MME Form 9
Rev. Nov. 65

UNITED STATES
DEPARTMENT OF THE INTERIOR
Geological Survey

OFFICIAL DOCKET FILE

Contract No. _____ Docket No. 6795

Application
- [ ] Denied
- [x] Withdrawn

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

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

Folder No. 1:

Left Side

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

Right Side

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

Additional Folders:

Left Side

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

Right Side

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

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

Folders No. _____: Settlement Sheets

Folders No. _____: Drill Logs

Folders No. _____: Royalty Material

72195-65

GOLDSTRIKE MINING, EXPLORATION AND DEVELOPMENT CORPORATION

REPLY TO Washington OFFICE

HOME OFFICE
ARTHUR E. NEUMAN
PRESIDENT
1100 - 22ND ST., N. W.
SUITE 801
WASHINGTON, D. C. 20037
(202) 223-9556

PRINCIPAL OFFICE
ROGER A. McSHEA III
SECRETARY - TREASURER
1503 K STREET
ANCHORAGE, ALASKA 99501
(907) 277-9819

NOME OFFICE
FRED D. CRANE
EXECUTIVE VICE PRESIDENT
ALASKA OPERATIONS
P. O. BOX 160
NOME, ALASKA 99762

June 2, 1969

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

Subject: Docket No. OME 6795

Dear Mr. Kirkemo:

Enclosed with this letter is Exhibit K to the duplicate copy of our OME application filed with your office on May 29, 1969. Would you please insert this exhibit with the application.

Thank you for your cooperation in this matter.

Sincerely yours,

Arthur E. Neuman

Arthur E. Neuman, President

AEN/ms
Enclosure: Exhibit K

OFFICIAL COPY
O. M. E.
RECEIVED
JUN 4 1969

INITIALS	CODE
	130
bof	120
	120

MME Form 40
Jan. 65

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

OFFICIAL COPY O. & E. RECEIVED MAY 29 1969 INITIAL CODE

APPLICATION FOR FINANCIAL ASSISTANCE IN MINERALS EXPLORATION

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

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

GOLDSTRIKE MINING EXPLORATION & DEVELOPMENT CORPORATION
1100 - 22nd Street, N.W.
Washington, D. C. 20037

APPLICANT DO NOT USE THIS BLOCK

DOCKET NUMBER: 6795

DATE RECEIVED: 5/29/68

REGION: II

DIVISION CODE:

BUSINESS ORGANIZATION (*Check one*)

INDIVIDUAL	
CORPORATION	XX
PARTNERSHIP	
OTHER (*Specify*)	

STATE IN WHICH FIRM IS ORGANIZED: DC

LIST CORPORATE OFFICERS OR PARTNERS HERE, IF APPLICABLE

NAME	ADDRESS	TITLE
Arthur E. Neuman	1100 - 22nd Street, N.W. Washington, D. C. 20037	President
Valentine Burke	40 Owen Street Hartford, Connecticut	Vice-President
Roger A. McShea, III	1503 K Street Anchorage, Alaska 99501	Secy.-Treasurer

