				•			
FLETCHER VIEW	I-5				•			•				•			
HILLTOP	I-5			•				•				•			
KINGSTON	E-4			•	•			•			•	•			
KYLE CANYON	I-5			•	•			•				•			
LEE CANYON	I-5												•		
MAHOGANY GROVE	I-5			•				•				•			
MC WILLIAMS	I-5			•				•				•			
NEVADA BEACH	E-1			•				•		•	•	•			
PEAVINE	F-4			•	•			•			•	•			
PINE CREEK	F-3			•	•			•			•	•			
RENO BOWL WINTER SPORTS	E-1												•		
NATIONAL MONUMENTS															
DEATH VALLEY	H-4	•	•	•	•	•			•					•	•
LEHMAN CAVES	E-7	•	•			•		•							
NATIONAL RECREATION AREAS															
LAKE MEAD	I-6	•	•	•	•	•		•	•	•	•			•	•
OTHER RECREATION AREAS															
LAHONTAN RESERVOIR	E-2			•				•	•	•	•				
RYE PATCH RESERVOIR	C-3			•				•	•	•	•				

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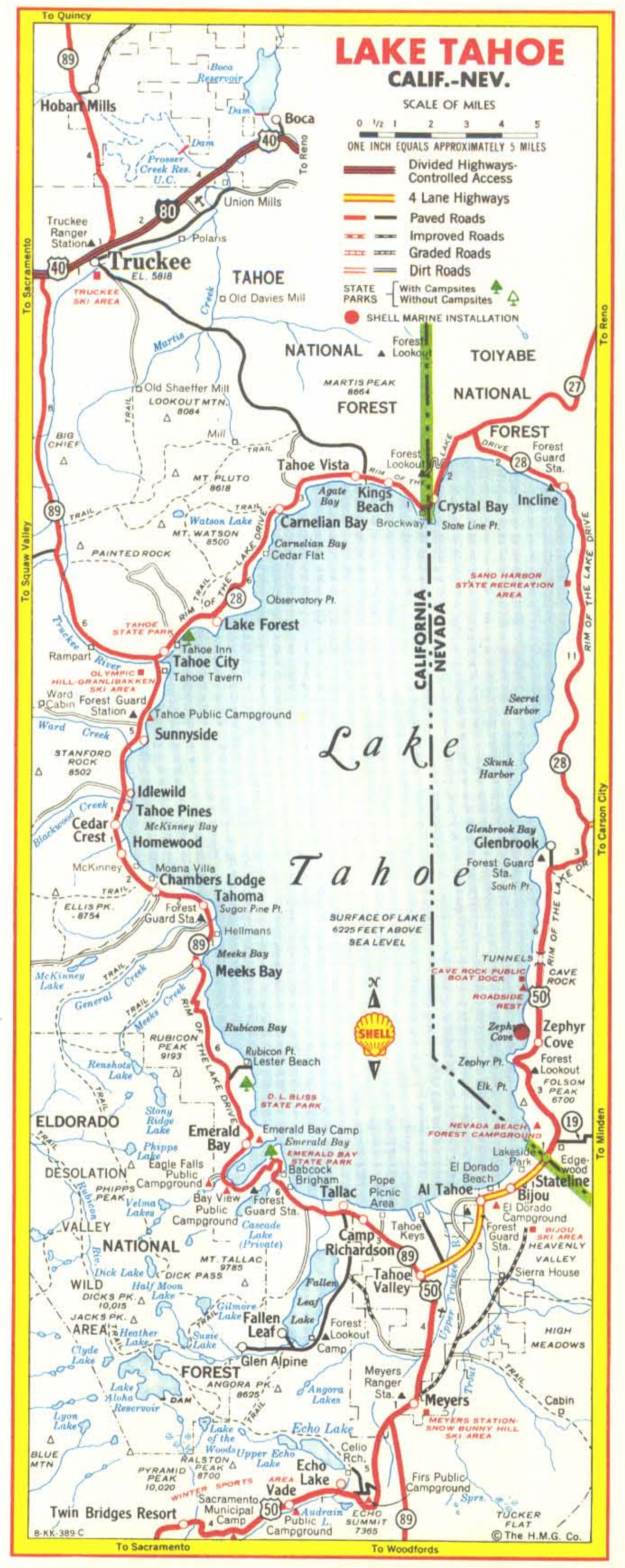
Correct at date of publication, but subject to change



INDEX TO STREETS
RENO AND VICINITY

Only principal and secondary thoroughfares, and streets with duplicate names, carry suffixes (St., Av., Blvd., etc.) on the map. However, all suffixes appear in the index. Double index keys indicate long or broken streets.

