DMEA Form 9
Rev. 6/57

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE 8 MAY 1958 Idm-E NO. _____ DMEA NO. 4848

Application
- [ ] Denied
- [ ] Withdrawn

Contract
- [X] Terminated - Not Certified
- [ ] Terminated - Certified

11-1190

- [ ] 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
- [X] Closing Letter 11-19-60
- [X] Cost Audits 9-1-59
- [X] Termination ~~Notice of~~ Agreement 7-7-59, effective
- [ ] Recision Notice 11-10-58
- [ ] Assignment of Contract
- [X] Contract Amendments
- [X] Contract with all exhibits and annexes
- [X] Owner's Consent to Lien and Subordination Agreement
- [X] Application and attachments

Right Side

- [X] Project summary (final)
- [X] Work Completed analysis (final)

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

- [ ] Field Team Semi-Annual Report for Certified Project
- [X] Final Field Team Report (Tab) 7-7-59
- [X] Operator's Final Report (Tab) 8-20-59
- [ ] Interim Field Team Reports
- [ ] Operator's monthly reports and all attachments
- [X] On-site Exam Report (Tab) 2/17/58.
- [ ] Settlement Sheets
- [ ] Drill Logs

Additional Folders:

Left Side

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

Right Side

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

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

Folders No. _____: Settlement Sheets

Folders No. _____: Drill Logs

Folders No. _____: Royalty material

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~~W.A.J.~~
~~J.W.A.~~
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OFFICE OF MINERALS EXPLORATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF REVIEW

I have reviewed the Monthly Reports of:

Norbute Corporation
1808 Nineteenth Street
Golden, Colorado

pertaining to Exploration Project Contract No. Idm-K1190, DMEA No. 4848, including Amendment Nos. 1 and 2, and Termination Agreement dated July 7, 1959, for the period May 6, 1958 to November 10, 1958, inclusive, covering a project for the exploration of Lead and Zinc on property known as Saints John Mine, located in Summit County, Colorado.

My review included an examination of the Monthly Reports (Form MF-104) and supporting documents attached thereto, comparison of the costs claimed with the contract and pertinent schedules, verification of work performed by reference to Field Team reports and correspondence, and a determination of the reasonableness and propriety of the costs.

This review was made in lieu of a final audit of the Operator's accounts and records for the reasons given on the attachment to this report.

The review disclosed the following facts in regard to the amount paid or to be paid the contractor:

Total cost as billed by Contractor		$12,929.67
Exceptions: (Schedule attached)		
Prior to this review	$209.14	
Less: Reinstatement by review	0	
Herewith	20.00	229.14
Total Accepted Cost		$12,700.53

The contract calls for a 50 percent participation of exploration expenses by the United States Government. Therefore, payment to the contractor by the Government in the amount of Six Thousand Three Hundred Fifty and 27/100ths Dollars is valid and proper, provided that the Regional Executive Officer, the Director, or other competent official has accepted or will accept the project as having otherwise met the terms of the contract.

Amount payable Operator	$6,350.27
Amount reimbursed	5,860.27
Balance due Operator	$ 490.00

Final payment to Oper. 10/1/59

September 1, 1959

Donald T. Finch
Donald T. Finch
OME Auditor

REASONS FOR REPORT OF REVIEW IN LIEU OF FINAL AUDIT

CONTRACT NO. IDM-E1190 Docket No. DMMA 4848

NORRUTH CORPORATION

(a) The Monthly Reports were supported by documentary proof of that portion ($6,240.00) of the costs which covered work performed at unit rates under independent contract and that portion ($5,660.53) which covered other costs for contribution by the Government on the basis of actual costs (Per Summary attached).

(b) The balance ($600.00) of the costs incurred were under a contract provision for payment by the Government on the basis of fixed unit costs of work actually performed; and

(c) The administrative cost to the Government of an audit would be excessive in relation to the estimated amount of possible further disallowances thereunder.

SCHEDULE OF EXCEPTIONS

CONTRACT IDM-E1190 DOCKET NO. DMRA 4848

NORBUTE CORPORATION

Exceptions by Field Team Prior to this Review

Supervision in excess of allowable maximum	$187.50	
Payroll Taxes applicable to excess Supervision	18.57	
Workmen's Compensation applicable to excess Supervision	3.07	
Total Prior Exceptions		$209.14
During Review		
Four Assays by Henry E. Wood Laboratory; not acceptable because location was not indicated		20.00
Total Exceptions		$229.14

The Executive Officer, OME Field Team, Region III, and the Auditor concur with the foregoing disallowances.

SUMMARY OF DOCUMENTED COSTS

CONTRACT NO. IDM-E1190 | DOCKET NO. IMRA 4848

NORBUTE CORPORATION

Independent Contract			
Diamond Core Drilling			
AX Size			
9 ft.: 0-250 at $3.75/ft.	$ 33.75		
91 ft.: 250-500 at $4.25/ft.	386.75	$ 420.50	
BX Size			
741 ft.: 0-250 at $4.50/ft.	$3,334.50		
279 ft.: 250-500 at $5.00/ft.	1,395.00	4,729.50	
Reaming and Casing			
354 ft. at $2.00/ft.		708.00	
Cementing and Redrilling			
191 ft. at $2.00/ft.		382.00	
Total Independent Contracts			$6,240.00
Direct Costs			
Labor		$2,223.00	
Supervision		1,312.50	
Electric Power		589.76	
Miscellaneous Supplies (Sample Bags; Anti-Freeze; and Lubricating Oil)		103.53	
38 Core Boxes at $2.50/ea.		95.00	
Depreciation (2½ Months)		230.20	
Initial Rehabilitation and Repairs			
Labor and Parts			
Power Lines	$ 66.16		
Air and Water Lines, Connections	281.87		
Compressor	367.23	715.26	
Sampling and Analyses			
21 Samples (Average Cost $5.95/ea)		125.00	
Payroll Taxes		185.43	
Workmen's Compensation Insurance		80.85	
Total Direct Costs			$ 5,660.53
Fixed Unit Costs			
1 - 3 Directional Underground Drill Stations		$ 500.00	
1 - 2 Directional Underground Drill Stations		300.00	
Total Fixed Unit Costs			$ 800.00
Total Accepted Costs			$12,700.53

Government's copy

T. Lynch
Hoffman
App'd. Sol.
Talbutt
Selfridge

TERMINATION AGREEMENT

It is agreed this 7th day of July, 1959, between the United States of America, acting through the Department of the Interior, Office of Minerals Exploration, hereinafter called the "Government," and the Norbute Corporation, hereinafter called the "Operator," parties to that certain Exploration Project Contract Idm-E1190, Docket No. DMEA-4848, dated May 8, 1958, as amended, hereinafter called the "Contract," that:

1. Effective November 10, 1958, the Contract and all obligations of the parties thereunder, except as otherwise herein expressly provided, shall be and are hereby terminated.

2. The Government shall contribute only to the actual costs of work performed prior to said effective date.

3. The Operator shall promptly perform all winding-up and settlement actions provided for in the Contract including the rendering of the final report and final account.

4. All rights of the Government respecting certification of discovery or development, percentage royalty and liens to secure the payment thereof, reports (including preservation of the Operator's records), accounts, audits, and the right to recover any overpayment are hereby preserved.

5. The Operator hereby releases and agrees to save the Government harmless from all claims or demands under or arising out of said Contract, except as otherwise provided in this Termination Agreement.

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

THE UNITED STATES OF AMERICA

By Frank E. Johnson
Acting Director, Office of
Minerals Exploration

THE NORBUTE CORPORATION

By W. H. Garbade
W. H. Garbade

Title Vice President

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Government's copy

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O. M. E.
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DATE	INITIALS	CODE

EXPLORATION PROJECT CONTRACT
NORBUTE CORPORATION
DOCKET NO. DMEA-4848

AMENDMENT NO. 2

It is agreed this 2nd day of December, 1958, between the United States of America, acting through the Department of the Interior, Office of Minerals Exploration, hereinafter called the "Government", and Norbute Corporation, hereinafter called the "Operator", that Exploration Project Contract No. Idm-E1190, Docket No. DMEA-4848, dated May 8, 1958, as amended, hereinafter called the "Contract", is further amended, effective November 10, 1958, as follows:

1. (a) Work under the Contract shall be suspended during the period beginning November 10, 1958, and ending not later than July 15, 1959.

(b) The Government shall not contribute to any costs incurred by the Operator during the period of suspension or to any costs of rehabilitation or repair which in its opinion would not have occurred if there had been no suspension of work.

(c) 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 and any property in which the Government has an interest.

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate amount which the Government may be required to contribute, or the amount of any item designated as "maximum".

Executed in quintuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By Frank E. Johnson
ACTING Director, Office of Minerals Exploration

NORBUTE CORPORATION

By Lewis T. Lemon

Title Vice President

Government's Copy

JUL 28 1958

EXPLORATION PROJECT CONTRACT
NORBUTE CORPORATION
DOCKET NO. DMEA 4848
CONTRACT NO. Idm-E1190

AMENDMENT No. 1

It is agreed this 18th day of July, 1958, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and Norbute Corporation, hereinafter called the "Operator," parties to that certain Exploration Project Contract No. Idm-E1190, dated May 8, 1958, hereinafter called the "Contract," that the Contract is amended, effective May 8, 1958, as follows:

approved WRJ

1. Referring to Exhibit "A" attached to the contract, caption "Estimated Costs of the Project," subheading "Stage I, Category (3), Operating Materials and Supplies," change the words, "Fuel, lubricants and miscellaneous supplies," to read "Power, fuel, lubricants and miscellaneous supplies."

2. Referring to Exhibit "A" attached to the contract, caption "Estimated Costs of the Project," subheading "Stage I, Category (4), Operating Equipment (c) Depreciation," delete the material thereunder in its entirety and in lieu thereof substitute the following:

" *75 h.p. electric compressor, value	$4,270.00	
*365 CFM diesel compressor, value	3,150.00	
Dump truck, vehicle value	2,000.00	
Air receiver, value	375.00	
Total value	$9,795.00	
$2\frac{1}{2}$ months at $92.08 monthly		$230.20 $230.20"

*Note - The electric and diesel compressors may be used alternately or concurrently as needs demand. However, use of both compressors at the same time will not increase the aggregate monthly depreciation rate established.

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

Executed in quintuplicate the day and year first above written.

NORBUTE CORPORATION

By DeWitt C Lemmer

Title Vice President

(Seal)

UNITED STATES OF AMERICA

By [illegible]
Alternate Acting Executive Officer, DMEA Field Team, Region III

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DATE | CODE

MF-200
(Revised June 1954)

Government's copy

Docket No. DMEA 4848

Commodity Lead-zinc

Contract No. Idm-E 1190

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

EXPLORATION PROJECT CONTRACT[1]

It is agreed this 8 MAY 1958 day of ....., 195..., between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] Norbute Corporation, a Minnesota corporation, whose mailing address is P. O. Box 1700 Grand Junction, Colorado, hereinafter called the "Operator," as follows:

ARTICLE 1. *This contract* is entered into under the authority of the Defense Production Act of 1950, as amended. It consists of this form (MF-200), the attached Exhibit "A," Annex I, and 2 maps, figures 2 and 3.

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

ARTICLE 2. *Operator's property rights.*—(a) The land which is the subject of this contract (hereinafter called "the land") is in the State of Colorado, County of Summit, and is described in Annex I.[3]

(b) The Operator represents and undertakes that:

(1) The Operator is the [4] See Annex I of [5] See Annex I in the land, in possession and entitled to possession for all of the purposes of this contract, under and by virtue of a [6] ....., [7] ....recorded in Book ....., page ....., official records of said County; and

(2) The Operator's right, title, or interest (whether as owner, lessee, or otherwise) is subject only to the following claims, liens, or encumbrances: interests of E. G. Wolfle (Mrs. F. R.Wolfle) and J. W. Barnes, guarantors

(c) 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 Consent to Lien of any holder of the legal title

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] Insert name, and if an organization, its nature (corporation and place of incorporation, partnership with names of partners, etc.).
[3] State on a separate sheet marked "Annex I" the legal description or enough to identify the property, particularly excluding any areas from which the production is not to be subject to the Government's percentage royalty.
[4] Insert "owner," "lessee," "contract purchaser," "locator," etc.
[5] Insert "the entire interest," "the mineral rights," "an undivided one-third," etc.
[6] Insert "deed," "lease," "contract," "location notice," "patent," etc.
[7] If not recorded, so indicate by inserting "un."

of the land (lessor, seller, optionor, etc.), are attached, as follows: .....

.....

.....

(d) The Operator shall preserve and maintain his right, title, and 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. Until the lapse of the time within which the Government may make a certification of discovery or development without any such certification having been made, and after any such certification has been made, 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 percentage royalty on production and lien for the payment thereof. If the Government makes no certification of discovery or development within the time limited in Article 8, it shall thereafter have no claim against the land or any production therefrom except for any production referred to in Article 8(b)(1).

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of lead and zinc ore. The work to be performed is described in Exhibit "A." The Operator on or before July 15, 1958 shall commence the work, and on or before 2 years from date of contract (unless the Operator's obligation to prosecute the work is terminated—see Article 10) shall either have completed the work or shall have incurred allowable costs (see Article 6) in a sum not less than the estimated total allowable cost set forth in Exhibit "A," except as otherwise provided with respect to Stages of work.

ARTICLE 4. *Performance of the work.*—(a) *Operator's responsibility.*—The work shall be performed with reasonable diligence, efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for liability insurance covering employment; and with suitable and adequate equipment, facilities, materials, supplies, and labor, to bring it to completion within the time fixed.

(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; but if the reference in Exhibit "A" to any such independent contract requires the Government's approval thereof, payments under such contract will not be allowable costs unless the Government gives its written approval of the contract. 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 and regardless of the Government's approval thereof, the Government will participate in payments to the independent contractor only on account of work performed in accordance with the provisions of this exploration project 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 also after a certification of discovery or development to inspect production operations and underground workings. The operator shall provide the Government with all reasonable means of access for such inspections.

ARTICLE 5. *Contribution by the Government.*—The estimated total allowable cost of the project, set forth in Exhibit "A," is the sum of $190,760.00 The Government shall contribute 50 percent of the allowable costs as they are incurred in a total sum not in excess of $95,380.00: *Provided,* That until the Operator has rendered to the Government his final report, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last

voucher or vouchers such sums as it sees fit not in excess of 10 percent of the estimated total cost of the work or not in excess of the amount of the Government's contribution to the cost of property which is or may become subject to disposal as provided in Article 9(c), whichever is greater. The Government will make its contribution on the basis of the monthly vouchers referred to in Article 7(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. "Costs incurred" mean costs that have been paid or have become due and payable, or that in the opinion of the Government have become an obligation. The Government may make payments directly to independent contractors and suppliers for the account of the Operator rather than to the Operator.

ARTICLE 6. *Estimated costs.*—(a) *Categories of costs.*—The allowable costs of the work to which the Government shall contribute are limited to those that are direct, reasonable, necessary, and that are estimated in Exhibit "A" by categories as specified in this article. If any category or subcategory is omitted from the estimate of costs, or if the word "none" is annexed to the listing thereof, costs under such category or subcategory are not allowable. Any excess over any estimate which is indicated as the maximum of any category, subcategory, or item, either as to requirement or related cost, and any excess over the estimated total allowable cost of the work, shall not be allowable. Any excess over the estimate of any category, subcategory, or item, either as to requirement or related cost, not indicated as a maximum shall be allowable within the limit of the estimated total allowable cost of the work. To the extent that excesses over maximums other than the estimated total allowable cost of the work may be necessary for the performance of the work, the Operator shall incur such excesses for his own account without contribution by the Government; but except for any such necessary excesses in categories, subcategories, or items thereunder the Operator is not obligated to incur more than his agreed percentage of the estimated, total allowable cost of the work.

To the extent specified in this article or in Exhibit "A" the following categories, subcategories, and elements thereof are maximums; but if not so specified either here or in Exhibit "A" they are not maximums, and may be exceeded within the limit of the estimated total allowable cost of the work:

CATEGORY (1)—INDEPENDENT CONTRACTS.—Work to be performed under independent contracts (see Article 4(b)). The estimated total amount of this category and the estimated cost of each unit of work for performance under an independent contract are maximums. (See Article 13.)

CATEGORY (2)—PERSONAL SERVICES.

Subcategory (a)—Supervision.—All elements of this subcategory. (number of supervisors, periods of employment, rates of pay, and total) are maximums.

Subcategory (b)—Technical services.—All elements of this subcategory (number of technicians, periods of employment, rates of pay, and total) are maximums.

Subcategory (c)—Labor.

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

CATEGORY (4)—OPERATING EQUIPMENT.

Subcategory (a)—Rental.—The number of each object to be rented [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 estimated 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.—Estimates under this category include all requirements and related costs, 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 estimated total of this category is a maximum.

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

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

CATEGORY (6)—NEW BUILDINGS, FIXTURES, AND INSTALLATIONS (EXCLUSIVE OF MINE WORKINGS).—Estimates under this category include all requirements and related costs, 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 estimated total of this category is a maximum.

CATEGORY (7)—MISCELLANEOUS.—Repairs and maintenance (other than initial) of operating equipment, analytical work, prints and other reproductions, accounting, Operator's share of payroll taxes, liability insurance covering employment, travel, communications, and any other items of requirement or cost that do not fall within any of the first 6 categories.

THE ESTIMATED TOTAL ALLOWABLE COST of the work is a maximum.

(b) *Nonallowable costs.*—The following costs are not allowable for contribution by the Government:

(1) *Costs of the land,* such as rental, depreciation, depletion, or other cost 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 estimated total cost. This provision does not apply to receipts from production which are subject to the Government's percentage royalty under the provisions of Article ~~9~~ 8. (See Article 13.)

ARTICLE 7. *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. If the Government elects to audit said records and accounts relating to the exploration work by certified public accountant, it may do so as a cost of the work to which the Operator shall contribute. 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 any pertinent books, documents, papers, and records of the Operator. All of the Operator's vouchers and records and accounts relating thereto and the Government's payments thereof remain subject to adjustment until final audit by the Government. 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) *Progress reports and vouchers.*—The Operator shall provide the Government with five copies of monthly progress reports in three sections as follows: (1) Operator's Monthly Report and Voucher showing detailed costs incurred during the reporting period; (2) Operator's Unit Cost and Progress Report showing the various types of work performed during the reporting period and costs incurred for each type of work; 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.)

(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 five copies of a final report (in addition to the final progress report and voucher). 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 related costs incurred.

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

(e) *Compliance with requirements.*—If in the opinion of the Government 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 making or completion of such 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 8. *Repayment by Operator.*—(a) *Certification.*—If the Government considers that a discovery or development from which production may be made has resulted from the work, the Government, at any time not later than six months after a sufficient final report and final account (see Article 7) has been rendered, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

(b) *Royalty on production.*—The Operator, as principal if the Operator is the producer, or as surety if the Operator is not the producer, shall pay to the Government a royalty on all minerals mined or produced from the land, as follows: (1) regardless of any certification of discovery or development, from the date of the contract until the lapse of the time within which the Government may make such certification, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first; or (2) if the Government makes a certification of discovery or development, within a period of ten years from the date of the contract, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first.

(c) *Basis for computation.*—The Government's royalty shall be a percentage of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, concentrates, 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, on account of the cost of treatment processes performed by *the buyer,* sampling and assaying to determine the value of the production sold, and freight paid by *the buyer* to a carrier (not the Operator), shall be allowed as deductions in arriving at the "gross proceeds" as that term is used herein. Any costs of treatment processes, sampling or assaying, or transportation, performed or paid by the Operator or by anyone other than the buyer, are not deductible in arriving at the "gross proceeds" as that term is here used. The term "treatment processes," as here used, means those processes (such as milling, concentrating, smelting, refining, or equivalent) applied to the crude ore or other production after it is extracted from the ground, to put it into a commercially marketable form; excluding fabricating or manufacturing.

(d) *Unsold production.*—If any production (ore, concentrates, metal, or equivalent), after the lapse of six months from the date the ore was extracted from the ground, remains neither sold nor used by the Operator 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, concentrates, metal, or equivalent) it is in when the Government elects to require computation and payment. If any production is used by the Operator 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 therof in the form in which and at the time when 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) *Percentages of royalty.*—The percentages of the Government's royalty shall be as follows:

One and one-half (1½) percent of amounts ("gross proceeds" or "value") not in excess of eight dollars ($8.00) per ton of production in the form in which sold, held, or used, plus one-half (½)

percent for each additional full fifty cents ($0.50) by which such amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such amounts.

(For instance: the royalty on an amount of five dollars ($5.00) per ton would be one and one-half (1½) percent; on an amount of ten dollars ($10.00) per ton, three and one-half (3½) percent.)

(f) *Time for computation and payment.*—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, as above provided in this article.

(g) *Lien for payment.*—To secure the payment of its percentage royalty, there is hereby granted to the Government a lien upon the land or the Operator's interest in the land and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(h) *Notice to purchasers.*—The Operator 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 Administrator, Defense Minerals Exploration Administration, or his successor, and his estimate thereof shall be final and binding upon the Operator.

(i) *No obligation to produce.*—Nothing in this contract is to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any production operations.

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

ARTICLE 9. *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, any reasonable and necessary costs thereof to be treated as an allowable cost of the project. After the completion of the work or termination of the Government's obligation to contribute, or when such property is not in use for or needed for the work, the Operator shall neither use it without the written consent of the Government nor without paying a reasonable rental to be fixed by the Government for its interest.

(c) *Disposal of property.*—Upon the completion of the work or 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, by sale to others, or purchase by the Operator or 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 the cost of which was more than $500, and shall not sell at less than 25 percent of the purchase price any item of property which 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 himself cares to give. Property remaining upon any termination of the work shall be considered in groups or categories (such as drill steel, or explosives, or pipe, or rails), 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 project.

(d) *Default of the Operator re disposal.*—If within 90 days after the completion of the work or termination of the Government's obligation to contribute to costs, or after the property is no longer needed for the work, or after such further time as the Government may in writing allow, 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 pursue one of the following two courses: (1) the Government, by written notice to the Operator, may place upon such property what in its opinion is 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; or (2) the Government may 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 10. *Termination of the Government's obligations.*—(a) If in the opinion of the Government operations at any time have failed to achieve anticipated results that indicate the probability of making a worthwhile discovery, and in the opinion of the Government further operations are 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 winding up, reporting, and accounting; and (2) the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting.

(b) If in the opinion of the Government the Operator is in any manner 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 winding up, reporting, and accounting; and (2) the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting. The remedy provided for the Government in this paragraph "(b)" is in addition to any other remedy provided in this contract, and in addition to any other remedy the law may provide for breach of contract.

(c) The giving of any notice by the Government under the provisions of this Article 10 shall not affect the Government's rights as provided for in the contract with respect to a percentage royalty, and such rights shall be fully preserved.

ARTICLE 11. *Notices to be given by the Government* may be delivered to the Operator, or may be sent by registered 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 12. *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 13. *Changes and added provisions.*—

(a) Notwithstanding any other provision of the Contract, the allowable unit cost per foot of a drilling item is the average unit cost per foot computed on the basis of all the actual unit costs of said drilling item incurred by the Operator: Provided, That the Government will not contribute to any portion of an average unit cost of a drilling item that exceeds the estimated unit cost of said item set forth in the Contract.

(b) In the last sentence of Article 6(c), the words "Article 8" are substituted for the words "Article 9."

(c) In addition to the costs of work estimated in Exhibit "A" by categories of actual costs, the costs of work requirements specified in Exhibit "A' as "Fixed Unit Costs" are allowable costs of the project. The Government will contribute to the fixed unit costs as work units are performed. A "Fixed Unit Cost" is an agreed price for each unit of work to be performed regardless of costs incurred by the Operator. Costs set forth in Exhibit "A" include all allowable costs of the work to be performed under the contract.

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By C Mittendorf
Administrator, Defense Minerals
Exploration Administration

NORBUTE CORPORATION
(Operator)

By Salgo

Title PRESIDENT

I, Kenneth Kriegel, certify that I am the Assistant secretary of the corporation named as Operator herein; that Nicolas M. Salgo who signed this contract on behalf of the Operator, was then President of said corporation; that said contract 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.

Kenneth Kriegel

[CORPORATE SEAL]

U. S. GOVERNMENT PRINTING OFFICE 16—70617-1

EXPLORATION PROJECT CONTRACT
NORBUTE CORPORATION
DOCKET NO. DMEA-4848

ANNEX I

The land referred to in Article 2 of the Contract consists of patented and unpatented lode mining claims which are partly shown on the attached map, figure 2, and listed as follows:

Patented Claims

Claim Name	Patent No.	Claim Name	Patent No.
Comstock	128	Prima	3031
Tunnel Lode #9	1659A	Celtic	1823
Tunnel Lode #7	7067	Mark Twain Ext.	1788
Tunnel Lode #5	573	Morning Star	1928
Tunnel Lode #2	7068A	Evening Star	1878
Weston Mill Site	7068B	Hancock	2011
Mill Site	545	Robert E. Lee	1901
Mill Site	546	Register	357
St. Cloud	1505	Tempest	1854
Tiger Exten.	744	Windsor	2083
Coley Exten.	368		

Unpatented Claims

	Claim Name	Book	Page	Claim Name	Book	Page
	Tunnel Lode Ext. #7	20	344	Success	25	368
See Amended Location below.	1/Tunnel Lode #10	13	496	Silver Ridge	25	309
	Tunnel Lode #11	-	-	Blue Bird	24	142
	Tunnel Lode #12	-	-	Golden Rule	24	142
	Rocky Point	20	297	End Line	24	143
	June [illegible]	20	296	Fraction	21	252
	Climax	20	296	Jerry Amended	22	273
	Portland	20	298	Comstock Ext.	30	395
	Vindicator	20	297	Freyburg	9	254
	Adjoining Claim	20	417	Celtic Mill Site	18	496
	Pinnacle	24	143			

1/Tunnel Lode No. 10
Amended Location 33 262

The Patents and the Notices of Location of the said mining claims are recorded in the official records of Summit City, Colorado, and the descriptions therein are incorporated herein by reference.

The Operator acquired all the land, except the Windsor Claim, by quitclaim deed dated June 7, 1957, from E. G. Wolfe (Mrs. F. R. Wolfe) and J. W. Barnes.

SPECIAL PROVISION

Notwithstanding any other provisions in this contract, it is agreed that, in connection with Stage III, the Operator will acquire a sufficient interest, for the purpose of this contract, in the Mark Twain, St. Andrew and St. Elmo claims, and as much other land to the west of Tunnel Lode No. 2 claim, bounded by Tunnel Lode No. 7, Adjoining, Weston Mill Site, Tempest and Greenfield claims, etc. (indicated in heavy blue dashed lines on the attached map "Figure 2") as the Government deems necessary, and these claims and land will be added to Annex I as land included in the contract.

Should the Operator fail to acquire a sufficient interest in as much land as the Government deems sufficient for the purposes of Stage III, no Stage III work shall be performed.

EXPLORATION PROJECT CONTRACT
NORBUTE CORPORATION
DOCKET NO. DMEA-4848

EXHIBIT "A"

Description of the Work

The purpose of the project is to explore for ores of lead and zinc, by means of diamond drilling, crosscutting and drifting. The work is set forth below in three stages. The Operator shall perform Stage I, and thereafter shall perform as much of Stages II and III as is approved in advance by the Government.

General Conditions

Diamond core drilling under all stages shall be BX size or larger, except that in cases where difficult conditions may require a reduction to AX size to complete a hole, such reduction may be made with Government approval.

All holes shall be reamed and cased or cemented and redrilled as necessary.

All drifts and crosscuts shall be timbered as necessary with standard drift sets and shall be approximately 5 feet by 7 feet in the clear of timber.

All drill core shall be saved until examined by the Government. All significantly mineralized core will be split and one-half sampled and assayed for copper, lead, zinc, gold and silver, as may appear desirable. The remaining half shall be made available to the Government.

Sludge samples shall be taken and, in significantly mineralized areas, if the core recovery is less than 70 percent the sludges in such areas shall be sampled and assayed in the same manner as core. The remaining half of such sludge samples shall be made available to the Government.

Work to be performed in Stages I and III is indicated in part on the map, Figure 3.

Stage I

Five diamond drill holes shall be drilled from two drill stations (one two-directional and one three-directional) at the approximate underground locations shown on the attached map entitled, "Figure 3," to intersect the Comstock vein approximately 250 feet below the St. John tunnel level. It is estimated that each hole will be approximately 400 feet long, with a total combined length for the five holes of approximately 2,000 feet. If less than three of the five drill holes encounter ore that, in the opinion of the Government may be of commercial width and grade, no further work shall be performed under the Contract.

Stage II

Four diamond drill holes shall be drilled, from locations approved in advance by the Government, to intersect the Comstock vein at an elevation approximately 500 feet below the St. John tunnel level. It is estimated that each of such holes will be approximately 750 feet long for a combined total length of approximately 3,000 feet.

If less than two of the four drill holes under Stage II encounter ore that in the opinion of the Government may be of commercial width and grade, no further work shall be performed under the Contract.

Stage III

The drift or crosscut, from the Jerry No. 5 Tunnel shall be continued approximately as shown on the attached map, "Figure 3," for a distance of approximately 2,000 feet or until the projection of the Comstock vein

is encountered on the tunnel level. Thereafter, 2,000 feet of drifting may be done on the Comstock vein, as approved by the Government. During the progress of such crosscutting and/or drifting, approximately 2,000 feet of diamond drilling may be done to probe the walls for presently unknown parallel veins. Should diamond drilling encounter veins considered to be promising, crosscutting and drifting may be done to explore such veins, subject to the prior approval of the Government, but only to the extent that the total of 4,000 feet of crosscutting and drifting allocated to Stage III is not exceeded.

Estimated Costs of the Project

Stage I

Category (1) Independent Contracts

Diamond drilling to depths of 250 feet, 1,250 feet at $5.25/ft.	$6,562.50	
Diamond drilling, depth from 250 feet to 500 feet, 750 feet @ $6/ft.	4,500.00	
Reaming and casing, 200 feet @ $3/ft	600.00	
Cementing and redrilling, 200 feet @ $2.50/ft.	500.00	$12,162.50

In cases where diamond drill size is reduced from BX to AX in order to complete a drill hole, the independent contract cost allowance for such drilling shall be reduced by 75 cents per foot from the BX allowance.

Category (2) Personal Services

(a) Supervision and (b) Technical services

One engineer or geologist $2\frac{1}{2}$ months @ $600/mo.	$1,500.00	
(c) Labor	2,500.00	4,000.00

Category (3) Operating Materials and Supplies

Core boxes, wooden, 25 feet capacity 80 @ $5/each	$400.00	
Fuel, lubricants and miscellaneous supplies	600.00	$1,000.00

Category (4) Operating Equipment

(a) and (b) None

(c) Depreciation

365 CFM diesel compressor, value	$3,150.00		
Vehicle, value	2,000.00		
Air receiver, value	375.00		
	$5,525.00		
$2\frac{1}{2}$ months @ $92.08 monthly		$230.20	$230.20

Category (5) Initial Rehabilitations and Repairs

(a) Power lines and surface plant rehabilitation	$300.00	
Repairs and connections, air and water lines, drainage	275.00	
(b) Reconditioning 75 HP compressor	550.00	$1,125.00

Category (6) New Buildings, etc.

None

Category (7) Miscellaneous

Payroll charges, insurance, compensation, etc.	$352.40	
20 samples for assay @ $5/sample (or $1.00 per determination)	100.00	$452.40

Fixed Unit Cost Items

(The completed item constitutes the unit)

1 Three directional underground drill station, including tail

raise and enlargement of existing drift to permit 10-foot pulls	$500.00	
1 Two directional underground drill station, including tail raise and enlargement of existing drift to permit 10-foot pulls	300.00	800.00
Estimated total cost, Stage I		$19,770.10

Stage II

Category (1) Independent Contracts

Diamond drilling to depths of 250 feet, 1,000 feet @ $5.25/ft.	$5,250.00	
Diamond drilling to depths from 250 feet to 500 feet, 1,000 feet @ $6/ft.	6,000.00	
Diamond drilling to depths from 500 feet to 750 feet, 1,000 feet @ $7/ft.	7,000.00	
Reaming and casing, 300 feet @ $3/ft.	900.00	
Cementing and redrilling, 300 feet @$2.50/ft.	750.00	$19,900.00

In cases where diamond drill size is reduced from BX to AX in order to complete a drill hole, the independent contract cost allowance for such drilling shall be reduced by 75 cents per foot from the BX allowance.

Category (2) Personal Services

(a) and (b) Supervision and Technical services

One engineer or geologist, 3 months @ $600/month	$1,800.00

(c) Labor		$3,000.00	$4,800.00
Category (3) Operating Materials and Supplies			
Fuel, lubricants, miscellaneous supplies		$600.00	$600.00
Category (4) Operating Equipment			
(a) and (b) None			
(c) Depreciation			
365 CFM diesel compressor, value	$3,150.00		
Vehicle, value	2,000.00		
Air receiver, value	375.00		
	$5,525.00		
3 months @ $92.08 monthly		$276.24	$276.24
Categories (5) and (6)			
None			
Category (7) Miscellaneous			
Payroll charges, insurance, compensation, etc.		$422.88	
16 samples for assay @ $5/ each (or $1.00 per determination)		80.00	$502.88
Estimated total cost, Stage II			$26,079.12

Stage III

Category (1) Independent Contracts	
Diamond drilling to depths of 250 feet, 1,000 feet @ $5.25/ft.	$5,250.00

Diamond drilling depths from 250 to 500 feet, 1,000 feet @ $6/ft.	$6,000.00	
Reaming and casing, 200 feet @ $3/ft.	600.00	
Cementing and redrilling, 200 feet @ $2.50/ft.	500.00	$12,350.00

In cases where diamond drill size is reduced from BX to AX in order to complete a drill hole, the independent contract cost allowance for such drilling shall be reduced by 75 cents per foot from the BX allowance.

Category (2) Personal Services

(a) and (b) Supervision and Technical Services

Engineer or geologist @ $600 monthly half time allowable, at 18 months	$5,400.00	
(c) Labor	79,680.00	$85,080.00

Category (3) Operating Materials and Supplies

Explosives	$11,288.00
Timber	2,982.00
Drill steel and bits	4,170.00
Fuel oil, lubricants, gasoline, etc.	3,560.00
Small tools	200.00
4-inch air line, with couplings, 4,000 feet @ $0.52/ft.*	2,080.00*
1-inch water pipe with couplings, 4,000 feet @ $0.15/ft.*	600.00*
20-inch galvanized ventilation pipe, 3,925 feet @ $0.70/ft.*	2,747.50*

Track (20 lb. rail), complete with rails, ties, bolts, plates, spikes, etc., 4,000 feet @ $0.95/linear ft.*	$3,800.00*	$31,427.50

Category (4) Equipment (Operating)

(a) and (b) None

(c) Depreciation

Drifter drill and column, value	$1,940.00
Air receiver, value	375.00
Mucking machine, Eimco 12B, value	3,570.00
Diesel Compressor, 365 CFM, value	3,150.00
Two vent fans, value	1,600.00
Three 28-cu.ft. dump cars, value	1,250.00
One diesel trammer, value	3,600.00
One vehicle, value	2,000.00
One mine car transfer, value	590.00
Miscellaneous equipment, value	1,800.00
	$19,875.00

18 months @ $331.25 monthly	$5,962.50	$5,962.50

Categories (5) and (6)

None

Category (7) Miscellaneous

Payroll deductions, insurance, compensation, etc.	$7,494.55	
Maintenance of operating equipment	596.23	
400 samples for assay @ $5/sample (or $1.00 per determination)	2,000.00	$10,090.78

Estimated total cost, Stage III	$144,910.78

S U M M A R Y

Estimated total cost, Stage I	$19,770.10	
Estimated total cost, Stage II	$26,079.12	
Estimated total cost, Stage III	$144,910.78	
Estimated total cost of project		$190,760.00
Government's participation, 50 percent		$95,380.00

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*The Government will contribute to the unit cost of an asterisked item only to the extent of the estimated unit cost, and to the estimated total cost of such item only to the extent of the asterisked total shown. The Government shall have no equity in asterisked items.

OFFICIAL RECORDS
DMEA
JUN 27 1958

A S S I G N M E N T

KNOW ALL MEN BY THESE PRESENTS:

That J. W. BARNES, hereinafter called "assignor", for and in consideration of the sum of One Dollar ($1.00) and other good and valuable consideration paid by NORBUTE CORPORATION, a Minnesota Corporation, hereinafter called "assignee", has sold, transferred, set over, assigned and granted, and by these presents does sell, transfer, set over, assign and grant to assignee, its heirs, executors, administrators and assigns, all his right, title and interest in and to that certain Sales Contract dated May 26, 1958, whereby Emmett F. Brophy sold unto J. W. Barnes the following described real estate, with the appurtenances, situate in Summit County, Colorado, to-wit:

> Windsor Lode, U. S. Survey No. 2083, located in Township 5 South, Section 35, and Township 6 South, Section 3, all in Range 67 West.

Assignor makes no representations or warranties as to the title to said property. This assignment has been made to include the within described property with that conveyed by that certain Mining Deed dated June 7, 1957, between E. G. Wolfle, also known as Mrs. F. R. Wolfle, individually and as sole surviving member of the last board of directors of Florado Mining Company, a Colorado corporation dissolved by expiration of its charter, and J. W. Barnes, collectively referred to as "grantors", and Norbute Corporation, a Minnesota corporation, grantee.

IN WITNESS WHEREOF, assignor has executed this instrument on the 23rd day of June, 1958.

J. W. Barnes

STATE OF COLORADO)
) ss
COUNTY OF MESA)

On the 23rd day of June, 1958, before me personally appeared J. W. Barnes, to me known to be the person described in and who executed the foregoing instrument, and acknowledged that he executed the same as his free act and deed. Witness my hand and notarial seal.
My commission expires April 29, 1961

Vera F. Keen
Notary Public

OFFICE OF THE COPY
DMEA
RECEIVED Jun 27 1958
DATE

SALES CONTRACT

THIS AGREEMENT, made and entered into this 26th day of May, 1958, between EMMETT F. BROPHY, hereinafter called the "vendor", and J. W. BARNES, hereinafter called the "purchaser",

WITNESSETH: That the vendor agrees to sell and the purchaser agrees to buy the following described real estate, with the appurtenances, situate in Summit County, Colorado, to-wit:

Windsor Lode, U. S. Survey No. 2083, located in Township 5 South, Section 35, and Township 6 South, Section 3, all in Range 67 West.

The terms and conditions of this contract are as follows:

The purchase price is Two Thousand Dollars ($2,000.00), of which One Hundred Dollars ($100.00) has been paid, the receipt of which is hereby acknowledged, and the balance of said purchase price shall be paid as follows:

Three Hundred Dollars ($300.00), October 14, 1958
Eight Hundred Dollars ($800.00), October 14, 1959
Eight Hundred Dollars ($800.00), October 14, 1960

Purchaser may enter into possession June 1, 1958.

The purchaser agrees to pay all taxes and assessments that may, as between grantor and grantee, hereafter become a lien on said property, except that vendor agrees to pay the 1957 property tax.

The vendor agrees, on full payment of said purchase price, to make, execute and deliver to the purchaser a good and sufficient deed of the said described property.

Improvements by the purchaser are to remain his sole property and the same removable at his will, provided that the vendor will be compensated for any physical damage to the realty as a result of such removal.

Vendor agrees that the property may be subjected to a first lien by the purchaser, if the same is necessary to secure a loan with the Defense Minerals Exploration Administration.

Vendor consents to mining exploration and development work being conducted on the premises.

This contract constitutes the entire agreement between the parties and all prior agreements are of no effect whatsoever.

In the event that payment in full should not be completed for any reason, vendor shall retain title to the property and shall retain all payments received as liquidated damages.

This contract shall be binding on the parties, their heirs, executors, administrators, successors and assigns.

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

Emmett F. Brophy
Vendor

J. W. Barnes
Purchaser

STATE OF COLORADO)
) ss
COUNTY OF Summit)

On the 24 day of June, 1958, before me personally appeared Emmett F. Brophy, to me known to be the person described in and who executed the foregoing instrument, and acknowledged that he executed the same as his free act and deed. Witness my hand and notarial seal. My commission expires _____

Doris E. Gore, Deputy County Clerk
~~Notary Public~~

STATE OF COLORADO)
) ss
COUNTY OF MESA)

On the 23rd day of June, 1958, before me personally appeared J. W. Barnes, to me known to be the person described in and who executed the foregoing instrument, and acknowledged that he executed the same as his free act and deed. Witness my hand and notarial seal. My commission expires April 29, 1961

Vera F. Giles
Notary Public

DEWITT C. DERINGER
MINING ENGINEER
1808 NINETEENTH STREET
GOLDEN, COLORADO

DMEA
DEPARTMENT OF THE INTERIOR
JUN 18 1958
REGION III
DENVER, COLORADO

June 18, 1958

Mr. J. W. Townsend,
Executive Officer, Region III
224 New Customhouse,
Denver, Colorado.

DMEA Docket No. 4848
Norbute Corporation
Sts John- Lead Zinc.

Dear Sir:

Herewith are four certified copies of amended location certificate on the "Tunnel Lode No. 10" from the office of the Summit Country Clerk & Recorder. These copies were not trimmed because of the seal in the margin.

Very truly yours,

DeWitt Deringer

Recorded at 1:40 P.M. June 12, 1958
Reception No. 79221

Wilma Knisley Recorder

No. 114. ADDITIONAL AND AMENDED LOCATION CERTIFICATE.
—Bradford-Robinson Ptg. Co., Mfrs. Robinson's Legal Blanks, 1824-46 Stout St., Denver, Colorado

STATE OF COLORADO,
County of Summit } ss.

KNOW ALL MEN BY THESE PRESENTS,

That the Norbute Corporation, by its agents,

the undersigned, has this 11 th day of June, 19 58, amended, located and claimed and by these presents do amend, locate and claim, by right of the original discovery and this Additional and Amended Location Certificate, in compliance with the Mining Acts of Congress, approved May 10, 1872, and all subsequent acts, and with Sections 169 and 182, Chapter 110, 1935 Colorado Statutes Annotated, and with local customs, laws and regulations 1,500 linear feet and horizontal measurement on the Tunnel Lode No. 10 lode, vein, ledge or deposit, along the vein thereof, with all its dips, angles and variations, as allowed by law, together with 300 feet on the northwest side, and 300 feet on the southeast side of the middle of said vein at the surface, so far as can be determined from present developments, and all veins, lodes, ledges or deposits and surface ground within the lines of said claim, approximately 620 feet running South 57° West from center of discovery in tunnel and approx. 880 feet running North 57° East from center of discovery in tunnel, said discovery in tunnel being situated upon said lode, vein, ledge or deposit, and within the lines of said claim, in Snake River Mining District, County of Summit and State of Colorado, described by metes and bounds as follows, to-wit:

Beginning in Corner No. 1, whence the southwest corner of section 35, T. 5 S., R. 76 W., 6th P. M., bears approximately South 0°07' East, 2,130 feet, more or less, thence South 57° West, 1,500 feet to Corner No. 2, thence South 33° East 600 feet to Corner No. 3, thence North 57° East, 1,500 feet to Corner No. 4, identical with Corner No. 4, Tunnel Lode No. 2, Sur. No. 7068A, thence North 33° West, 600 feet to Corner No. 1, the place of beginning.