MINERAL(S) FOR WHICH YOU WISH TO EXPLORE: Antimony and Gold

ESTIMATED COST OF PROJECT: $ 100,000.00

PROPERTY NAME	LOCATION COUNTY	STATE
"McDuffee Mines"	Nome	Alaska

GENERAL INSTRUCTIONS

Before filling out this application, please read the *OME Regulations for Obtaining Federal Assistance in Financing Explorations for Mineral Reserves* (30 CFR Chap. III). To assure prompt action, your application must provide all applicable material and information specified on the back of this application form. Avoid unnecessary correspondence and delays by submitting complete and accurate information. *Please submit two copies of this application and all accompanying papers* except as otherwise noted. Place your name and address on each sheet. Each item of information, maps, and reports required as a part of this application is described on the back of this form. Identify each attached statement by the item number to which it applies. If an item does not apply to your application, show the item number on your statement and after it write "not applicable." Maps or sketches should be used to supplement narrative descriptions of the property location and boundaries in item 2, existing mine workings and geology in item 3, and the proposed exploration work in item 5. When this information is not too complex, all of it may be shown on one map or sketch. All documents and other attachments submitted as a part of this application, except those in item 3(g) which you mark to be returned, become the property of the Government and will not be returned to the applicant. Send true copies, *not originals*, of leases, contracts, and other documents which are an essential part of your business records. *File this application with the Office of Minerals Exploration, Department of the Interior,* ~~Washington 25, D.C., or the nearest OME Field Office.~~ Washington, D. C., 20242, or with the nearest OME Field Office.

CERTIFICATION

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

May ~~30~~ 29, 1969
DATED

Arthur E. Neuman
BY (*Signature*)

Arthur E. Neuman, President
TITLE

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

INFORMATION REQUIRED WITH THIS APPLICATION

1. Financial Eligibility:

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

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

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

2. Applicant's Rights in Land:

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

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

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

3. Physical Description:

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

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

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

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

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

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

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

4. Accessibility of Property:

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

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

5. Exploration Work:

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

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

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

6. Experience:

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

7. Estimate of Costs:

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

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

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

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

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

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

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

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

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

Item 1. Financial Elgibility:

(a) Efforts Made To Secure Private Financing - Applicant, by and through its Secretary-Treasurer, sought a loan from several banking institutions, including the bank where applicant keeps its regular account. The loan was sought at regular interest rates and payable in monthly installments over a period of years. Representations were made to these financial institutions that the proceeds of the loan would be used for the exploration and development of the Company's gold-antimony (stibnite) claims in the Seward Peninsula, Alaska during the summer of 1969. The letters to these financial institutions requesting loans and their replies are set forth as Exhibits A thru G of this application. At the time of the application for a loan, applicant considered only Plan A of its development and exploration project, but since then, it will proceed with Plans A and B for the work to run through October 1970 at an estimated cost of $100,000.00. These plans are covered in detail in a later part of this application. Since the loan for the smaller amount (Plan A) was refused, it is deemed futile to apply for, and be turned down, the larger sum encompassing Plan B.

(b) Affiliated Parent Or Controlling Companies - Applicant is an independent corporation unaffiliated with any other company, parent or controlling company or interest.

(c) Applicant's Share Of The Cost of The Exploration Work - Twenty-five percent of the proposed exploration work will be obtained from equity financing. The Company has subscriptions for shares of common stock of the corporation sufficient to cover its share of the work called for in Plan A. The balance of the proposed work on Plan B will be financed from a combination of present subscriptions for stock and further equity financing from a proposed public offering of the corporation's common shares.

Item 2. Applicant's Rights In Land:

(a) Applicant's Interest - Applicant is the owner of the mineral rights to the thirteen unpatented claims on which it proposes to perform the exploration work, the subject of this loan application. These rights are those acquired by purchase from the locators, who acquired their interest under the Mining Acts of 1872 (30 U. S. Code), As Amended. A copy of the Quitclaim Deed evidencing applicant's interest in the property is attached hereto as Exhibit H to this application. The Quitclaim Deed is recorded in the Land Records of the Cape Nome Recording District, Nome, Alaska, at Page 89 Book 261, on February 20, 1969. There is no mortgage or other encumbrance against the title.

(b) Legal Description Of The Property - The thirteen unpatented gold and antimony (stibnite) claims applicant proposes to explore under this OME Financial Assistance in Minerals Exploration Program application are listed below and are recorded in the land records of the Cape Nome Mining and Recording District at Nome, Alaska. Copies of the claims as recorded

in these land records are attached hereto as Exhibits I-1 through I-13.