RENO
Pop. 51,470

A St B-7
Airport Rd F-5
Aitken St C-5
Alexander Hamilton Dr E-1
Allen St D-2
Alta St A-3
Alvaro St B-2
Andesite Av A-5
Angel St B-3
Anson Dr A-2
Apple St E-5
Arbutus St D-2
Arcane Av A-2
Arden Cir B-2
Ardmore Dr E-4
Arletta St C-2
Arlington Av B3-F3
Arroyo St D-3
Auburn Way E-6
B St B-7
Ball Cir B-6
Ballentyne Way C-5
Balzar Cir D-5
Barker B-2
Barstow A-5
Bartlett St A-4
Bates Av D-5
Beach St B-7
Beatty C-1
Beckwith A-2
Beech St A-4
Belford Rd F-2
Belgrave Av D-5
Bell St B3-C3
Belli Dr D-5
Benjamin Franklin Dr E-1
Beverly A-4
Birch St A-4
Bisby St A-4
Bishop St A-5
Bonneville Av A-2
Bonnie Briar E-4
Bon Rea Way A-3
Booth St D-2
Borite Cir B-5
Boyd Pl C-3
Bresson Av D-5
Bret Harte Av E-3
Brinkby St F-4
Broadway Blvd D-5
Brookfield Dr, N & S A-2
Brooks St A-4
Brown St E-2
Brunetti Way A-7
Budrow Dr F-2
Buena Vista Way A-3
Burns St D-4
Butler St A-6
Byington D-2
C St B-7
Calcite Cir B-5
Caliente St D-4
California Av D1-D3
Canal St B-2
Candy Av D-2
Capitol Hill Av E-5
Cardinal Way D-1
Carlin C-1
Carson Av C-7
Carter Dr E-1
Carville Dr A-5
Casazza Dr E-4
Castle Av A-5
Cedar St A-4
Cedar St B-7
Center St C-4
Charles Dr E-2
Cheney St D-4
Chiles Av A-2
Chism St C-2
Church La C-3
Churchill B-5
Cinderella B-2
Circle Dr E-3
Citron St A-5
Claremont St D-4
Clay St C-3
Clemson Rd E-6
Cleveland St A-3
Clifton E-1
Clough Rd E-2
Codel Way A-3
Coleman Dr A-2
College Ct & Dr A-3
Colonial Way E-5
Colorado River Blvd E-5
Commercial Row C-3
Coney Island Dr B-6
Corano La F-4
Cordone Av D-5
Cory F-2
Country Club Dr F-4
Court St C-3
Crampton St D-4
Cranleigh Dr A-4
Crestview Pl F-3
Cricket Av D-2
Crocker Way E-3
Curti Dr C-5
D St B6-B7
Daniel Dr E-1
Daniel Webster Dr E-1
Davidson La E-1
Del Mar St D-2
Denio Dr E-3
Dennison Dr E-1
Denslowe Dr A-4
Denver C-1
Depaoli St B-6
Desna St A-5
Dickerson Rd C-1
Dolan Way F-2
Dolomite Cir B-5
Donna Dr F-3
Donner Dr D-3
Doris E-3
Dudley C-1
Duke Way E-6
E St B6-B7
East St B-4
Elder St C-7
Elizabeth St D-2
Elko Av B-4
Ellendale Rd A-2
Elm St B-3
Elmcrest Dr B-1
El Rancho Dr B-7
Erbium Cir B-5
Eureka Av B-4
Evans Av A4-C4
F St A6-A7
Fairfield Av E-2
Fairview Dr E-3
Faland Way A-3
Ferrari St B-6
Ferris La E-1
Field St B-6
Flint St C-3
Fluorite Cir B-5
Forest St E-4
Foster Dr D-2
Frandsen Cir E-1
Frazer Av B-7
G St A-7
Games Dr E-3
Gardner St C-2
Gear St B-2
Genesee St A-3
Geneva St D-5
Georgia Pl D-1
Gilpin D-6
Giroux St C-5
Glen St B-5
Glendale Av C-6
Glenmanor Dr E-4
Golconda Dr E-3
Golden La C-6
Goldfield A-5
Gordon Av E-3
Gould St C-5
Grand Canyon Blvd E-5
Grand View Av A-2
Granite Dr F-2
Greenridge Dr F-3
Gridley Av A-2
Grove St F-5
Gulling Rd A-1
H St A-7
Haddock Dr A-5
Hall Dr F-4
Hampshire Dr B-2
Harold Dr A-2
Harrin La D-1
Harvard Way E-6
Haskell St D-4
Hastings Dr B-2
Hatch C-4
Heath Cir D-3
Helvetia St D-5
High St C-4
Highland Av A2-A4
Hilboro Dr A-5
Hill St C-3
Hillcrest Dr E-4
Hillside Dr A-3
Holcomb Av D-4
Homestead Pl F-3
Houston Av D-3
Hoyt St E-3
Hubbard Way F-5
Humboldt St D-4
Hunter Lake Dr E-2
Hymer Av B-7
I St A-7
Idlewild Dr D1-D2
Imperial Blvd A-3
Indian Reservation Road C-6
Irving Park Cir B-2
Island Av C4-D3
J St A-7
Jackson Pl A-4
James Madison Dr E-1
Joaquin Miller D-3
John Fremont Dr D-3
Jonada E-2
Jones St C-3
K St A-7
Katherine Dr C-5
Keele Dr E-1
Keystone Av C-3
Kietzke La B6-F5
Kimbal Dr B-2
Kirman Av D-5
Kirman St E-5
Knoll Dr E-4
Knox Av E-4
Kuenzli St B-5
Lahontan Way D-2
Lake St B-4
Lakeside Dr F-4
Lampson E-3
Lander St E-3
La Rue Av D-3
La Rue St D-4
Lassen A-2
Laurel St A-4
Lee Av C-3
Lehigh Dr E-6
Lemon La E-5
Lester Av D-5
Lewis St C-5
Liberty St C-4
Linda Way C-5
Linden St F-5
Lindley Way F-4
Linwood E-3
Liston Av E-5
Locust St C5-E5
Lodge Av B-2
Lott Pl C-5
Louise St D-6
Lyman Av E-1
MacKay Ct A-3
Maine St C-5
Mallard Pl B-2
Malone La D-4
Manhattan A-5
Manor Dr D-3
Manor Pl & Way E-2
Maple St B-3
Maplewood Dr E-3
Margrave Dr E-5
Market St D-6
Markridge Dr F-2
Mark Twain Av D-3
Marla Dr E-1
Marsh Av D3-E2
Martin St D-4
Mary St D-4
Matley La E-6
Matson Way F-4
Maxine B-6
Mayberry Dr E-1
McDonald Dr B-1
McKay Av F-4
McKinley Dr D-2
Meadow St D-2
Melba Dr B-2
Memory La E-2
Merrill La D-1
Mill St C4-C5
Mill Street Rd C5-D6
Modoc Av E-3
Monroe St D-3
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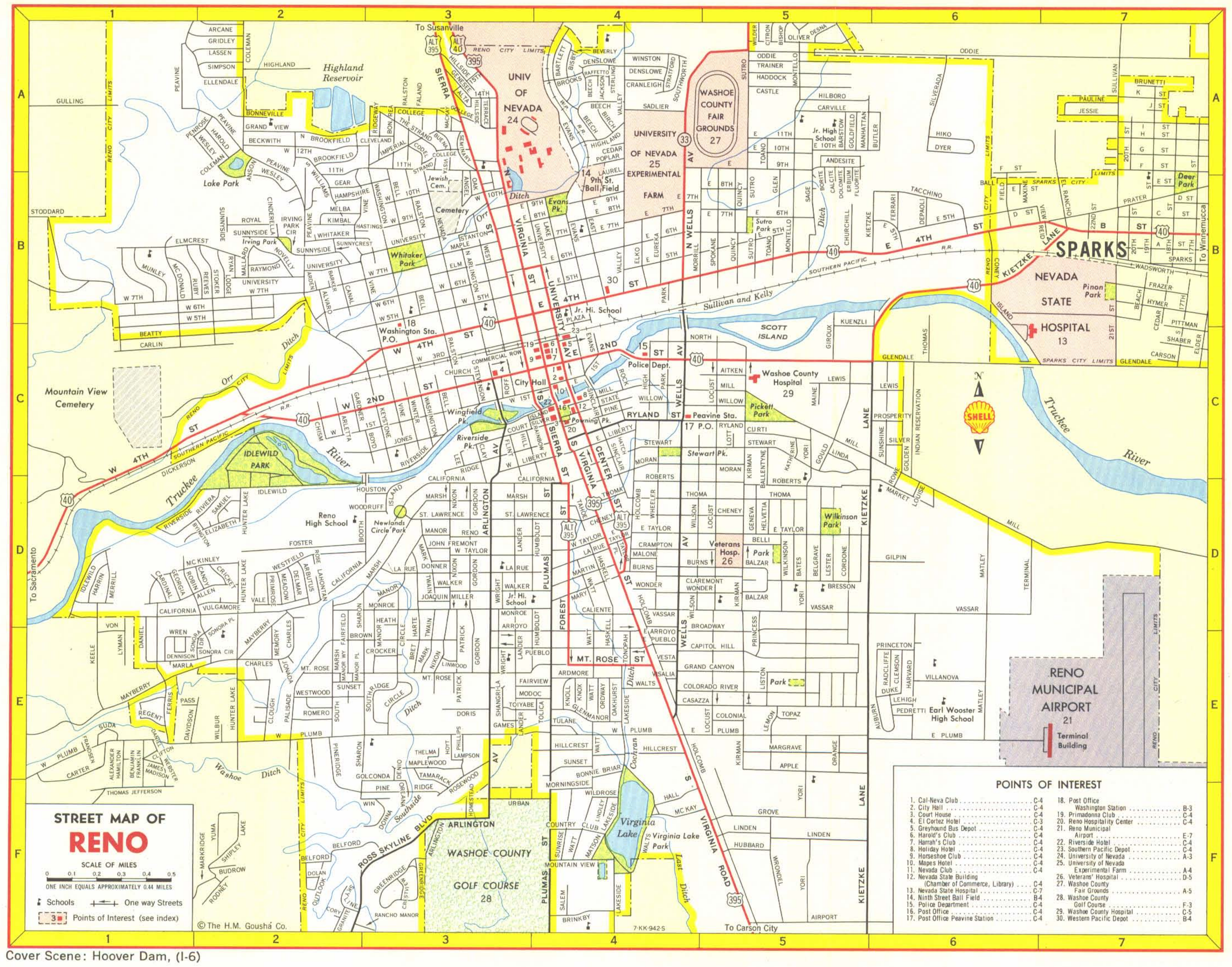
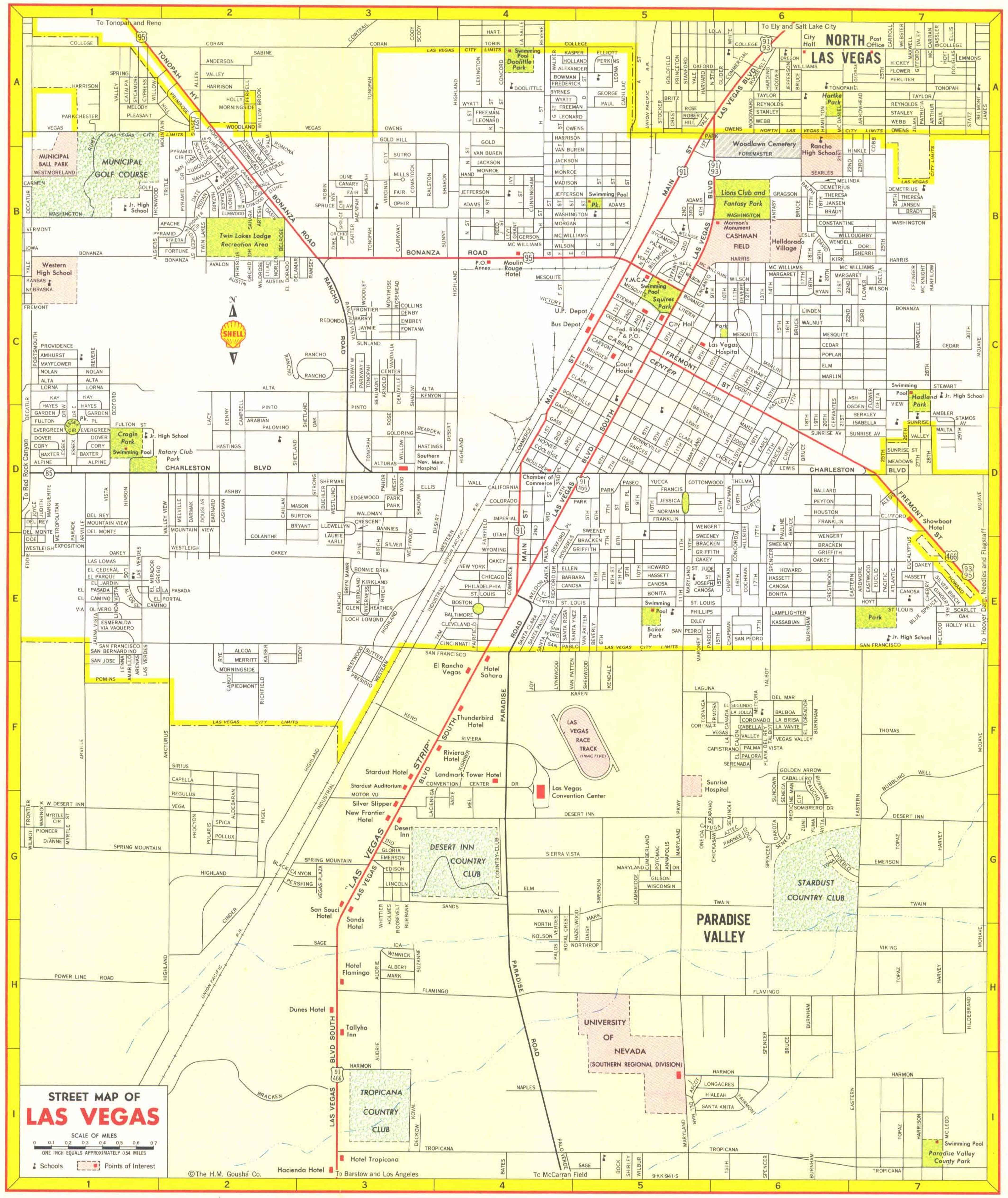