This being the same lode originally located on the 15th day of July, 1898 ~~19~~, and recorded on the 29 th day of August 1898, in Book 13 Page 496 in the office of the Recorder of Summit County. This further Additional and Amended Certificate of Location is made without waiver of any previously acquired rights, but for the purpose of correcting any errors in the original location, description or record, and of taking in and acquiring all forfeited or abandoned overlapping ground, and of taking in any part of any overlapping claim which has been abandoned, and of securing all the benefits of said Sections 169 and 182, Chapter 110, 1935 Colorado Statutes Annotated.

Said lode was discovered the 15th day of July A. D. ~~19~~ 1898

ATTEST:

Date of Additional and Amended Certificate June A. D. 19 58

Gordon Bruchner INTEREST. [SEAL]
Gordon Bruchner and
Asa Ramsay INTEREST. [SEAL]
Asa Ramsay, agents for the
Norbute Corporation INTEREST. [SEAL]
INTEREST. [SEAL]
INTEREST. [SEAL]
INTEREST. [SEAL]

STATE OF COLORADO }
COUNTY OF SUMMIT } SS

I, Helen Knight

County Clerk and Ex-Officio Recorder of Deeds, in and for the County aforesaid, do hereby certify that the foregoing is a true, full, correct and complete Copy

as the same appears of record in my office in Book 33 Page 262

Witness my hand and Official Seal this 17 day of June A. D. 19 58

Helen Knight
County Clerk and Recorder

By _____
Deputy

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

224 New Customhouse
Denver 2, Colorado

OFFICIAL FILE COPY
DMEA
RECEIVED OCT 14 1957

DATE	INITIALS	CODE

October 10, 1957

Memorandum

To: Secretary to the Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: Application for DMEA Aid, (Lead-Zinc) Norbute Corporation (Saints John Mine) Summit County, Colorado

Enclosed are the original and two copies of the subject application. One copy of the application is being retained in our file.

The Applicant proposes to explore a mineralized target area by 2,000 feet of driving, 500 feet of crosscutting, 1,500 feet of drifting and 600 feet of raising at a total estimated project cost of $253,256.00

The estimated cost per foot of drifting and raising seem reasonable for the Snake River Mining District.

E. N. Harshman

E. N. Harshman
Acting Executive Officer

NORBUTE CORPORATION

Western Mining Division: URANIUM CENTER BUILDING, P. O. BOX 1700, GRAND JUNCTION, COLORADO—CHapel 2-8257

DMEA
DEPARTMENT OF THE INTERIOR
OCT 10 1957
REGION III
DENVER, COLORADO

October 8, 1957

United States Department of Interior
Defense Minerals Exploration Administration, Region III
Bureau of Mines
224 New Customhouse Building
Denver 2, Colorado

Subject: Exploration
Re: Saints John Mine

Gentlemen:

Enclosed are four copies of our application for exploration assistance under the Defense Production Act of 1950, as amended.

It is felt that the Montezuma District, and particularly the Saints John property, has suffered through lack of sufficient exploration in the past to develop it into an important lead-silver-zinc district, which is reflected by T. S. Lovering in his work in the area. Therefore your consideration would appear justified and warranted.

It is suggested at this time that due consideration be given to the impending winter climate in the area of this program and that the field examination by the D.M.E.A. be made at the earliest convenient time.

Please feel free to contact this office if there are any questions regarding the report and to arrange with us an examination trip at which time all our records and research on the property will be available for study.

Very sincerely yours,

DeWitt C. Deringer

DeWitt C. Deringer
Vice President

DCD/b
Enc.

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

RECEIVED OCT 14 DMEA

DMEA
DEPARTMENT OF THE INTERIOR
OCT 10 1957
REGION III
DENVER, COLORADO

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

Not to be filled in by applicant

Docket No. DMEA-4848
Metal or Mineral Lead
Date Received 10-14-57
Estimated Cost 253,256.00
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Norbute Corporation, P. O. Box 1700, Grand Junction, Colorado. A Minnesota corporation. Nicolas M. Salgo, President, Howard M. Plant, First Vice President, 3 East 54th Street, New York22, N. Y. DeWitt C. Deringer, Vice President, P. O. Box 1700, Grand Junction, Colo.

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

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

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

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

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract See Exhibit "A" of Mining Deed dated June 7, 1957, which is attached.

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

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

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

(*e*) If you own the land, describe any liens or encumbrances on it See copy of deed attached, noting paragraph 1 page 3, paragraph 2 page 4, paragraph 7 page 5.

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

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

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

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

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

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

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

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

(*c*) The work will start within 60 days and be completed within 30 months from the date of an exploration project contract.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated Oct 8, 1957

NORBUTE CORPORATION
(Applicant)

By DeWitt C. Deringer
DeWitt C. Deringer, Vice President
in charge of Mining Division

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

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

Norbute Corporation
P. O. Box 1700
Grand Junction, Colorado

OFFICIAL FILE COPY
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RECEIVED OCT 14 1957

DATE	INITIALS	CODE

Report on

Proposed Exploration Project

Saints John Mine

Montezuma, Colorado

September 26, 1957

DeWitt C. Deringer, Mining Engineer

Abbott Charles, Mining Engineer

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Summary

Through a consolidation of the principal properties on the northwest flank of Glacier Mountain, an exploration program capable of uncovering a major mining area is possible. The ore zone previously mined above the Saints John level shows ore development that, with continuity, would indicate that 164,000 tons could be developed on the Comstock vein, alone. Additional potentially productive ground will also be explored by the proposed program.

The ore minerals are of primary origin with values proven in the district at a greater depth than that which will be explored by this program. The district has suffered in the past due to lack of sufficient exploration to prove tonnage requirements to support a well designed mill.

The economic evaluation used herein is based on present day costs and a 15¢ per pound lead and 12¢ per pound zinc market price. At the time of writing this report, metal prices are somewhat less than used in the economic evaluation of the venture; but it is felt that if ore bodies of tonnage and grade are encountered as anticipated, a balance between metal prices and costs will be restored at some time in the future to make the operation profitable.

Introduction

The production history of the Montezuma District shows that the mining done on the northeast flank of Glacier Mountain indicates sufficient grade and continuity of ore, both horizontally and laterally, to lay credence to the belief that further exploration could prove sufficient tonnage for a profitable mining operation.

Location and Physiography

The properties comprising the Saints John group lie on the northwest and north flanks of Glacier Mountain which has a relief of 2200 feet from the Snake River at the town of Montezuma, Colorado. The principal work to date has been done from the Saints John adit which is located one mile to the southwest of Montezuma and is accessible by unpaved road that follows up Saints John Creek. The town of Montezuma is located in Summit County on State Highway 294, eleven miles east of the town of Dillon which is on U. S. Highway 6. Sufficient local labor is present in the area for a normal exploration project.

Road access is excellent the year round to Montezuma, despite a mean annual precipitation of 19 inches and normally heavy snowfall. There may be some difficulty keeping the road open from Montezuma to the Saints John level during the months of maximum snowfall, namely December, January and February. However, access to the Jerry level, where the proposed work would be done, could be easily maintained under the most inclement weather conditions.

An electric line and transformer are installed so that power is available at the Saints John level, should electric power be indicated. A very short line would be necessary to connect electric power from the town of Montezuma to the Jerry level. Adequate water and sufficient mine timber are available locally. Supplies and equipment are easily transported to the area from Denver, a distance of 77 road miles.

Geology

Very little has been written on this district aside from U.S.G.S. Professional Paper 178, "Geology and Ore Deposits of the Montezuma

Quadrangle, Colorado", by T. S. Lovering, 1935, and U. S. G. S. Professional Paper 223, "Geology and Ore Deposits of the Front Range, Colorado", by Lovering & Goddard, 1950. These publications are referred to for detailed geologic description of the area.

Glacier Mountain is mainly composed of the Swandyke hornblende gneiss of lower Algonkian age. There is a large pegmatite intrusion along the southern crest of the mountain just outside of the area of interest of this report. It is reported that the pegmatite was introduced in pre-Cambrian time. Glacial topography is characteristic of the district, with U-shaped hanging valleys dating from the Eocene still preserved nearby. Glaciation has continued until comparatively recent time.

The ore deposits occur as fissure fillings. No secondary enrichment of importance has been noted. The silver minerals are later than the bulk of the lead-zinc-iron minerals and are not disseminated evenly through the galena-sphalerite. They are usually concentrated in rich shoots, whose occurrence is independent of the amount or kind of the earlier base metal sulphides in the vein. "Galena is commonly more abundant in the upper part of the vein than in the lower part, but it is a persistent mineral and occurs throughout many ore shoots. In Glacier Mountain the ores are generally richer in silver in the lower part of the ore shoots than in the upper part.

"In the Saints John mine the Comstock ore shoot probably has a maximum strike length of 1300 feet and the ore has been mined to a depth of 700 feet, but the bottom of the shoot is not known to be reached by the deepest level. Several ore shoots occur in some of the largest and most

continuous veins, and some of these veins have been productive for over a mile in length".

"Although the greatest known vertical range of ore in a single shoot is only 850 feet, the vertical range of ore deposition was certainly much greater". The ore minerals were deposited through a vertical range of at least 2,000 feet and probably 3,000 feet or more. There is adequate evidence that the mineral development extends well below the Jerry level.

History and Production

The Saints John mine is the oldest property in the Montezuma District and one of the oldest silver mines in the state of Colorado. It was located in 1872, and from all reports, high grade shipments of lead-silver ore were made during the ensuing twenty-five years. The property changed hands several times prior to 1929 when F. R. Wolfle acquired it, and continued in possession until his death in 1952, when it passed to his widow. The property was deeded to Norbute Corporation on June 7, 1957. During this long period, exploration and development were never carried ahead of the necessity to provide ore for the immediate production. Mr. Wolfle regarded the property so highly that he never granted prospective capital sufficient equity to make it an attractive investment. He did allow small parcels of outside capital to enter from time to time, however, which were used to construct a small mill and to do a limited amount of development, but never in sufficient amounts to support a program that had as its objective the full investigation of the mine's potentials as an important producer. Consequently, over the long history of the Saints John mine, the No. 5 or Comstock vein was worked only 700 feet below the surface outcrop, with the

result that this vein, on its lowest developed level, for over 1500 feet along the strike has ore that appears to be of commercial grade. In addition, there are several cross veins and vein extensions that give considerable promise of containing ore of commercial grade and quantity.

Some time prior to 1929, an adit, which was named the Jerry No. 5, was started at a point 600 feet below the Comstock level, with the objective to cut the Comstock vein as well as other promising veins. Some production was made from these veins, but there is no complete record indicating total production, nor was the Jerry No. 5 tunnel driven far enough to reach the Comstock vein which was the principal objective. Likewise, there is no complete record of the production from the Comstock vein, although there are available many smelter settlements for years subsequent to 1940. Two or three engineering reports suggest that the production prior to 1929 totaled over $6,000,000.00 from the Comstock vein, but no confirmation of this figure is available. The extent of the open stopes above the Comstock level, combined with available smelter settlements, however, does suggest that total production could have been equal to the suggested figure of $6,000,000.00. Mr. Wolfle made reference to this same figure on several mine plans, which probably accounts for his driving the Jerry No. 5 ahead whenever there were funds available, until this adit had been driven 1200 feet out of a total 4000 feet required to get under the ore indicated on the Comstock level.

The available production figures on the Saints John mine are shown on Table 1. However, taking into account the total volume stoped and average grade of ore, the total production throughout the life of the property to date must have been several times the production indicated in the tabulation.

Description of Present Mine Workings

The portal of the lower level of the Saints John mine has been reopened and timber replaced so that access is readily available to the Comstock vein. The south drift along the vein is open to the face, as well as the drifting which has been done along the No. 7 vein. At present, the north drift is blocked on the Comstock vein by a cave. The Jerry level adit has been opened and cleared to the face. Only a minor amount of additional work would be necessary to prepare the existing level for efficient haulage.

Sampling

In 1939, the Placer Management had the property examined by V. E. Bramming and T. M. McLellen who sampled the Comstock vein along the entire length then exposed. It is the assay map and assay reports prepared by those two engineers that form the basis of estimating ore potentialities as presented in this report. The assay map in the pocket of this report shows the assays taken by V. E. Bramming and T. M. McClellen of Placer Management, in June, 1939. Each sample as shown on the map was a channel cut made in the floor of the drift. All assaying was done by the offices of J. W. Richards & Sons, of Denver, Colorado. Copies of the descriptions of each individual channel cut, as well as signed copies of the original assay reports, are available for inspection at the Norbute Corporation office in Grand Junction, Colorado.

A winze was sunk a depth of 70 feet in the north drift of the Comstock vein in 1940 in an attempt to mine some of the high grade ore below this level. Although it is reported that excellent grade and width persisted, it was impossible to carry this forward due to the heavy flow of water encountered.

Estimated Value per Ton of Ore

Based on the average shown on the accompanying assay map, a mill head grade of 6.65 oz. of silver, 7% lead, and 9.70% zinc has been estimated. The ore is readily amenable to selective flotation. A 90% recovery of lead and 80% recovery of gold in a lead concentrate with a concentration ratio of 10.3 to 1, a 77.5% recovery of zinc and 14% recovery of gold in a zinc concentrate with a concentration ratio of 7.3 to 1 should be attained, based on treatment of other ores in the district, smelter liquidation of concentrates, and ore characteristics.

The following evaluation is based on an open smelter liquidation schedule reflected back into a ton of ore at the mill head. An Engineering and Mining Journal quoted metal price of 90 cents per ounce of silver, 15 cents per pound of lead, and 12 cents per pound of zinc has been used. The value per ton would varry 92 cents per ton for each 1 cent change in the price of lead and $1.23 per ton for each 1 cent change in the price of zinc.

Smelter Liquidation

Lead Concentrate

Ag - (54.9 - 1) (.90 - .01)		= 47.97	
Pb - (65.0 - 1.5) .90 x 20 (.15 - .025)		= 142.88	
			190.85
Deductions			
Base	10.75		
Sulphur	2.50		
Trucking	6.00		
Sampling, switching, etc.	.25		
			19.50
		Net	171.35

Value per ton of ore - Concentration Ratio 10.3 to 1 $16.65

Brought forward			$16.65
Zinc Concentrate			
Ag - (6.81 - 1).80 x .90		= 4.18	
Pb - (2.56 - 1.5).65 x 20(.15-.02)		= 1.79	
Zn - 55 x .82 x 20 (.12 - .0057)		= 103.10	
			109.07
Deductions			
Base 46.50 + (12 - 8)1.25	51.50		
Trucking	12.72		
Sampling, etc.	.25		
			64.47
		Net	44.60
Value per ton of ore - Concentration Ratio 7.3 to 1			6.12
Total value per ton of ore -			$22.77

Future Ore Potential

The ore minerals of the Montezuma area are of primary origin with no secondary enrichment of importance. The ore seen at the Saints John level has been substantially mined out to the surface, a vertical distance of 700 feet. A drift length of more than 2400 feet has exposed over 1800 feet of minable ore. Ore values are exposed on the Jerry level 560 feet below the Saints John level and elsewhere in the district ore values have been shown to a greater depth. If the same continuity of ore persisted, 302 tons per foot of depth would be present on the projection of this one ore body. Additional ore could be anticipated from the other veins present that would be also explored by this program.

Exploration Plan

Due consideration has been given to the various methods that could be used to explore the area. The character of ore development indicates that diamond drilling would not supply sufficient information. It would be

necessary to drive an adit 1200 feet from the Saints John Creek drainage in order to explore only the extension of the Comstock vein, 200 feet below its present depth. Such exploration would not intersect other veins that should be examined. By extending the Jerry tunnel a distance of 2000 feet, the projection of the Comstock vein would be intersected at a depth 543 feet below the present Saints John level. The addition of 800 feet of drive is more than offset by intersecting a potentially productive area more than twice the depth explored, plus the ease in access during all weather.

First Phase

It is proposed to drive to the projected position of the Comstock vein, 2000 feet, crosscutting at 200 foot intervals until vein is well established, then to drift 1500 feet on the vein, a total drive of 4000 feet. The program is predicated upon a two shift basis. Drives are to be 6 feet by 7 feet in the clear. The cut holes will be drilled 6 feet deep with a standard 5 hole burn cut design. Average breakage should be 5 feet per round with 200 to 240 feet driven and completed per month.

Cost Calculation

Equipment Item	Cost	Life in years	Use Allowance for project	Salvage* value
2 drifter drills	$3,170.00	2	$ 3,170.00	consumed
1 air column arms and saddles	355.00	2	355.00	-
1 Eimco 12B mucking machine	3,570.00	5	1,428.00	$1,071.00
1 Gardner-Denver 365 diesel compressor - discounted value of Norbute property	3,150.00	4	1,575.00	878.50
2 vent fans	1,600.00	4	800.00	400.00
6 28-cubic feet rocker dump cars	2,500.00	5	1,000.00	750.00
Carried forward	$14,345.00		$8,328.00	$3,008.50

Equipment Item	Cost	Life in years	Use Allowance for project	Salvage* value
Brought forward	$14,345.00		$ 8,328.00	$3,008.50
1 diesel trammer	3,600.00	4	1,800.00	900.00
1 vehicle	2,000.00	2	2,000.00	-
1 car transfer	590.00	4	295.00	147.50
Miscellaneous equipment including lamps, vent line tape, miscellaneous hose, tools, rail jack and saws	1,800.00	2	1,800.00	-
	$22,335.00		$14,223.00	$4,056.00

Cost less residual value for 4000 feet of drive
($22,335.00 - $4,056.00) - per ft. $ 4.57

* The salvage value is figured as one half the unused life of each piece of equipment.

Installation

Haulage to mine	$1,500.00	
Installing equipment	400.00	
Shed and storage space	1,700.00	
Repair of road and patio	1,200.00	
For 4000 feet	$4,800.00	1.20

Miscellaneous

Maintenance - per month	$200.00	
Accounting	100.00	
Transportation, supplies and personnel	200.00	
Assaying (Every 5 feet where needed)	200.00	
For 240 feet	$700.00	2.92

Labor

Contract miners @ $12.00 per foot	$12.00	
Trammer @ $15.00 per day	3.00	
		15.00

Supervision - geologist, engineer

Salaried employee at $600. per month Living expenses and travel allowance $250. per month	3.86
Carried forward	$27.55

		Cost per foot
Brought forward		$27.55
Workmen's Compensation - 3.56% of wages @ $18. per foot		.64
Unemployment compensation insurance - 3%		.54
Payroll taxes - 2.25%		.41
Explosives		
1½ case of powder @ $11.	14.00	
25 caps @ $0.0204 each	.51	
200 feet fuse @ $0.013 per foot	2.60	
5-foot round	17.11	3.42
Steel and bits		
1¼" round, ½ drill steel per round	1.47	
drill bits	.90	
		2.37
Fuel		
20 gallons diesel fuel per shift	.64	
diesel compressor operation @ $2.52 per hour	4.03	
5 gallons gasoline per round	.33	
		5.00
Pipe		
4-inch air line with couplings	1.03	
1-inch water line " "	.29	
20-inch vent pipe	2.96	
		4.28
Track		
20# rail, complete with bolts, spikes, fishplates, ties		1.90
Timber		
3 sets of timber and lagging per 100 feet of drift, estimated	.60	
Installation, estimated	1.80	
		2.40
		$48.51
Contingencies 10%		4.85
Estimated total cost per foot -		$53.36

Second Phase

It is proposed to raise to the Saints John level to explore the ore continuity between the two levels. The raise would be driven 6 x 10 feet in the clear with a 5 x 6 manway compartment installed and lagged off from the rock chute. The raise would be driven at 60 to 80 degrees, depending upon the location of the vein on the lower level. This would require a raise of from 546 to 621 feet in length. Due to the length of this raise, it would be better mining practice to maintain a constant slope with stations cut at 150 foot intervals for safety.

Cost Calculation

Equipment Item	Cost*	Life in years	Use Allowance per year	Salvage** value
2 stopers	$1,600.00	2	$ 800.00	$ 400.00
1 water pump	900.00	2	450.00	225.00
1 skip, cable & sheaves for hoist	1,500.00	2	750.00	375.00
1 hoist - air drive	1,500.00	5	300.00	600.00
1 compressor	788.00	2	394.00	394.00
2 vent fans	400.00	2	200.00	200.00
6 mine cars	750.00	3	250.00	500.00
1 diesel trammer	900.00	2	450.00	450.00
1 vehicle - no cost chargeable -				
Miscellaneous equipment	1,500.00	2	750.00	375.00
	$9,838.00		$4,344.00	$3,519.00

Cost less residual value for 600 feet of raise
($9,838.00 - $3,519.00 = $6,319.00) - - - - - - - - - - per foot $10.54

* Purchase cost or depreciated evaluation after stage 1.
** The salvage value is figured as one-half the unused life of each piece of equipment.

Installation

Haulage to mine	200.00	
Installing equipment	250.00	
For 600 feet	450.00	.75
	Carried forward	$11.29

			Cost per foot
		Brought Forward	$11.29
Miscellaneous			
Maintenance - per month		$250.00	
Accounting		100.00	
Transportation, supplies & personnel		200.00	
Assaying (every 5 feet)		200.00	
120 feet per month		750.00	6.25
Labor			
Contract miners @ $12. per foot		12.00	
Trammer @ $15. per day (5 feet per day)		3.00	
			15.00
Supervision - geologist, engineer			
Salaried employee at (per month)	$600.00		
Living expenses & travel allowance	250.00		
220 feet per month	850.00		3.86
Workmen's Compensation 3.56% of wages at $18. per foot			.64
Unemployment compensation insurance 3%			.54
Payroll taxes 2.25%			.41
Explosives			
1¼ case of powder @ $11.		14.00	
25 caps @ $0.0204 each		.51	
200 feet fuse at $0.013 per foot		2.60	
			3.42
Steel and bits			
6 rounds per steel @ $16.75 each		.28	
Drill bits		.90	1.18
Fuel			
20 gallons diesel fuel per shift		.64	
diesel compressor operation @ $2.52 per hour		4.03	
5 gallons gasoline per round		.33	5.00
Pipe			
2" air line with couplings		.49	
1" water line " "		.29	
12" vent line		1.20	1.98
		Carried forward	$49.57

		Cost per foot
Brought forward		$49.57
Timber		
Stulls, lagging, ladders	24.40	
Nails, wedges and labor	22.00	
Per five feet	46.40	9.28
Safety Station at 150 foot intervals		
Timber	27.50	
Labor complete	120.00	
Pipe fitting & safety door	75.00	
	222.50	1.48
		60.33
Contingencies 10%		6.03
Estimated cost per foot -		$66.36

Phase 1	Distance in feet	Cost
Drive to Comstock vein	2000	$106,720.00
Crosscutting	500	26,680.00
Drifting on vein	1500	80,040.00
		$213,440.00
Phase 2		
Raise to Saints John level	600	39,816.00
		$253,256.00

The available production figures (incomplete) of the Saints John mine are shown below:

	Ore to Concentrating mills. (short tons)	Concentrates produced (short tons)	Gold Fine oz.	Silver Fine oz.	Lead wet assay Pounds	Copper wet assay Pounds	Zinc Pounds
1870 (Aug. to Dec.)					* 29,720		
1882		90					
1884		25					
1885		200					
1886		35					
1887		94		3,354	23,174		
1890		44		1,650	39,785		
1891		805		32,274	1,293,307		
1892		628		24,773	607,518		
1893-99		1,523					
1900		80		2,936	79,200		9,000
1901		1		138			
1904		5		125	4,000		
1910	300	33		482	21,455		17,000
1911	2,730	273	1.13	8,086	241,621		
1913	7,400	74	.36	2,754	79,176		
1914		181	.99	6,842	110,234	327	
1915		23		1,088	13,138	78	
1916	530	53	1.09	1,586	32,279	174	
1917	1,200	137	1.42	3,259	53,176	493	
1918 (Old Comstock dump)	1,120	112	.55	3,405	83,092	108	
1919		67	2.11	2,952	34,914	175	
1920		29	.20	857	23,852	22	
1922 (Old Comstock mine and dump)		21	.20	407	13,273	22	
1923		93	.40	1,615	97,452		
1924		94		2,174	101,874		
1926	3,000	200	1.20	4,987	76,424	114	122,378
1927	4,000	340	.30	2,239	58,015	23	226,632
1928		13	.30	411	11,694		
1947		239	4.06	15,022	323,668	2,105	17,744
1948		416	.23	41,904	538,888	6,601	34,758
1949		197	.69	28,342	230,580	4,231	17,846
1950		96	.35	15,365	123,143	2,591	8,214
1951		24		2,803	34,051	430	1,433
			15.58	209,830	4,348,993	17,494	455,005

* Base Bullion

MINING DEED

THIS DEED entered into this 7th day of July, 1957, between E. G. Wolfle, also known as Mrs. F. R. Wolfle, individually and as sole surviving member of the last board of directors of Florado Mining Company, a Colorado corporation dissolved by expiration of its charter, and J. W. Barnes, hereinafter collectively referred to as "Grantors", and Norbute Corporation, a Minnesota corporation, hereinafter referred to as "Grantee",

W I T N E S S E T H:

That the Grantors for and in consideration of the sum of $10.00 and other valuable consideration in hand paid by the Grantee, the receipt of which is hereby acknowledged, have granted, bargained, sold, remised, released and forever conveyed and by these presents do grant, bargain, sell, remise, release and forever convey to Grantee, its successors and assigns, the patented and unpatented mining claims situate, lying and being in the Snake River Mining District, Summit County, Colorado, which are more fully described in Exhibit A attached hereto and by this reference made a part hereof,

Together with all the dips, spurs and angles and all the metals, ores, rock and earth therein and all the rights, privileges and franchises thereto incident and appertaining usually had and enjoyed and all and singular the tenements, hereditaments and appurtenances thereunto belonging or in anywise appertaining, and the rents, issues and profits thereof and all the estate, right, title, interest, claim and demand whatsoever as well in law as in equity of the said Grantors of, in or to the said premises and every part or parcel thereof with the appurtenances together with all right, title and interest of Grantors in and to all equipment, fixtures, houses, tools, machinery and all other and additional property placed or located on the premises or used or acquired in connection therewith,

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TO HAVE AND TO HOLD all and singular the said premises together with the appurtenances and privileges thereto incident unto the said Grantee, its successors and assigns forever,

RESERVING, HOWEVER, unto Grantors, their heirs, successors and assigns, a royalty interest of 10% of the net mill and smelter returns, as hereinafter defined, on all ore mined and removed from the premises, provided, however, that the royalty interest herein reserved shall terminate when the Grantors have received $300,000.00, and further provided, however, that if Grantors have not received $300,000.00 on or before June 30, 1964, Grantee, at its election, shall either pay the difference between the amount actually paid to Grantors and $300,000.00, or execute and deliver to Grantors the necessary document or documents required to make the above described royalty interest a perpetual royalty interest.

Grantee agrees to pay a minimum monthly royalty of $400.00 per month, beginning 24 months after the date hereof, unless premises are reconveyed as herein provided. Any royalty thus paid in excess of actual royalty due shall be deducted by Grantee from the next succeeding royalty payment or payments to the extent that they are in excess of the minimum royalty required to be paid. It is mutually understood and agreed that all such minimum royalty payments shall be a credit toward the retirement of the $300,000.00 total reserved royalty as set forth hereinabove, and in the event Grantee shall elect to grant to Grantors a perpetual royalty as provided in the next preceding paragraph hereof, Grantee shall pay a minimum royalty of $400.00 per month on each month commencing with the month of July, 1964, unless premises are reconveyed as herein provided. Minimum monthly royalty payments shall be paid on or before the 20th day of the next succeeding calendar month for which such minimum monthly royalty is payable.

"Net mill and smelter return" as used herein shall mean the gross sales value of ore or concentrates, as the case may be, after deducting (1) in the case of sale of concentrates all direct costs and expenses and

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charges relating to the milling, treating and handling of such ores and the transportation and sampling of concentrates, but shall not include any mining or other charges which may accrue prior to placing the crude ore in the mine bin on the surface; and (2) in the case of sale of crude ore to a custom mill or smelter, all handling, sampling, transportation and milling and/or smelter charges or penalties, but shall not include any mining or other charges, which may accrue prior to placing the crude ore in the mine bin on the surface; provided, however, that no general office overhead charges shall be included in the determination of "net mill and smelter returns". All royalty payments, whether minimum monthly payments or payments based upon net mill and smelter returns shall be paid on a calendar monthly basis. Such payments shall be paid, as herein provided, on or before the 20th day of the calendar month for all ores or concentrates for which settlement has been received by Grantors during the preceding calendar month.

The payment of royalties hereunder shall be made at the First National Bank ~~at~~ in Grand Junction or any successor to such Bank as agent for the Grantors, their heirs, successors and assigns. If such Bank and any successor thereof shall cease to exist, such royalty shall be paid thereafter to such Bank within the United States as the holder of a majority of such royalty interest shall designate in a notice given to the Grantee at Grand Junction, Colorado, and recorded in the public records of Summit County, Colorado. Grantee shall not be responsible for the division and distribution of royalty payments among and to those entitled thereto and said Bank is authorized to withhold the disbursement of royalty payments until Grantors have executed such division orders as the Bank may require.

For the benefits of the royalty interest reserved herein Grantee covenants and agrees as follows:

1. Within a reasonable time after the execution and delivery of this deed, Grantee will file an application with the Defense Minerals Exploration Administration for a loan in an amount not more than $75,000.00, the

proceeds of which loan, if granted, together with an equal sum to be furnished by Grantee, will be used for the exploration of the downward extension of the Comstock and/or other veins by opening up and driving the Jerry Tunnel or by utilizing any other method of exploration designed to explore the downward extension of such veins. Grantors recognize that to obtain the loan Grantee will be required to subject the premises conveyed hereby to a lien to secure the repayment to the Defense Minerals Exploration Administration thereof and that any surrender or quitclaim which might be made under Paragraph 7 hereof shall be subject to such lien.

2. For the purpose of exploring the premises and beginning within thirty days after the date upon which the Defense Minerals Exploration Administration loan is granted or refused, Grantee shall, subject to its right of surrender, employ a minimum of two hundred shifts per year during the exploration program on the premises, except when precluded from performing such work by weather, acts of God, unavoidable casualty or by law or the rules and regulations of any governmental regulatory body.

3. If, in the sole opinion of the Grantee, the exploration program has disclosed ore which may be mined in commercial quantities, Grantee shall work the premises in a manner necessary to good and economical mining so as to take out the greatest amount of ore with due regard to safety, development and preservation of the premises as a working mine. In meeting such work requirement, Grantee will perform a minimum of four hundred man shifts per year except when precluded from performing such work by weather, acts of God, unavoidable casualty or by law or the rules and regulations of any governmental regulatory body, or when market conditions, metal prices, labor and other cost factors make such operation unprofitable.

4. Grantee shall keep correct accounts and shall render to Grantors periodic statements showing the amount of all ore mined and removed from the premises and the cost of handling, sampling, treating, hauling and milling the same. The Grantors and their duly authorized representatives shall have

access at reasonable times to the property and such mine and mill records as may be required to determine the basis of royalty payments and to determine that Grantee is complying with the conditions of this conveyance.

5. To perform and record the performance of such assessment work within the time prescribed by law as may be required to keep the unpatented claims in good standing. In the event Grantee makes the reconveyance contemplated in Paragraph 7 hereof after May 1st and prior to July 1st of any year, then Grantee shall be obligated to perform and record the performance of the annual assessment work required by the laws of the State of Colorado and of the United States for the assessment year ending on the next succeeding June 30th.

6. Grantee shall pay before the same shall become delinquent all properly assessed ad valorem and personal property taxes and levies against the premises and equipment thereon. In addition Grantee shall pay 90% of all production, occupation and severance taxes which may be levied against the premises or production thereof, and the Grantors shall pay their corresponding proportion of the total of such tax.

7. Anything herein to the contrary notwithstanding, all obligations of the Grantee, including but not limited to the obligations to explore and develop the property, to perform assessment work, except as qualified in Clause No. 5 above, and to make payments of royalty shall cease and terminate at the time the Grantee delivers a notice of termination to the Grantors and places in the public records of Summit County, Colorado, a quitclaim deed conveying said property to the herein named Grantors, free of all liens, judgments or other encumbrances created by or resulting from the operation of said properties, with the exception of the Defense Minerals Exploration Administration loan as provided in Paragraph No. 1 above. And in this connection Grantee covenants and agrees to save and hold Grantors harmless for all such liens, judgments or other encumbrances. Provided, that upon such reconveyance the Grantee shall not be e titled to any repayment of royalties theretofore paid by it and the Grantee shall be liable for any unpaid royalties payable or

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which may be payable by reason of the milling of ore or the removal of ore from the premises prior to the time of such reconveyance or by reason of unpaid minimum monthly royalty. Upon such reconveyance, the Grantee shall have the right and privilege within 180 days to remove from the premises all broken ore, machinery, equipment, supplies of whatever kind including timbers not in place which the Grantee may have placed upon the premises, provided that said mine properties shall be left by Grantee in a good and orderly condition with due regard to the safety of the premises, its equipment, shaft and other permanent installations. Grantee shall pay the royalty for which provision is made herein for all broken ore removed from the premises subsequent to such termination. In the event broken ore or machinery, equipment or supplies are left on the premises after the expiration of said 180 day period, such property shall become the property of Grantors.

In the event Grantee shall fail to perform its covenants to be performed by it hereunder, Grantors may in their election give notice of such fact to Grantee which notice shall specify the covenants which have been breached by Grantee. Upon failure of Grantee to remedy such breached covenants within 60 days, weather and working conditions permitting, following such notice, then the entire remaining balance of the $300,000.00 reserved royalty shall be immediately paid to Grantors or Grantee shall immediately reconvey the premises to Grantors as herein provided for voluntary termination by Grantee, except that in the event of termination under the terms of this paragraph Grantee shall have no right or title in broken ore or ore in process on the property and such ores shall become the property of Grantors as fixed and agreed liquidated damages. In the event such termination by Grantors shall occur after Grantee shall have elected to grant Grantors a perpetual royalty as provided herein, Grantee shall immediately reconvey said premises to Grantors as provided above and Grantors shall have as their sole and separate property all borken ore and all ore in process on the property.

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Nothing contained herein shall preclude the Grantor from commencing an action to recover any unpaid royalties which become due and payable prior to such termination.

8. Any notices contemplated herein to be served upon Grantee shall be in writing and shall be sufficiently given if deposited in the United States mail, postage prepaid and registered and addressed as follows:

Norbute Corporation
P. O. Box 1700
Grand Junction, Colorado.

or in such other manner and at such other address as Grantee may from time to time, in writing, designate by written notice to Grantors.

Any notices contemplated herein to be served upon Grantors shall be in writing and shall be sufficiently given if deposited in the United States Mail, postage prepaid and registered and addressed as follows:

E. G. Wolfle
1738 Glencoe Street
Denver, Colorado

John W. Barnes
469 North Sherwood Drive
Grand Junction, Colorado

or in such other manner and at such other address as Grantors may from time to time in writing designate by written notice to Grantee.

Service of notice by mail shall be deemed effective and complete upon the date of posting and mailing in accordance herewith. Personal service of notice upon the designated addressee shall be deemed sufficient service of notice and no mailing of notice shall be necessary in the case of such personal service.

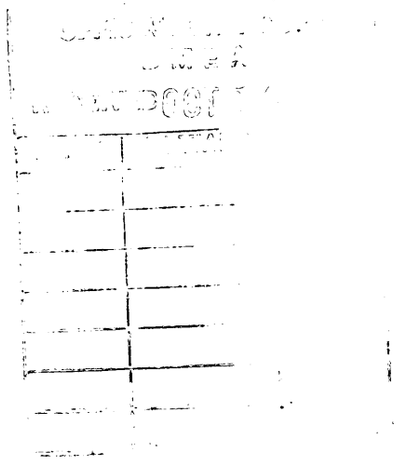
IN WITNESS WHEREOF, the Grantors have executed this instrument the day and year first above written.

E. G. Wolfle, also known as
Mrs. F. R. Wolfle, individually and
as sole surviving member of the last
board of directors of Florado Mining
Company, a Colorado corporation dis-
solved by expiration of its charter.

J. W. Barnes

Approved and accepted:
NORBUTE CORPORATION

By



STATE OF COLORADO)
County of _____) : ss

The foregoing instrument was acknowledged before me this _____ day of June, 1957, by F. S. Wolfle also known as Mrs. F. P. Wolfle, individually and as sole surviving member of the last board of directors of Florado Mining Company, a Colorado corporation dissolved by expiration of its charter.

My commission expires _____

Witness my hand and official seal.

_____
Notary Public

STATE OF COLORADO)
County of _____) : ss

The foregoing instrument was acknowledged before me this _____ day of June, 1957, by J. W. Barnes.

My commission expires _____

Witness my hand and official seal.

_____
Notary Public

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EXHIBIT A

Properties Conveyed

Item	Claim Name	Patent No.	Remarks
1.	Comstock	128	Items 1 through 11, title in Wolfle name.
2.	Tunnel Lode No. 7	7067	
3.	Tunnel Lode No. 5	573	
4.	Tunnel Lode No. 2	7068A	
5.	Weston Mill Site	7068B	
6.	Mill Site	545	
7.	Mill Site	546	
8.	St. Cloud	1505	17/18 undivided interest
9.	Tiger Extension	744	16/18 undivided interest
10.	Coley Extension Lode	368	1/2 NE 48 feet
11.	Prima	303	
12.	Celtic	1823	Items 12 through 16, imperfect title in Deatheridge name but $2000 paid on $15,000 lease and option.
13.	Mark Twain Extension	1788	
14.	Morning Star	1928	
15.	Evening Star	1878	
16.	Hancock	2011	
17.	Robert E. Lee	1901	12/14 undivided interest
18.	Register	357	Items 17 and 18, title in Barnes name.
19.	Tempest	1854	Title in Wolfle name

		Locations recorded Book	Page	Remarks
20.	Tunnel Lode No. 9			Items 20 through 36 staked by Wolfle or bought from St. John Ltd.
21.	Tunnel Lode Ext. No. 7			
22.	Tunnel Lode No. 10			
23.	Tunnel Lode No. 11	24	143	
24.	Tunnel Lode No. 12	24	143	
25.	Rocky Point			
26.	June			
27.	Climax			
28.	Portland			
29.	Vindicator			
30.	Adjoining claim			
31.	Pinnacle	24	143	Wolfle
32.	Success	25	308	
33.	Silver Ridge	25	309	
34.	Blue Bird	24	142	
35.	Golden Rule	24	142	
36	End Line	24	143	Wolfle
37.	Fraction	21	252	Items 37 and 38 bought from McCray, Florado
38.	Jerry Amended	22	253	
39.	Comstock Extension	30	395	Barnes
40.	St. John No. 10	24	104	Items 40, 41 and 42 staked by Wolfle
41.	St. John No. 11	24	105	
42.	St. John No. 12	24	105	
43.	Vanderbilt No. 1	5	599	Items 43 and 44 bought from Fiedler
44.	Vanderbilt No. 2	16	131	
45.	Freyburg	9	259	Items 45 and 46 bought from Frey
46.	Celtic Mill Site	18	496	

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U. S. Government Messenger Envelope

Standard Form No. 65 (Rev. 1/46)

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2. Void previous block.
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[illegible]	RUN STOP		RUN STOP
[illegible]	RUN STOP		RUN STOP
[illegible] Mr. [illegible]	RUN STOP		RUN STOP
Mr. McCracken Room 6245 Commerce Bldg	RUN STOP		RUN STOP
Dept. of Interior	RUN STOP		RUN STOP
Mr. Clardell	RUN STOP		RUN STOP
Mr. J. Felber Personnel Room 6219	RUN STOP		RUN STOP
Mrs. Gertrude Brenden Defense Minerals Exploration Administration Room 4450	RUN STOP		RUN STOP
	RUN STOP		RUN STOP
	RUN STOP		RUN STOP

Send surplus envelopes to supply room for reissue.

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Docket copy

Project Summary Report

By: J. W. Alt October 8, 1959

1. Docket No. DMEA-4848 (Lead-Zinc)
   Contract No. Idm-E1190

   Operator - Norbute Corporation
   P. O. Box 1700
   Grand Junction, Colorado

   Property - Saints John Mine
   Summit County, Colorado

   Operator's Property Rights - Owner

2. Contract, Form MF-200 (June 1954), dated May 8, 1958

   The purpose of the project is to explore for ores of lead and zinc.

   Stage I

   Five diamond drill holes shall be drilled from two underground drill stations, to interesect the Comstock vein approximately 250 feet below the St. John tunnel level, each hole to be approximately 400 feet long and total amount of drilling approximately 2,000 feet for the five holes.

   Stage II

   Four diamond drill holes shall be drilled, from locations approved in advance by the Government, to intersect the Comstock vein at an elevation approximately 500 feet below the St. John tunnel level, each hole to be approximately 750 feet long and total amount of drilling approximately 3,000 feet.

   Stage III

   Allows 4,000 feet of drifting and crosscutting and 2,000 feet of diamond drilling.

Estimated Costs of the Project

Stage I

Category (1) Independent Contracts		
Diamond drilling, reaming and casing, and cementing and redrilling	$12,162.50	
Category (2) Personal Services		
Supervision, technical services, and labor	4,000.00	
Category (3), Operating Materials and Supplies		
Core boxes, fuel, lubricants and misecellaneous supplies	1,000.00	
Category (4) Operating Equipment		
Depreciation	230.20	
Category (5) Initial Rehabilitations and Repairs		
Power lines and surface plant rehabilitation, repairs and connections, air and water lines, drainage, reconditioning 75 h.p. compressor	1,125.00	
Category (7) Miscellaneous		
Payroll charges, insurance, compensation, etc., and assays	452.40	
Fixed Unit Cost Items		
2 drill stations	800.00	
Estimated total cost, Stage I		$19,770.10

Stage II

Category (1) Independent Contracts		
Diamond drilling, reaming and casing, and cementing and redrilling	$19,900.00	
Category (2) Personal Services		
Supervision, Technical Services, and Labor	4,800.00	

Stage II (continued)

Category (3) Operating Materials and Supplies		
Fuels, lubricants, miscellaneous supplies	$ 600.00	
Category (4) Operating Equipment		
Depreciation	276.24	
Category (7) Miscellaneous		
Payroll charges, insurance, compensation, etc., and assays	502.88	
Estimated total cost, Stage II		$26,079.12

Stage III

Category (1) Independent Contracts		
Diamond drilling, reaming and casing, and cementing and redrilling	$12,350.00	
Category (2) Personal Services		
Supervision, technical services, and labor	85,080.00	
Category (3) Operating Materials and Supplies	31,427.50	
Category (4) Operating Equipment		
Depreciation	5,962.50	
Category (7) Miscellaneous		
Payroll deductions, insurance, compensation, etc., maintenance of operating equipment, and assays	10,090.78	
Estimated total cost, Stage III		$144,910.78

S U M M A R Y

Estimated total cost, Stage I	$19,770.10
Estimated total cost, Stage II	26,079.12
Estimated total cost, Stage III	144,910.78

Estimated total cost of project	$190,760.00
Government participation @ 50%	$95,380.00

Amendments -

No. 1, agreed July 18, 1958, effective May 8, 1958.

Change in Stage I, Category (3), Operating Materials and Supplies.