Name of Claim	Book	Page
No. 1 Commet (a/k/a Antimony No. 1) MCDUFFEE	246	9
No. 2 Commet (a/k/a Antimony No. 2) MCDUFFEE	246	11
Bear Lode No. 2	246	25
Glue Pot No. 1	246	29
Glue Pot No. 2	246	26
Mosquito	246	31
Blueberry	246	32
Lower Bear No. 2	246	28
Steep Creek No. 1 (a/k/a Pride of the Mountain No. 1) MCDUFFEE	246	15
Steep Creek No. 2 (a/k/a Pride of the Mountain No. 2) MCDUFFEE	246	13
Bear MCDUFFEE	246	17
Glue Pot No. 4	246	27
Glue Pot No. 3	246	30

The claims above followed by the word "MCDUFFEE" were at one time (circa 1937 - 1941) known as the McDuffee Mines and are indicated by that name on the Mineral Investigations Field Studies Map (MF-248), Preliminary Geologic Map of the Nome D-1 Quadrangle, Seward Peninsula, Alaska, mapped by the U.S. Geological Survey in 1953-54 and 1956-57. Copies of this D-1 Nome Quadrangle with the approximate location of applicant's properties marked thereon are attached with this application as Exhibit J.

(c) Lien And Subordination Agreement - None required since applicant is the sole owner of the properties sought to be developed.

Item 3. Physical Description:

(a) History Of Mining And Exploration - There are currently no mining or exploration operations being conducted upon the property other than studies being conducted by the applicant's geologist concerning geological features of the area in preparation for this application and the proposed exploration. Applicant, since purchase of the claims in August 1968, has performed the requisite assessment work on the thirteen claims. The work for 1968 consisted of bulldozing and grading an access road into the mining area which is approximately 3/4 of a mile from Snake River Road, the main road leading to Nome. In addition several pits were excavated for overburden observation and future evaluation and a miner's cabin on the property was replaced. The Company spent $1,700.00 in the performance of this work. Evidence that the assessment work was performed can be found in the Land records of the Cape Nome Mining and Recording District.

To the best of Applicant's knowledge, there has been no exploration and development work of any consequence on the property since 1941. Records

indicate that there was some exploration work performed on those claims listed above referred to as the McDuffee Mines. This was during the period from about 1937 to 1941. The exploration work during this period appears to have been quite extensive and it is believed that it was terminated as the result of War Production Order No. L 205 during World War II. Essentially, the work performed on the McDuffee Mines prior to WWII, consisted of limited surface workings (an open pit about 20 feet deep), a shaft (approximately 40 feet in depth), and an Adit. For verification of this work,see the attached copy of a "sketch and samples" prepared by A. B. Shallit, Mining Engineer, of the Territory of Alaska in March 1941, identified as Exhibit K to this application. Unverified inquiries by the U. S. Department of Interior (Bureau of Mines) indicated a limited amount of production of gold from the workings in the McDuffee Mines. This is also indicated in the referred to "sketch and samples". For further reference to the official documentation concerning the history of the McDuffee Mines, representing five of applicant's claims upon which exploration work is proposed, reference should be made to the December 27, 1968 letter from John J. Mulligan, Chief, Alaskan Mining Research Laboratory (Bureau of Mines) to applicant's president, which is attached hereto as Exhibit L.

There are currently no known production facilities (mining equipment) on the mine sites apart from the miner's cabin referenced above. Applicant has no history of mining and exploration on any of the other eight claims, the subject of this loan application, other than that mentioned for the five claims referred to as the McDuffee Mines.

(b) Applicant's Interest In Operations Described In 3(a) Above. As explained in 3(a), applicant acquired the property in August 1968 and did not have any interest in the operations.

(c) Past And Current Production - Based on best available information, past production of the McDuffee Mines approximated 100 tons of gold ore between 1937 and 1941. It is estimated that the ore produced about 3.28 ounces of gold per ton. These estimates are predicated on the "sketch and samples" by A. B. Shallit, Engineer, Territory of Alaska and the report by Mr. Mulligan of the Bureau of Mines. There appears to have been a limited amount of antimony produced from two of the claims comprising the McDuffee Mines, but figures on the amount are unavailable. Applicant has no information on past production of remaining eight claims.