Cover Scene: Hoover Dam, (I-6)

WHEN ENTERING ANOTHER STATE OBTAIN MAP OF THAT STATE FROM ANY SHELL DEALER

NEVADA

Pop. (1960) 285,278
Area 110,540 Sq. Mi.

COUNTIES

Churchill D-2
Clark I-6
Douglas E-1
Elko C-5
Esmeralda G-4
Eureka D-5
Humboldt B-3
Lander D-4
Lincoln G-6
Lyon E-2
Mineral F-2
Nye F-4
Ormsby E-1
Pershing C-2
Storey E-1
Washoe D-1
White Pine E-6

PARTIAL LIST OF CITIES AND TOWNS 1960 CENSUS

*COUNTY SEATS

Acoma G-7
Adaven F-5
Alamo G-6
Alunite I-6
Arden I-6
Aurora F-2
Austin• D-4
Babbitt 2,159 F-2
Baker E-7
Barclay G-7
Basalt F-3
Battle Mountain C-4
Beatty H-4
Belleville F-3
Belmont F-4
Beowawe C-4
Big Canyon D-1
Black Forest C-6
Blair Junction G-3
Boulder City 4,059 I-6
Broken Hills E-3
Bunkerville H-7
Burrell Hot Springs H-4
Caliente 792 G-6
Candelaria F-3
Carlin 1,023 C-5
Carp H-6
Carrara H-4
Carson City• 5,163 E-1
Caselton G-6
Cave Valley F-6
Centerville E-1
Charleston A-5
Cherry Creek D-6
Clarks Station F-4
Coaldale F-3
Cobre B-7
Contact A-6
Copper Canyon C-4
Cortez C-4
Crestline G-7
Crystal Bay E-1
Currant E-5
Currie C-6
Dad Lees C-3
Dayton E-1
Deeth B-6
Delamar G-6
Denio A-2
Dolly Varden C-6
Dry Lake I-6
Duckwater E-5
Dun Glen C-3
Dunphy C-4
Dyer G-3
East Ely 1,796 E-6
Eastgate E-3
East Las Vegas I-6
Elgin G-6
Elko• 6,298 C-5
Ely• 4,018 E-6
Empire C-2
Eureka• D-5
Fallon• 2,734 D-2
Fay G-7
Fernley D-2
Flanigan C-1
Frenchman E-2
Gabbs 770 E-3
Gardnerville E-1
Genoa E-1
Gerlach C-2
Getchell Mine B-4
Gilbert F-3
Glenbrook E-1
Glendale H-6
Golconda B-3
Goldfield• G-4
Gold Hill E-1
Gold Point G-4
Goodsprings J-5
Groom G-5
Halleck B-5
Hamilton E-5
Hawthorne• 2,838 F-2
Hazen D-2
Henderson 12,525 I-6
Hiko G-6
Hilltop C-4
Humboldt C-3
Imlay C-3
Indian Springs I-5
Ione E-3
Jackpot A-6
Jarbidge A-5
Jean J-6
Jiggs C-5
Joseco G-7
Jungo B-3
Kimberly E-6
Lahontan D-2
Lamoille C-5
Las Vegas• 64,405 I-6
Lathrop Wells H-4
Lee C-5
Lida G-3
Lockes F-5
Logandale H-6
Lovelock• 1,948 C-2
Lower Rochester C-3
Lund E-6
Luning F-3
Mable F-3
Manhattan F-4
Marietta F-3
Masket E-4
Mason E-2
McDermit A-3
McGill 2,195 E-6
Mercury H-5
Mesquite H-7
Metropolis B-6
Midas B-4
Mill City C-3
Millers F-3
Mina F-3
Minden• E-1
Moapa H-6
Montello B-7
Mountain City A-5
Mt. Montgomery G-3
National A-3
Nelson J-6
Nightingale D-2
Nivloc G-3
Nixon D-2
Nolan E-2
North Fork B-5
North Las Vegas 18,422 I-6
Nyala F-5
Oasis B-6
Oreana C-3
Orovada A-3
Osceola E-6
Overton I-6
Owyhee A-5
Pahrump I-5
Palisade C-5
Panaca G-7
Paradise Valley A-3
Parran D-2
Penelas E-3
Pioche• G-6
Potts E-4
Preston E-6
Pyramid D-1
Railroad Pass I-6
Rawhide E-2
Rebel Creek A-3
Red House B-4
Reno• 51,470 D-1
Rhyolite H-4
Riverside H-7
Rochester C-3
Round Mountain F-4
Rowland A-5
Rox H-6
Ruby C-6
Ruby Valley C-5
Ruth E-6
Sandy J-5
San Jacinto A-6
Schurz E-2
Scossa C-2
Searchlight J-6
Shafter C-6
Shoshone E-6
Silver City E-1
Silver Peak G-3
Silver Springs D-2
Sloan I-6
Smith E-2
Sodaville F-3
Sparks 16,618 D-1
Springdale H-4
Sprucemont C-6
Stateline E-1
Steamboat E-1
Stewart E-1
Stillwater D-2
Sulphur B-2
Sunnyside F-6
Sutcliffe D-1
Tempiute (Lincoln Mine) G-5
Tenabo C-4
Thorne F-2
Tobar B-6
Tonopah• 1,679 F-4
Toy D-2
Tungsten C-3
Tuscarora B-5
Tybo F-4
Unionville C-3
Ursine G-7
Uvada D-7
Valmy C-4
Verdi D-1
Vernon C-2
Virginia City• E-1
Vya A-1
Wabuska E-2
Wadsworth D-2
Warm Springs F-5
Weed Heights 1,092 E-2
Weeks E-2
Weepah G-3
Wellington E-2
Wells 1,071 B-6
White Rock A-5
Wilkins B-6
Winnemucca• 3,453 B-3
Yerington• 1,764 E-2
Zephyr Cove E-1

ARIZONA

Bullhead City K-6
Chloride J-7
Davis Dam J-6
Hilltop J-7
Kingman 4,525 J-7
Littlefield H-7
Oatman K-6
Parker 1,642 L-7
Topock K-6
Yucca K-7