Change in Stage I, Category (4), Operating Equipment (c) Depreciation.

No. 2, agreed December 2, 1958, effective November 10, 1958.

Suspends work from November 10, 1958, to not later than July 15, 1959.

Work Completed -

Stage I

3 diamond drill holes, 1120 feet of drilling, total cost of all categories of Stage I, including 2 drill stations	$12,700.53

Stages II and III

No work done under these stages.

Final Reports -

Operator's final report, dated August 20, 1959, received by Field Team, August 28, 1959.
Field Team final report, dated July 7, 1959, received July 13, 1959.

Contract work was started on June 25, 1959, and after the completion of 3 drill holes of Stage I, the project was mutually terminated, effective November 10, 1958.

3. Audit Report of Review, made in lieu of final audit, dated September 1, 1959.

Total cost as billed by contractor	$12,929.67
Exceptions	229.14
Total accepted cost	$12,700.53
Government participation @ 50%	$6,350.27

4. Certification of discovery: None issued.

5. Comments -

The work under the terms of the contract was conducted in a satisfactory manner and the Operator submitted good reports.

Contract work was started on June 25, 1958, and was recessed effective November 10, 1958, after the completion of three diamond drill holes of Stage I. Although the recess stipulated that work was to be resumed on or before July 15, 1959, the Operator requested termination without completion of the two remaining holes of Stage I and a Termination Agreement, effective November 10, 1958, was issued.

Exploration at the Saints John mine did not result in the discovery of significant lead-zinc ore deposits below the main adit level. Although drilling data are not conclusive, they strongly suggest that the ore body mined above the adit level does not extend to a depth of 225 feet below that level. It appears that in the interval below the level the relative amounts of sulphides in the vein have decreased, the relative amounts of altered wall rock have increased, and the character of the sulphides have changed from galena-sphalerite to predominantly sphalerite.

The Field Team states that a certification of a discovery is not recommended.

Additional explorational work on this property with Government financial assistance is not warranted.

JWAlt/gla
cc to: Director's Reading File
Docket
Mr. Alt
Chron

J. W. Alt

MME Form 17
Mar. 59

OFFICE OF MINERALS EXPLORATION

WORK COMPLETED ANALYSIS

___ Certified **No.** After final audit or review report is received, prepare in duplicate. File original in official docket. Send copy to Code 210.

Operator: NORBUTE CORPORATION		Actual Cost: X
State: COLORADO		Agreed Unit Cost: *X
Final Report of Audit	Commodity: LEAD-ZINC	Docket No.: DMEA-4,848
Final Report of Review: 9/1/59.	STAGE I.	Contract No.: Idm-E1190

Type of Work (Use these categories only)	Authorized by Contract and Amendments		Completed and Paid for		Net cost after sale of Gov't. Property
	Units	Cost 1/	Units	Cost 1/	
Diamond Drilling to 500 foot depth (BX & AX)	2,000'	$ 11,062.50	1,120'	$ 5,150.00	
Diamond Drilling-- Reaming and Casing	200' @ $3.00/ft.	600.00	354'	708.00	$ 6,240.00
Diamond Drilling-- Cementing and Redrilling	250' @ $2.50/ft.	500.00	191'	382.00	
* 2 Direction Stations		800.00		800.00	800.00
Core Boxes (Specify)	80 @ $5.00/each	400.00	38	95.00	95.00
Surface Excavation					
Underground Excavation					
Direct Costs		5,182.60		4,725.27	4,725.27
Operating Equipment Purchased					
Initial Rehabilitation & Repairs		1,075.00		715.26	715.26
Underground Rehabilitation					
New Building, Improvements, etc.					
Other (Specify) Assaying--30 samples @ $5.00 each or $1.00 per determination.		150.00	21 @ $5.95	125.00	125.00
Totals		$19,770.10		$12,700.53	2/ $12,700.53

STAGE II. 26,079.12 Not Approved.

1/ Round off to dollars.
2/ Net cost total must agree with final report of audit or review.

STAGE III. 144,910.78 Not Approved.

TOTAL COST $190,760.00 $12,700.53

Prepared by W. P. Klugescheid Date 9/15/59.

52616

Stage I

Independent Outside

D.D. to 250' depth (BX)

1250' @ $5.25/ft. ✓ $ 6,562.50

D.D. 250' to 500' depth.

750' @ $6.00/ft. ✓ 4,500.00

Reaming & Casing

200' @ $3.00/ft. ✓ 600.00

Cementing & Redrilling

200' @ $2.50/ft. ✓ 500.00

(AX - .75 loss)

Supervision & Technical ✓ 1,500.00

Labor ✓ 2,500.00

Core Boxes 80 - @ $5.00 400.00

Miscellaneous Supplies 600.00 ✓ 1,000.00

Equip. depreciation

Compressor, motor, + air receiver, @ $92.08/mo. ✓ 230.20

Initial Rehab + Repairs air + water lines, Sump + Surf. Plant. Repairs Compressor. ✓ 1,125.00

Payroll taxes + insurance 352.40 ✓ 452.40

20 samples @ $5.00 or $1.00/determin. 100.00

Fixed Unit Costs 1-3 Direction Drill Station 500.00 ✓ 800.00

1-2 " " " 300.00

Total Stage I $19,770.10

Stage II

Independent Contracts.

D.D. 0-250' depth. 1000' @ $5.25/ft (BX)	✓	$5,250.00
D.D. 250'-500' — 1,000' @ $6.00/ft.	✓	6,000.00
D.D. 500'-750' — 1,000' @ $7.00/ft.	✓	7,000.00
Reaming + casing - 300' @ $3.00/ft.	✓	900.00
Cementing + Pickling - 300' @ $2.50/ft.	✓	750.00
4x @ $0.75/ft less.		
Personal Services		
Technical etc.	✓	1800.00
Labor	✓	3,000.00
Fuel etc.	✓	600.00
Equipment Depreciation. @ $92.08/mo.	✓	276.24
Payroll taxes etc. $422.88	✓	
16 samples @ $5.00 ea or $1.00/ft. 80.00	✓	502.88
Total Stage II		$26,079.12

Stage III

Independent Contracts:

D.D. 0'-250' depth. - 1,000' @ $5.25/ft. (BX)	✓	$5,250.00
D.D. 250'-500' - 1,000' @ $6.00/ft.	✓	6,000.00
Reaming & Casing - 200' @ $3.00/ft.	✓	600.00
Cementing & Retrieving - 200' @ $2.50/ft.	✓	500.00
AX - $0.75/ft. less.		

Personal Services.

Engineer.	5,400.00	✓	
Labor	79,680.00	✓	85,080.00

Operating Materials & Supplies. ✓ $1,427.50

Equipment Depreciation @ $331.25/mo. ✓ 5,962.50

Miscellaneous

Taxes etc.	7,494.55	✓	
Equip. Main.	596.23	✓	
400 samples @ $5.00 or $1.00/determination	2000.00		10,090.78

Total Stage III $144,910.78

Total Cost of Project. $190,760.00

Sheet. 1958. ~~June~~ ~~Sept~~ Oct.

Stage I.

Supervision & Technical		✓ 1312.50 ~~1441.30~~ ~~700.59~~
Depreciation		✓ 230.20
Miscellaneous Supplies (Camp etc)		✓ 693.29 ~~769.91~~ ~~603.57~~
Payroll Taxes etc		? ✓ 266.~~257.44~~
Reaming & Casing @ $3.00/ft.	480' ~~469'~~	✓ 960.00 ~~338.00~~
Initial Outlay & Repairs.		✓ 715.26
Labor		✓ 2,223.00 ~~1,618.50~~
Core boxes @ $5.00	~~35~~ 38	✓ 95.00 ~~85.50~~
3 stag D.D. Sta @ 500.00	1	✓ 500.00
2 " " " " @ $300.00	1	✓ 300.00
D.D. AX - 0'-250' @ $4.50/ft.	9'	33.75
D.D. - BX - 0'-250' @ $5.25/ft.	741' ~~500'~~	✓ 3,334.50 ~~2,250.00~~
D.D. BX - 250'-500' @ $6.00/ft.	279'	✓ 1,395.00
D.D. AX - 250'-500' @ $5.25/ft.	91'	✓ 386.75
Cement & Redrill @ $2.50/ft.	65' ~~50'~~	✓ 130.00 ~~60.00~~
Assaying @ $5.00 [illegible] per fire assay	145	✓ 145.00 ~~95.00~~
		~~665.27~~ ~~3398.34~~
		12,720.53

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
2/29	[illegible]	500
	[illegible]	500
[illegible]	[illegible]	800
2/29	Selfridge	120
		110
2/29	gad	220
		225

FEB 29 1960

Norbute Corporation
1808 - 19th Street
Golden, Colorado

Re: Docket No. DMEA-4848 (Lead-Zinc)
Norbute Corporation
Saints John Mine
Summit County, Colorado
Contract No. Idm-E1190

Gentlemen:

Reference is made to your terminated exploration contract with the Government.

We sincerely regret that the work performed did not result in a certification of discovery or development under the provisions of the contract. In the absence of such certification, the Government retains no claim or lien against the property subject to the contract or any future production therefrom. We, therefore, are closing our books and records on this project. Your attention, however, is called to the provisions of the contract which require the operator to keep and preserve certain records for the period indicated.

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

Sincerely yours,

(signed) FRANK E. JOHNSON

Acting Director

JWAlt/gla
2-29-60
cc to: Director's Reading File
CA&A Division
Code 500
OME Field Team, Region III (2)
Docket
Chron

43683

MME FORM 6 REFERENCE SLIP

REV. 2-59 OFFICE OF MINERALS EXPLORATION

TO:	DATE	INITIALS
1. ~~Code 800~~		
2. " ~~120~~		
3. " 110		
4. " 225		
5.		
FROM: Code 500	2/26	

FOR: Check items for action desired

____ Action ____ Reply for signature of _____

____ Approval ____ Investigate X Surname

____ Comment ____ Recommendations X Signature

____ Conference ____ Rewrite ____ File

____ Instructions ____ Your information

REMARKS:

This may be mailed as of Feb. 28. Because letter has been written and held for some time, in any event, it should be mailed by Feb. 29 (Monday) before the expiration of time within which we were given leeway on indentation of letter paragraphs.

gla

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
10/8	[illegible]	500
	[illegible]	500
[illegible]	Talbot	800
		120
		110
		220
		225

Norbute Corporation
P. O. Box 1700
Grand Junction, Colorado

Re: Docket No. DMEA-4848 (Lead-Zinc)
Norbute Corporation
Saints John Mine
Summit County, Colorado
Contract No. Idm-E1190

Gentlemen:

Reference is made to your terminated exploration contract with the Government.

We sincerely regret that the work performed did not result in a certification of discovery or development under the provisions of the contract. In the absence of such certification, the Government retains no claim or lien against the property subject to the contract or any future production therefrom. We, therefore, are closing our books and records on this project. Your attention, however, is called to the provisions of the contract which require the operator to keep and preserve certain records for the period indicated.

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

Sincerely yours,

Acting Director

JWAlt/gla 10-8-59
cc to: Director's Reading File
Division of Contract Adm. & Audit
OME Field Team, Region III (2)
Docket
Chron
500

43683

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
9-8	gad	220
		500

SEP 8 1959

Memorandum

To: Mr. Donald T. Finch, OME Auditor

From: E. D. Talbert, Acting Chief (Signed) E. D. Talbert
Contract Administration and Audit Division

Subject: Docket No. DMEA-4343 (Lead-Zinc)
Morbute Corporation
Contract No. Idm-E1190

Your Report of Review covering the subject project is acceptable and normal distribution is authorized after correction of the attached summary of documented costs by deletion of the words "on compressor" in the parenthetical explanation after the cost item of Depreciation. This correction has been made in the Washington copies.

EDTalbert/ama
September 4, 1959

Copies to: Docket
Director's Reading File
CA & A Division

43683

OFFICIAL FILE COPY
RECEIVED
DATE
8/31 gad
9/1 aw
9/2 alt

Building 20 - Federal Center
Denver 25, Colorado
August 28, 1959

Memorandum

TO: Donald T. Finch, OME Auditor, Region III

From: Executive Officer, OME Field Team, Region III

Subject: Docket No. DMEA 4848 (Lead-Zinc) Contract No. Dm-E1190
Morbute Corporation (Saints John mine) Summit County,
Colorado

The subject contract was terminated by mutual agreement effective November 10, 1958, by Termination Agreement dated July 7, 1959. A copy of the Termination Agreement is enclosed for your records. Also enclosed are a copy of the Operator's letter of June 8, 1959, and a copy of an Assay Certificate by the Colorado Assaying Company, pertaining to assay charges reported in the Operator's accounting report for October 1958.

The Operator has rendered a Final Engineering and Geologic Report and a final accounting as required by the contract; therefore, final payment of the Operator's account is in order contingent on release to this office of a Certificate and Report of Audit or Report of Review of reported project costs whichever the case indicates.

Acceptable units of work or service completed on a "Fixed Unit Cost" basis are as follows:

Preparation of 1-3 way drill station, and preparation of 1-2 way drill station.

Other acceptable units of work are as indicated on Form MF-104 and MF-104A, except, please disallow the analysis of 4 samples, c, d, e, and f, on the Henry E. Wood Assay Certificate accompanying the accounting report for the month of October 1958. The 4 samples are disallowed because the Operator was unable to provide the location where the samples were taken as indicated in his letter of June 8, 1959, a copy of which is attached.

The sum of $500.00 was withheld from reimbursement to the Operator in processing the final accounting report for the month of October 1958.

Enclosures
JWT:ltm
cc: Chmn. Op. Comm.) w/cpy ltr. 6/8/59
Fin. Off. Reg. III) w/cpy ltr.
MF-104 file, Reg.III) 6/8/59 &
Corres. file Reg.III) Assay
Suspense file) Certificate
Chron.

Original signed by

J. W. Townsend

59-82

NORBUTE CORPORATION

Western Mining Division:
1808 19th Street, Golden, Colorado

OFFICIAL FILE COPY
O. M. E.
RECEIVED AUG 31 1959

DATE	INITIALS	CODE

OME
DEPARTMENT OF THE INTERIOR

JUN 9 - 1959
REGION III
DENVER, COLORADO

June 8, 1959

Mr. J. W. Townsend
Executive Officer, OME
Field Team, Region III
office of Minerals Exploration
224 New Customhouse
Denver, Colorado

Re: Docket No. DMEA 4848
Constrct No. Idm-E1190
Norbute Corporation
(Saints John Mines)
Summit County, Colorado

Dear Mr. Townsend:

Unfortunately all the data requested in your letter of June 4, above subject, could not be found in the current files that are now held in Golden. There are attached, however, five copies of the assay certificates from the Colorado Assaying Company corresponding to Item No. 1 in the letter under reply. The Henry E. Wood certificates to which you refer in Item No. 2 appear to correspond in assays on Samples A and B to that found on Page 2, Core No. 1, between 261 and 282 feet, and 262.5 to 263. Unfortunately the field notes of Buchner, the geologist who was in charge of the work, are not available to me at the moment and might be difficult to locate. Therefore, there appears to be no other alternative than to disallow the cost of the balance of the Henry E. Wood certificates of October 24.

HB/C 3

It is regrettable than I cannot be more specific, but the engineers who were in charge of this work, together with much of the data, are not available at the moment and I doubt that their memory would be sufficiently correct to give any further information on Item No. 2.

Very sincerely yours,

Lewis T. Sawyer

dodss
enclosures

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

Building 20 - Federal Center
Denver 25, Colorado

August 28, 1959

ORR'S FINAL REP

Memorandum

To: Chairman, Operating Committee, OME

From: Executive Officer, OME Field Team, Region III

Subject: Docket No. DMEA 4848 (Lead-Zinc) Contract No. Idm-E1190 Norbutte Corporation (Saints John mine) Summit County, Colorado

Enclosed are the original and one copy of a final engineering and geologic report submitted by the Operator, pertaining to work completed under the subject contract.

J. W. Townsend

Enclosure

OFFICIAL FILE COPY
O. M. E.
RECEIVED AUG 31 1959

DATE	INITIALS	CODE
8/31	gad	VVO
		~~VVO~~
9/1		600
9/2	alt	500

OFFICIAL FILE COPY
RECEIVED AUG 31 1959
CODE

DEWITT C. DERINGER
MINING ENGINEER
1808 NINETEENTH STREET
GOLDEN, COLORADO

OME
DEPARTMENT OF THE INTERIOR
AUG 28 1959
REGION III
DENVER, COLORADO

August 20, 1959

Mr. J. W. Townsend
Executive Officer, OME
Field Team, Region III
U.S. Department of the Interior
Building 20, Federal Center
Denver 25, Colorado

Re: Docket No. DMEA 4848 (Lead-Zinc)
Contract No. IDME 1190
Norbute Corporation
(Saints John Mine)
Smith County, Colorado

Dear Mr. Townsend:

As per your recent request, a final report on the subject exploration program of the Sts. John Mine in Montezuma has been prepared and is herewith respectfully submitted.

Inasmuch as the details of the operation, such as logs of the holes completed, costs, and comment on the operation, were given in each monthly report, the attached report has been limited to principally generalities, with reference made to the monthly report in which the certain details may be found.

In the preparation of this report the writer was somewhat restricted in the available information inasmuch as the company ledger of accounts and certain other details were forwarded to our New York office when the Western Mining Division of Norbute was closed. We sincerely trust that the report meets your requirements, however, but should it not, we shall be pleased to make such additions as you may suggest. It is unfortunate that the exploration program did not definitely reveal the extension of the ore in depth that was in evidence on the Sts. John level. Had either the engineers of the DMEA Field Team or those of the Norbute Corporation anticipated the existence of the highly fractured ground that was encountered, I think it a fair assumption that the project would not have been started, at least as an exploratory drilling program.

May I take this opportunity to thank you and all of the DMEA officials for the original consideration and subsequent cooperation and assistance that have been given us during the project.

Very sincerely,

DeWitt C. Deringer

DCD:s
enclosures

Final Report
DMEA EXPLORATION PROGRAM
Contract No. IDME 1190

Sts.John Mine - Montezuma, Colorado

Golden, Colorado DeWitt C. Deringer
August 20, 1959

Final Report
DMEA EXPLORATION PROGRAM
Contract No. IDME 1190

Sts.John Mine - Montezuma, Colorado

Golden, Colorado DeWitt C. Deringer
August 20, 1959

FINAL REPORT - STS. JOHN MINE
Montezuma, Colorado

INTRODUCTORY:

The following report covers a brief history of the exploratory drilling in the Sts. John Mine, Montezuma, Colorado, under Docket DMEA 4848, Contract No. IDME 1190. A brief history and general remarks on the project will be first made, followed by the results obtained in the exploration program and the reasons for termination prior to the completion of the first stage.

GENERAL:

On October 8, 1957, a formal loan application in the amount of $253,256.00 was presented. This loan was for the purpose of driving 4,000 feet of crosscut and drift as well as a 600 foot raise from the Jerry Tunnel to explore the extension of commercial ore indicated on the Sts. John level 500 feet above. The operator's report rendered with the loan application showed an extended mineralized zone on the Sts. John level of approximately 1500 feet in strike length, 75% of which was of commercial grade mineral 30 inches in width, with a total net smelter value per ton, based on the anticipated recovery in concentrates, of $22.77 with Ag at 90¢ an oz., Pb 15¢ per lb., and Zn 12¢ per lb.

From U.S.G.S. reports and other sources of information, the history of the production of the Sts. John vein from the surface to the Comstock level was approximately six million dollars. Predicated on the ore that was indicated on the Sts. John level, extension of these values to 200 ft. would have made the project commercial, and if the vertical extension reached 500 ft., the project would have been highly profitable.

After reviewing the operator's application and reports on the property, DMEA authorities in Washington advised that they would entertain the general exploration program provided certain changes in the early phases were made. It was their thought that the total risk money involved as suggested by the operator could be

reduced materially by first exploring the downward extension of the vein with a series of diamond drill holes. The suggested exploration program by DMEA in Washington consisted of three phases. The first phase was five holes designed to intersect the extension of the Comstock vein at approximately 250 ft. below the Sts. John level. The DMEA contract provided that three holes of the first phase must indicate commercial ore before the second phase would be authorized. The second phase consisted of additional diamond drill holes so designed as to intersect the Comstock vein at approximately the Jerry Tunnel level 500 feet below the Sts. John level. If these holes indicated a continuation of commercial mineralization, then the project of driving 4,000 ft. of crosscut and drift as originally proposed by the operator would be undertaken as the third phase of the operation. The operator was fearful that diamond drilling 250 to 500 ft. holes to intercept a narrow vein of 30 to 40 inches would result in inconclusive if not negative data because of the loss of core at the critical points of mineralization. The DMEA loans were being discontinued on the 30th of June, 1958, which gave insufficient time to review the proposed changes in exploration methods and so the operator accepted the plan and program for exploration designed in Washington as being preferable to no program or government assistance. Unfortunately, as will be seen in the review of the actual drilling program, the difficulties and results anticipated by the operator were well founded.

The exploratory drilling contracts were let to the MacPherson Drilling Company and the work started on June 25, 1958, under the suggested program of DMEA authorities.

In passing comment on the program there is no intention or desire whatsoever on the part of the operator to criticize the program as finally followed as it was only natural that the DMEA authorities should seek methods by which there would be a less exposure of capital than that which had previously been suggested by the operator. However, the fact does remain that a diamond drilling program that is

predicated on proving commercial ore in narrow veins can, and often does, result in inconclusive evidence as was the case of the program under review.

EXPLORATORY DRILLING PROGRAM:

Exhibit "A" is a sketch map showing the location of the three holes which were drilled under the program. The results of these holes will be outlined in the following.

Hole No. 1

Hole No. 1, located in the drift of No. 7 vein approximately 300 ft. from the intersection with the Comstock, was drilled at a minus 75° angle at S. 50° E. to cut the extension of the Comstock at approximately 250 ft. below the Sts. John level. The hole was drilled for a total length on the incline of 329 ft., most of which was in typical Pre-Cambrian gneiss with occasional veinlets of quartz, lead, zinc and pyrite. A complete log of this hole was rendered with the second progress report under a covering letter dated Sept. 5, 1958. While the core recovery indicated on the log of this hole was 97%, the recovery of core in the mineralized zone was considerably less. However, it was felt that there was sufficient sludge recovered to indicate that the mineralization at this particular point was not of commercial grade. It was therefore decided to move the drill back towards the portal in the principal adit approximately 240 ft. from the Comstock vein, and drill Hole No. 3 as proposed by the DMEA authorities.

Hole No. 3

The strike of Hole No. 3 paralleled exactly the Sts. John adit, S. 40° E., and was inclined at a minus 65° angle. This hole passed through very highly altered silicious gneiss, quartz, feldspar, and various other rock types for a total length on the incline of 440 ft. The ground was so fractured and broken that drilling was extremely difficult and costly. It was only by the greatest persistence and skill on

the part of the diamond drill contractor that the hole was finally drilled to its objective. Overall core recovery was only 61.2% with essentially no core recovered at the point of intersection of the extension of the Comstock vein. The sludges were likewise of very little value in interpreting and anticipating the mineralization because of the extreme difficulty in maintaining circulation and obtaining sludge samples, particularly at the point of intersection with the Comstock. Consequently it was not surprising that the results were inconclusive. The complete log on this hole was rendered in the third operating report under a covering letter dated Oct. 9, 1958.

Hole No. 4

Hole No. 4 was in the same location as Hole No. 3, but at minus 42°, S.4½° E. This hole was designed to intersect both the Comstock and the No. 7 vein at approximately the intersection of these two veins 250 ft. below the Comstock level. The core recovery in this hole was only 44%. The diamond drill operator used extreme care in collecting sludges throughout the entire hole, but because of the broken and faulted areas through which the hole passed, and the frequency of re-drilling portions of the hole because of caving, the sludges were much diluted with country rock particularly at the intersection of the veins, and therefore revealed very little useful information. The assays which were obtained on both the core and the sludges indicated essentially no commercial mineralization. There was six inches of core containing 5.90 oz. Ag, 2.0% Pb, and 30.8% Zn. To illustrate the effect of dilution by country rock in the sludges, the sludge sample for this same intercept was only 0.20 oz. Ag, 0.40% Pb, and 0.80% Zn. These samples obviously could not be considered to indicate commercial ore. The log for Hole No. 4 was presented in the fourth operational report under the covering letter dated Jan. 2, 1959.

COSTS:

While the total costs given in detail in the fourth and last operating report dated January, 1959, were $12,929.67, as a matter of record it should be mentioned that the drilling contractor unfortunately lost an appreciable amount of money on the project. Also, the Norbute Corporation contributed more than 50% of the total cost of exploratory drilling because of certain expenses that were not allowable under the terms of the DMEA contract. The reason for this excess cost was the broken nature of the ground through which the drill holes passed, making drilling difficult and costly. It is unfortunate that such adverse conditions cannot always be anticipated prior to laying out an exploration program, but these are some of the hazards of mining.

SUMMARY:

None of the three holes described in the foregoing gave conclusive evidence of the downward extension of the commercial ore body of the Comstock Vein as was indicated on the Sts. John level. Inasmuch as the contract with DMEA called for at least three holes out of five to indicate commercial ore 250 ft. below the Sts. John level before authorization would be given to the second stage of exploration, it was obvious at this point that the requirements for inaugurating the second phase of the exploration program were impossible to fulfill. Under such conditions it seemed to the operator inadvisable to continue the first phase of the program by completing the two remaining holes. The operator therefore decided to request the DMEA authorities to terminate the agreement and a formal letter to this effect was submitted. This request was granted and the agreement terminated as of November 10, 1958.

COMMENT AND CONCLUSIONS:

There can be little question that the results obtained from the exploratory drilling were not encouraging and inasmuch as no additional assistance could be expected from the DMEA under the terms of the contract, the operator decided to turn

the Sts. John property back to the original owners. The operator does feel, however, that the results of the exploration program were inconclusive and therefore the property should not be condemned as being without merit.

This final report is not intended to be all-inclusive but rather restricted to a brief comment and review of its more pertinent points. For those interested in the technical and operational details of the project reference is made to the original application and accompanying report as well as the subsequent monthly progress reports.

DeWitt C. Deringer

Golden, Colorado
August 20, 1959

DeWitt C. Deringer

EXHIBIT A

D.D. HOLES COMPLETED

STAGE I – D.M.E.A. PROGRAM

SCALE: 1" = 50 FEET

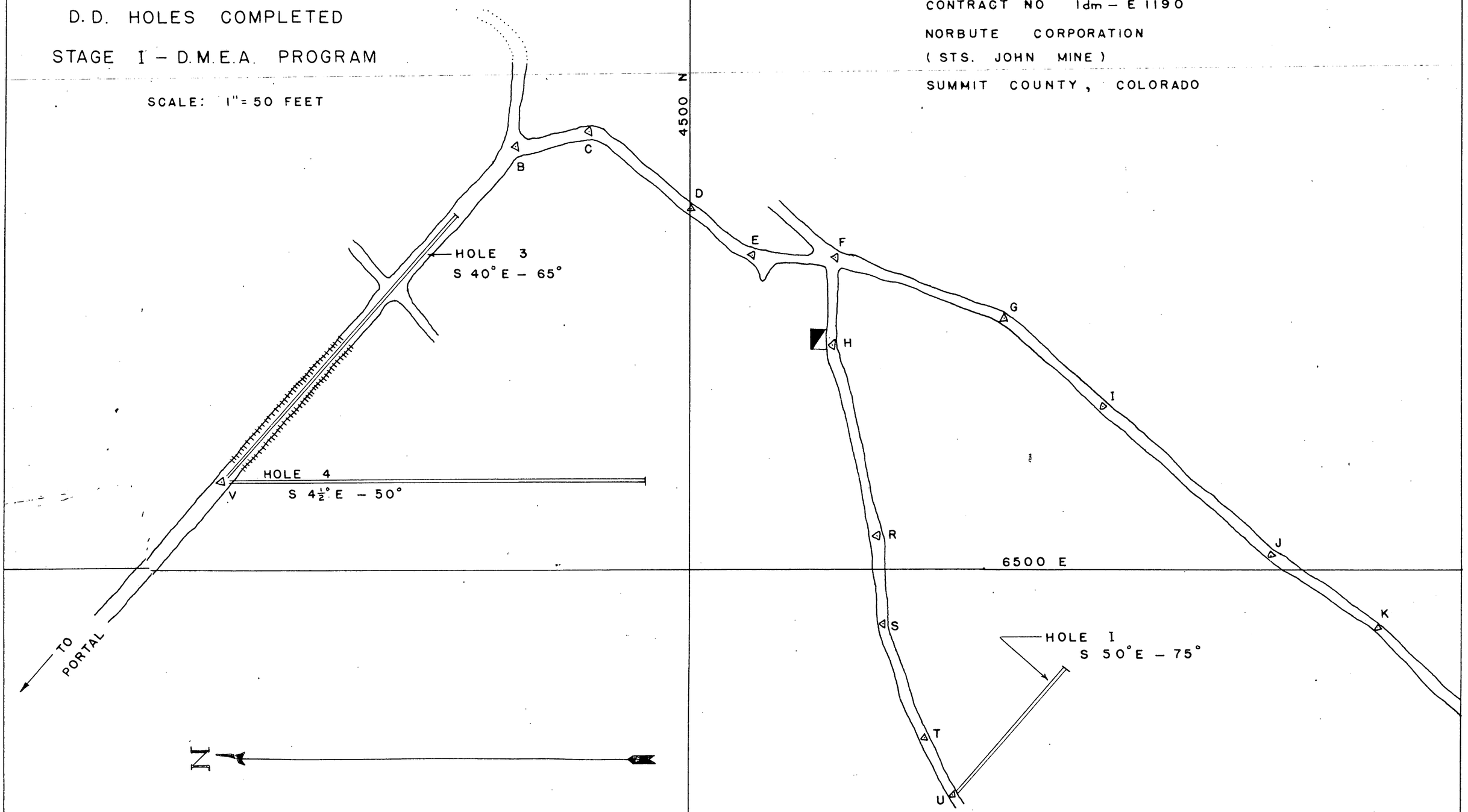
DOCKET NO. DMEA 4848 (LEAD – ZINC)

CONTRACT NO 1dm – E 1190

NORBUTE CORPORATION

(STS. JOHN MINE)

SUMMIT COUNTY, COLORADO



OFFICIAL FILE COPY O. M. E. RECEIVED AUG 17 1959		
DATE	INITIALS	CODE
8-17	gad	VVO
8/17	[illegible]	800
8/18	[illegible]	500

Building 20 - Federal Center
Denver 25, Colorado
August 14, 1959

Mr. Dewitt C. Derringer
Vice-President
Norbute Corporation
1808 Nineteenth Street
Golden, Colorado

Re: Docket NO. DMEA 4848 (Lead-Zinc)
Contract No. IDMX 1190
Norbute Corporation
(Saints John Mine)
Smith County, Colorado

Dear Mr. Derringer:

Enclosed is the "Operator's Copy" of the termination agreement which has been executed to terminate the contract effective November 10, 1958.

Very truly yours,

Original signed by

J. W. Townsend
Executive Officer, OME
Field Team, Region III

Enclosure

JWT/cg

cc: Chmn. Op. Comm. (2)) w/cpy Gov't & aud. copy of Term. Agree.
Finance Office RegionIII) W/cpy Term. Agree.
Hasler)
OME/DFC)
Corres. file)
Susp. file)
Chron.)

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

July 10, 1959

Memorandum

TO: Chairman, Operating Committee, OME

From: Executive Officer, OME Field Team, Region III

Subject: Docket No. DMEA ~~2848~~ 4848 (Lead-Zinc) Contract No. Idm-E1190 Norbute Corporation (Saints John Mine) Summit County, Colorado

Enclosed are the original and two copies of a Joint Final Engineering and Geologic Report dated July 7, 1959, by E. N. Harshman, Geologist, Geological Survey, and Carl Belser, Mining Engineer, Bureau of Mines.

A Termination Agreement to terminate the contract effective November 10, 1958, is in process in the Washington office.

The Field Team's Final Summary Report will be submitted when all matters prerequisite to closing the account have been resolved.

J. W. Townsend

J. W. Townsend

Enclosure

OFFICIAL FILE COPY
O. M. E.
RECEIVED JUL 13 1959

DATE	INITIALS	CODE
7-13	gad	220
7/13	HB	130
7/14	TJ	110
7-17	HB	130
		220

Reviewed by
OME OPERATING COMMITTEE
7-17-59
(date)

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

OFFICE OF MINERALS EXPLORATION
REGION III

OME
DEPARTMENT OF THE INTERIOR
JUL 10 1959
REGIO
DENVER, COLORADO

DMEA 4848

Contract Idm-E 1190

Norbute Corporation

Saints John Mine

Summit County, Colorado

OFFICIAL FILE COPY
O. M. E.
RECEIVED JUL 13 1959

DATE	INITIALS	CODE
7-17	JHB	130
		220

Lead-Zinc

Joint Final Engineering and Geologic Report

by

E. N. Harshman, Geologist
Geological Survey

Carl Belser, Mining Engineer
Bureau of Mines

Reviewed by
OME OPERATING COMMITTEE
7-17-59
(date)

July 7, 1959

FINAL FLD
TM REPORT

CONTENTS

	Page
Introduction and summary	1
The exploration project	2
Conclusions and recommendations	6

TABLES

Number		
1.	Summary of authorized and accepted work costs	7

ILLUSTRATIONS

Figure		Follows page
1.	Location of Norbute Corporation (Saints John Mine), Summit County, Colorado. DMEA Docket 4848, Contract Idm-E 1190	1
2.	Map of Sts. John and Jerry tunnels showing completed exploration, Norbute Corporation, Summit County, Colorado	11
3.	Section N 49° W through drill hole No. 3, Norbute Corp., Saints John mine, Summit County, Colorado	4

DMEA 4848
Contract Idm-E 1190

NORBUTE CORPORATION
SAINTS JOHN MINE
SUMMIT COUNTY, COLORADO

INTRODUCTION AND SUMMARY

On October 8, 1957, Norbute Corporation, P. O. Box 1700, Grand Junction, Colorado, requested DMEA financial assistance to explore for lead-zinc-silver ore in the Saints John mine located in sec. 35, T. 5 S., R. 76 W., Summit County, Colorado (fig. 1). The estimated cost of the requested exploration was $253,256.00.

The property was examined on October 25, 1957, by W. B. McMillan, Bureau of Mines, and R. U. King, Geological Survey, accompanied by Dewitt C. Deringer, Vice-President, Norbute Corporation, and Loren Enyeart, miner.

A two-stage exploration program was recommended by the examining team. It comprised, in Stage I, 3,000 feet of diamond drilling to explore the Comstock vein at depths of 250 and 500 feet below the adit level, and 4,000 feet of drifting and crosscutting in Stage II. Stage II drifting was to be dependent on favorable results of Stage I drilling. Estimated total cost of the recommended program was $172,442.00.

Subsequently the program was revised and Contract Idm-E 1190 was consummated on May 9, 1958. It provided for a three-stage program of drilling, drifting, and crosscutting at a total estimated cost of $190,760.00, Government participation 50 percent or not to exceed $95,380.00.

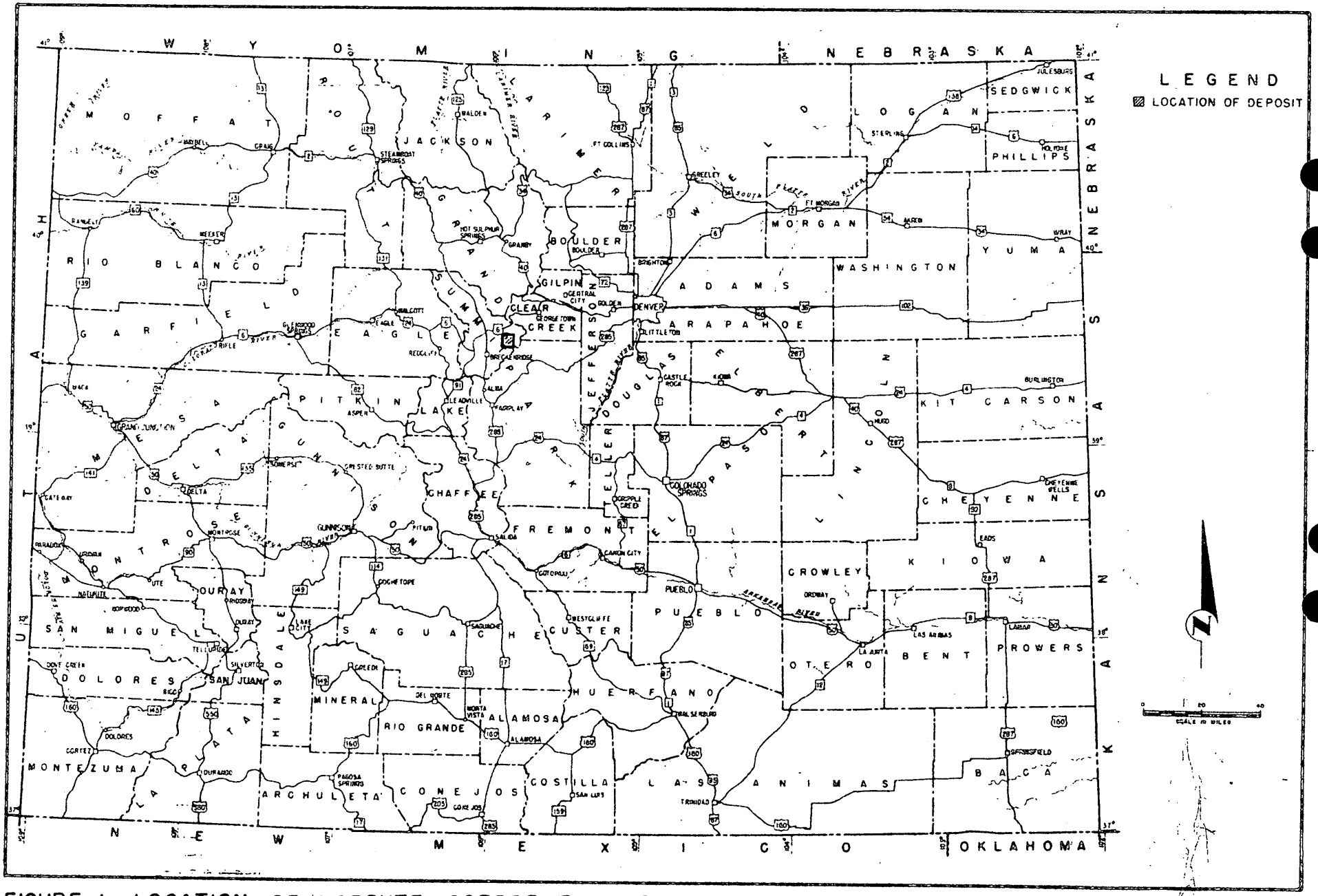


FIGURE I. LOCATION OF NORBUTE CORPORATION (SAINTS JOHN MINE) SUMMIT COUNTY, COLORADO.

DMEA DOCKET 4848 CONTRACT Ldm-E 1190

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Contract work started June 25, 1958, and was recessed effective November 10, 1958, after completion of three Stage I holes. Although the recess stipulated that work was to be resumed on or before July 15, 1959, the operator requested termination without completion of the two remaining Stage I holes and a termination agreement, effective November 10, 1958, was issued.

The work did not result in the discovery of significant ore reserves and certification of a discovery is not recommended. Data from the three drill holes are not entirely conclusive, but they strongly suggest that significant ore reserves do not lie at a depth of about 225 feet below the adit level of the Saints John mine. Additional exploration with Government assistance is therefore not recommended.

THE EXPLORATION PROJECT

At the Saints John mine, lead-zinc-silver ore has been developed and mined above the adit level along the Comstock and No. 7 veins. Both veins occupy well defined fissures in hornblende gneiss and pegmatite of Precambrian age. The Comstock vein strikes about N 40° E and on the adit level dips 60° northwesterly. In the upper parts of the old stopes the vein ranged from 1 to 8 feet in width, but on the adit level it has a rather uniform width of about 2 feet. The ore shoot on the adit level is about 2,000 feet long and it extends to the surface, a distance of about 700 feet (fig. 2). Three short winzes (75 feet ±) have been driven below the adit level, but little or no mining appears to have been done from these workings. Ore minerals were argentiferous galena, sphalerite, and pyrite in a quartz-barite gangue.

The No. 7 vein strikes slightly north of east and dips 50° to 60° N. The vein ranges in width from 12 to 36 inches and on the adit level consists of moderate amounts of argentiferous galena and sphalerite in a barite and quartz gangue. In the stopes above the adit level rhodochrosite replaces the barite as the predominant gangue mineral.

Ore on both fissures generally occurs in a massive streak from a few inches to 1 foot wide in the central part of the fissure, but in places it occurs in irregular streaks dispersed throughout the entire vein. Assay data furnished with the DMEA application indicate that the Comstock vein on the adit level has an average width of 26 inches and contains about 6 percent lead, 8 percent zinc, and 6 ounces of silver per ton.

Contract Idm-E 1190, dated May 8, 1958, provided for three stages of work comprising 7,000 feet of core drilling and 4,000 feet of drifting and crosscutting. Total estimated cost of the project was $190,760.00, Government participation 50 percent or not to exceed $95,380.00. Items of work and costs are shown in Table 1.

Contract work began June 25, 1958, and was recessed effective November 10, 1958, after the completion of three Stage I drill holes. Work was to have been resumed on or before July 15, 1959, but the operator requested termination of the contract without completion of the two remaining Stage I holes. The Government concurred in the operator's request, and the contract was terminated effective November 10, 1958.

The work units completed and the approved costs, subject to final audit, are shown in Table 1.

The locations of the three completed holes are shown on figure 2. Hole No. 1 was drilled S 50° E at an inclination of -75° and to an inclined depth of 339 feet. Rock formations penetrated were gneiss, in some places altered and silicified, and pegmatite. The Comstock vein was encountered in the interval 212 to 215 feet, about 210 feet vertically below the adit level. A 28-inch section of core recovered from this interval contained 0.04 ounce of gold and 2.40 ounces of silver per ton, a trace of copper, 1.47 percent lead, and 6.20 percent zinc. The Comstock vein is shown on the geologic log of Hole No. 1 to be silicified gneiss, kaolinized gneiss, clay gouge, and 6 inches of sulfide-bearing quartz.

Hole No. 3 was drilled S 49° E at an inclination of -65° and to an inclined depth of 440 feet (fig. 3). As in hole No. 1, the drill penetrated gneiss, silicified gneiss, kaolinized gneiss, and pegmatite. Pyritic zones were common throughout the drilled section, and two narrow (1 inch ±) stringers of galena and sphalerite were cut at depths of 235 and 244 feet in the hanging wall of the Comstock vein.