(d) Known Ore Reserves - It is submitted that exploration work performed thus far on the property does not give sufficient information to ascertain, beyond speculation, the ore reserves. Grab samples taken during the month of August 1968 by the Applicant from the McDuffee Mines were assayed by the Lauck's Testing Laboratories, Seattle, Washington, the results of which are contained in their report submitted with this application as Exhibit M, support the findings portrayed in the "sketch and samples" map by A. B. Shallit to the extent that the properties do in fact contain gold and antimony ore of such grade and quality to indicate potential economical production. It is the purpose of the proposed exploration work to determine the ore reserves so that an intelligent decision can be made as to the economic feasibility of mining operations.

(e) Geologic Features of the Property - Structures belonging to systems of two ages have been identified in the area. The lode and placer deposits of gold are closely associated with some of the structures of the younger system. The older system consists ofnorthward trending major folds. Younger structures are related to the eastward trending uplift of probably Tertiary age. The uplift truncated the older system and is bounded by steeply dipping normal faults. Three sets of faults strike to the north, northeast and east, respectively. Only the east-west faults are related to the uplift and seem to control the lode deposits. These are filling-type deposits composed of varying proportions of base-metal sulfides, scheelite and native gold in shattered quartz. Minor faults and shear zones control the local concentration of deposits. All the claims that will be the object of the exploration work lie on southern slope of Mount Distin at elevations ranging from 400 to 1200 feet. Structurally they are located on the southern limb of the east-west axially trending Mount Distin syncline, which belongs to the younger structural system. Minor faults and shear zones generally show NE and NW strikes. Lower and Middle Paleozoic marble and schists, underlain the area. The lower unit consists of gray to dark gray moderately to highly graphitic calcareous quartz-chlorite - muscovite schist. Occasionally gray and dry gray and black marble is interbedded. The overlying unit consists of principally platy, slabby and massive blue-gray and gray marble, and buff weathering and gray schistose marble. Minor units include calcareous chlorite-muscovite schist, graphitic and non-graphitic chlorite - muscovite schist and quartz chlorite - muscovite schist. The contact with the underlying graphitic calcareous schist is gradational. Along this contact are located most of the reported mineralizations. Most of Goldstrike Mining Exploration & Development Corporation's claims are staked along this contact and show clear signs that lode deposits are concentrated along it. Structurally and stratigraphically the locations of the claims appear to be favorable areas for accumulation of lode deposits in economical amount. (For further geologic descriptions of the property see the report of John J. Mulligan dated December 27, 1968, referred to above and attached to this application as Exhibit L.)

(f) Reasons For Expecting To Find Ore - The two principal ores that are being sought are gold and antimony. Essentially, the reasons for expecting to find ore containing economical amounts of gold and antimony are the same; however, for clarity the reasons for each will be covered separately.

(1) Gold. The early prospecting and limited exploration work on the property, principally the McDuffee Mines, circa 1937 to 1941, indicate the presence of a high grade ore with free milling characteristics. The historical exploration, limited as it was, did not reveal sufficient indications of economic reserves and, as stated above, it can only be presumed that further exploratory work was terminated because of the War Production Board Order during World War II. A private geological consulting firm, just prior to 1968, obtained samples of gold ore from applicant's claims and were enthusiastic over the gold, "mainly because of its free milling characteristics and the apparent indication of several

periods of enrichment." They encouraged "further and more detailed examination." A copy of their letter expressing these sentiments is set forth with this application as Exhibit N. Furthermore, grab samples taken from the claims in August 1968 support the premise that further detailed exploration and development would reveal ore bodies or at the very least indicate further work is warranted. These samples were subjected to a semi-quantitative spectrographic analysis and gold-silver fire assay tests, the results of which are set forth in the Assay Certificate of Lauck's Testing Laboratory, a part of Exhibit M to this application. It should be noted that the gold content, by calculation, was 1.84 troy ounces per ton.