CALIFORNIA

Adelanto K-3
Agoura L-2
Ahwahnee G-1
Alhambra 54,807 L-3
Amboy K-5
Amedee C-1
Anaheim 104,184 L-3
Arcadia 41,005 L-3
Armona 1,302 I-1
Arvin 5,310 J-2
Atolia J-3
Auberry H-1
Avenal 3,147 I-1
Azusa 20,497 L-3
Badger H-2
Bagby G-1
Bagdad K-5
Baker J-5
Bakersfield 56,848 J-2
Baldwin Lake L-4
Banning 10,250 L-4
Barstow 11,644 K-4
Bartlett I-3
Bass Lake G-1
Beaumont 4,288 L-4
Benton Station G-2
Berenda H-1
Beverly Hills 30,817 L-2
Big Bear City L-4
Big Bear Lake 1,562 L-4
Big Meadows F-1
Big Oak Flat G-1
Big Pine H-3
Big Pines L-3
Big Trees F-1
Bishop 2,875 G-2
Briceburg G-1
Bridgeport F-2
Burbank 90,155 L-2
Buttonwillow J-1
Cabazon 498 L-4
Cajon L-3
Calabasas L-2
Califa H-1
California Hot Springs I-2
Camarillo 2,359 L-2
Cameron K-3
Camp Nelson I-2
Camp Richardson E-1
Capistrano Beach 2,026 M-3
Carpinteria 4,998 K-1
Cartago I-3
Caruthers I-1
Castaic K-2
Castaic Junction K-2
Caswell K-2
Cedarville A-1
Chalfant G-3
Chambers Lodge E-1
China Lake J-3
Chowchilla 4,525 H-1
Chubbuck L-6
Chula Vista 42,034 N-4
Clovis 7,704 H-1
Coleville F-1
Colton 18,666 L-3
Confidence F-1
Constantia D-1
Corcoran 4,976 I-1
Corona 13,336 L-3
Coronado 18,039 N-4
Costa Mesa 37,550 L-3
Coulterville G-1
Crestview G-2
Culver City 32,163 L-2
Cutler 2,191 I-2
Dardanelles F-1
Death Valley Jct. I-4
Delano 11,913 J-2
Doyle D-1
Eagleville B-1
Earlimart 2,897 I-2
Easton H-1
Edison J-2
Edwards K-3
El Cajon 37,618 N-4
Elizabeth Lake K-2
El Portal G-1
El Rio 6,966 L-2
Elsinore 2,432 L-3
Emerald Bay E-1
Escondido 16,377 M-4
Essex K-6
Exeter 4,264 I-2
Fallen Leaf E-1
Fillmore 4,808 K-2
Floriston E-1
Ford City 3,926 J-1
Fort Bidwell A-1
Fowler 1,892 H-1
Fredericksburg E-1
Fresno 133,929 H-1
Friant H-1
Fullerton 56,180 L-3
Furnace Creek I-4
Giant Forest H-2
Glendale 119,442 L-3
Glenville J-2
Gorman K-2
Grapevine K-2
Greenfield 1,207 J-2
Guernsey I-1
Hammil G-2
Hammond I-2
Hanford 10,133 I-1
Hemet 5,416 L-4
Highland L-4
Hobart Mills E-1
Hodge K-4
Hollywood L-2
Homewood E-1
Huntington Beach 11,492 L-3
Huron 1,269 I-1
Independence• H-3
Inglewood 63,390 L-2
Inyokern J-3
Johannesburg J-3
Joshua Tree L-4
Kelshaw Corners H-1
Kelso K-5
Kernville I-2
Kettleman City I-1
Kingsburg 3,093 I-1
Kingston J-5
Kramer K-3
La Canada 18,338 L-3
Laguna Beach 9,288 M-3
La Habra 25,136 L-3
La Joya K-2
Lake City A-1
Lake Hughes K-2
Lake Mary G-2
La Mesa 30,441 N-4
Lancaster 26,012 K-3
Las Cruces K-1
Laws G-3
Lebec K-2
Lee Vining G-2
Lindsay 5,397 I-2
Little Lake I-3
Lone Pine 1,310 H-3
Long Barn F-1
Long Beach 344,168 L-3
Los Angeles 2,479,015 L-2
Lost Hills J-1
Loyalton 936 D-1
Lucerne Valley K-5
Ludlow K-5
Madera 14,430 H-1
Malaga H-1
Malibu L-2
Mammoth Lakes G-2
Manhattan Beach 33,934 L-2
Maricopa 648 K-1
Mariposa G-1
Markleeville F-1
Masonic F-2
McFarland 3,686 J-2
McKittrick J-1
Meeks Bay E-1
Meyers E-1
Minkler H-1
Mojave 1,845 K-3
Mono Lake F-2
Monolith J-2
Monrovia 27,079 L-3
Montalvo L-2
Montecito K-1
Monterey Park 37,821 L-3
Moorpark 2,902 L-2
Morongo Valley L-4
National City 32,771 N-4
Needles 4,590 K-6
Newberry K-4
Newhall 4,705 L-2
Newport Beach 26,564 M-3
Nipton J-6
Oakhurst G-1
Oak View L-2
Oasis G-3
Oceanside 24,971 M-3
Oildale J-2
Ojai 4,495 K-2
Olancha I-3
Ontario 46,617 L-3
Onyx J-3
Orange 26,444 L-3
Orange Cove 2,885 H-2
Oro Grande K-3
Orosi 1,048 I-2
Oxnard 40,265 L-2
Palmdale 11,522 K-3
Palm Springs 13,468 L-4
Parker Dam L-7
Pasadena 116,407 L-3
Perris 2,950 L-4
Pine Creek A-1
Pinedale H-1
Pinehurst H-2
Piru K-2
Pixley 1,327 I-2
Pomona 67,157 L-3
Porterville 7,991 I-2
Port Hueneme 11,067 L-2
Purdy D-1
Raisin H-1
Randsburg J-3
Redlands 26,829 L-4
Red Mountain J-3
Redondo Beach 46,986 L-2
Red Rock B-1
Ricardo J-3
Rice L-6
Ridgecrest 5,099 J-3
Riverside 84,332 L-3
Rosamond K-3
Running Springs L-4
San Bernardino 91,922 L-3
San Clemente 8,527 M-3
San Diego 573,224 N-4
San Fernando 16,093 L-2
Sanger 8,533 H-1
Santa Ana 100,350 L-3
Santa Barbara 58,768 K-1
Santa Monica 83,249 L-2
Santa Paula 13,279 L-2
Santa Susana L-2
Saticoy 2,283 L-2
Saugus K-2
Selma 6,934 H-1
Shoshone I-5
Silver Creek F-1
Silver Lake J-5
Simi L-2
Solemint K-2
South Gate 53,831 L-3
Springville I-2
Squaw Valley E-1
Stratford I-1
Strathmore 1,095 I-2
Taft 3,822 J-1
Tagus I-1
Tahoe City E-1
Tahoe Vista E-1
Tehachapi 3,161 J-2
Terra Bella I-2
The Oaks K-2
Thousand Oaks 2,934 L-2
Tollhouse H-1
Tom's Place G-2
Torrance 100,991 L-2
Traver I-1
Trona 1,138 J-3
Truckee E-1
Tujunga L-2
Tulare 13,824 I-1
Tuolumne Meadows G-2
Twentynine Palms L-5
Upland 15,918 L-3
Venice L-2
Ventura 29,114 L-2
Victorville K-4
Vidal L-6
Vinton D-1
Visalia 15,791 I-2
Wasco 6,841 J-1
Wawona G-1
Weldon J-3
Wendel C-1
West Covina 50,645 L-3
Wheeler Ridge K-2
Wheeler Springs K-2
White Water L-4
Whittier 33,663 L-3
Wishon G-1
Woodford J-2
Woodfords E-1
Woodlake 2,623 I-2
Yermo K-4

UTAH

Beryl G-7
Central 21 G-7
Enterprise 859 G-7
Etna A-7
Gandy D-7
Garrison E-7
Gold Hill C-7
Goshute D-7
Grouse Creek A-7
Hamlin Valley G-7
Lucin B-7
Lynn A-7
Modena G-7
Motoqua H-7
Santa Clara 291 H-7
Shivwits H-7
Trout Creek D-7
Uvada G-7
Veyo G-7
Wendover 609 C-7

POINTS OF INTEREST

Beaver Dam State Park G-7
Bottle House H-4
Boundary Peak, Highest point in Nevada Elevation 13,145 G-3
Bowers Mansion E-1
Cathedral Gorge State Park G-6
Cold Creek Recreational Area I-5
Copper Pit—One of the largest man-made holes on earth E-6
County Park E-1
Death Valley National Monument H-4
Devil's Paint Shop I-6
Diana's Punch Bowl E-4
Extinct Volcano and Lava Flow F-5
Fort Churchill State Park E-2
Geiger Grade E-1
Genoa Fort State Park E-1
Hidden Forest H-6
Hoover Dam I-6
Ichthyosaur Fossil Area State Park E-3
Kershaw Canyon-Ryan State Park G-6
Lahontan Dam D-2
Lake Mead National Recreation Area I-6
Largest Tungsten Mine in the U.S. C-3
Lehman Caves National Monument E-7
Mineral Hot Springs A-6
Northumberland Cave E-4
Old Indian Battleground C-4
Overton Museum I-6
Small Geysers C-4
University of Nevada D-1
Valley of Fire State Park I-6
Ward Charcoal Ovens State Monument E-6
Whipple Cave F-6
Yosemite National Park G-1