Two mineralized intervals, probably representing the Comstock vein and a split from it, were cut between depths of 261 and 272 feet about 240 feet vertically below the adit level. Data are as follows:

Depth	Inches of core	Au (oz/ton)	Ag (oz/ton)	Pb (percent)	Zn (percent)	Cu (percent)
261-262	9	nil	0.45	0.63	2.57	--
262-262.5	4	0.01	4.60	1.90	37.40	0.15
262.5-263	4	nil	0.50	0.14	3.88	--
269-272	6	0.01	5.90	2.0	30.80	0.15

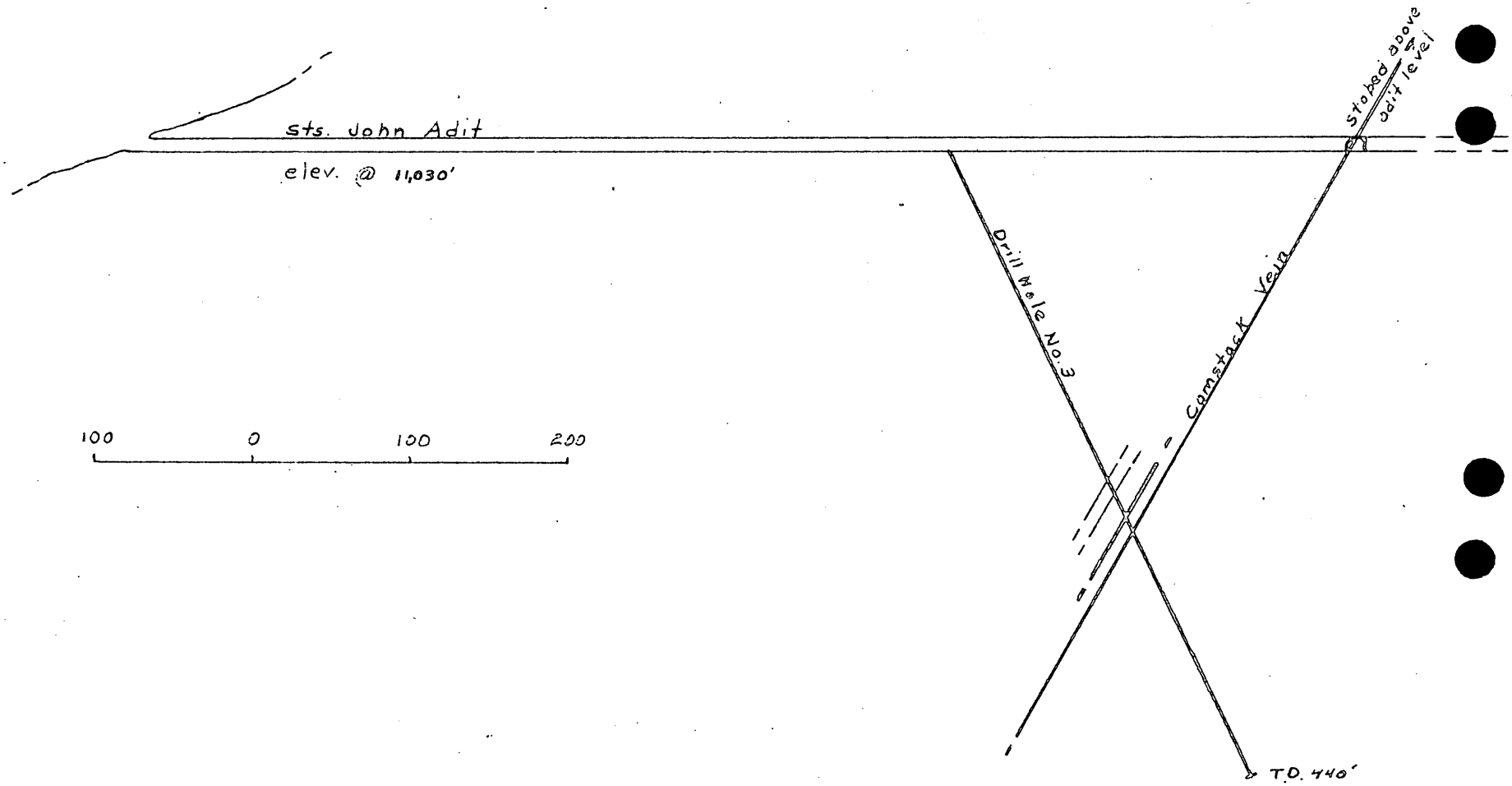

FIGURE 3. SECTION N 49° W THROUGH DRILL HOLE NO. 3, NORBUTE CORP., SAINTS JOHN MINE, SUMMIT COUNTY, COLORADO

ENH 4/15/59

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Ore and gangue minerals are sphalerite, galena, pyrite, rhodochrosite, and quartz. From available data it is concluded that the Comstock vein near hole No. 3 consists of narrow high-grade streaks, principally sphalerite, associated with slightly mineralized and considerably altered wall rock. This conclusion is supported by the fact that sludge samples taken at 2-foot intervals in and near the Comstock vein contained insignificant amounts of lead and zinc.

Hole No. 4 was drilled south at an inclination of -50° and to an inclined depth of 341 feet. Rock penetrated was gneiss, in part altered and silicified. The data from this hole are inconclusive, but it is probable that the Comstock vein was intersected in the interval 294 to 300 feet, about 225 feet vertically below the adit level. Core recovery in this interval was 46 percent, but no core was recovered that contained significant mineralization. Samples of cuttings assayed as follows:

Depth	Au (oz/ton)	Ag (oz/ton)	Pb (percent)	Zn (percent)
278-280	Tr.	Tr.	Tr.	0.05
288-290	Tr.	0.10	0.10	0.20
294-296	Tr.	0.20	0.35	1.60
298-300	Tr.	0.20	0.30	1.10

Holes Nos. 2 and 5 were not drilled.

CONCLUSIONS AND RECOMMENDATIONS

Exploration at the Saints John mine did not result in the discovery of significant lead-zinc ore deposits below the main adit level. Although drilling data are not conclusive, they strongly suggest that the ore body mined above the adit level does not extend to a depth of 225 feet below that level. It appears that in the 225-foot interval below the level the relative amounts of sulfides in the vein have decreased, the relative amounts of altered wall rock have increased, and the character of the sulfides has changed from galena-sphalerite to predominantly sphalerite. It is assumed that this change is gradual and that some ore-grade material may exist above the depth of exploration approximately 225 feet below the adit level.

Additional exploration at the Saints John mine, with Government assistance, does not appear warranted. Certification of a Discovery is not recommended.

Table 1.--Summary of authorized and accepted work costs

Type	Authorized Contract Work				Contract Work Completed			
	Units	Unit cost	Total cost		Units	Unit cost	Total accepted cost	
Stage I								
Actual Cost								
Category (1)								
Diamond drilling 0'-200'	1,250	$5.25/ft	$ 6,562.50		750	4.491/ft	$ 3,368.25	
Diamond drilling 200'-500'	750	6.00/ft	4,500.00		370	4.816/ft	1,781.75	
Reaming and casing	200	3.00/ft	600.00		480	2.00/ft	960.00	
Cementing and redrilling	200	2.50/ft	500.00		65	2.00/ft	130.00	
				$12,162.50				$ 6,240.00
Category (2)								
Supervision - engineer	2.5	600.00/mo	1,500.00		2.5	525.00/mo	1,312.50	
Labor			2,500.00				2,223.00	
				4,000.00				3,535.50
Category (3) Mat. & Supplies								
Core boxes	80	5.00/ea	400.00		38	2.50	95.00	
Power, fuel, lubricants, miscl.			600.00				693.29	
				1,000.00				788.29
Category (4) - Depreciation	2.5	92.08/mo	230.20		2.5	92.08/mo	230.20	
				230.20				230.20

Type	Authorized Contract Work				Contract Work Completed			
	Units	Unit cost	Total cost		Units	Unit cost	Total accepted cost	
Category (5) Initial Rehabilitation								
Power lines			$ 300.00				$ 292.46	
Repair air and water lines			275.00				281.87	
Reconditioning 75 HP Compressor			550.00				140.93	
				$ 1,125.00				$ 715.26
Category (7) Miscellaneous								
Payroll charges, Ins.			352.40				266.28	
Assays	20	$5.00	100.00		25	$5.00 ea	125.00	
				452.40				391.28
Fixed Unit Costs								
Three directional drill sta.	1	500.00	500.00		1	500.00	500.00	
Two directional drill sta.	1	300.00	300.00		1	300.00	300.00	
				800.00				800.00
Total estimated cost				$19,770.10				$12,700.53

Subject to final audit

Type	Authorized Contract Work				Contract Work Completed		
Stage II	Units	Unit cost	Total cost		Units	Unit cost	Total accepted cost
Actual Cost							
Category (1)							
Diamond drilling 0-250'	1,000	$5.25/ft	$5,250.00				
Diamond drilling 250'-500'	1,000	6.00/ft	6,000.00				
Diamond drilling 500'-750'	1,000	7.50/ft	7,000.00			None	
Reaming and casing	300	3.00/ft	900.00				
Cementing and redrilling	300	2.50/ft	750.00				
				$19,900.00			
Category (2)							
Supervising engineer	3	600.00/mo	1,800.00				
Labor			3,000.00				
				4,800.00			
Category (3) Lubricants, misc.			600.00	600.00			
Category (4)	3	92.08/mo	276.24	276.24			
Category (7) Miscellaneous							
Payroll charges			422.88				
Assays	16	5.00 ea	80.00				
				502.88			
Estimated total cost Stage II				$26,079.12			

Stage III	Authorized Contract Work: Units	Unit cost	Total cost		Contract Work Completed: Units	Unit cost	Total accepted cost
Actual Cost							
Category (1)							
Diamond drilling 0'-250'	1,000	$5.25/ft	$ 5,250.00				
Diamond drilling 250'-500'	1,000	6.00/ft	6,000.00				
Reaming and casing	200	3.00/ft	600.00				
Cementing and redrilling	200	2.50/ft	500.00				
				$12,350.00			
Category (2)						None	
Supervision - engineer	18	600.00/mo	5,400.00				
Labor			79,680.00				
				85,080.00			
Category (3) Opr.Mat. & S.							
Explosives			11,288.00				
Timber			2,982.00				
Drill steel and bits			4,170.00				
Fuel oil, lub., etc.			3,560.00				
Small tools			200.00				
4" air line-couplings	4,000	0.52/ft	2,080.00				
1" water pipe-couplings	4,000	0.15/ft	600.00				

	Units	Unit cost	Total cost		Contract Work Completed: Units	Unit cost	Total accepted cost
Category (3) (continued)							
20' vent. pipe	3,925	$0.70/ft	$ 2,747.50				
20 lb. track-ties-bolts	4,000	0.95/ft	3,800.00				
				$31,427.50			
Category (4) Depreciation(value)							
Drifter drill and column	$ 1,940.00						
Air receiver	375.00						
Mucking machine	3,570.00					None	
Diesel compressor(365)	3,150.00						
Two vent. fans	1,600.00						
Three 28-cu.ft.dump cars	1,250.00						
Diesel trammer	3,600.00						
Vehicle	2,000.00						
One mine car(transformer)	590.00						
Miscl. equipment	1,800.00						
	$19,875.00						
Depreciation 18 months		331.25/mo	5,962.50				
				5,962.50			

	Authorized Contract Work				Contract Work Completed		
	Units	Unit cost	Total cost		Units	Unit cost	Total accepted cost
Category (7) Miscellaneous							
Payroll expenses			$ 7,494.55				
Maintenance of Oper. equip.			596.23				
Assaying	400	$5.00	2,000.00				
				$ 10,090.78			
Estimated total cost, Stage III				$144,910.78			

SUMMARY

Estimated total cost, Stage I	$ 19,770.10
Estimated total cost, Stage II	26,079.12
Estimated total cost, Stage III	144,910.78
Estimated total cost of project	$190,760.00
Government's participation, 50%	$ 95,380.00

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RECEIVED JUL 13 1959

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		500
7-16	G	

224 New Customhouse
Denver 2, Colorado

July 10, 1959

Mr. Merritt C. Beringer
Vice-President
Rexforte Corporation
P. O. Box 1700
Grand Junction, Colorado

Re: Docket No. DMEA 4848 (Lead-Zinc)
Contract No. Ida-H130
Rexforte Corporation
(Saints John mine)
Summit County, Colorado

Dear Mr. Beringer:

Enclosed are the Government's, Audit, Finance Office and Field Team copies of a proposed Termination Agreement which has been prepared in reference to your request of May 12, 1959, to terminate the contract effective November 10, 1958.

If the proposed Termination Agreement is satisfactory, all copies are to be signed by an official of the Rexforte Corporation authorized to sign such an instrument the signer's title inserted the corporate seal affixed, and all copies promptly returned to this office, upon receipt of which the Operator's copy will be forwarded to you.

If the Termination Agreement is not satisfactory, all copies should be returned promptly to this office together with your comments on or objections thereto.

Very truly yours,

Original signed by
J. W. TOWNSEND

J. W. Townsend
Executive Officer, DMEA
Field Team, Region III

JWT: ltm

Enclosure

cc: Chem. Op. Comm. (2)
Hardman
OGM/DPC
Corres. file, Reg. III
Reg. file
Chron.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
	Griswold	500
7/7	Talbert	800
7/7	GCS	130
	Johnson	110
		~~100~~
		~~HB~~
7-7	gad	220
		500

500

JUL 7 1959

Memorandum

To: Executive Officer, OME Field Team, Region III

From: Chairman, Operating Committee, OME

Subject: Docket No. DMEA-4848 (Lead-Zinc)
Norbute Corporation
Saints John Mine
Summit County, Colorado
Contract No. Idm-E1190

As recommended in your June 3 memorandum, we have prepared a Termination Agreement for the cited project. The original and four copies are enclosed, all of which have been signed by the Acting Director for the Government. Also enclosed are two extra copies for the use of the Field Team.

If the agreement meets with your approval, kindly present it to the Operator for signature and, when completed, distribute all the copies in the usual manner. Otherwise, and if any proposed changes should lie beyond your delegated authority, please return all copies unsigned to us with your recommendations.

/s/ George C. Selfridge

(HB)

APPROVED:

Frank D. Lamb (HB)
Member, Bureau of Mines

Harold Kirkemo (HB)
Member, Geological Survey

Attachment

WRGriswold/hb (7/6/59)
Copy to: Director's Reading File
Operating Committee
O. M. Bishop, USBM
H. Kirkemo, USGS
W. R. Griswold
Chron.

8623

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code

500

June 30, 1959

Memorandum

To: Associate Solicitor, Division of Minerals Resources

From: Chief, Division of Minerals

Subject: Preparation of Termination Agreement for Docket No. DM A-4848, Norbute Corporation, Saints John Mine, Summit County, Colorado, Contract No. Idm-E1190, Lead-Zinc.

Will you kindly prepare a Termination Agreement along the following lines:

TERMINATION AGREEMENT

It is agreed this _____ day of _____, 1959, between the United States of America, acting through the Department of the Interior, Office of Minerals Exploration, hereinafter called the "Government", and the Norbute Corporation, hereinafter called the "Operator", parties to that certain Exploration Project Contract Idm-E1190, Docket No. DMEA-4848, dated May 8, 1958, hereinafter called the "Contract", that:

1. Effective November 10, 1958, the Contract and all obligations of the parties thereunder, except as otherwise herein expressly provided, shall be and hereby terminated.

2. The Government shall contribute only to the actual costs of work performed prior to said effective date.

43683

3. The Operator shall promptly perform all winding-up and settlement actions provided for in the Contract including the rendering of the final report and final account.

4. All rights of the Government respecting certification of discovery or development, percentage royalty andliens to secure the payment thereof, reports (including preservation of the Operator's records) accounts, audits, and the right to recover any overpayment, are hereby proserved.

5. The Operator hereby releases and agrees to save the Government harmless from all claims or demands under or arising out of said Contract, except as otherwise provided in this Termination Agreement.

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

THE UNITED STATES OF AMERICA

By_____
Acting Director, Office of
Minerals Exploration

THE NORBUTE CORPORATION

By_____

Title_____

W. R. Griswold

W. R. Griswold

WRG/er
CC: Docket
Dir Read File
Chron.

MME Form 7
(10-58)

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Date	Surname	Code
6/18	[illegible]	500
6/18	[illegible]	130
"	Johnson	110
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		~~110~~
6/19	[illegible]	220
		500

JUN 18 1959

WRGriswold/er Rm 4457 - Ext. 2971

T E L E T Y P E

OME - Division of Base Metals

XXXXX XXXXXXX XX XXXXXXXXXX
XXXXXXX XX XXXXXXXXXXXXX

1490108 - Salaries and Expenses, Office of Minerals Exploration, Interior 1959.

Date:

To: Mr. J. W. Townsend, Executive Officer, OME Field Team, Region III, 224 New Customhouse Bldg., Denver, Colorado

Reurtt June 16, 1959, Docket DMEA-4848, Norbute Corporation, Contract Idm-E1190. We will prepare Termination Agreement effective November 10, 1958, as recommended your memorandum of June 3, 1959.

George C. Selfridge

Chairman, Operating Committee (265)

WRGriswold/er 6/18/59
Copy to: Docket
Dir Read File
Op. Committee
Mr. Bishop, USBM
Mr. Kirkemo, USGS
Chron.
Confirmation Copy

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rm 7
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Date	Surname	Code

June 18, 1959

Memorandum for the Docket

From: Chief, Division of Base Metals

Subject: Norbute Corporation, Docket No. DMEA-4848,
Saints John Mine, Summit County, Colorado
Contract No. 1dm-E1190, Lead-Zinc

Three holes were drilled under the contract, in one hole core recovery was excellent, in one hole it was fair, in one hole it was poor (44%).

Intersections were as follows:

Hole 1 (97% Core Recovery)

Core 28 inches - 2.4 Ag., 1.47% Pb, 6.2% Zn.

Hole 3 (61% Core Recovery)

Core 4" (from area 259' - 262.5') 4.6 Ag., 1.9% Pb., 37.0% Zn.
Sludge - Ag., Tr. PB., 2.8 Zn.

Area 269'-272' Core 6" 5.9 Ag., 2.0% Pb., 30.8% Zn.
Sludge - 0.2 Ag., 0.4% PB., 0.8% Zn.

Hole 4 (44% Core Recovery)

No mineralized core was recovered from hole. Sludges were examined under the microscope and those showing the most mineral were assayed:

278'-280'	Tr.Ag.,	Tr.Pb.,	0.05 Zn.
288'-290'	.10 "	.10 "	.20 "
294'-296'	.20 "	.35 "	1.60 "
298'-300'	.20 "	.30 "	1.10 "

In general it seems reasonable to assume that at the depth intersected by the drill holes the vein is bottoming, breaking up into small streaks and such mineral as is present has become zinky. This is the common and usual fate of the silver-lead mines of the Front Range - fingering out into small, zinky streaks. It would appear futile to spend any more Government money on this project.

W. R. Griswold

W. R. Griswold

WRG/er
CC: Docket
Dir Read File
Chron.

43683

Chairman Operating Comm. OME

SPECIAL

9 9-08

CHAIRMAN, OPERATING COMMITTEE, OME

RE DOCKET DMEA 4848, CONTRACT IDM-E1190, NORBUTE CORP., OUR MEMO OF JUNE 3,1959. TO EXPEDITE RXX PREPARATION OF FINAL REPORT, PLEASE TELETYPE ADVICE AS TO YOUR DECISION RELATIVE TO TERMINATION OF THE CONTRACT, AND, IF SO, THE EFFECTIVE DATE.

J W TOWNSEND

ver, Colo.

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

June 3, 1959

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6/5	W	225
		~~130~~
6/9	wpg.	500

Memorandum

To: Chairman, Operating Committee, OME

From: Executive Officer, OME Field Team, Region III

Subject: Docket DMEA 4848 (Lead-Zinc) Contract Idm-E1190, Norbute Corporation (Saints John mine) Summit County, Colorado

Enclosed are the original and two copies of a memorandum dated May 29, 1959, from E. N. Harshman, Geologist, Geological Survey, and Member of OME Field Team, Region III, pertaining to the Operator's request of May 12, 1959, for Government approval to terminate the contract in its present status.

Copies of the Operator's letter of May 12 were forwarded to you as enclosures with a memorandum from this office dated May 19, 1959, to the field examiners requesting their recommendations in the matter.

The contract stipulates that if less than three of the five Stage I holes encounter commercial-grade ore, no further work will be done under the contract.

Under the circumstances, I concur with Mr. Harshman's recommendation that the contract be terminated in its present status and further recommend that an appropriate termination agreement be prepared, effective November 10, 1958, the beginning of suspension of operations, as provided for by Amendment No. 2.

J. W. Townsend

J. W. Townsend

Enclosures

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Office of Minerals Exploration
Denver Federal Center
Denver 25, Colorado

OME
DEPARTMENT OF THE INTERIOR
JUN 1 - 1959
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SECTION III
DENVER, COLORADO
O. M. E.
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DATE	INITIALS

May 29, 1959

Memorandum

To: Executive Officer, OME Field Team, Region III

From: E. N. Harshman

Subject: DMEA Docket 4848 (Lead-zinc), Contract Idm-E 1190, Norbute Corporation (Saints John mine), Summit County, Colorado

In a letter dated May 12, 1959, the operator requests that work under the subject contract be terminated without completing two of the five Stage I holes.

If the holes are numbered consecutively from southwest to northeast, Holes Nos. 2, 3, and 4 (the three interior holes) have been completed and Holes Nos. 1 and 5 (the exterior holes) have not been completed. Average core recovery in the three completed holes is 44, 61, and 97 percent; recovery for individual runs ranged from 7 to 100 percent.

The Comstock vein was cut in each hole at a depth of 250± feet below the adit level. Core recovery in and near the vein was poor, but several short lengths of mineralized core were recovered and assayed. One 4-inch section of core contained 37.40 percent zinc and 1.90 percent lead, and one 28-inch section of core contained 6.20 percent zinc and 1.47 percent lead.

Although the drilling data are not conclusive, they suggest that the Comstock vein at a depth of 250 feet below the adit level consists of gouge, altered and mineralized wall rock, and narrow high-grade stringers of sulfides--principally zinc.

It is concluded that the Comstock ore shoot bottoms at or near the depth drilled and that additional exploration in Stage I is not in the best interest of the Government. Approval of the operator's request to terminate the contract without completion of the two remaining Stage I holes therefore is recommended.

E. N. Harshman

E. N. Harshman

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5/26	a	220
5/26	[illegible]	800
~~[illegible]~~	—	~~500~~

224 New Customhouse
Denver 2, Colorado

May 19, 1959

Memorandum

TO: E. N. Harshman) w/enclosures
Carl Belser) w/enclosures

From: Executive Officer, GME Field Team, Region III

Subject: Docket No. DMEA 4848 (Lead-Zinc) Contract No. Xm-X1190
Norbute Corporation (Saints John mine) Summit County, Colorado

Enclosed is a copy of the Operator's letter of May 12, 1959, requesting approval for termination of the contract in its present status without completing the two remaining holes provided for under State I.

Please submit a Joint Memorandum Report containing your recommendations in the matter.

Original signed by
J. W. TOWNSEND

J. W. Townsend

Enclosures

JWT:ltm

cc: Chmn. Op. Comm. (2) ✓) w/cpy Oper's
Corres. file Reg. III) ltr. 5/12/59
Suspense file, Reg. III
Chron.

NORBUTE CORPORATION

Western Mining Division: URANIUM CENTER BUILDING, P. O. BOX 1700, GRAND JUNCTION, COLORADO Chapel 1-0257

1808 Nineteenth Street, Golden, Colorado

OFFICIAL FILE COPY
RECEIVED MAY 22 1959

DATE	INITIALS	CODE
	May 18, 1959	

OME
DEPARTMENT OF THE INTERIOR
MAY 18 1959
REGION III
DENVER, COLORADO

Mr. J. A. Townsend
Executive Officer, OME
Field Team, Region III
Office of Minerals Exploration
224 New Customhouse
Denver 2, Colorado

Re: Docket No. DMEA 4848 (Lead-Zinc)
Contract No. Idm-E1190
Norbute Corporation
(Saints John Mine)
Summit County, Colorado

Dear Mr. Townsend:

The time is approaching when a definite decision must be reached on whether or not to continue diamond drilling under the subject contract.

As you remember, we were obliged to suspend the work in October due to the heavy snowfall in the area. Three holes out of a total of five assigned to Stage 1 were drilled to intersect the projection of the mineralized zone at 250 feet vertical from the Saints John adit. A great deal of difficulty was encountered because of faults and fractures through which the diamond drill passed. Very little core was actually recovered in the mineralized vein itself so that the results to date are inconclusive. There is no particular reason to presume that the drilling of two additional holes, thus completing the first stage, would successfully core or give more definite results than the prior work.

If you concur with this thought, it would then follow that DMEA officials, under the terms of the contract, could not justify authorizing Stage 2 of the program, and without Stage 2 and even Stage 3, there is no possibility of recovering the expense of the exploration program through production of commercial ore.

In view of the foregoing, therefore, I request that the Norbute Corporation be relieved of any further commitments, obligations, or expense under the contract, which would in turn relieve the Government of any further expense thereon. There may be some in your organization who still harbor the hope of proving the existence of an ore body by diamond drilling, which is a possibility, but I believe under the circumstances that it is good business for both the Norbute Corporation and the Government to discontinue the program at this juncture, inasmuch as it is unlikely that your department could authorize Stage 2 regardless of the results of subsequent drilling.

I shall be very pleased to have your reactions to this suggestion and if you do not concur and wish that Stage 1 be completed, I shall be pleased to do all possible to convince my principals to follow your wishes.

Very sincerely yours,

Lewis C. Lemmon

DCD;s

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
224 New Customhouse
Denver 2, Colorado
January 16, 1959

OFFICIAL FILE COPY
O. M. E.
RECEIVED JAN 19 1959

DATE	INITIALS	CODE
1-19	C	220
1-23	[illegible]	500

Memorandum

To: Chairman, Operating Committee, OME

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

Subject: Docket No. DMEA 4848 (Lead-Zinc) Contract Idm-E1190, Norbute Corporation, (Sts. John mine) Summit County, Colorado

Enclosed are three copies of Approval issued by the OME Field Team, Region III, for change of direction of Hole No. 2, and for change of location, direction, and inclination for Hole No. 5.

Also enclosed are three copies of a joint memorandum dated January 15, 1959, from R. U. King, Geologist, Geological Survey, and Carl Belser, Mining Engineer, Bureau of Mines, pertaining to the matter. Two copies each of the Operator's two letters of January 2, 1959, were forwarded by copies of our memorandum of January 8, 1959, to the field examiners.

Copies of the approval have been distributed to the Operator, the Finance Office, and others concerned in Region III.

E. N. Harshman

E. N. Harshman

Enclosures

OFFICIAL FILE COPY
O. M. E.
RECEIVED JAN 19 1959

DATE	INITIALS	CODE

224 New Customhouse
Denver 2, Colorado
January 16, 1959

Mr. Dewitt C. Beringer
Newmont Corporation
1800 Nineteenth Street
Golden, Colorado

Re: Docket No. DMA 4048 (Lead-Zinc)
Contract IAm-21190
Newmont Corporation
(Ste. John mine)
Summit County, Colorado

Dear Mr. Beringer:

This constitutes approval by the Government for the following changes in requirements for drilling of Stage I holes 2 and 5, as requested by your letters of January 2, 1959.

Hole No. 2 is to be drilled at a bearing of S 21° W rather than at the originally authorized bearing of S 4.5° E. The collar location, and the inclination of this hole remain unchanged.

Hole No. 5 is to be drilled at a bearing of N 41° E, and at an inclination of -60° from horizontal. The hole will be located in the Sainte John tunnel at a point 100 feet southeasterly from the originally authorized location. Excavation of a drill station for hole No. 5 will be at your sole expense, as the contract does not provide for the cost of an additional drill station.

Nothing in this approval shall be construed to increase the total cost of the project, the aggregate amount which the Government may be required to contribute, the fixed unit cost of any item of work, nor any item of allowable cost which expressly designated "maximum".

Very truly yours,

OME Field Team

By _____
E. E. Harkman

JDC:hmh

cc: Chem. Op. Comm. (2)
Finance Office, Reg. III
Amendment file, Reg. III
Harkman
Balser, OME/DFC
Corres.file, Reg.III
Cooper
Chren

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Office of Minerals Exploration
Denver Federal Center
Denver, Colorado

OME
DEPARTMENT OF THE INTERIOR
JAN 15 1959
REGION III
DENVER, COLORADO

O. M. E.
RECEIVED JAN 19 1959

DATE	INITIALS	CODE

January 15, 1959

Memorandum

To: Executive Officer, OME Field Team, Region III
Through: E. N. Harshman

From: R. U. King
Carl Belser

Subject: Docket DMEA 4848 (Lead-zinc), Contract Idm-E 1190, Norbute Corporation (Sts. John mine), Summit County, Colorado

The operator in two letters dated January 2, 1959, requests a change in the bearing of approved hole No. 2, to S 21° W, and changes in the location, bearing, and inclination of approved hole No. 5 to a site 100 feet east of its present site, a bearing of N 41° E, and an inclination of -60°.

The proposed change in bearing of hole No. 2 is justified because drilling to date (3 holes) has shown that the Comstock vein dips flatter (55°) than expected. Alternative procedures to decrease the angle of intersection with the vein and thus guarantee intersection at the same depth (250 feet) are to alter the bearing or alter the inclination of a hole. We concur with the operator's selection of method.

The proposed change in location of hole No. 5 is justified because of the presence of a zone of broken and sheared rock through

which the hole would have to penetrate if drilled from its present location. This zone of broken rock is represented in the adit by a 100-foot heavily timbered section. Moving the hole 100 feet to the east to avoid the broken zone would result in a smaller drill hole intersection angle with the Comstock vein but would not be likely to destroy the value of the drilling results.

It is recommended that the operator's requests be approved.

It should be noted that such a move for hole No. 5 probably will require a new drill station cut-out, for which no provision exists in the contract, and the operator probably should be so advised.

R U King

R. U. King
Geologist

Carl Belser
Mining Engineer

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
1/13	Griswold	500
1/13	[illegible]	130
"	Johnson	110
		~~100~~
		~~HD~~
1/13	[illegible]	225
		500

500

JAN 13 1959

Mr. J. W. Townsend
Executive Officer
DME Field Team, Region III
224 New Customhouse Bldg.
Denver 2, Colorado

Re: Docket No. DMEA-4848 (Lead-Zinc)
Norbute Corporation
Saints John Mine
Summit County, Colorado
Contract No. Idm-E1190

Dear Mr. Townsend:

Referring to your memorandum of December 23, 1958, we are not inclined to prepare an amendment as mentioned in your last paragraph.

Any contract, no matter how carefully the estimates may have been prepared, can only be expected to be a reasonable approximation. It is quite impossible for anyone to foresee trifling deviations which may occur, from time to time. We wish to be reasonable, in matters of significance, but we cannot amend contracts so as to provide for every insignificant detail.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee
WRGriswold/er 1-13-59
Copy to: Docket
Dir Read File
Op. Committee
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Chron.

APPROVED:

C. T. BAROCH

Member, Bureau of Mines

N. E. Nelson

Member, Geological Survey

8623

RECEIVED JAN 12 1959
FILES CODE
1-12 C 220
1-12 800
1-14 500

224 New Customhouse
Denver 2, Colorado
January 8, 1959

Memorandum

To: E. N. Harshman, w/enclosures
Carl Belser, w/enclosures

From: Executive Officer, GME Field Team, Region III

Subject: Docket No. DMEA 4848 (Lead-Zinc) Contract Idm-E1190, Norbate Corporation, (Saints John mine) Summit County, Colorado

Enclosed are one copy each of two letters dated January 2, 1959, from the subject Operator which contain the following requests:

1. Change direction of hole No. 2 in order to intersect the Comstock vein at a more advantageous location.

2. Change location, direction and inclination of hole No. 5 to permit better core recovery. The Comstock vein will be intersected at approximately the same position as if the hole were drilled from the original location.

Please review the Operator's requests, and submit to this office a joint memorandum containing your recommendations relative to the requested changes.

Original signed by
E. N. HARSHMAN
for J. W. Townsend

JBC:hmh

cc: Chm. Op. Comm. (2)) w/copy Operator's
Corres. file, Reg. III) letters of 1/2/59
Cooper
Chren

OFFICIAL FILE COPY
O. M. E.
RECEIVED JAN 12 1959

DATE	INITIALS	CC

January 2, 1959

Mr. J. W. Townsend, Executive Officer
OME Field Team, Region III
224 New Customhouse
Denver 2, Colorado

Re: Docket No. DMLA 4848 (Lead-Zinc)
Contract Idn - E1190
Norbute Corporation
(Saints John Mine)
Summit County, Colorado

Dear Mr. Townsend:

This letter is in request for change in the location of proposed hole No. 5 under the above numbered contract.

As originally proposed, this hole was to be drilled from the 3-position station cut in the main entry way to the Saints John mine at an attitude of N 76° E at 48° below the horizontal to intersect the Comstock Vein 250 feet below the level elevation. The main haulage way is timbered for approximately 100 feet, starting almost immediately southeast of the 3-position station. In drilling hole No. 5, bad ground was intersected and was responsible for the poor recovery of core throughout this hole's path. However, diamond drill hole No. 3 also intersected this same zone directly beneath the timbered section at a 15% steeper angle than hole No. 4, and was completed without undue difficulty. It is possible that the condition of the ground northeast of this main haulage way will not be too severe to permit proper drilling; but the need for maximum core recovery makes it desirable to chose the most favorable ground conditions.

It is, therefore, requested that the location of drill hole No. 5 be changed to a position 100 feet ahead of the collars of drill holes No. 3 and 4, which would place it immediately outside the timbered zone. The attitude of this proposed changed hole No. 5 would be north 41° east at -60° in order to intersect the Comstock Vein at the desired point.

Very sincerely yours,

DeWitt C. Deringer

DeWitt C. Deringer
Vice President

DC/b

O. M. E.
RECEIVED JAN 12 1959

	INITIALS	CODE

January 2, 1959

Mr. J. W. Townsend, Executive Officer
OME Field Team, Region III
224 New Customhouse
Denver 2, Colorado

Re: Docket No. DMEA 4848 (Lead-Zinc)
Contract Idm - E1190
Norbute Corporation
(Saints John Mine)
Summit County, Colorado

Dear Mr. Townsend:

This letter is in request for a change in the attitude of proposed hole No. 2 in the above numbered contract, to establish the bearing of the hole as S 21° W at an angle of -65°.

The bearing originally approved was shown on the map accompanying the first monthly report, dated August 5, 1958, and was S 4.5° E at -65°. This letter is being sent with the fourth monthly report so that the accompanying map can be used for reference.

Drilling to date has shown the average dip of the Comstock Vein as being 55° which is somewhat flatter than originally estimated. To prevent the intercept of the Comstock Vein at a point too close to the intercept achieved by hole No. 1, it requested that permission be given to turn the bearing of this hole 25.5° west, retaining the angle of 65° from horizontal. This correction is designed to intercept the Comstock Vein at an elevation 250 feet below the drift level at a distance 80 feet southerly of the intercept achieved in hole No. 1.

Very sincerely yours,

DeWitt C. Deringer
Vice President

DC/b

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

December 23, 1958

OFFICIAL FILE COPY O. M. E. RECEIVED DEC 30 1958		
DATE	INITIALS	CODE
12/30	H. g.	225
		150
1/8	[illegible]	800

Memorandum

To: Chairman, Operating Committee, OME

From: Executive Officer, OME Field Team, Region III

Subject: Docket No. DMEA-4848 (Lead-Zinc) Contract No. Idm-E1190 Norbute Corporation (Saints John mine) Summit County, Colorado

Enclosed are the original and two copies of a memorandum dated December 19, 1958, from Carl Belser, Mining Engineer, Bureau of Mines, pertaining to a requested amendment to the subject contract. For prior correspondence in the matter you are referred to your letter of December 9, 1958, regarding the Operator's request of November 24, 1958, for an amendment to the contract to adjust costs between categories under Stage I.

We agree that the adjustment of costs would not require an amendment to the contract since established maximums will not be exceeded by the adjustments except in one respect, and that is under Category 2 where the Operator has requested a change in the period of employment and monthly rate of the engineer or geologist from 2.5 months at $600.00 per month to 2.8 months at $525.00 per month. The decrease in monthly rate would not involve an amendment; however, it appears that the increase in the period of employment would involve an amendment, since it is stated under Article 6, Category (2) (a) that the period of employment as well as rates of pay and total, are maximums.

Please advise if you would consider preparation of an amendment in order to reimburse the Operator the small additional amount involved in the change of period of employment from 2.5 months to 2.86 months.

J. W. Townsend

Encls.

W.D.

OME
DEPARTMENT OF THE INTERIOR
DEC 22 1958
REGION III
DENVER, COLORADO

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION III

BUILDING 20, FEDERAL CENTER
DENVER 2, COLORADO

DENVER EXPERIMENT STATION

OFFICIAL FILE COPY
O. M. E.
RECEIVED DEC 30 1958

DATE	INITIALS	CODE

Dec. 19, 1958

Memorandum

To: Executive Officer, OME Field Team, Region III

From: Carl Belser

Subject: Docket No. DMEA 4848 (Lead-Zinc) Contract Idm-E1190, Norbute Corporation (Saints John mine) Summit County, Colorado -- Revision of Stage I items of cost as requested by Mr. D. C. Deringer

The operator requests from his experience in drilling the first 779 feet in two holes and cutting two drilling stations that the estimated costs for Stage I should be revised and the following, with slight changes, is suggested:

Stage I

Category (1) Independent Contracts

Diamond drilling to depths of 250 ft., 1,250 ft. at $4.50/ft.	$5,625.00	
Diamond drilling, depth from 250 ft. to 500 ft., 704 ft. at $5.00/ft.	3,520.00	
Reaming and casing, 660 ft. at $2.00/ft.	1,320.00	
Cementing and redrilling, 115 ft. at $2.00/ft.	230.00	
		$10,695.00

Category (2) Personal Services

(a) One engineer or geologist 2.5 months at $600.00/mo.	1,500.00	
(b) Labor	3,904.00	
		5,404.00

Category (3) Operating Materials and Supplies

61 core boxes at $2.50 each	152.50	
Fuel, lubricants, miscellaneous supplies	1,170.00	
		1,322.50

Category (4) Operating Equipment

a. none
b. none
c. depreciation

365 G.F.M. diesel compressor, value	$3,150.00	
vehicle, value	2,000.00	
air receiver, value	375.00	
	$5,525.00	
2.5 months at $92.08 monthly		230.20

Category (5) Initial Rehabilitation and Repairs

(a) Power lines and surface plant	$292.46	
Repairs and connection air and water lines	281.87	
(b) Reconditioning 75 hp. compressor	140.93	
		$715.26

Category (6) New Buildings, etc.

None

Category (7) Miscellaneous

Payroll charges, insurance, compensation, etc.	398.00	
67 assays at $5.00 each	335.00	
		733.00

Fixed Unit Cost Items

1 - Three directional underground drill station	500.00	
1 - Two directional underground drill station	300.00	
		800.00
		$19,899.96

Estimated total cost, Stage I

This is $0.04 less than the original contract estimate.

Category (1)
Drilling between 250 ft. and 500 ft. has been cut down 46 ft. Reaming and casing has been increased from 200 ft. to 660 ft. and cementing and redrilling has been decreased 85 feet.

Category (2)
Supervision has been left as it was. Labor costs are higher than anticipated and labor costs have been raised by $1,404.00.

Category (3)
61 core boxes were purchased for $152.50 and should hold all the core from the Stage I holes. Fuels, lubricants, and miscellaneous supplies will be higher than first anticipated and have been increased by $570.00.

Category (4)
No change has been made in depreciation.

Category (5)
Initial rehabilitation and repairs have been completed at a cost of $715.26 ($409.74 less than anticipated).

Category (6)
None

Category (7)
Payroll charges have been reduced $24.88 and the number of assays has been increased from 16 to 67.

Fixed Unit Cost Items
Fixed unit cost items for Stage I have been completed at the original anticipated costs.

The changes requested by Mr. Deringer seem to be reasonable and the rewriting of the Stage I contract along the lines suggested above is recommended.

H. M. Connors
for Carl Belser
Mining Engineer

CB/mw

UNITED STATES
DEPARTMENT OF THE INTERIOR

~~DEFENSE MINERALS EXPLORATION ADMINISTRATION~~
OFFICE OF MINERALS EXPLORATION
224 New Customhouse
Denver 2, Colorado

OFFICIAL FILE COPY
O. M. E.
RECEIVED DEC 12 1958

DATE	INITIALS	CODE
12/12	C	220
12/18	[illegible]	500

December 9, 1958

Memorandum

TO: Chairman, Operating Committee, OME

From: Executive Officer, OME Field Team, Region III

Subject: Docket No. DMEA 4848 (Lead-Zinc), Contract No. Idm-E1190 Norbute Corporation (Saints John Mine) Summit County, Colorado

Enclosed are the Government's and Audit copies of Amendment No. 2 to Contract Idm-E1190 which was forwarded by your letter of December 2, 1958, for signature by the Operator.

Copies of the Amendment have been distributed to the Operator, the Finance Office, and others concerned in Region III.

J. W. Townsend

J. W. Townsend

Enclosures

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
12/8	Hrumel	500
12/9	Talbut	800
12/9	[illegible]	130
"	Johnson	110
		~~100~~
		~~HB~~
12/10	[illegible]	225
		500

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DEC 9 1958

Mr. J. W. Townsend
Executive Officer
OME Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-4848 (Lead-Zinc)
Norbute Corporation
Saints John Mine
Summit County, Colorado
Contract No. Idm-E1190

Dear Mr. Townsend:

We have our copies of your December 1, 1958, memorandum to E. N. Harshman and Carl Belser relative to the cited project, together with copies of the Operator's letter of November 24, 1958, to you.

We believe you understand that no amendment would be necessary in this case, since savings in "maximums" may be used for increases in "estimates", if such increases appear reasonable and necessary. Obviously, this would apply only to the individual stages.

Sincerely yours,

George C. Selfridge
ACTING Chairman, Operating Committee (HB)

APPROVED:

/s/ C. J. Baroch (HB)
Member, Bureau of Mines

N. E. Nelson (HB)
Member, Geological Survey

WRGriswold/er 12-8-58
Copy to: Docket
Dir Read File
Op. Committee
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Chron.

8623

OFFICIAL FILE COPY
O. M. E.
RECEIVED DEC 5 1958

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12/5	C	220
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12/8	WPS	500

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OFFICE OF MINERALS EXPLORATION
224 New Customhouse
Denver 2, Colorado

December 1, 1958

Memorandum

TO: Mr. E. N. Harshman)
Mr. Carl Belser, OME/DFC) w/enclosure

From: Executive Officer, OME Field Team, Region III

Subject: Docket No. DMEA 4848 (Lead-Zinc), Contract Idm-E1190
Norbute Corporation (Saints John Mine)
Summit County, Colorado

Enclosed is a copy of the Operator's letter of November 24, 1958, with attached data which constitute a request for an amendment to the contract to adjust the Estimated Costs Of The Project for Stage I of the contract.

Please submit a Joint Memorandum Report containing your recommendations in the matter.

Original signed by
J. W. TOWNSEND

J. W. Townsend

Enclosure

JWT:ltm

CC; Chmn. Op. Comm. (2))w/cpy of
Corres. file) enclosure
Cooper
Chron.

[illegible]

OME
DEPARTMENT OF THE INTERIOR

NOV 25 1958

REGION III
DENVER, COLORADO

OFFICIAL FILE COPY
O. M. E.
RECEIVED DEC 5 1958

DATE	INITIALS	CODE

November 24, 1958

Mr. J. W. Townsend, Executive Officer
OME Field Team, Region III
224 New Customhouse
Denver 2, Colorado

Re: Docket No. ~~DMEA 4848 (Lead-Zinc)~~
Contract Idm-~~E1190~~
Norbute Corporation
(Saints John Mine)
Summit County, Colorado

Dear Sir:

This letter is in application for a revision of the estimated cost of Stage I of Contract Idm E1190. It is to be noted that this application is only for a redistribution of items of cost as provided for under this contract.