MILEAGE CHART

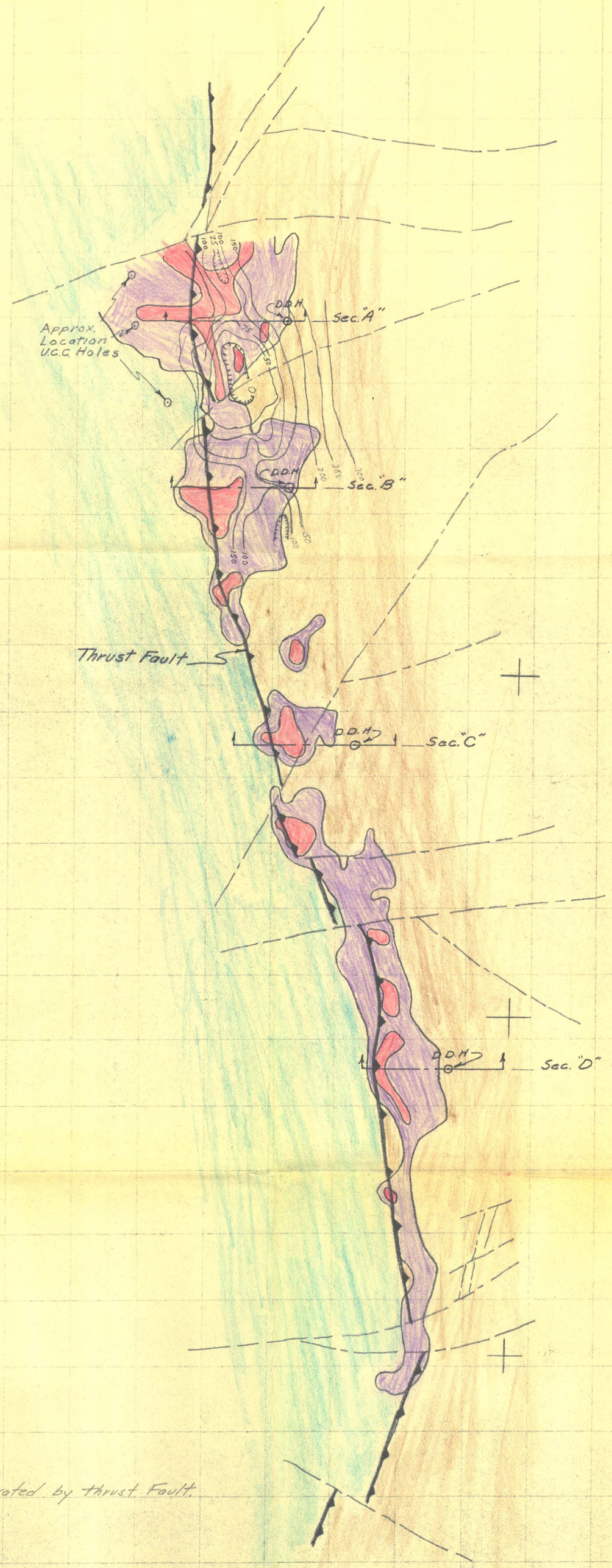
	ALBUQUERQUE, N. MEX.	BAKERSFIELD, CALIF.	BANFF NAT'L. PK., ALTA.	BOISE, IDAHO	BRYCE CANYON NAT'L. PK., UTAH	CARLSBAD CAVERNS NAT'L. PK., N. M.	CHEYENNE, WYO.	CRATER LAKE NAT'L. PK., OREG.	DEATH VALLEY NAT'L. MON., CALIF.	DENVER, COLO.	EL PASO, TEXAS	GLACIER NAT'L. PK., MONT.	GRAND CANYON NAT'L. PK., ARIZ.	GRANTS PASS, OREG.	HELENA, MONT.	KLAMATH FALLS, OREG.	LAKE MEAD NAT'L. REC. AREA, NEV.	LASSEN VOLCANIC NAT'L. PK., CALIF.	LAS VEGAS, NEV.	LOS ANGELES, CALIF.	MESA VERDE NAT'L. PK., COLO.	MT. RAINIER NAT'L. PK. WASH.	PHOENIX, ARIZ.	PORTLAND, OREG.	PUEBLO, COLO.	RENO, NEV.	ROCKY MT. NAT'L. PK., COLO.	SACRAMENTO, CALIF.	SALT LAKE CITY, UTAH	SAN DIEGO, CALIF.	SAN FRANCISCO, CALIF.	SEATTLE, WASH.	SEQUOIA NAT'L. PK., CALIF.	SPOKANE, WASH.	TUCSON, ARIZ.	VANCOUVER, B. C.	VICTORIA, B. C.	YELLOWSTONE NAT'L. PK., WYO.	YOSEMITE NAT'L. PK., CALIF.	ZION NAT'L. PK., UTAH
ALBUQUERQUE, N. MEX.	●	837	1647	1038	598	310	550	1454	745	449	269	1430	415	1463	1146	1355	568	1314	593	839	274	1486	460	1524	339	1040	517	1117	634	832	1148	1607	828	1421	454	1726	1607	954	1078	564
BANFF NAT'L. PARK, ALTA.	1647	1576	●	760	1266	1941	1160	907	1443	1261	1921	303	1499	1021	502	966	1419	1122	1396	1658	1390	676	1720	765	1371	1177	1284	1296	1004	1748	1357	675	1473	386	1825	671	679	697	1469	1323
BOISE, IDAHO	1038	853	760	●	646	1351	800	426	670	874	1292	654	774	514	559	419	692	512	651	894	772	492	1098	446	970	437	823	573	381	1010	662	528	948	398	1233	688	543	391	773	700
CRATER LAKE NAT'L. PK., OREG.	1454	653	907	426	1061	1733	1247	●	720	1317	1694	788	1081	88	846	62	819	240	796	766	1184	436	1159	266	1391	349	1305	370	809	893	430	434	634	528	1290	578	454	844	545	964
DEATH VALLEY NAT'L. MON., CALIF.	745	263	1443	670	409	1107	1052	720	●	999	910	1113	442	766	1005	658	162	549	139	310	759	1209	532	945	1077	358	955	448	549	385	491	1133	373	1085	668	1274	1133	884	429	307
DENVER, COLO.	449	1317	1261	874	669	627	101	1317	999	●	721	950	798	1479	818	1300	1030	1221	892	1192	447	1352	921	1347	110	1045	75	1181	515	1243	1267	1402	1437	1143	930	1568	1425	537	1384	745
GLACIER NAT'L. PK., MONT.	1430	1479	303	654	962	1614	849	788	1113	950	1588	●	1087	951	188	847	1134	1075	1072	1373	1082	569	1379	673	1060	1010	939	1160	690	1466	1217	580	1358	288	1619	766	581	372	1193	996
GRAND CANYON NAT'L. PK., ARIZ.	415	538	1499	774	162	717	848	1081	442	798	653	1087	●	1215	907	1107	272	1104	293	541	442	1255	245	1245	788	742	794	832	389	589	831	1310	663	1173	365	1468	1222	745	749	126
HELENA, MONT.	1146	1252	502	559	772	1493	717	846	1005	818	1419	188	907	1116	●	882	1038	1092	963	1260	891	615	1191	702	928	912	807	1050	502	1335	1134	608	1306	318	1350	732	618	182	1251	819
LASSEN VOL. NAT'L. PK., CALIF.	1314	485	1122	512	890	1603	1188	240	549	1221	1396	1075	1104	220	1092	178	652	●	629	596	1097	654	1010	492	1318	181	1146	205	707	717	252	669	466	719	1127	813	667	927	377	808
LOS ANGELES, CALIF.	839	111	1658	894	565	974	1200	766	310	1192	806	1373	541	746	1260	704	326	596	284	●	856	1254	392	1016	1210	475	1212	391	743	121	404	1193	223	1256	516	1337	1187	1065	317	465
MT. RAINIER NAT'L. PK., WASH.	1486	1044	676	492	1115	1818	1266	436	1209	1352	1741	569	1255	446	615	458	1166	654	1143	1254	1241	●	1647	172	1454	838	1277	768	852	1381	849	77	1030	290	1783	241	77	778	936	1172
PHOENIX, ARIZ.	460	513	1720	1098	453	564	1031	1159	532	921	405	1379	245	1139	1191	1097	371	1010	384	392	496	1647	●	1383	808	829	993	786	716	360	798	1597	620	1508	131	1741	1580	1088	710	449
PORTLAND, OREG.	1524	905	765	446	1141	1837	1296	266	945	1347	1747	673	1245	274	702	299	1178	492	1113	1016	1249	172	1383	●	1473	577	1336	625	839	1137	663	177	881	374	1558	321	244	871	795	1167
RENO, NEV.	1040	412	1177	437	712	1425	1009	349	358	1045	1218	1010	742	395	912	287	500	181	447	475	919	838	829	577	1133	●	996	139	530	565	222	768	395	781	996	912	856	750	217	630
SACRAMENTO, CALIF.	1117	280	1296	573	842	1365	1150	370	448	118	1205	1160	832	353	1050	311	600	205	565	391	1060	768	786	625	1227	139	1137	●	668	512	84	802	256	911	917	946	811	886	172	678
SALT LAKE CITY, UTAH	634	744	1004	381	266	966	459	809	549	515	908	690	389	965	502	802	436	707	451	743	389	852	716	839	588	530	438	668	●	824	752	909	856	732	848	1069	926	321	869	317
SAN DIEGO, CALIF.	832	232	1748	1010	633	858	1258	893	385	1243	747	1466	589	873	1335	831	394	717	364	121	892	1381	360	1137	1178	565	1369	512	824	●	525	1314	343	1359	423	1458	1314	1173	437	543
SAN FRANCISCO, CALIF.	1148	282	1357	662	858	1381	1259	430	491	1267	1217	1217	831	420	1134	378	656	252	578	404	1156	849	798	663	1317	222	1246	84	752	525	●	866	269	923	923	1010	867	978	215	755
SEATTLE, WASH.	1607	1082	675	528	1196	1892	1321	434	1133	1402	1815	580	1310	464	608	489	1374	669	1215	1193	1326	77	1597	177	1487	768	1351	802	909	1314	866	●	1061	290	1754	149	Ferry	793	972	1220
SEQUOIA NAT'L. PK., CALIF.	828	110	1473	948	661	1189	1309	634	373	1437	1035	1358	663	614	1306	572	419	466	396	223	978	1030	620	881	1313	395	1212	256	856	343	269	1061	●	1145	628	1209	1061	1205	185	575
SPOKANE, WASH.	1421	1192	386	398	1038	1734	1035	528	1085	1143	1666	288	1173	612	318	557	1075	719	1047	1256	1147	290	1508	374	1253	781	1264	911	732	1359	923	290	1145	●	1616	405	287	508	1081	1133
VANCOUVER, B. C.	1726	1226	671	688	1343	2039	1498	578	1274	1568	1958	766	1468	607	732	632	1521	813	1359	1337	1469	241	1741	321	1675	912	1538	946	1069	1458	1010	149	1209	405	1901	●	Ferry	909	1153	1388
YELLOWSTONE NAT'L. PK., WYO.	954	1117	697	391	612	1273	455	844	884	537	1209	372	745	935	182	840	814	927	801	1065	726	778	1088	871	647	750	515	886	321	1173	978	793	1205	508	1222	909	781	●	986	636
YOSEMITE NAT'L. PK., CALIF.	1078	204	1469	773	755	1285	1334	545	429	1384	1129	1193	749	525	1251	483	430	377	490	317	1075	936	710	795	1357	217	1108	172	869	437	215	972	185	1081	853	1153	972	986	●	595