The accompanying tabulation shows the total cost for each category through September and a separately listed estimate of the costs for the completion of the three holes remaining in this stage, as compared with the original estimated costs. Also accompanying this letter is a new "Estimated Costs of the Project".

Under Category 1, Independent Contracts, a considerable saving has been effected due to the terms of the contract with MacPherson Drilling Company. However, due to the increase in the need for reaming and casing, this sub-category must be correspondingly increased, even though the unit cost is below that of the original estimate.

Under Category 2 (a), the cost of engineering will exceed the original estimate but since that figure is a maximum as stated in the contract, no increase in this item is applied for. Under Category 2 (c), the length of time necessary to perform this work has increased, therefore labor beyond that originally estimated will be necessary.

Under Category 3, Operating Materials and Supplies, we were fortunate in obtaining core boxes at a sufficiently low price to reduce the cost of this item. Also poor core recovery to date has reduced the number of boxes needed. However, power, fuel, lubricants and miscellaneous supplies must be proportionally increased due to the additional time necessary to complete the program.

Under Category 4, Depreciation, since this category as shown in the original contract is a maximum, no increase is being applied for.

Under Category 5, Initial Rehabilitation and Repair, the cost of this work has been less than expected and therefore credit in this account has been shown.

Under Category 7, the payroll and insurance accounts must be increased in conformance with the increase in total cost of labor and our recently increased Workmen's Compensation (interstate) rating. Due to the necessity for checking both sludge samples and core, it is found that more sampling will be necessary than had been originally estimated. We are requesting an additional number of assays to evaluate more accurately the results of the drilling.

All items of expense shown in the new estimate are based on the actual experience of costs on this program to date. The new distribution herein applied for will not cover the additional cost under Category 2 (a) Supervision, Category 4, Depreciation, nor the cost of an additional drill station which is being contemplated. Since these items are shown as maximums in the contract, the company realizes it is obliged to carry, undivided, the additional burden of this cost which is estimated at $2,009.00.

Very sincerely,

DeWitt C. Deringer

DeWitt C. Deringer
Vice President

AC/b
Enc.

New Estimated Costs of the Project

Stage I	Total Costs thru Sept.	Est. cost completion $ add. Bls.	Total	Original Estimate	Available for Trnsf	Net
Category (1) Independent Contracts						
Diamond drilling to depths of 250 feet	$2,250.00	$3,368.25	$5,618.25	$6,562.50	$ 944.25	
Diamond drilling, depth from 250 to 500 feet	1,395.00	1,886.75	3,281.75	4,500.00	1,218.25	
Reaming and casing	338.00	982.00	1,320.00	600.00	(720.00)	
Cementing and redrilling	60.00	170.00	230.00	500.00	270.00	$1,712.50
Category (2) Personal Services						
(a) One engineer or geologist	1,141.30	1,857.50	1,500.00	1,500.00		
)c) Labor	1,618.50	2,285.40	3,903.90	2,500.00	(1,403.90)	308.60
Category (3) Operating Materials and Supplies						
Core boxes	82.50	70.00	152.50	400.00	247.50	
Power, fuel, lubricants, etc.	469.91	700.00	1,169.91	600.00	(569.91)	(13.81)
Category (4) Depreciation	230.20	230.20	230.20	230.20		
Category (5) Initial rehabilitation and repair	715.26	-	715.26	1,125.00	409.74	395.93
Category (7) Miscellaneous						
Payroll, Ins., Comp. etc.	202.57	195.44	398.01	352.40	(45.61)	
Samples for assay	95.00	240.00	335.00	100.00	(235.00)	115.32
Fixed Unit Cost Items						
1 3-directional underground drill sta.	500.00	-	500.00	500.00		
1 2-directional " " "	300.00	-	300.00	300.00		
1 1-directional " " "		300.00				

ESTIMATED COSTS OF THE PROJECT

Stage I

Category (1) Independent Contracts

Diamond drilling to depths of 250 feet		
1,241 feet BX @ $4.50/ft = $5,584.50		
9 feet AX @ $3.75/ft = 33.75		
1,250	$5,618.25	
Diamond drilling, depth from 250 to 500		
579 feet BX @ $5.00/ft = $2,895.00		
91 feet AX @ $4.25/ft = 386.75		
	3,281.75	
Reaming & casing, 660 feet @ $2.00/ft	1,320.00	
Cementing & redrilling115 feet @ $2.oo/ft	230.00	
		$10,450.00

In cases where diamond drill size is reduced from BX to AX in order to complete a drill hole, the independent contract cost allowance for such drilling shall be reduced by 75 cents per foot from the BX allowance

Category (2) Personal Services

(a) Supervision and (b) Technical Services

One engineer or geologist		
2.8 months @ $525./month	1,500.00	
(c) Labor	3,903.90	
		5,403.90

Category (3) Operating Materials and Supplies

Core boxes, wooden, 25 feet capacity		
70 @ $2.50 each	175.00	
Power, fuel, lubricants, miscellaneous	1,262.73	
		1,437.73

Category (4) Operating Equipment

(a) and (b) None
(c) Depreciation

75 h.p. electric compressor, value	4,270.00	
365 CFM diesel compressor, value	3,150.00	
Vehicle, dump truck, value	2,000.00	
Air receiver, value	375.00	
	9,795.00	
2½ months @ $92.08 monthly		230.20

Category (5) Initial Rehabilitation and Repairs		
(a) Power lines and surface plant rehabilitation Repairs and connections, air and water lines, drainage	574.37	
(b) Reconditioning 75 h.p. compressor	140.89	
		715.26
Category (6) None		
Category (7) Miscellaneous		
Payroll charges, insurance, compensation, etc.	398.01	
67 samples for assay @ $5.00/sample (or $1.90 per determination)	335.00	
		733.01
Fixed Unit Cost Items (The completed unit constitutes the unit)		
1 three directional underground drill station, including tail raise and enlargement of existing drift to permit 10-foot pulls	500.00	
1 two directional underground drill station, including tail raise and enlargement of existing drift to permit 10-foot pulls	300.00	
		800.00
Estimated total cost, Stage I		19,770.10

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
12/2	Griswold	500
12-2	Thompson	800
12/2	GCS	130
"	Jones	110
		100
		HB
12/3	C	225
		500

500

DEC 2 1958

Mr. J. W. Townsend
Executive Officer
OME Field Team, Region III
224 New Customhouse Bldg.
Denver 2, Colorado

Re: Docket No. DMEA-4848 (Lead-Zinc)
Norbute Corporation
Saints John Mine
Summit County, Colorado
Contract No. Idm-E1190

Dear Mr. Townsend:

As recommended in your memorandum of November 17, 1958, we have prepared a proposed Amendment No. 2 to the cited contract. The original and four copies are enclosed, which have been signed by the Acting Director, for the Government. Also, enclosed are two extra copies for the use of the Field Team.

If the amendment meets with your approval, kindly present it to the Operator for approval and signature and, when completed, distribute all the copies in the usual manner. Otherwise, and if any proposed change should lie beyond your delegated authority, return all copies to us with your recommendations.

Sincerely yours,

George C. Selfridge
ACTING Chairman, Operating Committee (GCS)

Enclosures

APPROVED:

(s) C. J. Barosh (CJB)
Member, Bureau of Mines

N. E. Nelson (NEN)
Member, Geological Survey

WRGriswold/er 12-2-58
Copy to: Docket
Dir Read File
Op. Committee
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Chron.

8623

A Form 7
(2-56)

OFFICIAL FILE COPY

Date	Surname	Code

December 2, 1958

Memorandum for the Docket

From: Chief, Division of Base Metals

Subject: Justification for Amendment No. 2 for Docket No. DMEA-4848, Norbute Corporation, Saints John Mine, Summit County, Colorado, Contract No. Idm-E1190, Lead-Zinc.

In a memorandum of November 17, 1958, the Field Team recommended a winter recess for the cited project. Since the altitude is above 11,000 feet, it seems obvious that such a recess is necessary. This particular location is noted for heavy snowfall and extremely cold winter weather.

W. R. Griswold

W. R. Griswold

WRG/er
Copy to: Docket
Dire Read File
Chron.

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code

500

November 20, 1958

Memorandum

To: Associate Solicitor, Division of Mineral Resources

From: Chief, Division of Base Metals

Subject: Preparation of Amendment No. 2 for Docket No. DMEA-4848, Norbute Corporation, Saints John Mine, Summit County, Colorado, Contract No. Idm-E1190, Lead-Zinc.

Will you please prepare an Amendment No. 2 to the cited contract which will recess the work from November 11, 1958, until on or before July 15, 1959.

W. R. Griswold

W. R. Griswold

WRG/er
Copy to: Docket
Dir.Read.File
Chron.

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
~~DEFENSE MINERALS EXPLORATION ADMINISTRATION~~
OFFICE OF MINERALS EXPLORATION
224 New Customhouse
Denver 2, Colorado
November 17, 1958

OFFICIAL FILE COPY
O. M. E.
RECEIVED NOV 19 1958

DATE	INITIALS	CODE
11/19	C	220
" 20	wyeh	130L
		500

AIR MAIL

Memorandum

TO: Chairman, Operating Committee, OME

From: Executive Officer, OME Field Team, Region III

Subject: Docket No. DMEA 4848 (Lead-Zinc) Contract Idm-E1190 Norbute Corporation (Saints John Mine) Summit County, Colorado

Enclosed are the original and one copy of a letter from the Operator dated November 14, 1958, wherein Government approval is requested for a suspension of operations, because of winter weather conditions at the Saints John property.

The exploration work completed todate under Stage I of the contract, consists of three drill holes which cut the Comstock vein approximately 250 ft. below the adit level. Core recovery in all three holes was poor, and representative core samples of the vein were not obtained.

Based on sludge samples, the reliability of which may be questioned, it appears that the vein where cut does not contain significant amounts of galena and sphalerite.

Although the results of exploration completed at this time are not encouraging, we believe that the ore potential of the Comstock vein below the adit level cannot be determined with less than the five holes proposed under Stage I of the contract. Accordingly, we recommend that a suitable amendment to the contract be prepared to authorize a suspension of operations beginning November 11, 1958, and ending not later than July 15, 1959. An extension of the completion date does not appear necessary at this time.

J. W. Townsend

J. W. Townsend

Enclosure

NORBUTE CORPORATION

Western Mining Division: URANIUM CENTER BUILDING, P. O. BOX 1700, GRAND JUNCTION, COLORADO—CHapel 2-8257

OFFICIAL FILE COPY
O. M. E.
RECEIVED NOV 19 1958

DATE	INITIALS	CODE

November 14, 1958

OME
DEPARTMENT OF THE INTERIOR
NOV 17 1958
REGION III
DENVER, COLORADO

Executive Officer
OME Field Team, Region III
224 New Customhouse
Denver 2, Colorado

Re: Docket No. DMEA 4848 (Lead-Zinc)
Contract Idm-E1190
Norbute Corporation
(Saints John Mine)
Summit County, Colorado

Dear Sir:

This letter is in application for temporary suspension of the above listed contract.

Due to weather conditions at the Saints John property, all work was temporarily suspended on November 10, 1958.

Operations will be resumed as soon as underfoot conditions permit uninterrupted access to the portal level, but in no case later than July 15, 1959.

There appears to be no necessity at this time to extend the completion date for the contract due to this suspension.

Very truly yours,

Abbott Charles

Abbott Charles, Manager
Western Mining Division

AC/b

OFFICIAL FILE COPY
O. M. E.
RECEIVED NOV 17 1958

DATE	INITIALS	CODE
11/17	C	220
11/17	[illegible]	800
11/18	[illegible]	500

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

OFFICE OF MINERALS EXPLORATION
224 New Customhouse
Denver 2, Colorado
November 13, 1958

Mr. Abbott Charles, Manager
Western Mining Division
Norbute Corporation
P. O. Box 1700
Grand Junction, Colorado

Re: Docket No. DMEA 4848 (Lead-Zinc)
Contract Idm-E1190
Norbute Corporation
(Saints John mine)
Summit County, Colorado

Dear Mr. Charles:

Receipt is acknowledged of your letter of November 10, 1958, wherein you advise that due to a recent snowfall in the area of the Saints John Mine that drilling operations will be suspended for the winter season.

Generally, suspension of operations under a DMEA contract is provided for by an amendment to the contract executed by the parties concerned. Before consideration can be given to an amendment to provide for a suspension of operations, please advise the date the last work was performed under the contract and the date on or before which operations will be resumed in the spring.

Since the date fixed under Article 3 of the contract on or before which the work shall be completed is for a period of two (2) years from the date of the contract, or May 8, 1960, it does not appear necessary to extend the completion date at this time.

Very truly yours,
Original signed by
J. W. TOWNSEND

J. W. Townsend
Executive Officer
OME Field Team, Region III

JWT/ff
cc: Chmn. Op. Comm. (2))
Harshman) w/copy of enclosures
Belser, OME/DFC)
Corres.)
Cooper
Chron.

OFFICIAL FILE COPY
O. M. E.
RECEIVED NOV 17 1958

DATE	INITIALS	CODE

November 10, 1958

Executive Officer
OME Field Team, Region III
224 New Customhouse
Denver 2, Colorado

Re: Docket No. DMEA 4048 (Lead-Zinc)
Contract Idm-H1190
Norbute Corporation
(Saints John mine)
Summit County, Colorado

Dear Sir:

This letter is to inform your offices that due to the recent snowfall in the area of the Saints John Mine the drilling contractor has insisted on the suspension of operations for the winter season.

Plans have been made for the completion of the two holes remaining in Stage I as soon as weather and ground conditions permit working access to the property.

The regular monthly operator's report is being delayed so that a complete review of the work to date can be properly prepared.

Very truly yours,

Abbott Charles

Abbott Charles, Manager
Western Mining Division

AC/b

OME
DEPARTMENT OF THE INTERIOR
NOV 12 1958
REGION III
DENVER, COLORADO

224 New Customhouse
Denver 2, Colorado
November 5, 1958

11/7 220
11/10 800
500

Mr. DeWitt C. Deringer
Norbute Corporation
1808 Nineteenth Street
Golden, Colorado

Re: Docket No. DMEA 4848 (Lead-Zinc)
Contract Idm-E1190
Norbute Corporation
(Sts. John mine)
Summit County, Colorado

Dear Mr. Deringer:

Form MF-104, Operator's Monthly Report and Voucher, for the month of September 1958, has been received in this office and is being processed for payment. The following deductions have been made:

Disallowance, Core Boxes

The cost of 61 core boxes was reported on Form MF-104 for September 1958; however, only 33 of the core boxes have been used. The reported cost for 28 core boxes is disallowed.

The cost for the balance of the core boxes may be claimed on subsequent vouchers when the boxes are actually used.

Disallowance, Lubricants and Miscellaneous Supplies

An amount of $10.20 was reported for anti-freeze; however, the final billing from The Salt Lake Hardware Company indicates that a 2 percent discount was given by the vendor and that the net cost was $10.00. The excess cost is disallowed.

You will be further advised of the above deductions by means of an Administrative Audit Difference Statement, which will be forwarded to you by the Finance Office, Region III.

JDC:hmh
cc: Chmn. Op. Comm. (2)
Belser, OME/DFC
Corres. file, Reg. III
Harshman
Cooper
Chron

Very truly yours,

Original signed by
J. W. TOWNSEND

J. W. Townsend
Executive Officer, OME
Field Team, Region III

UNITED STATES
DEPARTMENT OF THE INTERIOR
~~DEFENSE MINERALS EXPLORATION ADMINISTRATION~~
OFFICE OF MINERALS EXPLORATION
224 New Customhouse
Denver 2, Colorado
October 17, 1958

OFFICIAL FILE COPY
O. M. E.
RECEIVED OCT 20 1958
DATE
10/20
10/21
220
500

Memorandum

To: Chairman, Operating Committee, OME

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

Subject: Docket No. DMEA 4848 (Lead-Zinc) Contract Idm-E1190, Norbute Corporation, (Saints John mine) Summit County, Colorado

Enclosed are three copies of confirmation of verbal approval issued by the OME Field team, for reduction of hole No. 4 from BX to AX size.

Also enclosed are two copies of a letter from the subject Operator dated October 14, 1958, requesting approval for the reduction in size.

Copies of confirmation of approval have been distributed to the Operator, the Finance Office, and others concerned in Region III.

E. N. Harshman

E. N. Harshman

Enclosures

224 New Customhouse
Denver 2, Colorado
October 17, 1958

Mr. Abbott Charles, Manager
Western Mining Division
Norbute Corporation
P. O. Box 1700
Grand Junction, Colorado

Re: Docket No. DMEA 4848 (Lead-Zinc)
Contract Idm-21190
Norbute Corporation
(Saints John Mine)
Summit County, Colorado

Dear Mr. Charles:

In reference to your letter of October 14, 1958, this constitutes confirmation of verbal approval by the Government, which was given on October 13, 1958, to reduce hole No. 4 from BX to AX size due to broken and caving conditions encountered in the hole.

Nothing in the verbal approval or this confirmation thereof shall be construed to increase the estimated total cost of the project, the aggregate amount which the Government may be required to contribute, the fixed unit cost of any item of work, nor any item of allowable cost which is expressly designated "maximum."

Very truly yours,

OME Field Team, Region III

By E. W. Harshman
E. W. Harshman

JDC:hmh

cc: Chmn. Op. Comm. (3)
Finance Office, Reg. III
Amendment file, Reg. III
Harshman
Belser, OME/DFC
Corres. file, Reg. III
Cooper
Chron

NORBUTE CORPORATION

Western Mining Division: URANIUM CENTER BUILDING, P. O. BOX 1700, GRAND JUNCTION, COLORADO—CHapel 2-8257

October 14, 1958

OME
DEPARTMENT OF THE INTERIOR
OCT 15 1958
REGION III
DENVER, COLORADO

Mr. J. W. Townsend
Executive Officer
Minerals Exploration Administration
Region III
224 New Customhouse
Denver 2, Colorado

Re: Docket No. DMEA 4848 (lead-zinc)
Contract Idm-E1190
Norbute Corporation
Saints John Mine
Summit County, Colorado

Dear Sir:

This letter is a formal application for permission to reduce the size of core on hole No. 4 from BX to AX. Tentative approval for this change has been given after a telephone conversation with Mr. Harschman on October 13th.

Core drilling was started on Diamond Drill hole No. 4 on September 27th. The ground from 66 feet has been soft and broken with caving, continually plaguing the drilling contractor. BX casing was advanced to a depth of 209 feet by October 9. At this point, the casing became stuck in the hole. The hole, itself, has been advanced to 231 feet but there has been additional caving, especially in a zone from 213 to 215 feet. Cementing has been tried three times without success. By reducing the size of this hole, it will be possible to case from 209 feet with AX and continue this hole to its objective. It is anticipated that the hole will intersect the vein-zone at 310 to 330 feet.

I would appreciate your favorable action on this request at the earliest possible date.

Very truly yours,

Abbott Charles, Manager
Western Mining Division

ACPw

224 New Customhouse
Denver 2, Colorado
October 6, 1958

10/9	C	220
10/10		800
10/13		500

Mr. Abbott, Manager
Western Mining Division
Norbute Corporation
P. O. Box 1700
Grand Junction, Colorado

Re: Docket No. DMEA 4848 (Lead-Zinc)
Contract No. I6m-K1190
Norbute Corporation
(Sts. John mine)
Summit County, Colorado

Dear Mr. Charles:

Form MF-104, Operator's Monthly Report and Voucher, for August, 1958, has been received in this office and is being processed for payment. The following reinstatement and disallowance have been made.

Reinstatement, Supervision

Review of the supplemental documention for July, 1958, which was submitted to this office by your letter of September 8, 1958, reveals that supervision charge for Gordon Brunsher for the period July 28, through July 31, 1958, is an allowable charge to the project, therefore the cost of supervision for 4 days is reinstated, together with the applicable payroll taxes and liability insurance.

Disallowance, Miscellaneous Supplies

The reported cost for two fire extinguishers and one 8 foot tape are not considered to be direct and necessary to the exploration project, therefore the reported cost is disallowed.

You will be further advised of the above reinstatement and disallowance by means of an Administrative Audit Difference Statement, which will be forwarded to you by the Finance Office, Region III.

JDC:hmh

cc: Chmn. Op. Comm. (2)
Harshman
Belser, OME/DFC
Cooper
Corres. file, Reg.III
Chron

Very truly yours,

Original signed by
E. N. HARSHMAN

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

224 New Customhouse
Denver 2, Colorado
Sept. 4, 1958

9-8 C 220
9/9 800
9-11 ~~[illegible]~~ ~~500~~

Mr. DeWitt C. Deringer
Norbute Corporation
1808 Nineteenth Street
Golden, Colorado

Re: Docket No. DMEA 4848 (Lead-Zinc)
Contract I4m-K1190
Norbute Corporation
(Sts. John mine)
Summit County, Colorado

Dear Mr. Deringer:

Form MF-104, Operator's Monthly Report and Voucher, for the period June 25 - July 31, 1958, is being processed for payment.

The reported costs for initial rehabilitation and repairs (Category 5) exceeded the invoiced costs, therefore the excess cost is disallowed.

The reported costs for supervision (D. C. Deringer, Abbot Charles, and Gordon W. Bruchner) is suspended, pending receipt from you of additional documentation. The distribution of the several individuals' time is not given, so it cannot be verified whether the claim is within the contract maximum for all elements of the category other than the maximum of $600.00 per month.

Of the reported costs for payroll charges only the amount of $5.05 was suitably documented; therefore, the balance is suspended pending receipt from you of further documentation.

You will be further advised of the above disallowance and suspensions by means of an Administrative Audit Difference Statement, which will be forwarded to you by the Finance Office, Region III.

Very truly yours,

Original signed by
J. W. TOWNSEND

J. W. Townsend
Alternate Acting Executive Officer
DMEA Field Team, Region III

MBM:hmh

cc: Chmn. Op. Comm. (2)
Salsbury, DMEA/DFC
Harshman
Cooper
Corres.file, Reg. III
Chron

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 New Customhouse
Denver 2, Colorado
July 22, 1958

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 28 1958

DATE	INITIALS	CODE
7-28	C	220
		130
		500

Memorandum

To: Chairman, Operating Committee, DMEA

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

Subject: Docket No. DMEA 4848 (Lead-Zinc), Contract No. Idm-E1190, Norbute Corporation (Sts. John mine), Summit County, Colorado

Enclosed are the Government's and Audit copies of Amendment No. 1 to Contract No. Idm-E1190, which has been executed to provide for the use of the 75 h.p. electric compressor on a depreciation basis as well as the 365 CFM diesel compressor. Also enclosed are two copies each of the Operator's letters of July 15 and July 17, 1958, pertaining to the matter.

The contract provides for reconditioning of the 75 h.p. electric compressor. However, through oversight, the field report of examination failed to provide for the use of it. Consequently, it was omitted as well from the contract. The amendment was executed to provide for the use of the compressor and necessary power charge under Category (3).

In addition, the field report and the contract failed to provide a description of the "vehicle", listed under Category (4)(c) as having a value of $2,000.00, and it was believed that the matter should be clarified for future reference, which was also accomplished in the amendment.

Copies of the amendment have been distributed to the Operator, the Finance Office, and others concerned in Region III.

J. W. Townsend

DMEA
RECEIVED JUL 28 1958
DATE | INITIALS

July 17, 1958

DMEA
DEPARTMENT OF THE INTERIOR
JUL 18 1958
REGION III
DENVER, COLORADO

Mr. J. W. Townsend
Alternate Acting Executive Officer
DMEA Field Team, Region III
224 New Customhouse
Denver 2, Colorado

Re: Docket No. DMEA 4848 (lead-zinc)
Contract Idm-E1190
Norbute Corporation
(Saints John Mine)
Summit County, Colorado

Dear Mr. Townsend:

Supplementing my letter of July 15 in which a request was made for revision of classification under certain categories, it occurs to me that under Category (4) (c) the item listed as "vehicle" might be better listed as "dump truck 2-3 tons". We have not in this office the detailed description nor serial number of this truck.

Also may I suggest that in the revision in classification under (4) (c) the Imperial 10xB compressor be listed as additional equipment in such a manner as to permit the use of either the electrically driven Imperial compressor or the Diesel compressor as necessity may require, with, of course, the understanding that the monthly allowance of $92.08 for depreciation will apply whichever compressor is used.

Very sincerely yours,

DeWitt C. Deringer

Dewitt C. Deringer
Vice President

DCD/b

DMEA
RECEIVED JUL 28 1958
DATE | INITIALS | CODE

July 15, 1958

DMEA
DEPARTMENT OF THE INTERIOR
JUL 17 1958
REGION III
DENVER, COLORADO

Mr. J. W. Townsend
Alternate Acting Executive Officer
DMEA Field Team, Region III
224 New Customhouse
Denver 2, Colorado

Re: Docket No. DMEA 4848 (lead-zinc)
Contract Idm-E1190
Norbute Corporation
(Saints John Mine)
Summit County, Colorado

Dear Mr. Townsend:

After a trial period, it appears that the 75 h.p. electric compressor located at the Saints John adit level runs well enough to be used for the first stage of the above listed exploration program. This will necessitate some revision in the scheduled cost of the project under Categories 3 and 4 of Stage I, as stated in your letter of July 2, 1958.

The following changes are therefore requested under Estimated Costs of the Project.

Stage I

Categories (1) and (2) - unchanged

Category (3) Operating Materials and Supplies

Core boxes (same)	$400.00
Fuel, electric power, lubricants and miscellaneous (same)	600.00
	$1,000.00

Category (4) Operating Equipment

(a) and (b) none

(c) Depreciation

Imperial 10 x B Compressor 16 x 12: 9 x 12 with 75 h.p. motor, complete and installed, value	$4,270.00		
Vehicle, value	2,000.00		
Air receiver, value	375.00		
	$6,645.00		
2½ months @ $92.08 monthly		$230.20	$230.20

Categories (5), (6) and (7) - unchanged.

The only changes effected are the addition of the classification "electric power" under Category 3 and the substitution of the electric compressor replacing the Diesel compressor originally scheduled under Depreciation in Category 4 (c).

Very sincerely yours,

DeWitt C. Deringer
Vice President

AC/b

7/21 C 220
7/21 400 8.00
500

224 New Customhouse
Denver 2, Colorado
July 18, 1958

Mr. DeWitt C. Deringer, Vice President
Norbute Corporation
P. O. Box 1700
Grand Junction, Colorado

Re: Docket No. DMEA 4848 (Lead-Zinc)
Contract No. Idm-K1190
Norbute Corporation
(Sta. John mine)
Summit County, Colorado

Dear Mr. Deringer:

Enclosed are the Government's, Audit, Operator's, Finance Office, and Field Team copies of proposed Amendment No. 1 to Contract No. Idm-K1190, which has been prepared in reference to your letter of July 15, 1958, and subsequent telephone discussion with Mr. Charles, to provide for the use of the 75 h.p. electric compressor on a depreciation basis as well as the diesel compressor at no increase in cost to the project.

If the Amendment is satisfactory, all copies are to be signed by an official of Norbute Corporation authorized to sign such an instrument, the signer's title inserted, and all copies promptly returned to this office; upon receipt of which and after signature by a representative of the Government, the "Operator's Copy" will be returned to you.

Very truly yours,

Original signed by
J. W. TOWNSEND

J. W. Townsend
Alternate Acting Executive
Officer, DMEA Field Team,
Region III

JWT:prl

cc: Chmn. Op. Comm. (2)
Harshman
DMEA/DFC(Salsbury)
Corres. file
Cooper
Chron.

224 New Customhouse
Denver 2, Colorado
July 2, 1958

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 7
DATE INITIALS CODE
7/7 C 220
7/7 500
7/8 500
copy

Mr. Abbott Charles, Manager
Western Mining Division
Eureka Corporation
P. O. Box 1700
Grand Junction, Colorado

Re: Docket No. DMEA 4648 (Lead-Zinc)
Contract No. Idp-21190
Eureka Corporation
(Sta. John mine)
Summit County, Colorado

Dear Mr. Charles:

Thank you for your letter of June 30, advising that work was commenced under Category (5), Items (a) and (b), as described in Exhibit "A" attached to the contract. You also advised that it appears that the electric compressor would be unusable.

If the 75 h.p. electric compressor is used in lieu of the 365 CFM diesel compressor, described under the caption "Estimated Costs of the Project," Stage I, Category (4)(c), you should immediately request an amendment to the contract to substitute the electric compressor for the diesel compressor. Also, you should request modification of the item "Fuel, Lubricants, and Miscellaneous Supplies," under Category (5), so that it includes the charge for power for the electric compressor.

In conjunction with substituting the electric compressor for the diesel compressor, for depreciation purposes it will be necessary that you provide the assessed valuation of the compressor so that the monthly depreciation rate can be established for it.

Very truly yours,

Original signed by
J. W. TOWNSEND

J. W. Townsend
Alternate Acting Executive Officer
DMEA Field Team, Region III

JWT:prl

cc: Chmn.Op.Comm.-2) w/copy of
Marshman) Operator's
DMEA/DFC) letter.
(Salsbury))
Corres. file)
Cooper
Chron.

DMEA
DEPARTMENT OF THE INTERIOR

JUL 1 - 1958
REGION III
DENVER, COLORADO

June 30, 1958

Docket No. DMEA 4848 (Lead-Zinc)
Contract No. Idm-E1190
Norbute Corporation
(Saints John Mine)
Summit County, Colorado

Executive Officer
Defense Minerals Exploration Administration
224 New Customhouse
Denver 2, Colorado

Dear Sir:

The purpose of this letter is to serve as notification to DMEA that work has commenced on June 25 under category 5 a and b of the above numbered contract.

It appears at this time that the electric compressor will be useable without major reconditioning and Mr. Keating, Mine Safety Inspector of the Colorado Bureau of Mines is recommending approval of only minor repairs to the surface plant. Repairs and reconditioning of air and water lines are being made so that the underground drill stations can be excavated.

Very truly yours,

Abbott Charles

Abbott Charles, Manager
Western Mining Division

AC/b

OFFICIAL
DMEA
RECEIVED J 7 1958
CODE
220
215
580

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

224 New Customhouse
Denver 2, Colorado
June 25, 1958

Memorandum

To: Chairman, Operating Committee, DMEA

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

Subject: Docket No. DMEA 4848 (Lead-Zinc), Contract No. Idm-E1190, Norbute Corporation (Sts. John mine), Summit County, Colorado

Enclosed are the following:

1. The Government's and Audit copies of executed Contract No. Idm-E1190, which was forwarded by your letter of May 8, 1958 for signature by the Applicant after certain requirements had been met.

2. The original and one copy of SALES CONTRACT between Emmett F. Brophy and J. W. Barnes, pertaining to the Windsor Lode, Survey No. 2083.

3. Original and one copy of "Assignment" assigning the above Sales Contract from J. W. Barnes to Norbute Corporation.

4. Two copies of Amended Location Certificate pertaining to the Tunnel Lode No. 10 claim, and letter of transmittal thereof from the Applicant, dated June 18, 1958.

5. Two copies of the Operator's letter of June 18, 1958, returning the executed copies of the contract to this office.

6. Two copies of the letter from this office, dated June 23, 1958, by which we forwarded the "Operator's Copy" of the contract.

The missing book and page numbers of recording data have been inserted in Annex I, the SPECIAL PROVISION supplied in your letter of June 12, 1958 has been added to Annex I, and the map, "Figure 2," attached thereto.

The Applicant was unable to supply the book and page numbers of recording of the Tunnel Lode Nos. 11 and 12. They state in their letter of May 27, 1958 that they are no longer considered valid locations, as their positions are now occupied by the Pinnacle claim, as far as they can determine.

The contract, dated May 8, 1958, provides for exploration work estimated to cost $190,760.00, toward which the Government will contribute 50 percent, or not in excess of $95,380.00.

Copies of the contract have been distributed to the Finance Office and others concerned in Region III.

J. W. Townsend

Enclosures

CERTIFIED MAIL

224 New Customhouse
Denver 2, Colorado

JUN 23 1958

Norbute Corporation
P. O. Box 1700
Grand Junction, Colorado

Re: Docket No. DMEA 4848 (Lead-Zinc)
Contract No. Idm-E1190
Norbute Corporation
(Sta. John mine)
Summit County, Colorado

Gentlemen:

Enclosed is the Operator's Copy of Exploration Project Contract No. Idm-E1190, Docket No. DMEA 4848.

Also enclosed are six copies of Form MF-104, Operator's Monthly Report and Voucher, and six copies of Form MF-104A, "Operator's Unit Cost and Progress Report. At the end of the first calendar month after work is commenced, and monthly thereafter, you are required to submit the original and four copies of each form to the

Executive Officer
Defense Minerals Exploration Administration
224 New Customhouse
Denver 2, Colorado.

The extra copy is for your records.

Forms MF-104 and MF-104A are to be combined into five sets of one of each form. Each set of the combined forms is to be accompanied by a map or sketch, showing the location and extent of work performed, and a signed narrative report which describes the work performed, conditions encountered, and results of the work. The monthly accounting report will not be processed for reimbursement unless it is accompanied by a signed narrative report and other required or pertinent data. Additional copies of Forms MF-104 and MF-104A will be sent you each month on receipt of your report for the prior month.

For your information, and in reply to many questions that have been asked, after Forms MF-104 and MF-104A are received, an engineer will check progress on the project and review your accounts, after which the report forms will be forwarded to this office for administrative

examination and vouchering. If the report is in order, a check will be issued by the Treasury Department for the Government's portion of the approved costs. If you have any difficulty in completing these forms and the reports, please call on this office for assistance.

In the matter of your claim for reimbursement of drilling costs under the terms of the contract, reimbursement to you will be on the basis of a hole or holes completed to the objective, which has, or have been, drilled in compliance with the conditions under the "General Conditions" section of Exhibit "A" of the contract and the special conditions pertaining to the drilling under each stage. Therefore, your monthly report should include only such holes which are completed to that extent and the required records made a part of your claim for reimbursement.

The contract is prepared on form MF-200, and as outlined in Exhibit "A" attached to the contract, the estimated allowable costs are a combination of "Actual Costs" and "Fixed Unit Costs". The costs on an Actual Cost basis are broken down into categories which conform to the numbered "Categories" in Article 6 of the contract form, and also conform to the numbered items for reporting on Form MF-104. Please refer to Article 6 of the contract form, which may be further qualified by special notations in Exhibit "A", for information as to which unit costs and extended total amounts are "allowable maximums" to which the Government will contribute its share as provided for in the contract. Under the provisions in Article 6, the work outlined under Category (1) is to be performed by an independent contractor and charges for such work must be documented by signed or certified true copies of billings from the subcontractor. For further information relative to documentation of costs, please refer to instructions on the reverse side of Form MF-104. Also, please refer to the instructions on the reverse side of Form MF-104A regarding preparation of that form.

In reference to the drilling work under Category (1) of Exhibit "A", please refer to added provisions under Article 13(a) of the contract form pertaining to the average unit cost. If costs incurred any month cause the average unit cost to be in excess of the maximum allowable average unit cost, such excess costs will be suspended, subject to reinstatement at a later date within the aggregate of such suspensions, should the costs incurred any subsequent month cause the average unit cost to fall below the maximum allowable average unit cost. The foregoing applies to each separate class of drilling under each work "Stage."

In the event you desire to perform the work under Category (1) on company account instead of subcontracting it, as provided in the contract, it will be necessary that you request and obtain an appropriate amendment to the contract before reimbursement can be made to you for the Government's portion of the allowable incurred costs.

Your requests to this office for work approval, changes in the contract, or any other communication pertaining to operations under the contract, must be in writing, of which please supply the original and five copies, each copy complete with maps or other pertinent data. Each request for action by this office must pertain to one matter only. Such requests are not to be incorporated in your narrative report accompanying monthly progress report Forms MF-104 and MF-104A.

The locations of the holes to be drilled under Stage I are indicated as approximate on the map, "Figure 3," attached to the contract. Should conditions encountered necessitate any appreciable change in the location of any of the holes, approval of this office for the change must be obtained prior to performance of the drilling. Otherwise, the drilling may not be acceptable for reimbursement to you under the terms of the contract.

Your attention is directed to the provision that work under both Stages II and III is contingent upon results of the work completed under the prior Stage, and that performance of the work is subject to prior written approval of the Government.

When the work under a stage has been completed, or sufficiently so to permit evaluation of the results of the work, you must request approval from this office for the work you propose to perform under the next stage. Your request for the work approval must be in sextuplicate, each copy complete with a map showing the locations of holes previously drilled and the locations of the holes you propose to drill under the next stage. Your request should be complete with drill logs, results of radiometric probing, chemical analyses, and any other pertinent data which will be of value to the Government in appraising the work performed under the prior stage.

If the work under Stage I is completed in its entirety before you request approval for work under Stage II, you should anticipate a suspension of operations between stages of work, to enable the Government geologist and engineer to evaluate the results of the work performed and make their recommendations to this office relative to the additional work you propose.

To eliminate as much delay to operations as possible, if that is of serious consideration, you should expedite the forwarding of the results of the work completed and your request for the Government's approval of the additional work you propose.

No oral statement of any person shall be construed to modify or change the terms of the contract. Field representatives of the

Government are not authorized to approve any changes in the work program or contract provisions. Such approval can only be given by the Washington Office, DMEA, or by the DMEA Field Team, Region III.

It is a regulation that reimbursement for the cost of work accomplished prior to the date of the contract will not be allowed. It is a requirement and imperative that you notify this office in writing the date work actually commences under the contract.

Very truly yours,

Original signed by
J. W. TOWNSEND

J. W. Townsend
Alternate Acting Executive
Officer, DMEA Field Team,
Region III

Enclosures

JWT:pr

cc: Chem. Op. Comm. (2)
Finance Office, Reg. III
Amendment file, Reg. III
Hershman
DMEA DEC
Cooper
Corres. file
Chron.

NORBUTE CORPORATION

Executive Offices: 405 PARK AVENUE • NEW YORK 22, N. Y. • *PLaza 1-4800*

June 18, 1958

DMEA
DEPARTMENT OF THE INTERIOR
JUN 20 1958
REGION III
DENVER, COLORADO

Executive Officer
DMEA Field Team, Region III
224 New Custom House
Denver 2, Colorado

Re: Docket No. DMEA 4848 (Lead-Zinc)
Norbute Corporation
(Sts. John mine)
Summit County, Colorado
Proposed Exploration Project
Contract No. IDm-E1190

Dear Sir:

In accordance with your letter of June 17, 1958, we are enclosing all copies of DMEA Contract No. Idm-E1190, all signed as requested.

We have already inserted in Article 3 the date on or before which work will be commenced: namely, July 15, 1958.

Thank you for your help in this matter. We await further instructions outlining procedure to be followed in corresponding with your office.

Very truly yours,

NORBUTE CORPORATION

Nicolas M. Salgo

NMS/kk:lw

CENTRAL FILE COPY
DMEA
RECEIVED JUN 19 1958
DATE | INITIAL | CODE
6/19 | C | 220
6/19 | [illegible] | 500

224 New Customhouse
Denver 2, Colorado
June 17, 1958

Morbute Corporation
P. O. Box 1700
Grand Junction, Colorado

Re: Docket No. DMEA 4848 (Lead-Zinc)
Morbute Corporation
(Sts. John mine)
Summit County, Colorado -
Proposed Exploration Project
Contract No. Idm-X1190

Gentlemen:

Enclosed are the Government's, Audit, Finance Office, and Field Team copies of proposed Exploration Project Contract No. Idm-X1190, which has been prepared pursuant to your application for Government assistance in exploration work under the Defense Minerals Exploration Administration program.

If the contract is satisfactory, all copies are to be signed by an official of the corporation authorized to sign such an instrument, the signer's title inserted, the signature attested to by the Secretary of the corporation, the corporate seal affixed, and all copies promptly returned to this office.

In the event the contract is not satisfactory, all copies are to be returned promptly to this office, together with your comments on or objections to the contract.

Your attention is especially directed to three provisions in the contract:

1. The Government will not contribute to the costs of any of the work that is provided for in the contract which is performed prior to the date of the contract.

2. The contract requires completion of the exploration work by the date fixed therefor. Approval must be obtained from the Government for any suspension of work which may result in failure to complete the work by the date specified.

3. Royalty is due the Government on all production from the land described in the contract, beginning on the date of the contract.

If the contract is satisfactory, and upon return of all copies properly signed, the "Operator's Copy" of the contract will be forwarded to you, together with blank report forms and instructions relative to reporting on work performed under the contract. Also, instructions will be given you as to the procedure to be followed in corresponding with this office in matters concerning operations under the contract.

When the signed copies of the contract are returned, please advise us the date on or before which work will be commenced, for our insertion in Article 3 of the contract form.

Since the authority under which DMEA is presently operating expires at the close of June 30, 1958, it is necessary for the contract to be signed and postmarked for return to this office not later than June 30, 1958, for it to become effective under present DMEA authority.

Very truly yours,

Original signed by
J. W. TOWNSEND

J. W. Townsend
Alternate Acting Executive Officer
DMEA Field Team, Region III

Enclosures

JWT:prl

cc: Chmn. Op. Comm. (2)
Hartman
DMEA/DFC
Cooper
Corres. file
Chron.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
6/17	[illegible]	500
6/17	[illegible]	120
"	[illegible]	110
"	[illegible]	100
6/16	[illegible]	220
		500

JUN 17 1958

C.O. Mittendorf/er Rm 4459 - Ext.5371

Defense Minerals Exploration Adm.

14X4401(01 Revolving Fund,
Defense Production Act, Interior,
(Transfer to Office of Secy.)

TELETYPE

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

Date:

To: Mr. J. H. East, Jr., Regional Director, Region III,
224 New Customhouse Building, Denver 2, Colorado

Reurlet June 12, 1958, Docket DMEA-4848, if local representative of Norbute has a resolution of the Board of Directors authorising his signature, it will be sufficient for our purpose.

C. O. Mittendorf (-[illegible])

C. O. Mittendorf
Administrator

WRGriswold/er 6/17/58
Copy to: Docket
Admr R File
Op. Committee
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Chron.
Confirmation Copy

(Mr. [illegible] cleared with Legal)

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION III

OFFICE OF
REGIONAL DIRECTOR

224 NEW CUSTOM HOUSE
DENVER 2, COLORADO

June 12, 1958

ORIGINAL COPY
DME
RECEIVED Jun 16 1958

DATE		
6/16	H. G.	225
"		100
"		110
		120
6/16		100 see leaze

Air Mail
Special Delivery

Memorandum

To: C. O. Mittendorf, Administrator, DMEA

From: Regional Director, Region III

Subject: DMEA Contracts

J. W. Townsend, Acting Executive Officer, DMEA, has raised several points upon which we should secure your definite instructions immediately.

1. If the authorized official of the company signs a contract, and the secretary with his company's corporate seal is in another city, can we accept the contract without having the secretarial certification and corporate seal affixed?

2. You instructed me today to have authorized officials of the companies for which contracts are to be given in our office on June 30. What action shall we take if the corporate seal and the secretary to attest signature are not present? An example in point is Norbute. Mr. Griswold is entirely conversant with this. The local representative is authorized to sign the contract, but the secretary and corporate seal are in New York City.