V-KK-39

MILEAGES ARE APPROXIMATE AND ARE COMPUTED OVER COMMONLY TRAVELED THROUGH ROUTES

© THE H.M. GOUSHA CO.

For city street maps of LONG BEACH, LOS ANGELES, ORANGE COUNTY and VICINITY, SAN BERNARDINO-RIVERSIDE, SAN DIEGO, SAN FERNANDO, and SAN GABRIEL VALLEY and VICINITY, ask any Shell Dealer in those areas.



Note:, Cherts & Carbonate rocks are separated by thrust Fault.

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LEGEND
- Devonian Carbonate Rocks
- Ordovician Vinini Chert
- Thrust Fault
- Normal Fault

- 100 or more PPM Zn
- 50 or more PPM Zn

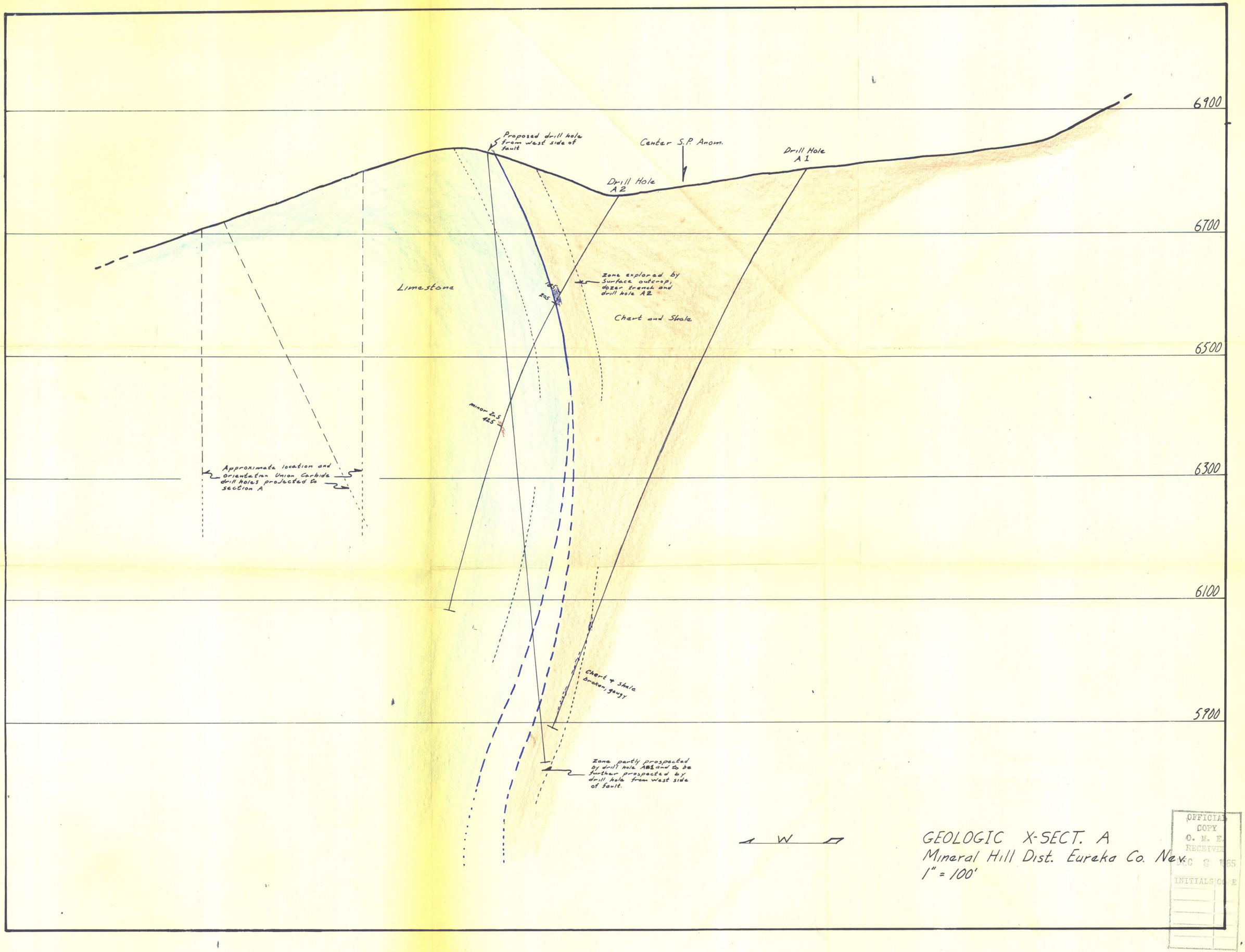
N

MOUNTAIN COPPER COMPANY LTD.

MINERAL HILL NEVADA COMPOSITE MAP

Shows: Faults, Geochemical & Geophsical Anomalies, & Proposed Drill Sites

SCALE 1" = 500' 8-18-65 VPB DWG. NO.