We are sending this air mail, special delivery and will appreciate your reply by air mail, special delivery, or teletype, so that we receive your definite instructions by Friday, June 27.

Note - Mr. Griswold in touch with Chief Prop. 6/16/58 (ar)

J. H. East, Jr.

J. H. East, Jr.

Copy to: J. W. Townsend

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code

June 12, 1958

Memorandum for the Docket

From: Director, Division of Base Metals

Subject: Phone Conversation about Docket No. DMEA-4848, Norbute Corporation, Saints John Mine, Summit County, Colorado, Lead-Zinc.

Inreply to the Townsend teletype of June 10, 1958, the undersigned phone him today.

It was explained to him that the supposed unpatented claims

Tunnel Lode Ext. No. 7

Tunnel Lode No. 11

Tunnel Lode No. 12

were of no importance to the project and could be deleted from Annex I by later amendment, as outlined in the fourth paragraph of our May 8 letter to him.

W. R. Griswold

W. R. Griswold

8623

Chairman Operating Comm. DMEA.

OFFICE FILE
DMEA
RECEIVED JUN 11 1958

DATE	INITIALS	CODE
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		500

DN 235 BUR MINE 6-10-58 4-21

CHAIRMAN, OPE

CHAIRMAN, OPERATING COMMITTEE, DMEA
ATTENTON -- MR GRISWOLD

RE DOCKET DMEA 4848, NORBUTE CORP., ANNEX 1 ATTACHED TO PROPOSED CONTRACT IDM-E1190. APPLICANT UNABLE TO PROVIDE BOOK AND PAGE FOR RECORDING OF TUNNEL LODE NOS. 7,11, AND 12, AND ADVISES THAT CLAIMS NO LONGER VALID LOCATIONS. PLEASE TELETYPE ADVICE WHAT NOTATION, IF ANY, WE SHOULD MAKE IN ANNEX 1 PERTAINING TO THE CLAIMS. ALSO, OPERATOR ADVISES THAT PATENT NUMBER OF PRIMA CLAIM IS 3031, NOT 1303, AS IN ANNEX 1.

J W TOZNSXXXX TOWNSEND, ALTERNATE ACT. EXEC OFF.

Denver, Colorado

BUREAU OF MINES
WASHINGTON, D. C.

1958 JUN 11 AM 7:40

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
6/10	[illegible]	500
	Rubin	140
	[illegible]	140
6/11	[illegible]	130
"	Johnson	110
"	[illegible]	100
6/12	C	820
		500
6/11	Lamb	130

500

JUN 12 1958

Mr. J. W. Townsend, Alternate
Acting Executive Officer
DMEA Field Team, Region III
224 New Customhouse Bldg.
Denver 2, Colorado

Re: Docket No. DMEA-4848 (Lead-Zinc)
Norbute Corporation
Saints John Mine
Summit County, Colorado

Dear Mr. Townsend:

We have your memoranda of May 26 and 29, 1958, with enclosures, relative to lands under the cited proposed contract.

It is not practical to return the contract to us for revision since the time for executing contracts is running out.

As Stages I and II are confined to drilling in land in which the Applicant has the right to possession, the Applicant will have a sufficient interest for these stages of the contract when it submits to you evidence of a sufficient interest in the Windsor Claim and of the right to drill from the drill sites above the St. John Tunnel.

The Applicant presently does not have a sufficient interest in the land for the purposes of Stage III of the contract, and will not have such interest until it submits to you evidence of the right to possession of the Mark Twain, St. Andrew and St. Elmo Claims, and all other land to the west of the Tunnel Lode No. 2 Claim, within the blue lines which have been marked on the map Figure 2 submitted with Townsend's memorandum dated May 26, 1958, to the Operating Committee, including the right to begin driving the Stage III drift.

Therefore, you may submit the contract to the Applicant for signature after (1) receipt of evidence of the Applicant's right to drill all the Stage I and Stage II holes, and (2) after inserting the following special provision in Annex I.

8623

SPECIAL PROVISION

"Notwithstanding any other provisions of this contract, it is agreed that, in connection with Stage III, the Operator will acquire a sufficient interest, for the purpose of this contract, in the Mark Twain, St. Andrew and St. Elmo claims, and as much other land to the west of Tunnel Lode No. 2 claim, bounded by Tunnel Lode No. 7, Adjoining, Weston Mill Site, Tempest and Greenfield claims, etc. (indicated in heavy blue dashed lines on the attached map "Figure 2") as the Government deems necessary, and these claims and land will be added to Annex I as land included in the contract.

Should the Operator fail to acquire a sufficient interest in as much land as the Government deems sufficient for the purposes of Stage III, no Stage III work shall be performed."

Of course, all Figure 2 maps should show the blue lines and Consents to Lien and Subordination Agreements will be required for land not owned by the Applicant.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (HB)

APPROVED:

Frank D. Lamb (HB)

Member, Bureau of Mines

Thor H. Kiilsgaard

Member, Geological Survey (HB)

Patm

WRGriswold/er 6/9/58

Copy to: Docket
Admr R File
Oper. Committee
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Chron.

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 2 1958

DATE	INITIALS	CODE
6/2	C	220
6/3	WRH	500

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 New Customhouse
Denver 2, Colorado
May 29, 1958

Memorandum

To: Chairman, Operating Committee, DMEA

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

Subject: Docket No. DMEA 4848 (Lead-Zinc), Norbute Corporation (Sts. John mine), Summit County, Colorado - Proposed Exploration Project Contract No. Idm-E1190

Enclosed are the original and one copy of the Applicant's letter of May 27, 1958, which was submitted as a result of a conference between Mr. Deringer and this office, referred to in our memorandum to you of May 26, 1958, which, in turn, is in reference to matter discussed in your letter of May 26, 1958 and the memorandum attached thereto, dated May 2, 1958, from the Associate Solicitor, Division of Mineral Resources.

The enclosed material is forwarded for review by your office and the Associate Solicitor and further advice to us as to the minimum of clarification of property matters that will be acceptable to you as a prerequisite to release of the contract to the Applicant for signature.

Because of the many changes and additions to the contract and Annex I concerning Consent to Lien and property listings, it appears that all copies of the contract should be returned to you for the necessary corrections and revisions when the material outlined by the Applicant in its letter of May 27 is provided to this office.

Please note that the Prima Claim is Survey No. 3031 instead of 303 as indicated on the mining deed and instead of 1303 as listed in Annex I to the contract.

Also, in reference to the map, "Figure 2," of the contract, the claim overlapping the Greenfield No. 2372 is actually the Denver No. 5988, instead of No. 6988, as indicated on "Figure 2."

The Applicant indicates that an easement will be obtained to permit access on ground not subordinated, up to the anticipated point where the actual vein will be encountered. Please advise if this is acceptable.

When you have reviewed the matter, we will appreciate advice from you so that we will know how to proceed.

J. W. Townsend

Enclosures

W O

DEWITT C. DERINGER
MINING ENGINEER
1808 NINETEENTH STREET
GOLDEN, COLORADO

DMEA
DEPARTMENT OF THE INTERIOR

MAY 29 1958
OFFICIAL FILE COPY
REGION III
DMEA
DENVER, COLORADO
RECEIVED JUN 2 1958

DATE	INITIALS	CODE

May 27, 1958

Executive Officer,
DMEA Field Team, Region III
224 New Custom Building
Denver, Colorado.

Attemtion Mr. Townsend

Re: Docket No. DMEA 4848
Norbute Corporation,
Saints John Mines
Summit County.

Gentlemen:

On a recent visit to the Denver office of DMEA, Mr. Townsend handed me a list of eight points that he considered should be clarified prior to DMEA granting the application for a loan. In the attached the questions have been re-stated in the same order with our proposals and comments which we trust will clarify the points raised.

The area through which the Sts. John tunnel passes between the Weston Mill Site and Tunnel Lode No. 2 appears to be covered by Tunnel Lode No. 10 as explained in the attached. However to make certain, filing an amended location and increasing the width to 600 feet from 460 feet and the length to 1500 feet from 1400 feet, there will be ample coverage to the west of Tunnel Lode No. 2. By tieing the amended location to a corner of Tunnel Lode No. 2, the location of the amended claim will be definitely established. There appears to be no conflict in this area from prior locations of third parties. The amended location, together with other claims mentioned in the attached, will be staked and the locations recorded as soon as underfoot conditions permit. We anticipate access to the general area will be possible within ten days at the most.

A copy of location certificates, revised maps of the area showing the amended claims and new claims, together with "Easement" from Mrs. Deatheridge will be forwarded to you at the earliest possible moment.

Inasmuch as Tunnel Lode No. 10 as now recorded appears to cover the area between Weston Mill Site and Tunnel Lode No. 2 and with an amended location there will be no question, we suggest that the loan application be granted contingent on securing the easement from Mrs. Deatheridge, and control of any other area through which the extension of the Jerry tunnel will pass. We feel confident that all requirements of DMEA can be satisfied providing that an easement through the Deatheridge is satisfactory.

Very sincerely yours,

DeWitt C. Deringer

Vice President-Norbute Corporation

DMEA 4848, Norbute Corporation

-1- Need Map Showing

Prima Correct patent number is 3031.

Tunnel Lode No. 10. Book 13, page 496. Location of claim dated July 1898. Discovery within the Sts. John, tunnel. Tie of corner No. 2 is N 53° 44' W to Bear Mountain and N 12° 28' W to Lenawee Mountain. Bearing of side line is N 57° E which is parallel to side line of Tunnel Lode No. 2 claim. We propose to amend this location to a 600 ft by 1500 ft claim with the side line common to that of Tunnel Lode No. 2 so as to cover the required area to the northwest and to more exactly its position with respect to Tunnel Lode No. 2. This claim (Tunnel Lode No. 10) is valid with annual assessment work recorded for several years past.

Tunnel Lode No. 11

As far as can be ascertained, there is no recording of the original location, although affidavits of labor for assessment has been recorded since prior to 1934. Results of our review of all known records, this claim occupies approximately the same area as the Pinnacle and therefore is not important inasmuch as the Pinnacle is a valid claim.

Tunnel Lode No. 12

Same remarks as Tunnel Lode No. 11. Not too important as all claims covering the area are under the control of Norbute, with no third party rights as far as can be ascertained.

Success

Book 25, page 308. Valid claim-assessment work recorded every year since 1940. A photostat copy of original location is enclosed from which it is apparent that this claim is in the general vicinity of the Weston Mill Site, west of Sts John tunnel. We propose to file amended location conforming with any evidence of actual location on the ground that can be found, as soon as under foot conditions permit. Last fall an effort was made, however, to locate a corner post with no success.

Silver Ridge Book 25, page 309. Photostat copy of original location enclosed. Same remarks apply to this claim as give above under "Success".

Celtic Mill Site - Book 18, page 496. Location about 500 feet to seast of Jerry claim which is out of area of immediate interest.

-2- Need Book & Page of Recording of:

Tunnel Lode No. 9 -	Book 9, page 434
Tunnel Lode No. 7 -	Patent No. 7067
Tunnel Lode No. 10-	Book 13, page 496
Rocky Point	" 20, " 297
June	" 20 " 296
Climax	" 20 " 298
Portland	" 20 " 298
Vindicator	" 20 " 297
Adjoining Claim	" 20 " 417

-3- Clarification of:

Greenfield	- Patent No. 2372
Denver	" 5988

Both claims tax delinquent since prior to 1934 and a bid has been made to acquire the tax titles. However, claims listed under item No. 5 below through which an easement will be granted and other claims such as the Register under Norbute control have prior rights in the area through which the proposed extension of the Jerry tunnel will pass.

-4- Need Instrument of Acquisition on:

Windsor - A document has been signed whereby this claim is purchased for $2000.00, with an initial payment made of $100.00 and subsequent payments to be made on October 14, 1958, October 14, 1959 and the last payment October 14, 1960. This we believe will fulfill your requirements.

Tunnel Lode No. 7 No. 617. Notwithstanding number of patent on maps, no reference can be found in the county records and the county assessor states the claim is not valid.

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 2 1958

DATE	INITIALS	CODE

-5- Need Consent to Lien on:

Celtic No. 1823
Mark Twain Extension No. 1788
Morning Star No 1928
Evening Star No. 1878
Hancock No. 2011
Freyberg (if Freyberg hold interest)

With the exception of Freyberg, which is contolled by Norbute, an easement has been granted through the above listed claims by Mrs. Elizabeth Deatheridge, the recorded owner and the instrument is now being prepared. Inasmuch as no important commercial orebodies have been found within these claims nor is there evidence of an important vein outcropping on surface, it would appear that an easement should fulfill the requirements of D.M.E.A. The extension to the north of the only commercial vein of importance, the Comstock, appears to be cut off by a fault striking NW-SE and passing just north of North end line of Tunnel Lode No. 2. Therefore it would not appear wise or justified, based on existing evidence to acquire ground to the north of the fault at a considerable cost to the operator and thereby deplete funds for exploration on more favorable claims.

-6- Map Showing Location of:

Sts. John No. 10, 11, & 12 are all west of Sts John creek and therefore out of the area of interest.

Vanderbilt No. 1 & 2 The only area of interest is covered by the Jerry - a valid location - and the balance of the area of these claims is to the northwest, out of the area of interest.

-7- Easement for Entry through and work from Sts John Tunnel.

Filing an amended location of Tunnel Lode No. 10 as explained in item No. 1 above should, we believe, fulfill D.M.E.A. requirements.

-8- Same remarks as No. 7 above.

Other Comment

We have placed a bid with the Summit County treasurer for aquisition of Mark Twain by tax title as this claim has been delinquent for many years. We also shall bid for tax title to Greenfield and Denver claims-which have been delinquent for years.County officials informs us that St. Andrews and St. Elmo are not valid claims. As soon as underfoot conditions permit we shall stake and file location claims so as to cover any possible small fractions between Jerry and Tunnel Lode No. 10 along the line of the proposed extension of the Jerry tunnel.

cannot be folded

No. 162. LOCATION CERTIFICATE Lode Claim.—The Bradford-Robinson Ptg. Co., Mfrs. Robinson's Legal Blanks, Denver.

KNOW ALL MEN BY THESE PRESENTS, That F.R.Wolfle

The undersigned

has located the SILVER RIDGE lode mining claim, and by this certificate, and by right of discovery and location, claim 1500 feet, linear and horizontal measurement along the vein thereof, with all its dips, angles and variations as allowed by law 600 feet on said vein running West from the center of the discovery Cut and 900 feet running East from the center of the discovery Cut, together with 300 feet on each side of the middle of said vein at the surface, and all veins, lodes, ledges, deposits and surface ground within the lines of said claim, situate in Snake River Mining District, County of Summit, and State of Colorado and described by metes and bounds as follows, to-wit:

Beginning at Corner No. 1 and running 1500 in a Easterly direction to post No. 2 then running 600 Ft in a Northerly direction to post No 3 then running in a westerly direction to post No. 4 then running in a Southerly direction to post No 1 or at the point of beginning.

This claim is located on the East side of StJohns Creek Glazier Mountain and about one mile South west from the town of Montezuma Colo.

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 2 1950
DATE INITIALS CODE

Said lode was discovered on the 21st day of Sept, A. D. 1939
and located on the 21st day of Sept, A. D. 19 39
Dated this Dec, 15th day of Dec, A. D. 19 39

F.R.Wolfle [SEAL]

F.R.Wolfle [SEAL]

[SEAL]

[SEAL]

[SEAL]

[SEAL]

WITNESS
C.F.Frey
C.F.Frey

No. 162. LOCATION CERTIFICATE [illegible]de Claim.—The Bradford-Robinson Ptg. Co., Mfrs. Robinson's Legal Blanks, Denver.

[illegible] be posted

KNOW ALL MEN BY THESE PRESENTS, That F.R.Wolfle

The undersigned

has located the SUCCESS lode mining claim, and by this certificate, and by right of discovery and location, claim 1500 feet, linear and horizontal measurement along the vein thereof, with all its dips, angles and variations as allowed by law 700 feet on said vein running Easterley Direction from the center of the discovery Cut and 800 feet running Westerley Direction from the center of the discovery Cut, together with 300 feet on each side of the middle of said vein at the surface, and all veins, lodes, ledges, deposits and surface ground within the lines of said claim, situate in Snake River Mining District, County of Summit, and State of Colorado and described by metes and bounds as follows, to-wit:

Beginning at Corner No. 1 and running 1500 Ft in a easterley Direction to Post No 2 then running in a Northerley direction 600 Ft to Post No 3 then running in Westerley direction 1500 Ft to Post No 4 then running in a Southerley Direction 600 Ft, to Post No 1 at the point of beganning.

This claim is located on the East side of St.Johns Creek Glazer Mountain and about one mile from the Town of Montezuma Colo. South West direction

Said lode was discovered on the 21st day of Sept., A. D. 19 39
and located on the 21st day of Sept., A. D. 19 39
Dated this 15th day of Dec., A. D. 19 39

F.R.Wolfle [SEAL]
[SEAL]
F.R.Wolfle [SEAL]
[SEAL]
[SEAL]
[SEAL]

Witness C.F.Frey
C.F.Frey

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UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 New Customhouse
Denver 2, Colorado
May 26, 1958

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Memorandum

To: Chairman, Operating Committee, DMEA

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

Subject: Docket No. DMEA 4848 (Lead-Zinc), Norbute Corporation (Sts. John mine), Summit County, Colorado

In reference to our memorandum of May 14, 1958, Mr. DeWitt C. Derringer, Vice President of Norbute Corporation, visited this office on May 19 and the various matters which are a deterrent to execution of proposed Contract No. Idm-E1190 were discussed.

Mr. Derringer indicated that he would initiate action immediately to resolve all matters.

Enclosed is a copy of the map, "Figure 2," used in the proposed contract, on which we have transferred from "Figure 3" the proposed work, in order to show its relation to the property listed in the contract. The property has been colored to more readily show its relation to other property which might be involved.

As indicated on the map, "Figure 2," part of Stage I and in all probability part of Stage II work will start from ground not presently proposed for subordination under the contract. We requested that an easement or right to access and use be obtained on ground extending northwesterly roughly to the heavy blue dashed line we have placed on Figure 2. Also, fractions indicated by a blue X should also be included in an option or easement to adequately protect the Government's interest.

When you have reviewed the matter, we will appreciate advice or suggestions you may have as to any additional ground that should be obtained.

JW Sammond
for E. N. Harshman

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 New Customhouse
Denver 2, Colorado
May 14, 1958

FIELD FILE COPY
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RECEIVED MAY 16 1958
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Memorandum

To: Chairman, Operating Committee, DMEA

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

Subject: Docket No. DMEA 4848 (Lead-Zinc), Norbute Corporation (Saints John mine), Summit County, Colorado

In regard to matter discussed in your letter of May 8, 1958 and the enclosed memorandum from the Associate Solicitor, dated May 2, 1958, Mr. DeWitt C. Deringer, Vice President of Norbute Corporation, Grand Junction, Colorado, was contacted by telephone regarding the discrepancies in the property ownership. He plans to come to this office May 19 to discuss all matters which are a deterrent to release of the contract for signature.

The proposed work under the contract has been transposed to the claim map, "Figure 2," and the location of the proposed work indicates that the work proposed for Stage III, also a portion of that proposed for Stages I and II, will involve ground not presently included for subordination under the contract.

We will keep you advised as to developments in discussions with the Applicant.

E. N. Harshman

E. N. Harshman

DMEA Form 7
(12-56)

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"	Chambers	800
5/7	[illegible]	130
5/8	Johnson	110
"	Rattenbury	100
5/9	[illegible]	220
		500

500

MAY 8 1958

B

Mr. E. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III
224 New Customhouse Bldg.
Denver 2, Colorado

Re: Docket No. DMEA-4848 (Lead-Zinc)
Norbute Corporation
Saints John Mine
Summit County, Colorado

Dear Mr. Harshman:

With reference to your April 1 memorandum, we are enclosing the original and four copies of a proposed long-form contract for the cited project, which have been signed by the Administrator for the Government. The contract consists of the form (MF-200), Annex I (two pages), Exhibit "A" (nine pages), and two maps. We are also enclosing two extra copies of the contract, minus the form, for the use of the Field Team.

Certain changes have been made from the submitted recommendations. The suggested cost for timbering of $11.14 per foot appears excessive for openings of 5 x 7 feet size. No supervision nor depreciation allowances should be required since timbering should be done concurrently with the tunnelling. We have allowed $1,800.00 for labor and $2,982.00 for timber cost, for such work, which should be ample.

Diamond drilling costs, for depths over 500 feet, have been allowed at $7.00 per foot. The Golden Drilling Company bid of $8.00 is out of line.

There are various matters pertaining to land titles which must be cleared up prior to presenting the contract for signature. Please note the enclosed memorandum (dated May 2) from the Associate Solicitor. It may be that the Applicant has listed various claims which have little bearing upon the project, in such instances they

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may be deleted from the contract by amendment, rather than wasting time obtaining clarifications on claims of no importance. On the other hand, claims of importance to the project must be clarified with respect to title requirements.

In addition to the points noted by the Associate Solicitor, the recording (book and page number) of certain claims, is lacking.

We cannot understand how the Applicant plans to do the work of Stage III when, at a point about 1300 feet from point of beginning, the crosscut passes out of the Applicant's land. We understand, of course, that the Apex Law would permit ~~of~~ drifting on the St. John vein when beyond the Applicant's side lines, but crosscutting through land held by others is a very different matter. Likewise, we call your attention to the statement (page 2) of the March 26 memorandum of Buel and King:

"Probing the walls from the crosscut and drift for possible parallel veins would be particularly interesting in the area 700 to 900 feet NE of the St. John adit".

Apparently the Applicant has no rights in this area. Hence, before approval could be given to any Stage III work, the Applicant must secure either easements or leases adequate to the needs of the project.

If the contract meets with your approval, and when the necessary clarifications have been made, please present it to the Applicant for approval and signature and, when completed, distribute all the copies in the usual manner. Otherwise, and if any proposed change should lie beyond your delegated authority, all copies should be returned to us with your recommendations.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (HB)

Enclosures

WRGriswold/er 5/6/58

Copy to: Docket
Admr R File
Op. Committee
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Chron.

APPROVED:

Frank D. Lamb (HB)

Member, Bureau of Mines

Thor H. Kiilsgaard (HB)

Member, Geological Survey

EXPLORATION PROJECT CONTRACT
NORBUTE CORPORATION
DOCKET NO. DMEA-4848

EXHIBIT"A"

Description of the Work

The purpose of the project is to explore for ores of lead and zinc, by means of diamond drilling, crosscutting and drifting. The work is set forth below in three stages. The Operator shall perform Stage I, and thereafter shall perform as much of Stages II and III as is approved in advance by the Government.

General Conditions

Diamond core drilling under all stages shall be BX size or larger, except that in cases where difficult conditions may require a reduction to AX size to complete a hole, such reduction may be made with Government approval.

All holes shall be reamed and cased or cemented and redrilled as necessary.

All drifts and crosscuts shall be timbered as necessary with standard drift sets and shall be approximately 5 feet by 7 feet in the clear of timber.

All drill core shall be saved until examined by the Government. All significantly mineralized core will be split and one-half sampled and assayed for copper, lead, zinc, gold and silver. The remaining half shall be made available to the Government.

Sludge samples shall be taken and, in significantly mineralized areas, if the core recovery is less than 70 percent the sludges in that area shall be sampled and assayed in the same manner as core. The remaining half of such sludge samples shall be made available to the Government.

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

MAY 2 1958

Memorandum

To: Administrator, DMEA
Attention: Director, Division of Base Metals

From: Associate Solicitor, Division of Mineral Resources

Subject: Preparation of Contract for Docket No. DMEA-4848, Norbute Corporation, Saints John Mine, Summit County, Colorado, Lead-Zinc

As requested in Mr. Griswold's memorandum dated April 16, 1958, we have prepared the attached Contract.

1. To the extent that we are able to determine from the file, certain items concerning the land require clarification, prior to execution of the Contract.

The map, Figure 2, shows a Tunnel Lode No. 7 claim, Patent No. 617, which is not listed in the docket papers, in addition to the Tunnel Lode No. 7, Patent No. 7067, that is listed in the deed from E. G. Wolfle and J. W. Barnes to Norbute.

The map shows the Windsor claim, Patent No. 2083, with a legend as under option from E. F. Brophy to Barnes. We have added the claim to Annex I, although it is not included in the deed. If the claim is to be included in the Contract, we should have copies of the instruments under which Norbute has the right to possession. If it is not to be included in the Contract, it should be stricken from Annex I. In discussing this Contract with Mr. Griswold, it occurred to us that the applicant did not explain his right to begin driving the Stage III drift from outside the property line shown on Figure 3. Evidence of its rights to do so should be furnished.

2. The map, Figure 2, does not show the Prima claim, Tunnel Lode Nos. 10, 11, and 12, Success, Silver Ridge, or Celtic Mill site, which should be added to it.

3. Consent to Lien and Subordination Agreements are required from E. G. Wolfle (Mrs. F. R. Wolfle) and J. W. Barnes; Mrs. Elizabeth Deathridge (and husband, if living) for the Celtic, Mark Twain Ext., Morning Star, Evening Star and Hancock claims, and any other claims in the project in which she may hold an interest; George Freibert in the Freyberg claim, if he still holds any interest; and Barnes and J. W. Brophy for the Windsor Claim, if it is to be included in the Contract.[1]

The Field Team report describes certain claims as having small outstanding undivided interests. For example, the Tunnel Lode No. 2 is shown as a 17/18th interest. There are others. These small outstanding interests may be waived, unless the holders are Barnes, Freiberg, Deathridge, or Brophy, from whom Consent to Lien and Subordination Agreements are required anyway, as indicated above.

Robert P. Dwyer

1/ If additional Consents to Lien and Subordination Agreements are acquired, the names should be added to Articles 2(b)(2) and 2(c).

DMEA Form 7
(12-56)

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April 16, 1958

Memorandum

To: Associate Solicitor, Division of Mineral Resources

From: Director, Division of Base Metals

Subject: Preparation of Contract for Docket No. DMEA-4848, Norbute Corporation, Saints John Mine, Summit County, Colorado, Lead-Zinc.

Will you kindly prepare a long-form contract along the lines of the attached rough draft.

W. R. Gris...

W. R. Griswold

WRG/er
Docket
Chron.

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code

April 16, 1958

Memorandum for the Docket

From: Director, Division of Base Metals

Subject: Phone Conversation about Docket No. DMEA-4848, N orbute Corporation, Saints John Mine, Summit County, Colorado, Lead-Zinc.

On April 4, 1958, the undersigned spoke over the phone with E. N. Harshman in Denver, regarding this application.

It was decided that the project would be divided into 3 stages, i. e., a row of shallow holes, a row of deeper holes, and tunnelling thereafter, if prior results were reasonably satisfactory.

In the preparation of the contract some deviation has been made from Field Team recommendations.

In Stage I the allotted time has been reduced from 4 to 2½ months. The two deep holes have been eliminated. Core boxes have been reduced from 120 to 80.

In the Field Team Stage II (contract Stage III) diamond drilling has been added to probe the walls.

We have made certain deductions under timbering. All supervision and depreciation has been eliminated since the work should be done concurrently with the drifting and crosscutting. The timbering labor charge of $2400. has been reduced to $1800.00, a more logical figure.

We have not set-up a special timbering account, but added the labor and timber costs to their proper categories. In this type of contract, if we were to allow a certain sum per foot extra for timbering, we might have a condition where the same work was paid twice, via labor and material account and via unit cost account.

W. R. Griswold

WRG/er

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UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

DMEA
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224 New Customhouse
Denver 2, Colorado

April 10, 1958

AIR MAIL
SPECIAL DELIVERY

Memorandum

To: Chairman, Operating Committee, Att: Willis R. Griswald

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

Subject: Docket No. DMEA 4848 (Lead-Zinc) Norbute Corporation (Saints John Mine) Summit County, Colorado

A few minutes after our telephone conversation, the attached drilling bids were received from the Applicant.

Enclosed are the original and one copy of a drilling bid from the Golden Drilling Company and the original and one copy of a drilling bid submitted by Sprague and Henwood, Inc. Prices of AX and BX core are quoted by both bidders.

E. N. Harshman

E. N. Harshman

MINERAL EXPLORATION -- TEST BORINGS GROUT HOLE DRILLING

GOLDEN DRILLING COMPANY

DIAMOND DRILLING CONTRACTORS
2301 EAST STREET
GOLDEN, COLORADO
PHONE CRestview 9-1371

APR 9 1958

April 1, 1958

Golden Drilling's Company's estimate for core drilling approximately forty five hundred feet (4500') in the Saint John Mine, near Montezuma, Summit County, Colorado. Total lenght of the holes approximately 800'.

AX		Underground	Surface
From	0 to 250'	$ 4.50 per. ft.	$ 4.75 per. ft.
	250 to 500'	5.25 " "	5.50 " "
	500 to 800'	6.50 " "	7.00 " "
BX			
From	0 to 250'	5.25 " "	5.50 " "
	250 to 500'	6.00 " "	6.25 " "
	500 to 800'	7.50 " "	8.00 " "

Reaming and casing $3.00 per. ft.
Cementing and drilling out $2.50 per. ft.
Casing unable to recover paid for at cost.

Norbute Corporation to furnish air and cut suitable stations for drill set-ups, underground and surface.

W E Matthews
GOLDEN DRILLING COMPANY

OFFICIAL FILE COPY
DMEA
RECEIVED APR 14 1958

DATE	INITIALS	CODE

DMEA
DEPARTMENT OF THE INTERIOR
APR 10 1958
REGION III
DENVER, COLORADO

APR 10 1958

MANUFACTURERS OF
DIAMOND DRILLS
DRILLING EQUIPMENT
DIAMOND BITS

BRANCH OFFICES
NEW YORK · PITTSBURGH
PHILADELPHIA
GRAND JUNCTION, COLO.

EXECUTIVE OFFICES & PLANT
221 W. OLIVE STREET
SCRANTON, PA.

SPRAGUE & HENWOOD, INC.

SINCE 1883

CONTRACTORS FOR
DIAMOND DRILLING
SHOT DRILLING · SOIL SAMPLING · PRESSURE GROUTING
WATER WELLS & CHURN DRILLING

OUR DIAMOND ANNIVERSARY · 75 YEARS · SINCE 1883

PLEASE REPLY TO
P. O. BOX ~~XXXX~~ 1446
GRAND JUNCTION, COLO.
TELEPHONE ~~XXXX~~
CHapel 2-0444

April 8, 1958

OFFICIAL FILE COPY
DMEA
RECEIVED APR 14 1958

DATE		CODE

Norbute Corporation
P. O. Box 1700
Grand Junction, Colorado

Attn: Mr. D. C. Derringer

Gentlemen:

In accordance with your letter of April 1, 1958, we herewith submit our proposal for diamond drilling at the Saints ~~John Mine near~~ Montezuma, Colorado.

PROPOSAL

Surface Drilling

Item 1.	Core Drilling	AX	BX
	0 - 400 ft.	$7.50/ft.	$8.00/ft.
	400 - 800 ft.	$8.00/ft.	$8.50/ft.
Item 2.	Non-Core Drilling	NX	
	0 - 800 ft.	$6.75/ft.	
Item 3.	Reaming	AX-BX	BX-NX
	0 - 800 ft.	$4.00/ft.	$4.75/ft.
Item 4.	Cementing and Drilling Out Cement		
	0 - 800 ft.	$4.00/ft.	
	Plus cost of cement		

Underground Drilling

Item 5. Core Drilling; recovering minimum size AX (1-1/8") to maximum depth 800 ft.

0 - 400 ft.	$6.00/ft.
400 - 800 ft.	$7.00/ft.

DMEA
DEPARTMENT OF THE INTERIOR
APR 10 1958
REGION III
DENVER, COLORADO

Norbute Corporation
Attn: D. C. Derringer

April 8, 1958

THIS PROPOSAL IS BASED ON THE FOLLOWING CONDITIONS:

1. All drill hole locations and access to hole locations will be constructed and maintained to accomodate Sprague & Henwood, Inc. equipment. Any bulldozer work required for preparation of sites and roads will be furnished by Norbute Corporation, at no cost to Sprague & Henwood, Inc. Underground drill stations suitable for making 10 foot runs will be provided, and prepared for drilling without additional work by Sprague & Henwood crews.

2. Cores will be delivered at drill hole locations, and storage and preservation of cores will be the responsibility of the customer.

3. Compressed air and water of sufficient volume and pressure for drilling purposes will be provided by Norbute Corporation for underground operations. Water is to be available within 1,500 feet of surface drill sites.

4. Payments are to be made monthly, based on all work performed during the preceding monthly period. Payments are to be made within 15 days of invoice date.

We appreciate the opportunity of submitting this proposal.

Very truly yours

SPRAGUE & HENWOOD, INC.

R. R. Carver
Western Manager

RRC: nr

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DMEA
RECEIVED APR 14 1958

DATE	INITIALS	CODE

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

224 New Customhouse
Denver 2, Colorado

April 4, 1958

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AIR MAIL
SPECIAL DELIVERY

Memorandum

To: Chairman, Operating Committee, DMEA

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

Subject: Docket No. DMEA 4848 (Lead-Zinc) Norbute Corporation (Saints John Mine) Summit County, Colorado

The Applicant advises by telephone that he had received the following bids for drilling which are being mailed to us today.

The Golden Drilling Company, AX size hole, from 500 feet to 800 feet, bids $7.00 per foot. This is an addition to their bid to a depth of 500 feet dated November 23, 1957 and forwarded your office by our memorandum dated February 18, 1958. The bids previously submitted, remain the same for reaming and casing, cementing and drilling out, and casing which they are unable to recover.

The Sprague and Henwood, Inc. bid dated December 3, 1957, for drilling to a depth of 600 feet, AX size was $6.25 per foot. From 600 to 800 feet their bid is $8.50 per foot.

Copies of these bids will be forwarded you as soon as they are received in this office.

E. N. Harshman

E. N. Harshman

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.
224 New Customhouse
Denver 2, Colorado

DMEA
RECEIVE APR 3 1958
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April 1, 1958

Memorandum

To: Chairman, Operating Committee, DMEA

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

Subject: DMEA Docket 4848 (Lead-zinc), Norbute Corporation (Saints John mine), Summit County, Colorado

Enclosed are the original and two copies of a memorandum in which the various comments and suggestions made in your letter of March 7, 1958, are reviewed. Revision of the cost estimates in the examination report are proposed in accordance with your suggestions.

I believe that we are in complete agreement on the marginal nature of this project. We also agree on the need for a cautious approach to any large expenditures for deep exploration prior to a preliminary determination of potential vein widths and the mineral content at or near the proposed level of Stage II drifting.

You will note in my memorandum of February 13, 1958, transmitting the examination report to the Executive Officer, that I pointed out the very extensive nature of the Stage II work proposed in the report and suggested that it be approved only if Stage I drilling indicated significant ore bodies existing on or slightly above the proposed Stage II adit level. This expressed my desire to avoid the driving of "one more long and futile crosscut."

We appear to differ somewhat on the details of a drilling program to determine the presence or absence of a significant target below the Saints John adit level. I believe the program proposed in your letter of March 7, 1958, has certain disadvantages, as pointed out in the enclosed memorandum by the examining team, and I concur with the examiners' recommendation that drilling to intersect the vein approximately 250 feet downdip from the Saints John adit level should be included in the first stage of any program of exploration approved at the Saints John mine. Since Front Range mines are generally shallow, it is entirely possible that the five holes intersecting the vein 250 feet downdip would show the futility of deeper exploration and yet furnish some data on the ore potential of the mine.

If our program is not acceptable to you, I suggest giving consideration to drilling several shallow holes from the drill stations shown on figure 3 in the examination report and, if these holes are favorable, drilling one or more deep holes from each of the two stations proposed in your alternative program as well as one or more deep holes from a station on the 11,100-contour near the old Tempest tunnel. Exploration northeast of the Saints John adit would serve to locate the Comstock vein at depth in the area between the Saints John adit and the Jerry No. 5 adit from which deep exploration, if warranted, would be undertaken.

After you have reviewed the comments in this and the enclosed memorandum by the field examiners, I suggest that we discuss the matter further by phone. I feel certain that a mutually satisfactory program of exploration can be worked out.

We have requested the applicant to obtain bids for drilling holes as much as 800 feet deep from underground and surface stations.

E. N. Harshman

E. N. Harshman
Acting Executive Officer

Enclosure

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

DMEA
DEPARTMENT OF THE INTERIOR

MAR 28 1958
REGION III
DENVER, COLORADO

REGION III

Building 20
Denver Federal Center
Denver 2, Colorado
March 26, 1958

Memorandum

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

Through: E. N. Harshman

From: E. W. Buel
R. U. King

Subject: DMEA Docket 4848 (Lead-zinc) Norbute Corporation (Saints John mine) Summit County, Colorado

In reply to the Operating Committee's suggested revision of Stage I drilling, we feel that the holes as laid out in the examination report will adequately test the Comstock vein above the proposed crosscut and drift on the Jerry tunnel level, which we believe is the part most vital to the project. It seems that it is more important to test the vein interval between a known point and the proposed level than to explore on that proposed level alone. To explore on the proposed level would result in duplication of work in the event that drilling were followed by tunnelling.

Our decision to concentrate exploration above the proposed crosscut on the Jerry tunnel level was based partly on the possibility that the Comstock vein might prove to be "shallow" and therefore a 600-foot gap in exploration would be too great. If the preliminary exploration, confined to a 600-foot spacing (downdip) were to prove to be below the bottom of the vein, virtually nothing of value could be salvaged from the work done. We would know only that the vein bottomed above that level, but not how far above the level it had pinched out.

The shallow habit of mines along the Front Range is well established,

with few exceptions. This property may prove to be one of those exceptions. However exploration is planned to progress downward with 5 holes testing the vein at an intermediate depth below existing workings, to be followed by a minimum of two holes at 500-foot depth in the plane of the vein in the event that this vein should be also shallow. Progressing down the dip in two jumps would give sufficient advance warning of possible steepening of the vein.

If the results of the Stage I exploration were to be inconclusive further drilling would have to be considered prior to approval of the Stage II tunnelling, and it is likely that such drilling would be concentrated north of the Saints John adit rather than south of the adit.

The locations of the Stage I holes are a compromise between length of hole and angle of intersection; a 30° angle of intersection being the minimum suitable angle.

If additional preliminary testing of the Comstock vein is deemed necessary, prior to undertaking the Stage II tunnelling, such holes probably would have to be drilled from surface locations; the drilling should probably be done northeast of the Saints John adit, the results of which would serve better as a guide for the long crosscut and drift from the Jerry tunnel.

Probing the walls from the crosscut and drift for possible parallel veins would be particularly interesting in the area 700 to 900 feet NE of the Saints John adit, where the Comstock vein is apparently cut off by a north-trending east-dipping normal fault. There is a good possibility that with normal displacement along this fault, the Comstock vein might be repeated for a significant interval. It is estimated that a maximum of 2000 feet of core drilling would be adequate to probe the hanging and footwalls at intervals of about 500 feet along the final part of the Stage II X-cut and along the

drift.

The following cost revisions are submitted to provide for a 50 percent reduction of material costs to eliminate the Government's equity in salvage value and for an increase in assaying charges and the addition of copper for analysis.

Page 13:

I. Miscellaneous Items

120 core boxes (25 ft. core/box, wooden) at $5.00/box	$600.00
20 sample analyses (Au, Ag, Pb, Zn, and Cu) at $7.00/each	140.00
	$740.00

Page 14:

Total costs for Stage I	$28,897.16

Page 15:

Pipe:	
4 - inch air line w/couplings at $0.52/ft., 4000 ft.	$2,080.00
1 - inch water pipe w/couplings at $0.15/ft., 3950 ft.	592.50
20 - inch galvanized ventilation pipe at $0.70/ft., 3925 ft.	2,747.50
20 - inch "Ventube" at $1.48/ft., 50 ft.	74.00
	$5,494.00
Track:	
20# rail, ties, bolts, plates, spikes, etc. at $0.95/ft., 4000 ft.	$3,800.00
Total Stage II drifting cost	$125,687.52
Cost per foot (4000 ft.)	$31.4218

Actual Cost

I. Sampling

400 - sample analyses (Au, Ag, Pb, Zn, and Cu) at $7.00/each	$2,800.00

Page 16:

Additions to the recommended program:
Diamond drilling costs are based upon the following assumed conditions:

a. No appreciable drill station preparation necessary
b. Contractor will work two drill rig shifts per day
c. Size of core will be BX; larger or smaller size would be permitted, if necessary
d. Location, inclination, depths of holes to be determined from the results of Stage I work
e. Fifty-two shifts per month; 15-foot advance/shift per drill
f. Completion time, estimated at about 2½ months

Actual Cost

I. Independent Contracts

2,000 ft. core drilling at $6.00/ft.	$12,000.00

II. Miscellaneous Items

80 core boxes (25 ft. core/box, wooden) at $5.00/box	400.00
16 sample analyses (Au, Ag, Pb, Zn, and Cu) at $7.00/each	112.00
	$12,512.00

Page 16:

SUMMARY OF PROGRAM

Stage I	Total Cost	$28,897.16
	Estimated completion time 4 months	
Stage II	Total Cost	$140,999.52
	Estimated completion time 24 months	
	(rounded) Total for Project	$169,896.00
	Government's share at 50 percent	$84,948.00

E. W. Buel

E. W. Buel
Mining Engineer

F. B. Moore
for R. U. King

R. U. King
Geologist

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
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"	Johnson	110
		~~300~~
		~~HB~~
3/24	C	220
		500

MAR 21 1958

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

Re: Docket No. DMEA-4848 (Lead-Zinc)
Norbute Corporation
Saints John Mine
Summit County, Colorado

Dear Mr. King:

We have copies of your March 13 memorandum to E. N. Harshman relative to the cited project. We note your statement:

"It is noted that the Chairman's letter indicates confusion as to the location of the property. He believes this area to be in the Front Range . . . "

We were under no misaprehension as to its location, nor as to its inclusion in the proper geologic unit and mineral province. Please refer to U.S.G.S. Professional Paper 223, "Geology and Ore Deposits of the Front Range Colorado", by T. S. Lovering and E. N. Goddard. To the best of our knowledge, this is the only comprehensive and authoritative study of the general area which has been done in a great many years. We are enclosing two prints from Plate 4 of this volume, which outlines the Front Range uplift.

As near as we can determine, Montezuma lies about 48 air line miles west and a little south from Denver, instead of the "70 air line miles west of the Front Range" stated in your memorandum.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCS)

Enclosures
APPROVED:

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

Thor H. Kiilsgaard (GCS)
Member, Geological Survey

WRGriswold/er 3/18 & 20/58
Copy to: Docket
Admr R File
Op. Committee
Base Metals
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Chron.

8623

Mr. Griswold -

Mr. Lefferts
Mr. Griswold.

I believe personnel relations would be better served if your letter was written along the following lines:

Dear Mr. King:

We have ~~a copy~~ of your March 13 memorandum to E. N. Harshman relative to the cited project.

With respect to your statement that the Chairman's letter indicates some confusion as to the location of the property, we were referring to the "Front Range" as a geologic unit and mineral province in the manner defined in USGS. Professional Paper 223, "Geology and Ore Deposits of the Front Range Colorado" by T. S. Lovering and E. W. Goddard, rather than as a geographic unit.

As near as we can determine, Montezuma lies about 48 miles west and a little south from Denver, instead of the "70 air line miles west of the Front Range" stated in your memorandum.

FEJohnson

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

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3/19	[illegible]	130
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500

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

Re: Docket No. DMEA-4848 (Lead-Zinc)
Norbute Corporation
Saints John Mine
Summit County, Colorado

Dear Mr. King:

We have ~~our copy~~ copies of your March 13 memorandum to E. N. Harshman relative to the cited project. We note your statement:

"It is noted that the Chairman's letter indicates confusion as to the location of the property."

Actually we realized that Montezuma is located just over the ridge from Silver Plume and that a geographer might properly disagree with the "Front Range" classification. On the other hand, U.S.G.S. Professional Paper 223, "Geology and Ore Deposits of the Front Range Colorado" by T. S. Lovering and E. N. Goddard is, to the best of our knowledge, the only comprehensive and authoritative study of this general area which has been done in a great many years.

Lovering and Goddard state (pages 1, 3, 8 and 9):

"The Colorado Front Range extends northward from Canon City to Wyoming, where it merges with the Laramie Range. The most rugged mountains of the Front Range are in the central part and lie mostly between altitudes of 12,000 and 14,000 feet. The western mountain flank slopes steeply away from the crest of the range, but the eastern slope is characterized by broad dissected benchlike erosion surfaces that descend in steps to the plains".

8623

"The quartzite, shale and dolomite of the Upper Cambrian Sawatch quartzite border the southern part of the Front Range from Breckenridge to the Royal Gorge on the western side and from the vicinity of Colorado Springs northward to Perry Park on the eastern side".

"Laramide ore deposits of the mineral belt — The mineral belt extends northeastward from the Breckenridge district through Montezuma, Silver Plume, Georgetown, Idaho Springs, Central City, North Gilpin County, Boulder County, tungsten, Caribou, Ward, Gold Hill and Jamestown districts and is an almost continuous belt of mineralized Laramide fissures."

"The Colorado Front Range, as shown on plate 4, is a northward-trending mountainous uplift commonly 30 to 35 miles wide, extending north from Canon City to Wyoming, where it merges with the Laramie Range without a perceptible topographic break . . . the western boundary of the Front Range is much more irregular, and in some places there is little topographic distinction between the Front Range and some of the Mountain ranges regarded as separate geologic units."

It is obvious that the authors consider the Front Range as being both a geologic unit and a mineral province. We know of no reason for questioning such a classification.

We note your statement:

". . . it is on the Western Slope of the Continental Divide approximately 70 air line miles west of the Front Range."

As near as we can determine, Montezuma lies about 48 miles west and a little south from the city of Denver.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCS)

WRGriswold/er 3/18/58

Copy to: Docket
Admr R. File
Op. Committee
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Chron.

APPROVED:

A. D. McMahon (GCS)
Member, Bureau of Mines

N. E. Nelson (GCS)
Member, Geological Survey

RECEIVED MAR 17 1958

DATE		CODE
3/17	C	220
3/17	WRK.	500

224 New Customhouse
Denver 2, Colorado

March 13, 1958

Memorandum

To: E. N. Harshman
DMEA/DFC Att: Buel

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 4848 (Lead-Zinc) Norbute Corporation (Saints John Mine) Summit County, Colorado

Enclosed are the following:

1. A copy of the Chairman's letter dated March 7, 1958.

2. Memorandum of Review of the field examination report by O. M. Bishop, USBM.

3. Memorandum of Review of the field examination report by W. P. Williams.

4. Map showing proposed changes in location of drill stations.

It is noted that the Chairman's letter indicates confusion as to the location of the property. He believes this area to be in the Front Range, whereas it is on the Western Slope of the Continental Divide approximately 70 air line miles west of the Front Range.

Will you please give us your joint comments and recommendations so that we may reply to the Chairman's letter.

Original signed by
W. H. KING

W. H. King

HMC:dp

cc: Chmn. Oper. Comm. (2)
Docket
Chron.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

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3/5	Truewood	500
3/7	GCL	130
"	Johnson	110
		~~100~~
		~~HB~~
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/		500

500

MAR 7 1958

Mr. William H. King
Executive Officer
DMEA Field Team, Region III
224 New Customhouse Bldg.
Denver 2, Colorado

Re: Docket No. DMEA-4848 (Lead-Zinc)
Norbute Corporation
Saints John Mine
Summit County, Colorado

Dear Mr. King:

The cited application is being referred to your office for further review and reconsideration. We see certain objections to the program as submitted with your February 17 memorandum.

The report of Robert U. King and W. D. McMillan (page 10) states: "Assay data submitted by the applicant indicate that the Comsotck vein averaging 26" in width over a strike length of 2,000 feet will make about 400 tons of lead-zinc-silver ore per foot of depth, containing about 6 percent Pb, 8 percent Zn, and 6 oz. Ag per ton."

What this actually means is that such material, when adjusted to a minimum mining width of four feet, would have a grade of 3.2% Pb., 4.3% Zn., and 3.2 oz. Ag. In narrow vein mining, such material comes pretty close to being marginal, even under favorable metal prices. In view of this, and in view of the generally shallow nature of the mines of the Front Range, we feel that all possible precautions should be taken before we embark upon a large program of four thousand feet of crosscutting and drifting.

The drilling program outlined by King and McMillan is essentially to test the vein only a couple of hundred feet below the St. John level, whereas our principal concern is with conditions existing at the Jerry No. 5 level, some five hundred feet below the St. John. They do have two vertical holes 400 feet in depth, but with a rather small angle of intersection. Should the vein straighten up to any degree from its present dip the two holes would be of dubious value.

8623

Since we consider it to be of prime importance to avoid what might prove to be "just one more long and futile crosscut", we have changed the Stage I drilling as shown on the enclosed map copies. Two fans, of three holes each, would be drilled, all holes inclined to cut the vein 500 feet below the St. John level. Intersection spacing would be 250 feet, total vein length explored would thus be 1250 feet. Drill set-ups would be as indicated, one in the St. John crosscut and one on surface, on about the 11,100 contour. Hole lengths would vary from about 550 to about 750 depth; we should probably allow for a total of 4400 feet of drilling, in case the vein dip might change.

It would seem that if half or more of such holes showed ore of a satisfactory width and grade, we could then proceed with the large drifting and crosscutting program. Otherwise, the project should be terminated. Kindly let us have your comments. There have been various times in the past when we have reluctantly gone along on large programs in spite of an uneasy feeling that we were "going off half-cocked", with insufficiently basic data. Invariably such projects have been disappointing.

Please note that the bid submitted by the Golden Drilling Company quotes only for holes up to 500 feet length. Additional quotations should be requested for longer holes.

In the cost estimates submitted for drifting and crosscutting we note (page 15) " 1/ Material costs reduced to eliminate Government's equity in salvage value". Our usual practice, as followed in other regions, is to reduce prices by fifty per cent to allow for salvage. However, the quoted prices in this case show a much lesser reduction.

With reference to a possible Stage II under this proposed project; if we embark upon a long 2000 ft. drive to get under the Comstock ore shoot, it would seem worth while to probe the walls with diamond drill holes, for possible unknown veins.

We are enclosing copies of memoranda dated February 24 and March 4, 1958, by W. P. Williams, Geological Survey, and O. M. Bishop, Bureau of Mines, respectively, relating to the project.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (24B)

Enclosures
APPROVED:

Frank D. Lamb (24B)
Member, Bureau of Mines

Thor H. Kiilsgaard (24B)
Member, Geological Survey

WRGriswold/er 3/5 & 7/58)
Copy to: Docket
Admr R File
Op. Committee
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Chron.

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It would seem that if half or more of such holes showed ore of a satisfactory width and grade, we could then proceed with the large drifting and crosscutting program. Otherwise, the project should be terminated. Kindly let us have your comments. There have been various times in the past when we have reluctantly gone along on large programs in spite of an uneasy feeling that we were "going off half-cocked", with insufficient basic data. Invariably such projects have been disappointing.

Please note that the bid submitted by the Golden Drilling Company quotes only for holes up to 500 feet length. Additional quotations should be requested for longer holes.

We are enclosing copies of memoranda dated February 24 and March 4, 1958, by W. P. Williams, Geological Survey, and O. M. Bishop, Bureau of Mines, respectively, relating to the project.

Sincerely yours,

Chairman, Operating Committee

Enclosures

APPROVED:

Member, Bureau of Mines

Member, Geological Survey

WRGriswold/er 3/5/58
Copy to: Docket
Admr R File
Op. Committee
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Chron.

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 5 1958

DATE	INITIALS	CODE
3/5	C	220
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Memorandum		

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

March 4, 1958

Re: DMEA 4848; Lead-Zinc-Silver
Norbute Corporation
Saints John Mine
Summit County, Colorado

To: W. R. Griswold, DMEA

From: O. M. Bishop, USBM

Subject: Review of field examiners report and comments by Field Team dated February 13 and received in Washington February 14, 1958.

The field examiners have inspected the subject property on which the applicant proposes exploration on the downdip extension of the Comstock (#5) vein.

Reasoning that the size and continuity of the Comstock ore shoot above the adit level supports the probability of ore occurrence further downstructure, the field team recommends a two-stage program consisting of 3,000 feet of core drilling from the Saints John adit and the vein #7 drift to intersect the Comstock vein's downward extension at five positions. The second stage, contingent on first-stage ore intersections, calls for 4,000 feet of drifting southward from the Jerry #5 adit to explore and develop the portion of the Comstock vein that is 500 feet below the Saints John level.

The only disquieting feature of the project seems to be the narrowness of the vein. Stage I drilling seems warranted by hopes of increased width at lower positions on the structure, and specific locations are well placed to yield maximum information for the planned footage. Though Stage I drilling may be expected to delineate ore, justification of the drift from the Jerry #5 adit does not necessarily follow. After conclusion of Stage I it would seem prudent to reappraise the objectives with a critical eye on mining cost versus recoverable value of the ore.

I recommend the approval of the project as outlined by the field team.

O. M. Bishop

O. M. Bishop

cc: Division of Minerals
Mr. Kiilsgaard
Mr. Lamb
Mr. Callaway
Mr. Bishop
F I L E S

IN REPLY REFER TO:

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

February 24, 1958

Memorandum

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

From: W. P. Williams, U. S. Geological Survey

Subject: Review of field examination report, DMEA 4848 (lead-zinc) Norbute Corporation, Saints John mine, Summit County, Colorado

The examining team report that geological conditions at the Saints John mine are favorable for the presence of undiscovered lead-zinc ore deposits. The known ore body has shown good continuity for some 700 feet vertically and for more than 2,000 feet horizontally. There seems to be good probability that an exploration project would discover ore below the Saints John tunnel level.

The examiners recommend approval of a DMEA contract that would provide for 3,000 feet of diamond drilling and 4,000 feet of crosscutting and drifting. Total estimated cost of the project would be $172,442.

I agree with the recommendation of the Field Team for approval of the application for the main reason that the work is likely to be successful.

W. P. Williams

W. P. Williams

OFFICIAL FILE COPY
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RECEIVED FEB 25 1958

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UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

DMEA
RECEIVED FEB 21 1958

2/21	C	220
2/21	WRS	500

224 New Customhouse
Denver 2, Colorado

February 18, 1958

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 4848 (lead--zinc) Norbute Corporation (Saints John mine) Summit County, Colorado

Enclosed are the original and one copy of the following:

1. Letter dated February 13, 1958 from the Applicant to Mr. Robert King USGS.
2. Drilling bid submitted by George Marshall.
3. Drilling bid submitted by the Golden Drilling Company.
4. Drilling bid submitted by Sprague and Henwood Inc.

W H King

W. H. King
Executive Officer

(3)

NORBUTE CORPORATION

Western Mining Division: URANIUM CENTER BUILDING, P. O. BOX 1700, GRAND JUNCTION, COLORADO—CHapel 2-8257

February 13, 1958

Mr. Robert King
U. S. Geological Survey
Federal Center Building No. 25
Denver, Colorado

Docket No. DMEA-4848
Lead-zinc
Saints John Mine
Summit County, Colo.

Dear Mr. King:

In compliance with your request for copies of bids on diamond drilling at the Saints John property, Montezuma, there are attached hereto copies of letters from Sprague & Henwood, Golden Drilling Company, and George Marshall, each giving a tentative bid for the proposed exploration program.

All of these bids were made without physical examination of the property because the roads were snowpacked, making access difficult if not impossible. Consequently, in rendering these bids, each party emphasized the fact that the bids were necessarily tentative because of inability to examine the conditions and that a final bid would be rendered only after the examination was made.

In presenting the estimate of costs with my letter of December 5, a contract drill price for BX was taken at $6.00 which is approximately an average of the three bids and somewhat higher than the lowest one rendered. Attention is called, however, to the fact that the lowest bid, which was from the Golden Drilling Company, has an additional cost for reaming, casing, cementing and loss of casing. Also, attention is called to the fact that in each case, the preparation of drill stations and the delivery of air to the driller is for the account of Norbute.

I trust that with the attached you have the information you require.

Very sincerely yours,

DeWitt C. Deringer

DeWitt C. Deringer
Vice President

DMEA
DEPARTMENT OF THE INTERIOR
FEB 17 1958
REGION III
DENVER, COLORADO

DCD/b
Enc.

December 3, 1957 CHapel 2-0444

Norbute Corporation
P. O. Box 1700
Grand Junction, Colorado

Attn: Mr. B. C. Deringer

Gentlemen:

In response to your request we herewith submit our proposal for underground drilling at the Saints John Mine near Montezuma, Colorado. This proposal is based on a minimum drilling program of 3,000 feet.

PROPOSAL:

Item 1. Core Drilling recovering a minimum size AX (1-1/8")to maximum depth 600' . . . . . $6.25/ft.

THIS PROPOSAL IS SUBJECT TO THE FOLLOWING CONDITIONS:

1. Underground drill stations suitable for making 10 foot runs will be provided.

2. Compressed air of sufficient volume and pressure for drilling purposes will be provided by Norbute Corporation.

3. Drill stations will be accessible - and prepared by Norbute Corporation for drilling without additional work by Sprague & Henwood crews.

We appreciate the opportunity of submitting this proposal.

Very truly yours

SPRAGUE & HENWOOD, INC.

by Vincent R. Dawne

Robert R. Carver
Western Manager

RRC: mr

November 30, 1957

Mr. DeWitt C. Deringer
Norbute Corporation
P. O. Box 1700
Grand Junction, Colorado

Dear Mr. Deringer:

I have your letter of November 22nd requesting a bid on a total of 3000-3500 feet of drilling in the Saints John level of the Saints John Mine near Montezuma.

I submit a bid of $5.00 per foot for a minimum of 3000 feet of drilling with no hole over 500 feet in depth. You furnish air and core boxes.

I will not be able to start this job before the first day of June, 1958. I can finish 3000 feet of drilling by three months after start of contract.

Very truly yours,

George Marshall

George Marshall

GM:tm

GOLDEN DRILLING COMPANY
DIAMOND DRILLING CONTRACTORS
2301 EAST STREET
GOLDEN, COLORADO
PHONE CRESTVIEW 9-1371

Nov. 23 1957

Golden Drilling Company's estimate for core drilling approximate thirty five hundred feet (3500') in the Deriner and Norbute Corp. mine, near Montezuma, Summit Co., Colo. Holes from 200' to 500' in depth.

AX:
From 0 to 250' $4.50 per ft.
From 250 to 500' $5.25 per ft.

BX
From 0 to 250' $5.25 per ft.
From 250 to 500' $6.00 per ft.

Reaming and casing $3.00 per ft.
Cementing and drilled out $2.50 per ft.
Casing unable to recover paid for at cost.

Deriner and Norbute Corp. to furnish air and cut suitable stations for drill set-ups.

W E Matthews
GOLDEN DRILLING CO.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

224 New Customhouse
Denver 2, Colorado

February 17, 1958

		CODE
2/19	C	220
2/21	2/3	130
2/21	WPL	220

Memorandum

To: Secretary to the Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: Docket No. DMEA 4848 (Lead-zinc) Norbute Corporation (Saints John mine) Summit County, Colorado - Joint Report of Examination.

Enclosed are the original and two copies of the Joint Report of Examination on the subject property.

The Field examiners conclude that the probability for making a significant discovery is sufficiently promising to justify Government participation. Accordingly, they recommend that the Applicant's work proposal be approved as modified by them, in which the Field team concur.

The definite and relatively extensive program of exploration recommended in Stage II will depend entirely on the results of drilling in Stage I.

Enclosed are eight extra copies of Figures 2, 3, and 4 for use in the preparation of the contract.

W. H. King
Executive Officer

Reviewed by
DMEA OPERATING COMMITTEE
2-21-58
(date)

IN REPLY REFER TO:

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

DMEA
DEPARTMENT OF THE INTERIOR
FEB 14 1958
REGION III
DENVER, COLORADO

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February 13, 1958

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: E. N. Harshman

Subject: DMEA Docket 4848 (Lead-zinc), Norbute Corporation (Saints John mine), Summit County, Colorado

Enclosed are the original and eight copies of a joint examination report on the subject property by R. U. King, U. S. Geological Survey and W. D. McMillan, U. S. Bureau of Mines. The examiners recommend a two-stage program of exploration estimated to cost $172,442.00.

Although a very definite and relatively extensive Stage II program of exploration is recommended in the report, the extent and character of any Stage II exploration of the Saints John mine will depend entirely on the results of the drilling in Stage I. Should Stage I drilling indicate that significant ore bodies may exist at depths of 500 feet below the Saints John adit level, exploration as outlined in the report would be justified. If, however, Stage I exploration indicates significant ore bodies are limited to a more shallow depth, additional drilling, winzing from the Saints John adit level, or other practical exploration methods might be substituted for the Stage II work proposed in the report.

E. N. Harshman
E. N. Harshman
Member, Field Team

Enclosures (9)

ENHarshman:mp

Reviewed by
DMEA OPERATING COMMITTEE
2-21-58
(date)

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RECEIVED FEB 19 1958

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ON-SITE Report

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

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY EXAMINING TEAM
REGION III

DMEA 4848

Norbute Corporation

Saints John mine

Summit County, Colorado

Lead-zinc

Joint Geologic and Engineering Report

by

Robert U. King, Geologist
Geological Survey

W. D. McMillan, Mining Engineer
Bureau of Mines

February 1958

Reviewed by
DMEA OPERATING COMMITTEE
2-21-58
(date)

DMEA 4848

NORBUTE CORPORATION
SAINTS JOHN MINE
SUMMIT COUNTY, COLORADO

CONTENTS

Joint Geologic and Engineering Report

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Location and physical features	2
History, production and ownership	3
Geology and ore deposits	8
Applicant's proposed program	10
Recommended explorations	10
Cost Estimates	12
Conclusions and recommendations	17

ILLUSTRATIONS

Figure	Follows page
1. Location of Norbute Corporation (Saints John Mine) Summit County, Colorado - DMEA 4848	2
2. Claim and Ownership map, Norbute Corporation (Saints John Mine) Summit County, Colorado - DMEA 4848	17
3. Map of Saints John and Jerry Tunnels showing recommended exploration, Norbute Corporation, Summit County, Colorado	17
4. Longitudinal Section along the Comstock (No. 5) Vein, showing relation to recommended drill holes, Saints John Mine, Norbute Corporation, Summit County, Colorado	17

DMEA 4848

NORBUTE CORPORATION
SAINTS JOHN MINE
SUMMIT COUNTY, COLORADO

INTRODUCTION

Norbute Corporation, P. O. Box 1700, Grand Junction, Colorado, requested on October 8, 1957, Defense Minerals Exploration Administration assistance to explore for lead-zinc-silver deposits in the Saints John mine at Montezuma, Colorado. The estimated cost of the proposed project was $253,256.00.

The property was examined on October 28, 1957, at the request of the applicant in advance of regular scheduling in order to avoid serious delay due to expected heavy snowfall in the high mountain country. In subsequent correspondence dated November 22, 29, December 5, and 18, 1957, the applicant submitted supporting claim-ownership data, drilling costs, and additional information on nearby mine workings.

In a conference with Mr. Deringer, vice president of the applicant company, subsequent to the examination, modifications of the proposed exploration were suggested, and it was mutually agreed that inclusion of preliminary core drilling would be reasonable and proper, due to the high cost of the program.

It is noted that in 1952 application to DMEA was made under Docket 2700 (DMA 621) to explore the Wild Irishman and General Teller veins one-fourth mile south of the Saints John mine.

The cost estimate section was prepared by Edward W. Buel for W. D. McMillan, who has retired from Government service.

ACKNOWLEDGMENTS

Mr. Dewitt C. Deringer, vice president, Norbute Corporation, and Mr. Loren Enyeart, miner, accompanied the examiners and supplied pertinent information about the property. Dr. T. S. Lovering, U. S. Geological Survey, who mapped the district, was consulted regarding the geology and ore deposits of the area.

LOCATION AND PHYSICAL FEATURES

The applicant's property comprises a group of claims that cover the north and northwest flanks of Glacier Mountain, in sec. 35, T. 5 S., R. 76 W., Summit County, Colorado (fig. 1). The group of claims extends southwestward for about a mile along the east side of St. Johns Creek from the townsite of Montezuma. Montezuma, a nearly abandoned mining town, is on Colorado Highway 11, about 11 miles east of Dillon, and 75 miles west of Denver, Colorado.

The Jerry No. 5 tunnel, at an elevation of 10,480 feet on the northwest flank of Glacier Mountain, is accessible by one-fourth mile of mine road from Montezuma; the Saints John tunnel at an elevation of 11,030 feet, by 1½ miles of mine road.

Topography is rugged, being typical of glaciated alpine country. Relief on the property amounts to about 1,500 feet.

With heavy duty snow removal equipment, all season access to the property could be maintained.

Sufficient timber and water are available on the site for exploration purposes. Labor can be obtained locally.

An electric power line and transformers are installed, and a usable compressor is set up at the portal of the Saints John tunnel. Supplies

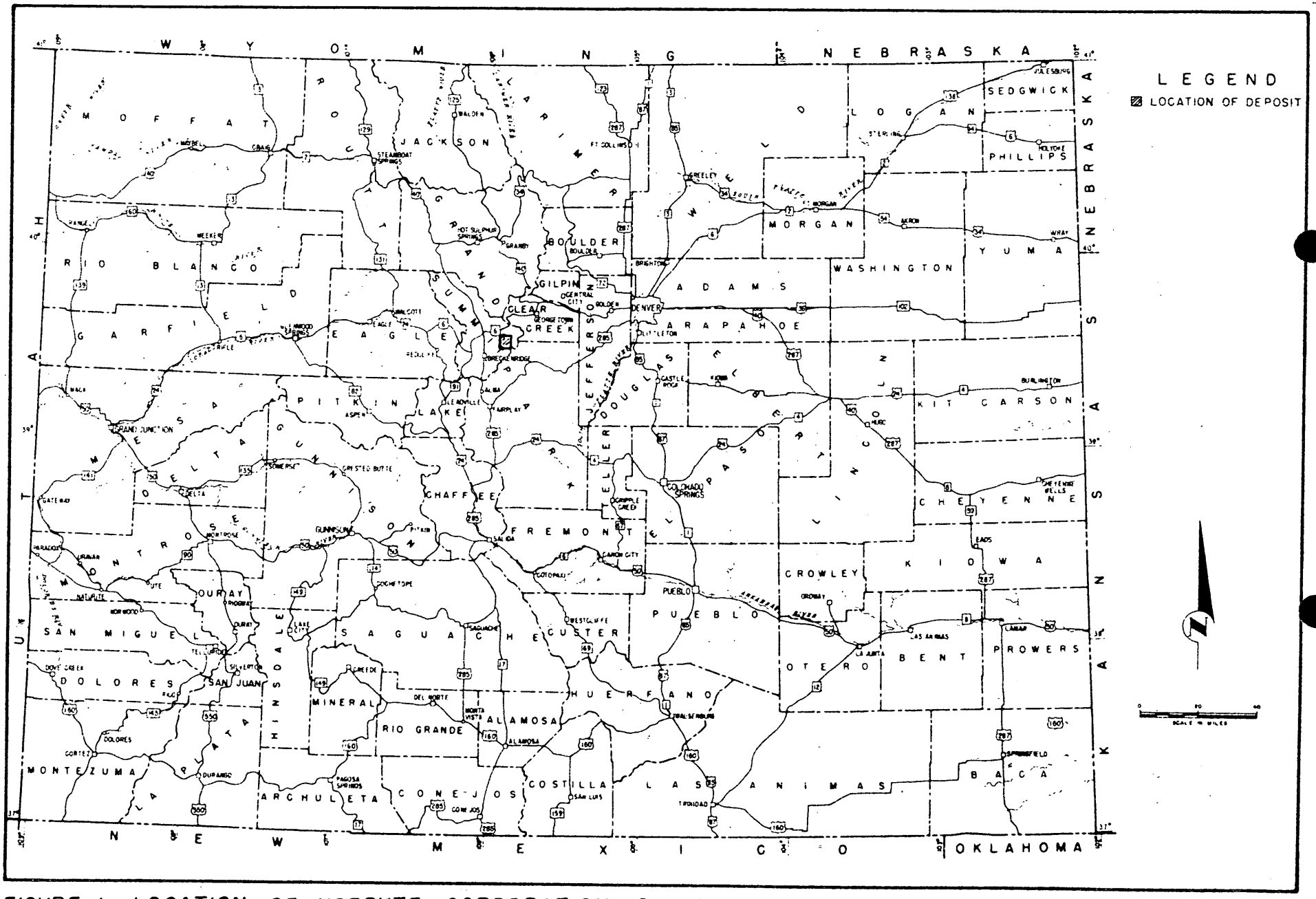

FIGURE I. LOCATION OF NORBUTE CORPORATION (SAINTS JOHN MINE) SUMMIT COUNTY, COLORADO.
DMEA DOCKET 4848

OFFICIAL FILE COPY
DMEA
RECEIVED FEB 19 1958

DATE	INITIALS	CODE

and equipment probably would be secured at Denver.

The closest smelting facilities are the Arkansas Smelter of the A. S. & R. Co. at Leadville.

HISTORY, PRODUCTION, AND OWNERSHIP

The Saints John mine is the oldest silver mine in Colorado, having been located in 1865, when silver was discovered on the Saints John vein.

Available production records from the Saints John mine show a production of 29,720 pounds of pig lead during the latter part of 1870 (page 104, U.S.G.S. Professional Paper 178).

No records are available for 1871-1875, and 1877-1880, and there was no production in 1876, 1881, 1883, 1888 to 1889, 1902 to 1903, 1905 to 1909, 1912, 1921, and 1925.

Production of crude ore, including ore to concentrating mills, through 1928, amounted to 24,418 short tons. Concentrates produced through 1951 amounted to 6,245 short tons.

Reported production over the operating period of 39 years is:

	Value	Amount
Gold - 15.58 oz.	34.00	$523.00
Silver - 209,830 oz.	0.90	188,500.00
Lead - 4,348,443 lbs.	0.13	336,000.00
Copper - 17,494 lbs.	0.25	4,350.00
Zinc - 455,005 lbs.	0.10	45,500.00
Total		$574,873.00

Tons (conc.) 6245

Value/ton $92.00

On page 5 of the application mention is made of a total production of $6,000,000 prior to 1929 based on engineering reports and mine maps. This production figure cannot be verified.

Ownership in the property changed hands several times prior to 1929 when it was acquired by F. R. Wolfe. Ownership continued in his possession until his death in 1952, when it passed to his widow. The property, which consists of 19 patented claims and 27 located claims, was deeded to Norbute Corporation on June 7, 1957.

An inspection of located claim records at the Summit County Courthouse at Breckenridge, Colorado, was made on November 4, 1957, and the results are given below:

PROPERTIES CONVEYED
(by mining deed dated June 7, 1957)

Item	Claim Name	Patent No.	Remarks
1	Comstock	128	Items 1 through 11 title in Wolfe name
1a	Tunnel Lode #9	1659A	
2	Tunnel Lode #7	7067	
3	Tunnel Lode #5	573	
4	Tunnel Lode #2	7068A	17/18 - undivided int.
5	Weston Mill Site	7068B	
6	Mill Site	545	
7	Mill Site	546	
8	St. Cloud	1505	
9	Tiger Exten.	744	
10	Coley Exten.	368	½NE. 48 feet
11	? Prima	1303	
12	Celtic	1823	Items 12 to 16, imperfect titles in Deatheridge name
13	Mark Twain Ext.	1788	
14	Morning Star	1928	$2000 paid on $15,000 lease and option
15	Evening Star	1878	
16	Hancock	2011	Items 17-18, 12/14 undivided interest. Title in Barnes name
17	Robert E. Lee	1901	
18	Register	357	
19	Tempest	1854	Title in Wolfe name

DATA ON LOCATIONS RECORDED

Item	Claim	Book	Page	Locator	Dates Location	Dates Recorded
20	Tunnel Lode No. 9	24	143	F. R. Wolfe	10/9/35	11/10/35
? 21	Tunnel Lode Ext. #7		No information			
? 22	Tunnel Lode #10		No information			
23	Tunnel Lode #11	~~24~~	~~143~~	Incorrect Book and Page		
24	Tunnel Lode #12	~~24~~	~~143~~	Incorrect Book and Page		
25	Rocky Point		No information			
26	June		No information			
27	Climax		No information			
28	Portland		No information			
29	Vindicator		No information			
30	Adjoining claim		No information			
31	Pinnacle	24	143	F. R. Wolfe	10/9/35	11/9/57
32	Success	25	368	do	do	do
33	Silver Ridge	25	309	do	do	do
34	Blue Bird	24	142	do	9/27/35	9/27/35
35	Golden Rule	24	142	do	9/30/35	11/8/35
36	End Line	24	143	do	9/17/35	9/17/35
37	Fraction	~~21~~	~~253~~	Incorrect book and page		

Item	Claim	Book	Page	Locator	Dates Location	Dates Recorded
38	Jerry Amended	22	273	F. R. Wolfe	2/6/35	3/7/35
39	Comstock Ext.	30	395	J. W. Barnes	4/29/53	5/12/53
40	Saint John #10	24	104	F. R. Wolfe	6/10/35	6/10/35
41	Saint John #11	24	105	do	do	do
42	Saint John #12	24	105	do	6/17/35	6/17/35
43	Vanderbilt #1	5	559	(A. F. Tatten (George Freiberg	6/29/35	6/29/35
44	Vanderbilt #2	16	13	do	do	do
45	Freyburg	9	254	George Freiberg	5/25/1890	5/25/1890
46	Celtic Mill Site	~~18~~	~~496~~	Incorrect Book and Page		

Of the above patented claims, only the Comstock, Evening Star, Mark Twain Extension, and Morning Star are shown on the map accompanying the application.

On November 29, 1957, the applicant submitted a new plat showing claims conveyed, under commitment, or under option to Norbute Corporation, except that Tunnel Lodes Nos. 10, 11, and 12; Success; Silver Ridge; End Line; Saint John Nos. 10, 11, and 12; and Vanderbilt Nos. 1 and 2, are not shown (fig. 3). It is concluded that these claims are not contiguous with the main group and are some distance from the site of proposed exploration.

It is presumed that the applicant expects that all of the claims conveyed will be subordinated in the event a contract is executed.

GEOLOGY AND ORE DEPOSITS

The country rocks that underlie Glacier Mountain in the vicinity of the Saints John mine are chiefly hornblende gneiss and pegmatite of Precambrian age. The general strike of the gneiss is north-northeast with steep easterly dips. Pegmatite masses, mostly concordant with the foliation of the gneiss, are seldom more than a few hundred feet long and are sparsely scattered through the gneiss.

The Saints John mine exploits two lead-zinc-silver veins known as the Comstock or No. 5, and the No. 7 veins (figs. 3 and 4). The Comstock vein which trends north-northeastward along the crest of Glacier Mountain, is nearly vertical at its outcrop, but flattens to 60° west at the Saints John adit level 700 feet below. In the upper older workings the vein ranged from 1 foot to as much as 8 feet in width, whereas on the Saints John level it maintains a fairly uniform width of about 2 feet for over 2,000 feet along its strike. Most of the production has come from the Comstock vein above the adit level (fig. 4), but some has come from the No. 7 vein, also from above the adit level. Only a

small amount of mining has been done below the adit level, and this has all been within 75 feet of the level.

The No. 7 vein which is crossed by the Comstock vein about 150 feet south of the Saints John adit, is not known to reach the surface and has been mined for only about 200 feet above the adit level. The No. 7 vein strikes northeast and dips about 60° west; it has been mined for about 500 feet along its strike on the adit level.

The Comstock and No. 7 veins are both fissure type veins that consist of pyrite, argentiferous galena, and sphalerite in a gangue of quartz, barite, siderite, and clay gouge. The galena is coarsely crystalline, in contrast to the other sulfides, and commonly occurs in a massive streak from a few inches to as much as 1 foot wide in the central part of the fissure, but also occurs mixed with light brown sphalerite and pyrite in veinlets and irregular masses scattered across the entire fissure. For the most part the vein material is free from one or both walls.

The Comstock vein is cut off 700 feet north of the adit by a northward-trending fault that dips 75° east. As far as is known no prospecting has been done to look for the faulted segment of the Comstock east of the fault. According to Lovering (U.S.G.S. Prof. Paper 178) it is a normal fault and therefore the vein would be offset southward on the adit level. The plunge of the intersection of the vein and fault would trend slightly east of north.

The No. 7 vein has been virtually unexplored east of its crossing with the Comstock vein.

Because of the continuity of the Comstock ore body on the Saints John adit level, and its known length of over 2,000 feet on the level, it seems reasonable to assume that there is a good probability that ore shoots of significant tonnage will occur below the level.

"Assay data submitted by the applicant indicate that the Comstock vein averaging 26" in width over a strike length of 2,000 feet will make about 400 tons of lead-zinc-silver ore per foot of depth, containing about 6 percent Pb, 8 percent Zn, and 6 oz. Ag per ton." Within a 500-foot depth, if conditions remain as favorable as on and above the adit level, it is possible that an ore reserve of 200,000 tons exists, with a present value of $4,000,000 to $5,000,000.

APPLICANT'S PROPOSED PROGRAM

The applicant proposed a two-phase program to explore for lead-zinc ore on the downward extension of the Comstock vein 543 feet below the present Comstock level.

Phase I would consist of extending the present Jerry tunnel (1200 feet) for 2,000 feet, crosscutting at 200 foot intervals until the position of the Comstock vein is well established, and then drifting on the vein for 1,500 feet. The applicant submitted detailed cost estimates based on a two-shift operation and an advance of 200 to 240 feet per month, with a unit cost of $53.36 per foot. The total estimated cost of Phase I is $213,440.00.

No allowance was made for the cost of rehabilitation of the Jerry Adit, consisting of widening, leveling the floor, and some timbering.

Phase 2 would consist of a raise from the Jerry level to the Saints John level of 600 feet at an estimated cost of $66.36 per foot. The total estimated cost of Phase 2 is $39,816.00, making a total cost of $253,256.00; Government participation at 50 percent would be $126,628.00.

RECOMMENDED EXPLORATION

It is recommended that the applicant's proposed exploration program be modified to include a preliminary stage of core drilling, and that most of the crosscutting and the raising in the applicant's second stage of exploration be eliminated.

The recommended two-stage program consists of 3,000 feet of core drilling from the existing Saints John adit and No. 7 drift, to explore the Comstock vein 250 and 500 feet below the main tunnel level in the first stage, and 4,000 feet of crosscutting to and drifting on the Comstock vein 500 feet below the main tunnel level in the second stage.

The core holes are designed to furnish preliminary information on the continuity, character, and position of the Comstock vein at depth; the crosscutting and drifting to more fully explore the vein at depth. With the position of the Comstock vein more precisely known as the result of core drilling, a separate item of crosscutting should not be necessary, and with information on the character of the vein, raising from the proposed Jerry level to the main tunnel would be considered as development work.

Seven core drill holes to be drilled from approximate locations as shown on figure 3 are recommended for Stage I as follows:

Number	Location	Bearing	Inclination	Estimated maximum length
1	Saints John Adit	S. 50° E.	-60°	400 feet
2	do	N. 70° E.	-45°	400 feet
3	do	S. 10° W.	-45°	400 feet
4	No. 7 drift	S. 50° E.	-60°	400 feet
5	do	S. 10° W.	-45°	400 feet
6	Saints John adit	--	-90°	500 feet
7	No. 7 drift	--	-90°	500 feet
		Total estimated maximum drilling		3,000 feet

Four thousand feet of crosscutting and/or drifting is recommended for Stage II to be used as follows: (1) 2,000 feet of drifting approximately S. 45° W. from the face of the existing Jerry No. 5 adit to reach a point approximately 5400 N., 7100 E (fig. 3) which is estimated to be on the downward projection of the Comstock vein, and (2) 2,000 feet of drifting southwesterly

along the Comstock vein.

COST ESTIMATES

Drill contract bids were not received from the applicant. In a letter of December 5, 1957, to the examining geologist, the applicant gives a detailed cost analysis for diamond drilling. His overall cost per foot for 3,500 feet of BX core drilling is $9.06. Of this amount, $6.00 per foot is quoted by the applicant as a contract drill price. In lieu of formal contract bids, the applicant's listed $6.00 per foot for contract drilling appears reasonable for the proposed drilling and is used in the following cost analysis:

The applicant has prepared a detailed cost analysis for his proposed exploration program. It was noted, however, that his unit costs per foot of drifting, crosscutting, and raising appear rather high. These unit costs undoubtedly are high because of the applicant's system in depleting equipment and charging for items not normally allowed under DMEA contracts.

STAGE I

Diamond drilling costs are based upon the following assumed conditions:

a. Applicant will prepare drill stations

b. Applicant will provide compressed-air power

c. Contractor will work two drill rig shifts per day

d. Five angle holes of maximum depths not to exceed 400 feet each, two vertical holes of maximum depths not to exceed 500 feet each

e. Size of core will be BX; larger or smaller size would be permitted, if necessary

f. Fifty-two shifts per month; 15-foot advance/shift per drill

g. Completion time, estimated at 4 months

Actual Cost

	Cost
I. Independent Contracts	
3,000 ft. core drilling at $6.00/ft.	$18,000.00
Total	$18,000.00
II. Miscellaneous Items	
120 core boxes (25 ft. core/box, wooden) at $5.00/box	600.00
20 sample analyses (Au, Ag, Pb, and Zn) at $5.00/each	100.00
	700.00
III. Rehabilitation1/	
Power lines and surface plant rehabilitation	300.00
Recondition 75 hp. compressor	550.00
Repair and connect air and water lines and drainage	275.00
	1,125.00

1/ Prepared from applicant's cost estimates

Fixed Cost

I. Drill Stations	
1 three directional drill station (tail raise and enlargement of existing drift to permit 10-foot pulls) at $500.00/station	500.00
1 two directional drill station (same as above) at $300.00/station	300.00
	800.00
II. Incidental Allowance	
A. Supervision and/or technical services:	
1 company engineer or geologist at $600.00/mo. 3 ~~4~~ months	~~2,400.00~~ 1800
2/ 2 compressor-maintenance men at $1000/mo., 3 ~~4~~ months	3 ~~4,000.00~~
Payroll deductions at 8.81%	563.84
	6,963.84
B. Operating Equipment Depreciation:	
1 G. D. 365 c.f.m. diesel compressor, valued $3150, at $52.50/mo. ~~4~~ mos. 3	210.00
1 vehicle* valued $2,000 at $33.33/mo., ~~4~~ mos. 3	133.32
1 air receiver, estimated value $375 at $6.25/mo. 3 ~~4~~ mos.	25.00
	368.32

2/ State law requires one man on surface at all times men are working underground

* Type not listed by the applicant

C. Operating materials and supplies:

Fuel, oil, lubricants, etc. at $4.00/shift, 150 ~~200~~ shifts	$800.00
Miscellaneous supplies $100.00	100.00
	900.00

3000 feet of incidental allowance Total	$8,232.16
incidental allowance per foot	$2.7440
Total costs for Stage I	$28,857.16

STAGE II
Drifting

Drifting and crosscutting costs are based upon the following assumed conditions:

a. Drifts will be untimbered except where needed, and shall be 5 by 7 feet in the clear
b. Two shifts per day, 44 shifts per month
c. 5-foot round per shift, 220 feet advance per month
d. No overtime
e. Estimated completion time, about 2 years.*

*Approximately 4 months would permit a recess during winter season

Fixed Cost

I. Labor, and Supervision and/or Technical Service:

1 company engineer or geologist at $600/mo., part time, ½ of 18 months	$5,400.00
Contract miners at $12.00/ft., 4,000 feet.	48,000.00
2 compressor-maintenance men at $1000/mo., 18 mos.	18,000.00
2 Trammers at $30.00/day, $660/mo., 18 mos.	11,880.00
Payroll deductions at 8.81%	7,336.97
Cost per foot (4,000 feet)	22.6542
Total	$90,616.97

II. Operating Equipment Depreciation

1 drifter drill, air column, etc., valued $1940, at $32.33/mo., 18 mos.	581.94
1 air receiver, estimated value $375, at $6.25/mo., 18 mos.	112.50
1 Eimco 12B mucking machine, valued $3570, at $59.50/mo., 18 mos.	1,071.00
1 G. D. 365 c.f.m. diesel compressor, valued $3150, at $52.50/mo., 18 mos.	945.00
2 vent fans, valued $1600, at $26.67/mo., 18 mos.	480.06
3 28-cu. ft. rocker dump cars, valued $1250 at $20.83/mo., 18 mos.	374.94
1 diesel trammer, valued $3600, at $60/mo., 18 mos.	1,080.00
1 vehicle, valued $2000, at $33.33/mo., 18 mos.	599.94
1 mine car transfer, valued $590 at $9.83/mo., 18 mos.	176.94
Miscellaneous equipment, valued $1800 at $30.00/mo. 18 mos.	540.00
10% contingency for repairs, etc.	596.23
Total equipment and depreciation cost	$6,558.55
Cost per foot (4000 ft.)	1.6396

III. Operating Materials and Supplies

Explosives per 5-foot round:	
1 case of 40% - 45% powder at $11.00/case, 800 cases	$8,800.00
25 caps at $2.04/box, 200 boxes	408.00
200 feet fuse at $0.013/ft., 160,000 ft.	2,080.00
	11,288.00
Steel and bits per 5-foot round:	
¼ of Swede integral steel per round at $20.85/6-ft. steel, 200 integral steels	4,170.00
1/ Pipe:	
4-inch air line w/couplings at $1.03/ft., 4,000 ft.	4,120.00
1-inch water pipe w/couplings at $0.29/ft., 3,950 ft.	1,145.50
20-inch galvanized ventilation pipe at $1.40/ft., 3,925 ft.	5,495.00
20-inch "Ventube" at $2.96/ft., 50 ft.	148.00
	$10,908.50
1/ Track:	
20# rail, ties, bolts, plates, spikes, etc. $1.90/ft., 4000 ft.	7,600.00

1/ Material costs reduced to eliminate Government's equity in salvage value

Fuel:	
20-gals. diesel per shift at $3.20/shift, 800 shifts	2,560.00
2-gals. gasoline per shift at $0.75/shift, 800 shifts	600.00
Oil, lubricants, etc. estimated at $0.50/shift, 800 shifts	400.00
	3,560.00
Miscellaneous:	
Small tools and supplies estimated at $200.00	200.00
Total Stage II drifting cost	$134,902.02
Cost per foot (4000 ft.)	$33.7255

Actual Cost

I. Sampling

400-sample analyses (Au, Ag, Pb, and Zn) at $5.00/each	2,000.00

Timbering

Timbering costs are estimated upon the following assumed conditions:

a. Install standard drift sets, 5 by 7 feet in the clear, lagged as necessary
b. Rate of progress, 2 sets per shift; 2 shifts per day
c. Estimated time to complete 600 feet of timbering; about 1 1/3 months or 60 shifts
d. No overtime; 44 shifts per month

Fixed Cost

I. Labor and Supervision and/or Technical Service

Supervision and/or technical service:	
none	
Contract miners at $4.00/ft., 600 ft.	$2,400.00
2 Surface men at $30.00/day, 30 days	900.00
Payroll deductions at 8.81%	290.73
	3,590.73
Cost per foot (600 ft.)	$5.9845

II. Operating Equipment Depreciation:

2 vent fans, valued $1600 at $26.67/mo., 3/4 mo.	20.00
1 28 cu. ft. rocker dump car, valued $416.67 at $6.94/mo., 3/4 mo.	5.21
1 diesel trammer, valued $3600 at $60/mo., 3/4 mo.	45.00
1 vehicle, valued $2000 at $33.33/mo., 3/4 mo.	25.00
	$95.21
Cost per foot (600 ft.)	$0.1586

III. Operating Materials and Supplies:

1 standard drift set, 315 bd. ft., $71/M b. m. at $24.85/set, 120 sets	2,982.00
Fuel, oil, lubricants, etc. estimated at $0.50/shift, 30 shifts	15.00
	2,997.00
Cost per foot (600 ft.)	$4.9950
Total timber cost	$6,682.94
Cost per foot (600 ft.)	$11.1382
Total Stage II	$143,584.96

SUMMARY OF PROGRAM

Stage I Estimated completion time 4 months	Total Cost	$28,857.16
Stage II Estimated completion time 24 months	Total Cost	$143,584.96
	(rounded) Total for Project	$172,442.00
	Government's share at 50%	$86,221.00

CONCLUSIONS AND RECOMMENDATIONS

Based on the continuity that the ore body has shown for some 700 feet vertically and for more than 2,000 feet horizontally, it is concluded that there is a fair chance of discovering significant lead-zinc-silver deposits in the Comstock and No. 7 veins below the Saints John level.