GEOLOGIC X-SECT. A
Mineral Hill Dist. Eureka Co. Nev.
1" = 100'

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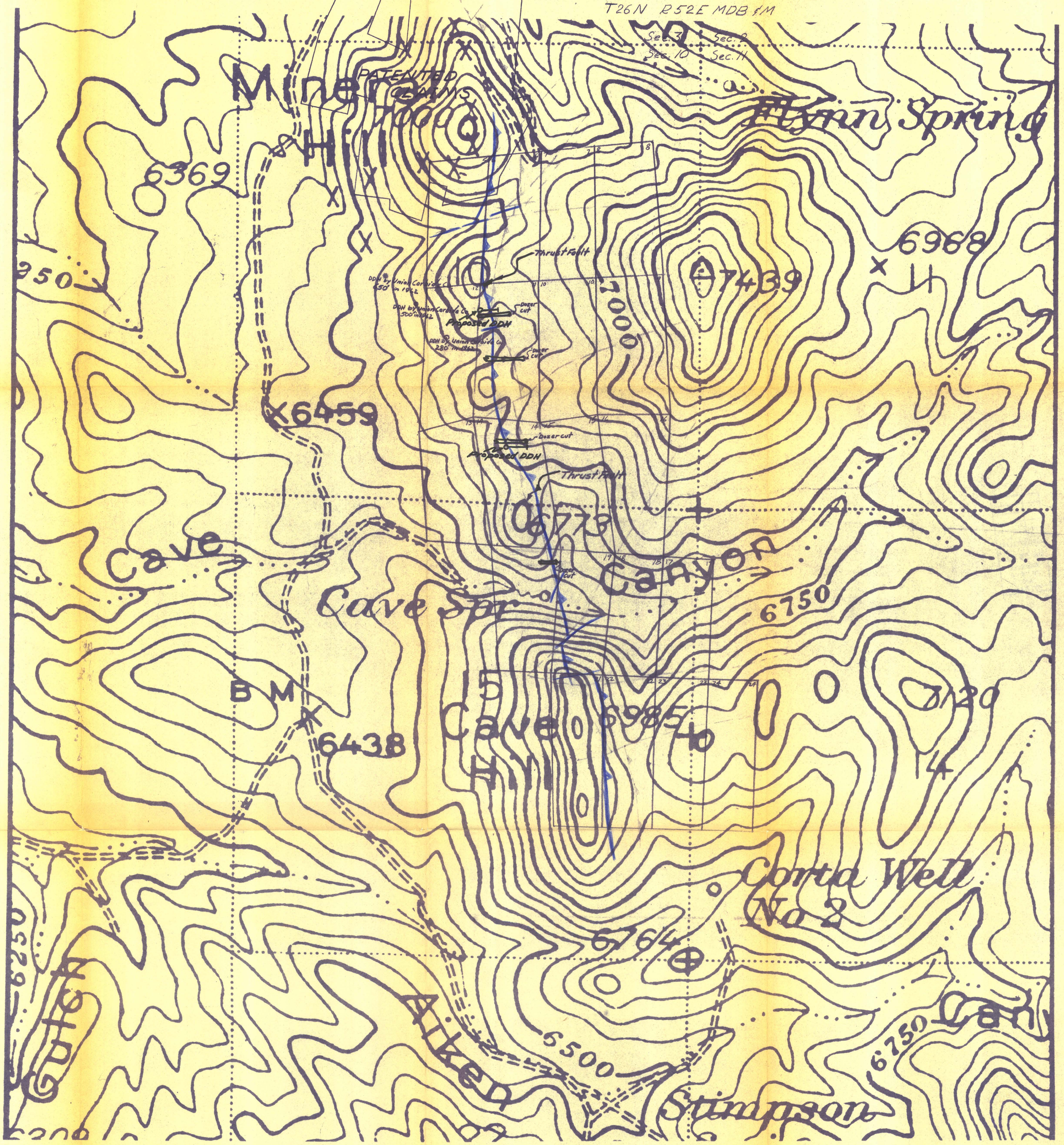
RECEIVED
DEC 8 1965
INITIALS DATE

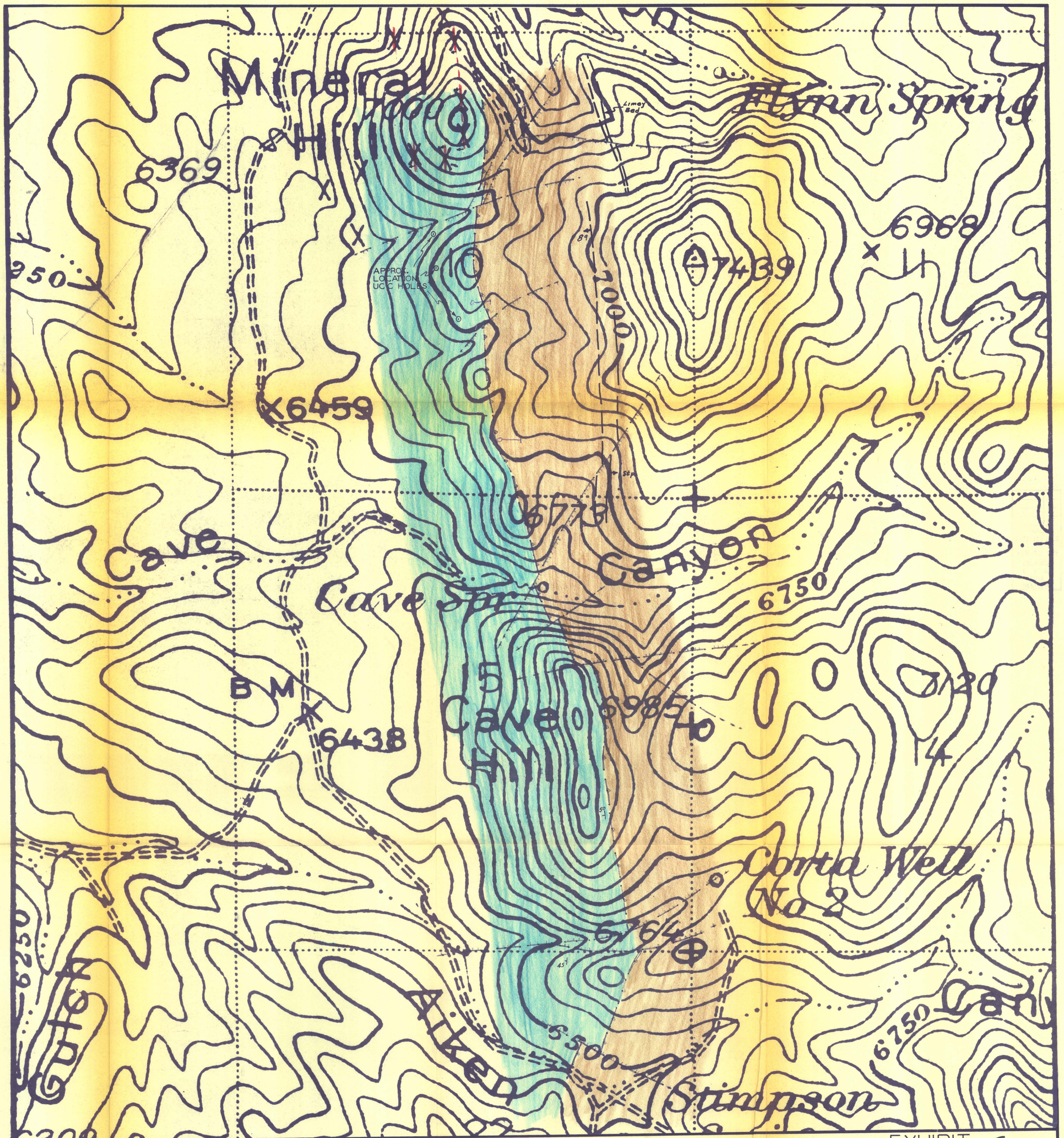


MOUNTAIN [illegible] COMPANY LTD.

MOCO CLAIM LOCATIONS & LOCATION OF PROPOSED DRILL HOLES

Exhibit H

SCALE: 1" = 500' 2-10-65 RLC



LEGEND

- DEVONIAN CABONATE ROCKS (EASTERN ASSEMBLAGE)
- ORDOVICIAN VININI CHERT (WESTERN ASSEMBLAGE)
- upper plate THRUST FAULT
- up NORMAL FAULT

N

EXHIBIT G

GEOLOGIC MAP

MINERAL HILL DIST.