It is recommended that the applicant's proposal to explore for lead-zinc ore below the existing workings of the Saints John mine, by some 4,000 feet of drifting, crosscutting, and raising, be modified to consist of 3,000 feet of diamond drilling from the Saints John adit and No. 7 drift as a preliminary step in exploration, and depending on the results of the drilling, that further exploration consist of 4,000 feet of crosscutting and drifting on the Comstock vein at an elevation 500 to 600 feet below the Saints John tunnel level.

The estimated cost of the recommended modified program is $172,442.00. At 50 percent the Government's share would be $86,221.00.

DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

EXAMINATION REPORT
DMEA 4848

PREPARED FOR
DEFENSE MINERALS
EXPLORATION ADMINISTRATION

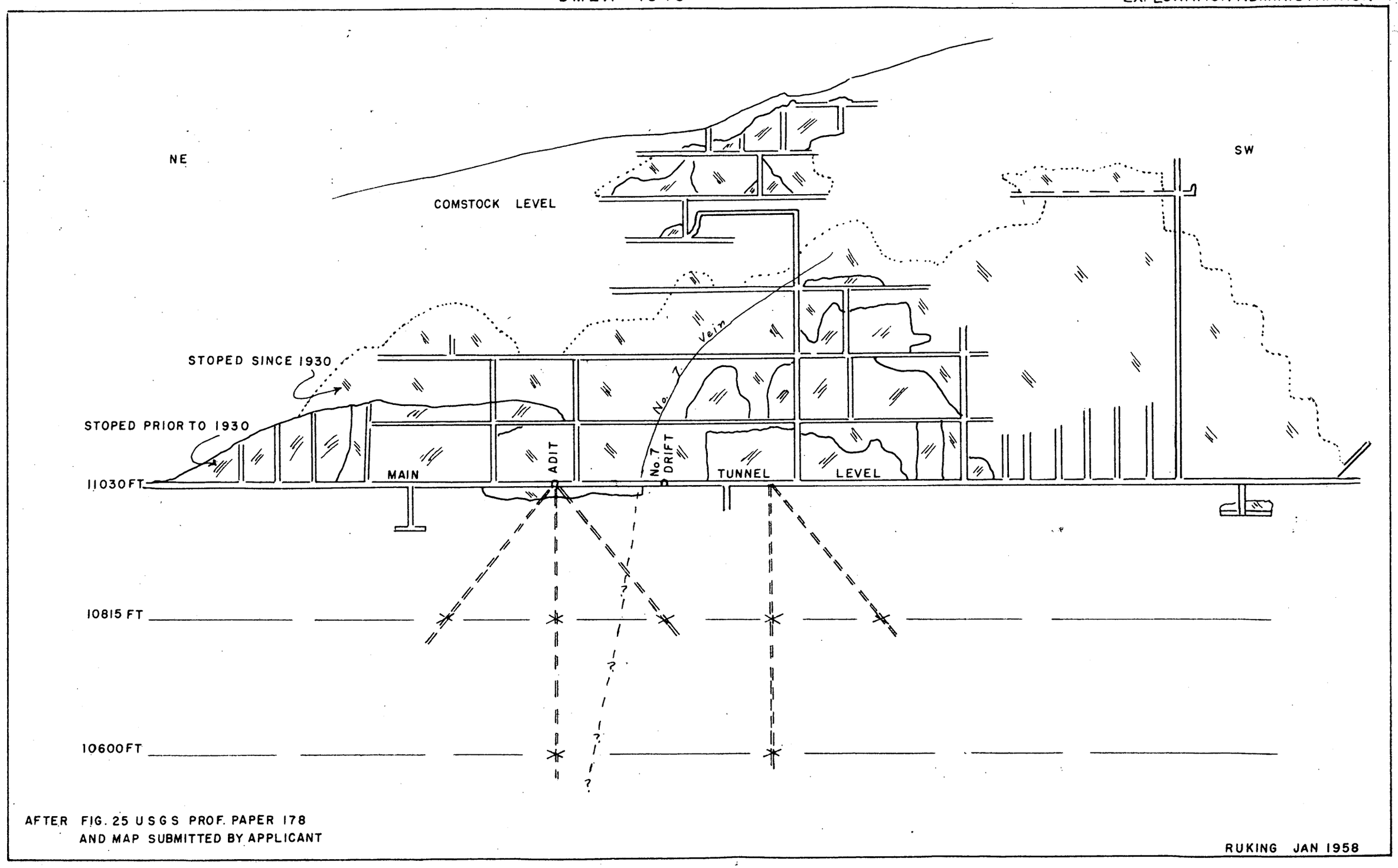

FIGURE 4. LONGITUDINAL SECTION ALONG THE COMSTOCK (NO. 5) VEIN, SHOWING RELATION TO RECOMMENDED DRILL HOLES, STS. JOHN MINE, NORBUTE CORPORATION, SUMMIT COUNTY, COLORADO.

200 100 0 400 FEET

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RECEIVED FEB 19 1958
DATE | INITIALS | CODE

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

224 New Customhouse
Denver 2, Colorado

January 30, 1958

DMEA
RECEIVED FEB 3 1958

DATE	INITIALS	CODE
2/3	C	220 ~~500~~

G

Memorandum

To: Secretary to the Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: Docket No. DMEA 4848 (Lead-Zinc), Norbute Corporation (Saints John mine) Summit County, Colorado

Enclosed are two copies of a letter dated December 5, 1957, containing additional information regarding drilling costs, from the Applicant to Robert King, USGS. Copies of this additional information have been placed with our copy and the Field Examiners' copies of the application.

W. H. King
W. H. King
Executive Officer

Enc.

NORBUTE CORPORATION

Western Mining Division URANIUM CENTER BUILDING, P. O. BOX 1709, GRAND JUNCTION, COLORADO—CHapel 2-0237

December 5, 1957

Mr. Robert King
U. S. Geological Survey
Federal Center Building No. 25
Denver, Colorado

Docket No. DMEA-4848
Lead-zinc
Saints John Mine
Summit County, Colo.

Dear Mr. King:

After receiving tentative bids from three contractors for drilling 3000 to 3500 feet in the Saints John Mine and investigating the cost of installation of power for running compressors, cutting the stations required for the drills, and other expense items, we have made a tabulation which is attached hereto. This shows the approximate cost per foot of drilling at $9.06. This figure is exclusive of the cost of opening any adit that is not accessible at the present time.

I am passing these on to you as I thought it might be required in making your recommendations or supporting them for the proposed drilling program.

On November 29, we forwarded to you two maps - one showing the workings of the More Work and St. Elmo-Mark Twain, located as best we could, and the other showing the property ownership of the claims of interest. I trust you have received these.

Very truly yours,

Dewitt C. Deringer
Vice President

Enc.
DCD/b

ORIGINAL FILE COPY
DMEA
RECEIVED FEB 3 1958

DATE	INITIALS	CODE

Cost Calculation for Diamond Drilling of
the Saints John Property, Montezuma, Colorado

Item		Cost	Cost/ft.
Road repair		$300.00	
Rehabilitate power lines and surface plant		300.00	
Recondition 75 h.p. compressor		550.00	
Repair and connect air and water lines and drainage		275.00	
Cut 2 drill stations 8x10x14' in clear		1044.00	
Based on 3,500 feet of drilling		$2469.00	$0.71
Contract drill price per foot			6.00
Power cost $318.63/month/1000 feet			0.32
Compressor operator and general maintenance man		$500/mo	0.50
Geologist's salary $600. and expenses $250.		$850/mo	0.85
Workman's compensation	3.56%		
Unemployment Compensation Insurance	3.00		
Payroll tax	2.25		
	8.81% of $1100/mo	$96.91	0.10
Core boxes			0.02
Assaying			0.15
Carbide, oil and miscellaneous consumables			0.06
Accounting and office expense, phone, reports, etc.		$57/mo	0.06
Compressor rental to Mrs. Wolfle		$100/mo	0.10
Contingency of 10% on $2.77			0.29
TOTAL COST PER FOOT			$9.06

The actual cost to Norbute Corporation of opening the caved Jerry portal and repair the timbering was $3,926.18. A like amount could be assumed as necessary for opening either the More Work and/or the Mark Twain-St. Elmo adits.

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DATE INITIALS CODE

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

224 New Customhouse
Denver 2, Colorado

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DATE	INITIALS	CODE
12/26	gb	220
12/26	[illegible]	500

December 23, 1957

Memorandum

To: Chairman, Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: Docket No. DMEA 4848 (Lead-Zinc) Norbute Corporation (Saints John Mine) Summit County, Colorado

This responds to your letter of December 20, 1957, on the subject docket.

The Applicant was slow in supplying additional information to the field examiners. A Report of Examination is now in preparation and will recommend a modified exploration program.

The property is at present inaccessible due to severe weather conditions and deep snow. The area should be accessible about June 1.

W H King
W. H.King
Executive Officer

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
12/20		500
12/20		130
		~~110~~
		100
12/20		~~110~~ 220
		500

500

DEC 20 1957

Mr. William H. King
Executive Officer
DMEA Field Team, Region III
224 New Customhouse Bldg.
Denver 2, Colorado

Re: Docket No. DMEA-4848 (Lead-Zinc)
Norbute Corporation
Saints John Mine
Summit County, Colorado

Dear Mr. King:

We note in the Region III November report that the cited property was examined on October 28, 1957. We would appreciate receiving the Field Team report as soon as conveniently.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

WRGriswold/er 12/20/57
Copy to: Docket
Admr R File
Op. Committee
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Chron.

APPROVED:

Frank D. Lamb
Member, Bureau of Mines

N. E. Nelson
Member, Geological Survey

8623

OFFICE OF THE DIR.
DMEA
RECEIVED NOV 4 1957

DATE	INITIALS	CODE
11/4	gb	220
11/4	akB	500

224 New Customhouse
Denver 2, Colorado

November 1, 1957

Memorandum

To: E. N. Harshman Att: R. U. King W/encs., Items 1-5 Below
DMEA/DFC Att: McMillan W/encs., Items 1-5 Below

From: DMEA Field Team, Region III

Subject: Docket DMEA 4848 (Lead-Zinc) Norbute Corporation (Saints John Mine) Summit County, Colorado

Enclosed is the following material relating to the subject docket:

1. Copy of application for Government assistance in exploration work under the DMEA program.
2. Memorandum of Review by O. M. Bishop, USBM.
3. Memorandum of Review by W. P. Williams, USGS.
4. Letter of transmittal of the foregoing to this office, dated October 25, 1957, from the Chairman, Operating Committee, DMEA.
5. Routing Control Sheet.

A field examination of the property and a joint report of findings and recommendations pertaining to the Applicant's work proposal are requested.

The Chairman's remarks that the Applicant's proposed work could probably be broken down into logical stages appears to us to be very important.

If the field examiners recommend Government participation in the proposed exploration program, please submit eleven extra copies of each map used in the joint report which show the land to be subordinated and the location and extent of recommended work, relative to property boundaries.

The Bureau of Mines' copy of the application should <u>not</u> be returned to this office, but is to be kept for the Examining Engineer's file. The Routing Control Sheet, however, is to be completed, detached from the application, and forwarded to the Executive Officer with the Joint Examination Report. The copy of the application that the Survey now holds should be returned to this office for our file.

E. N. Harshman

for E. N. Harshman
Acting Executive Officer

Enclosures

HMC:eh

cc: Sec. Op. Comm. (2)
Docket
Chron.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
10/23	[illegible]	500
10/25	[illegible]	130
"	Johnson	110
"	[illegible]	100
		~~110~~ 220
10/28	C	~~220~~
		500

500

OCT 25 1957

Mr. B. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III
224 New Customhouse Bldg.
Denver 2, Colorado

Re: Docket No. DMEA-4848 (Lead-Zinc)
Norbute Corporation
Saints John Mine
Summit County, Colorado

Dear Mr. Harshman:

The cited application (two copies) is being referred to your office for consideration, a field examination of the property if warranted, and recommendations. Copies of memoranda by W. P. Williams, Geological Survey and O.M. Bishop, Bureau of Mines, dated October 18 and October 22, 1957, respectively, relating to the proposal, are enclosed for your information.

We especially call your attention to the comments of Mr. Bishop to the general effect that the proposed work could probably be broken down into logical stages.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCB)

Enclosures

APPROVED:

Frank D. Lamb (GCB)
Member, Bureau of Mines

W. P. Williams (GCB)
Member, Geological Survey

WRGriswold/er 10/23/57
Copy to: Docket
Admr R File
Op. Committee
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Chron.

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
10/23	[illegible]	500
10/25	Selfridge	130
10/25	Farris	130
10/25	Williams	130
"	Johnson	110
"	Mittendorf	100
		~~HB~~
		225
		500

OCT 25 1957

Mr. Dewitt C. Deringer
Vice President
Norbute Corporation
Post Office Box 1700
Grand Junction, Colorado

Re: Docket No. DMEA-4848 (Lead-Zinc)
Norbute Corporation
Saints John Mine
Summit County, Colorado

Dear Mr. Deringer:

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

Mr. E. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

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

Sincerely yours,

C. O. Mittendorf (fw)

Administrator

WRGriswold/er 10/23/57
Copy to: Docket
Admr R File
Op. Committee
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Region III (2)
Chron.

8623

ORIGINAL FILE COPY
DMEA
RECEIVED OCT 22 1957

DATE		
10/22	C	220
10/22	URY	500

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

October 22, 1957

Re: DMEA 4848; $253,256
Norbute Corporation
Saints John Mine
Summit County, Colorado

Memorandum

To: W. R. Griswold, DMEA

From: O. M. Bishop, USBM

Subject: Review of exploration application project dated 10/8/57 and received 10/14/57

The applicant proposes exploration on the downdip extension of the Comstock (No. 5) vein on which the old Saints John mine is located. Its position is on the NW flank of Glacier Mountain a mile south of Montezuma, Colorado. The Comstock vein which strikes NE and dips steeply NW was developed at 700 feet below the outcrop by the 1,100-foot Saints John crosscut adit and some 2,400 feet of drift to the northwest and southwest. The drift exposed about 1,800 feet of mineable ore which was subsequently stoped to or near the surface.

The applicant proposes to extend the Jerry adit to a point of intersection with the Comstock vein and then drift north and south on the vein, raising 600 feet in the plane of the structure to the Saints John level. The proposal includes 4,000 feet of drifting and 600 feet of raising that the applicant estimates will cost $253,256.

In considering this proposal, it is worthy noting that of the many scores of such veins in the immediate area south of the Montezuma quartz monzonite intrusion only 15 have produced over 1,000 tons of ore. The veins are narrow and mineralization is in small ore shoots along the structure.

According to T. S. Lovering, USGS, pp. 178, the Comstock vein on the Saints John level varies from 2 inches to 30 inches wide with several barren areas along the structure. Assuming the proposed development were successful and met with mineral values and widths comparable to those stoped above the Saints John level, the total volume of ore would be about 165,000 tons.

I recommend that the application be referred to the field team for evaluation and field examination. In the course of the investigation consideration should be given to diamond drilling the downward extension of the projected ore shoot from the Saints John crosscut adit. It would appear probable that 2 to 6 holes could prove or disprove the continuity of the ore shoot and demonstrate whether additional expenditures are warranted.

for O. M. Bishop

Copy to: Division of Minerals
Mr. Kiilsgaard
Mr. Lamb
Mr. Bishop
F I L E S

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

OFFICIAL FILE COPY
DMEA
IN REPLY REFER TO:
RECEIVED OCT 21 1957

DATE	INITIALS	CODE
10/21	C	220
10/22	URS	500

Memorandum

October 18, 1957

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

From: W. P. Williams, U. S. Geological Survey

Subject: Review of application, DMEA 4848, (lead-zinc), Norbute Corp., Saints John mine, Montezuma district, Summit County, Colorado.

The applicant proposes to explore for extensions of lead-zinc-silver ores in the old Saints John mine. From old smelter returns the applicant estimates that the ore that has been mined from the property had a mill-head grade of 6.65 oz. of silver, 7 percent lead, and 9.70 percent zinc. The applicant believes that undiscovered ore extends far below the present workings as well as in lateral extensions.

The applicant wishes to do 4,000 feet of drifting and crosscutting and 600 feet of raising at a total estimated cost of $253,256.

The applicant has not submitted maps to show the proposed work and its relation to existing mine openings.

I recommend that the application be referred to the Field Team for review, field examination if necessary, and report.

W. P. Williams

W. P. Williams

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

October 14, 1957

Norbute Corporation
P. O. Box 1700
Grand Junction, Colorado

Gentlemen:

Subject: DMEA-4848

Your application for exploration assistance, dated October 8, 1957 submitted to our office at Denver, Colorado has been assigned Docket Number DMEA-4848 and referred to the Base Metals Division in the Washington office. Kindly identify all future correspondence relating to your application by this Docket Number.

Sincerely yours,

Allen S. Dakan, Director
Operations Control and
Statistics Division

Copy to:

Region III

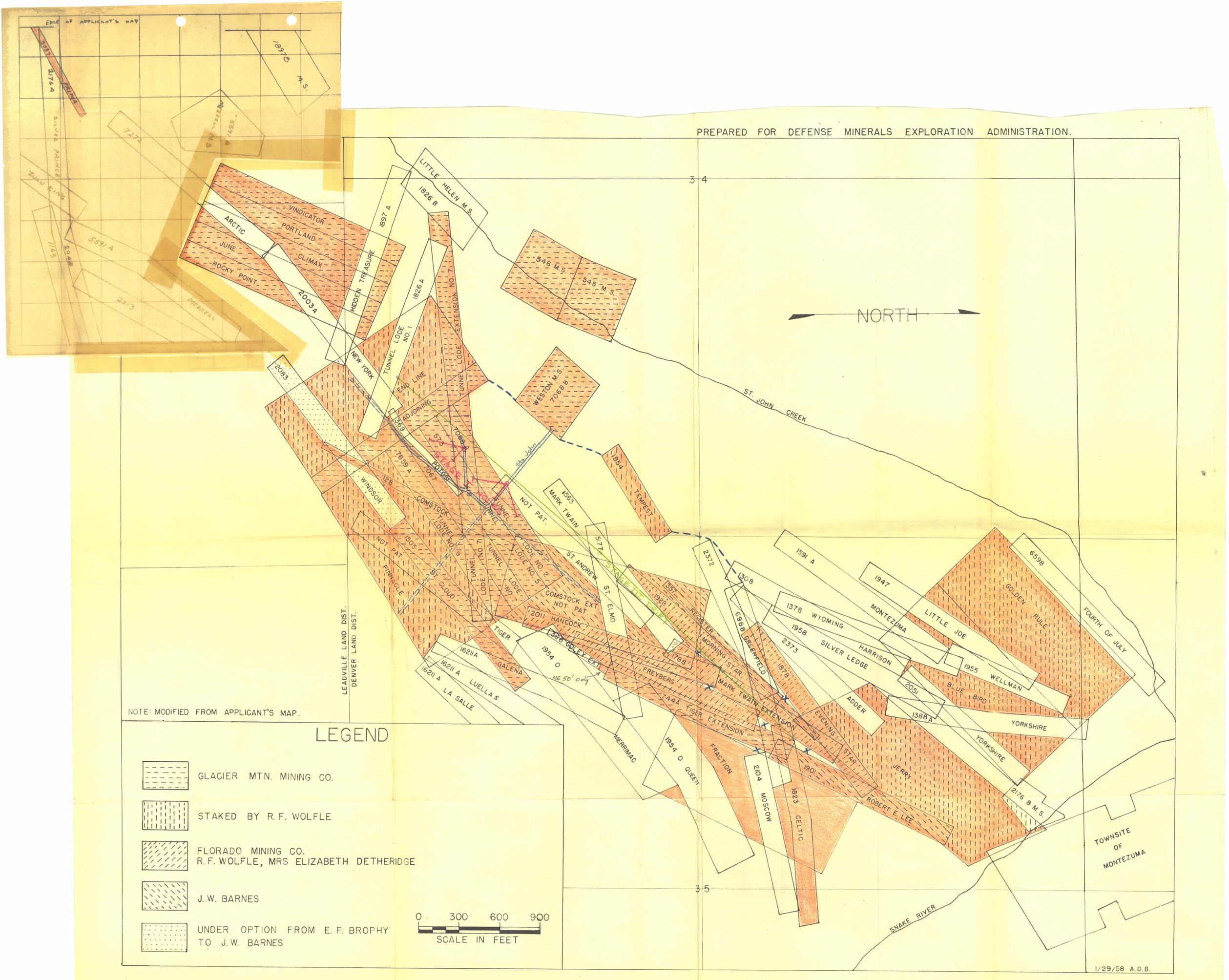


FIGURE 2. CLAIM AND OWNERSHIP MAP, NORBUTE CORPORATION (SAINTS JOHN MINE), SUMMIT COUNTY, COLO.

D.M.E.A. DOCKET 4848.

DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

FINAL Report. DME A-4848
Contract No E-1190.

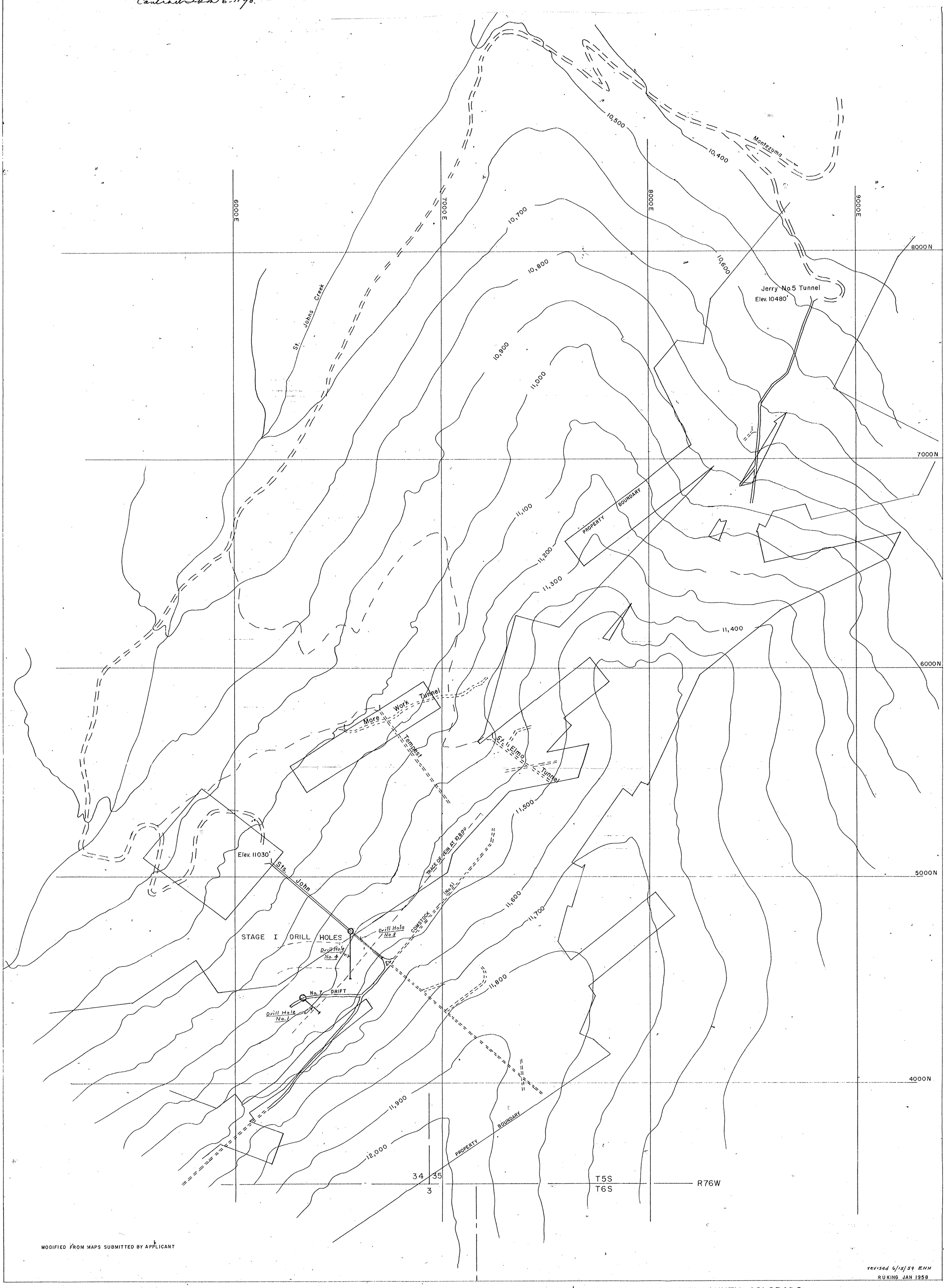
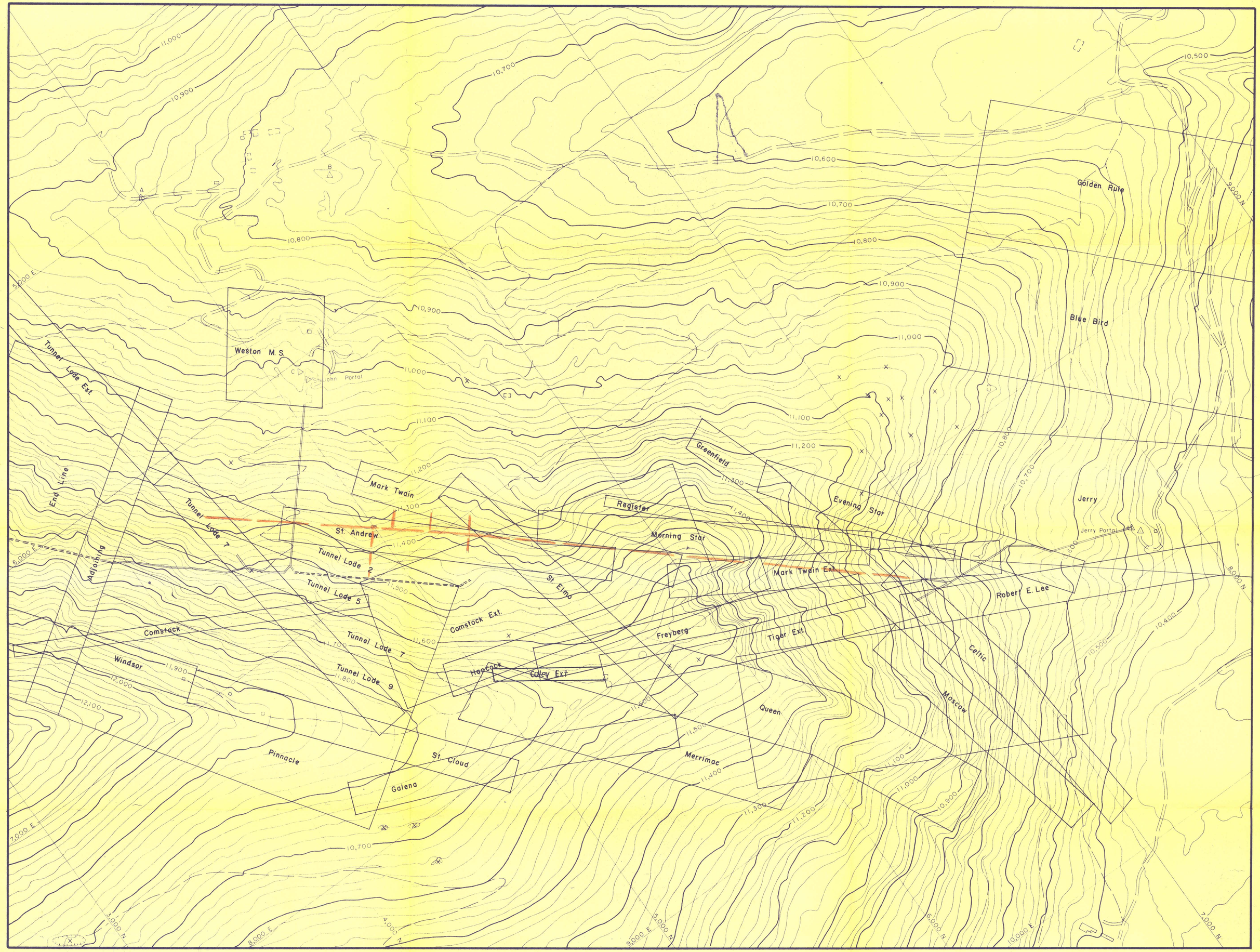


FIGURE 2 -- MAP OF STS. JOHN AND JERRY TUNNELS SHOWING COMPLETED EXPLORATION, NORBUTE CORPORATION, SUMMIT COUNTY, COLORADO.



LEGEND

Unimproved road

Trails

Prospect

Adit

Caved adit

SCALE 1" = 200'

200 100 0 200 400 600 800 1000

CONTOUR INTERVAL 20 Ft.

Topography compiled by AIR PHOTO SURVEYS INC.

from aerial photographs taken July 31, 1957

NORBUTE CORPORATION

STS. JOHN MINE AREA

Summit County, Colorado

T. 5 S. R. 76 W.

Sec. 34 & 35

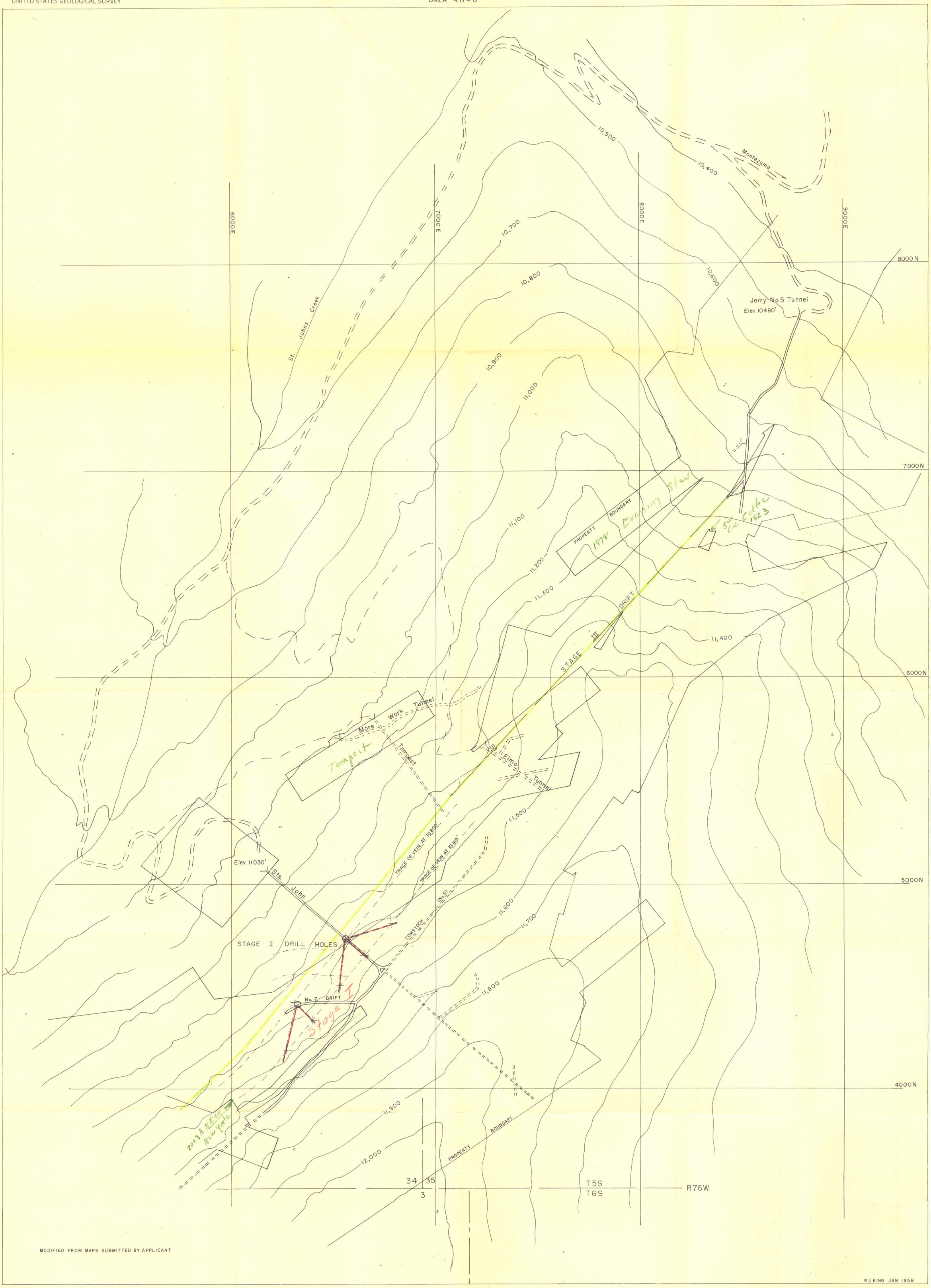


FIGURE 3.-- MAP OF STS. JOHN AND JERRY TUNNELS SHOWING RECOMMENDED EXPLORATION, NORBUTE CORPORATION, SUMMIT COUNTY, COLORADO.

200 100 0 400 Feet

UNITED STATES BUREAU OF MINES.

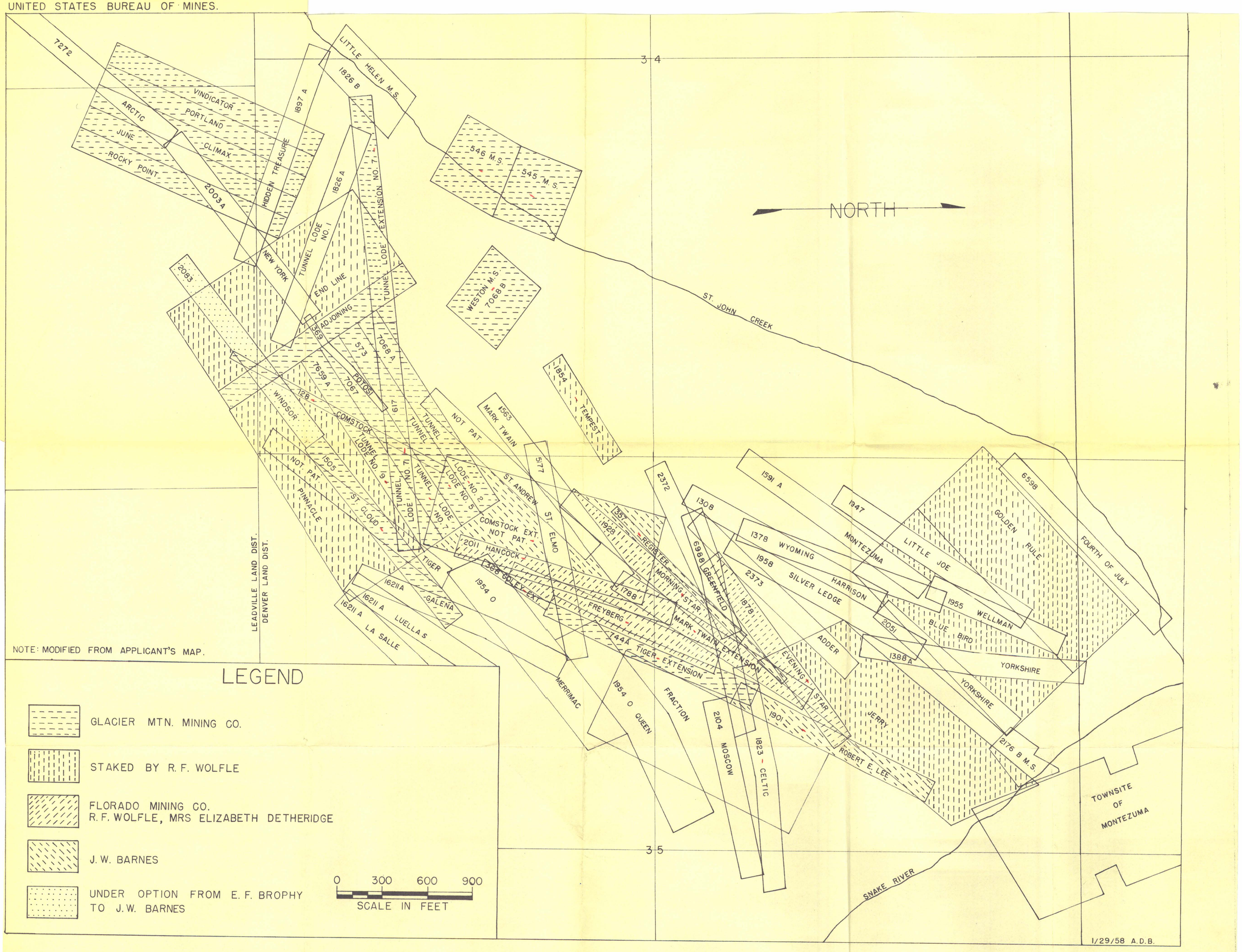


FIGURE 2. CLAIM AND OWNERSHIP MAP, NORBUTE CORPORATION (SAINTS JOHN MINE), SUMMIT COUNTY, COLO.

D.M.E.A. DOCKET 4848.

UNITED STATES BUREAU OF MINES.

PREPARED FOR DEFENSE MINERALS EXPLORATION ADMINISTRATION.

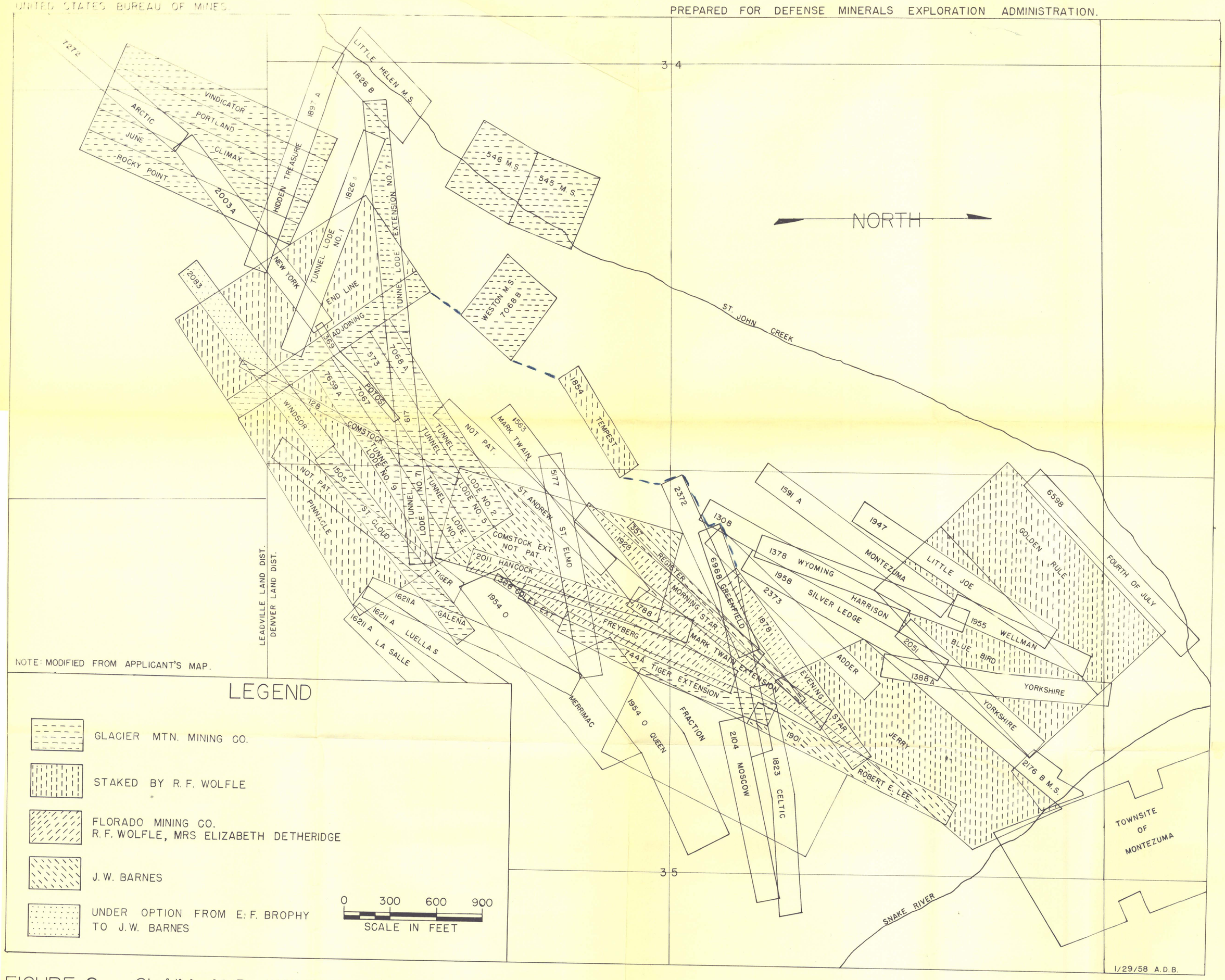


FIGURE 2. CLAIM AND OWNERSHIP MAP, NORBUTE CORPORATION (SAINTS JOHN MINE), SUMMIT COUNTY, COLO.

D.M.E.A. DOCKET 4848.