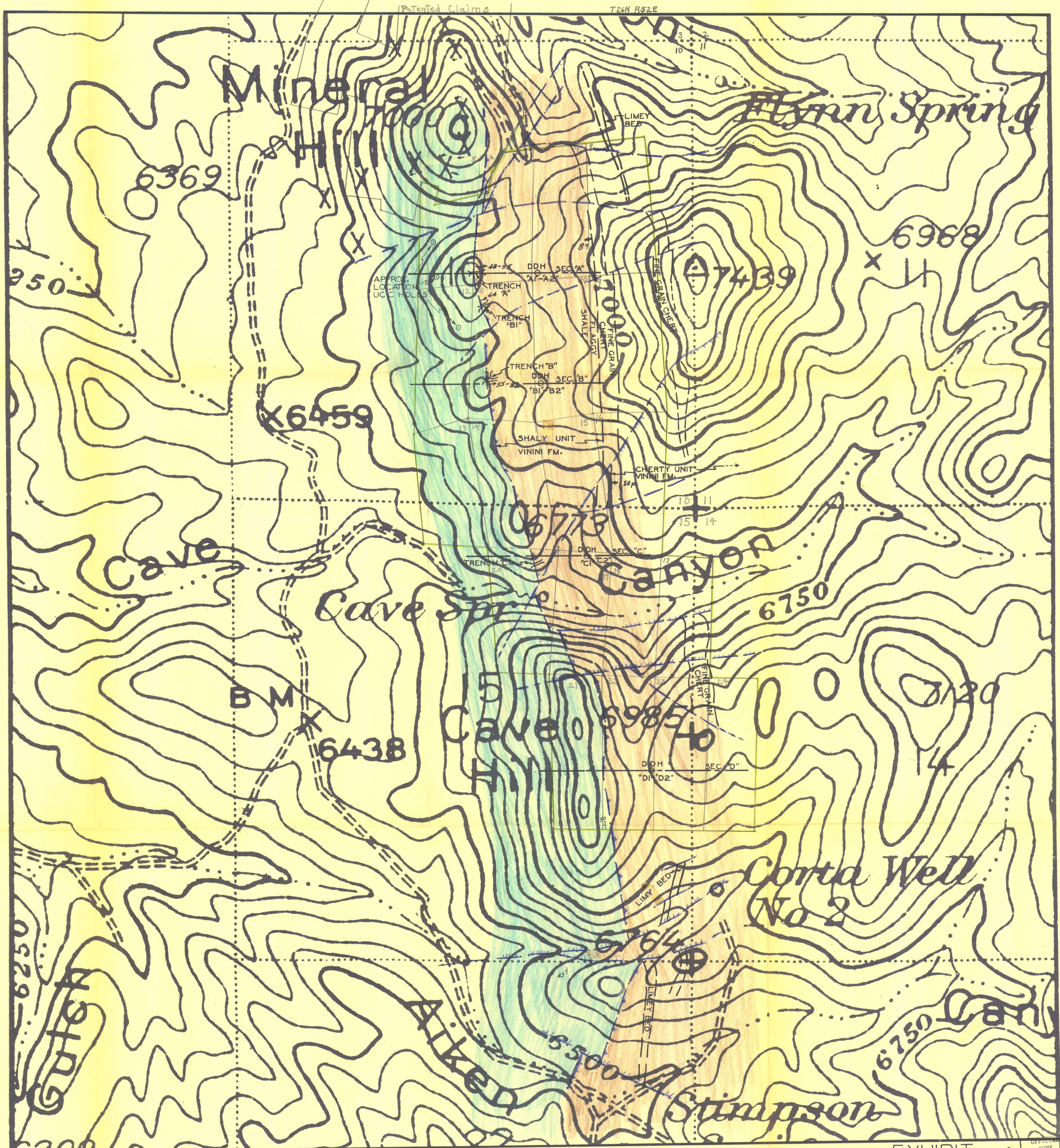
EUREKA CO., NEV.

1" = 500'

C.I. = 50'

TOPO. BASE BY U.S.G.S.

A


Patented Claims
T26N R52E
Mineral Hill
Elkhorn Spring
6369
6968
7439
7000
6459
Cave Canyon
Cave Spring
6750
BM
6438
Cave Hill
6985
Corta Well No 2
6764
6250
Gulch
Aiken
6500
Stimpson
6750
LIMEY BED
DDH SEC. "A" "A1"-"A2"
TRENCH "A"
TRENCH "B1"
APPROX. LOCATION UCC HOLES
FINE GRAIN CHERT
FLAGGY SHALE
TRENCH "B"
DDH SEC. "B" "B1"-"B2"
SHALY UNIT VININI FM.
CHERTY UNIT VININI FM.
DDH SEC. "C" "C1"-"C2"
TRENCH "C"
DDH SEC. "D" "D1"-"D2"
LEGEND
DEVONIAN CABONATE ROCKS (EASTERN ASSEMBLAGE)
ORDOVICIAN VININI CHERT (WESTERN ASSEMBLAGE)
THRUST FAULT
NORMAL FAULT
N
EXHIBIT 1
GEOLOGIC MAP
MINERAL HILL DIST.
EUREKA CO., NEV.
1" = 500'
C.I. = 50'
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APR 19 1965
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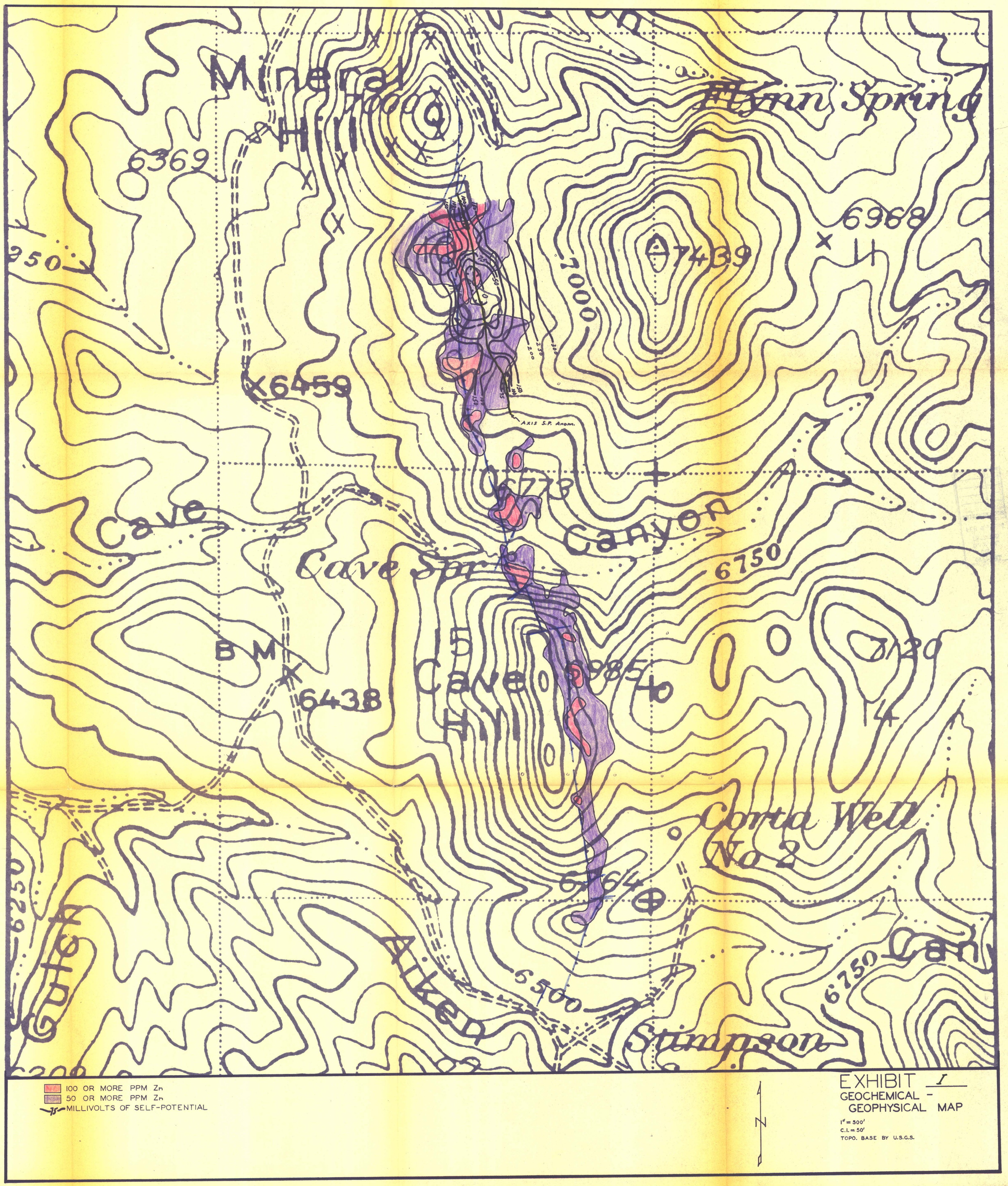

EXHIBIT I

GEOCHEMICAL - GEOPHYSICAL MAP

1" = 500'
C.I. = 50'
TOPO. BASE BY U.S.G.S.