(2) Antimony. Grab samples of antimony ore taken from the property in August 1968 (Antimony No. 1 and Antimony No. 2 of the McDuffee Mines), were sent to the Lauck's Testing Laboratory for assay (Exhibit M). The results indicate approximately 30% antimony which is of sufficient quantity to justify exploration work to ascertain reserves for mining operations. In addition, a recent assay of another grab sample of antimony ore submitted to the Southern Lead Company, Dallas, Texas, and assayed by them, indicated that sample to contain 44.7% antimony - A copy of that letter is attached hereto as Exhibit M-1.

(g) Technologic Information - Attached to this application are copies of geologic, engineering reports, assay maps and other technological information referenced in the particular item to which applicable. They are listed under the section of this application identified as "List of Exhibits To OME Application" at page 1 of the Addenda. They need not be returned to applicant.

Item 4. Accessibility of Property:

(a) Arrangements for OME Representative Who Will Examine the Property - Applicant's local contact for all matters relative to processing this application by the Office of Mineral Exploration is its President, Arthur E. Neuman whose address is 1100 - 22nd Street, N. W., Washington, D. C. 20037 (Phone 223-9556 or JU 5 2249 at home). For technical consultation on matters pertaining to the exploration work, the applicant's exploration geologist, Dr. Giorgio Pannella can be reached at 554 Orange Street, New Haven, Connecticut 06511, telephone 776 6624, or % Yale University 787 3131 extension 2856.

(1) Applicant's Representatives in Alaska. The designated representative of Applicant who will meet the OME representative at Nome is Mr. Clarence J. Phillips whose address is Nome, Alaska (Box 370); telephone 443 2371. Applicant's Anchorage, Alaska contact is Roger A. McShea, III, Secretary-Treasurer, whose address is 1503 K Street, Anchorage, Alaska 99501; telephone Area Code 902, 277-9819.

(2) Directions For Reaching Property. The mine sites are located approximately 25 miles north of Nome, Alaska on a road known as the

Snake River Road. The location of the property is 64° 45' north latitude and 165° 24' west longitude on the Nome D-1 Quadrangle (USGS Map MF-248).

(b) Shipping And Supply Points - The principal shipping and supply point is Nome, Alaska, approximately 25 miles to the south. As stated above, there is an improved secondary road (Snake River Road) leading to the mine sites and access graded road (3/4 mile) leading directly from Snake River Road to the property. Nome is a seaport and open for ocean shipments about five months of the year and has modern air facilities sufficient to accommodate the largest aircraft including jets. The State of Alaska has plans for the extension of the Fairbanks road to Nome. The present road only goes to Council from Nome, and to Manley Hot Springs from Fairbanks.

Item 5. Exploration Work

(a) The Proposed Exploration Work - The proposed exploration program consists of two major stages: one (Plan A) will be developed during the summer 1969 (from June to the first sign of the winter) and should provide all the necessary data to the second step (Plan B) which will include diamond drilling and evaluation of the ore reserves and will develop in the summer 1970. The first part of the program will extend to all the claims owned by Goldstrike Mining Corp. whereas the second part will be executed on those claims that show the best potential. The following procedures are submitted in their chronological order. This order of work is flexible and is subject to change through subsequent developments as well as through any difficulties of operating conditions which may arise.

(1) Geological examination, survey and mapping of all the claims. When necessary, reconnaisance studies will be extended to other properties in the region in order to understand the geological history of the area.

(2) Systematic analysis of the detrital over-burden by means of sample pits. The pits will be dug at 100-foot intervals along axes parallel to streams crossing the claims. They will extend upstream from the mouth of the streams to the lead waters. Their depth will be 2 or 3 feet below the bottom of vegetation (normally to frost or to bedrock). The sample pits in the detrital material will be dug by hand, by gasoline-powered posthole auger or, occasionally, by bulldozer. Generally the power-driven auger is the most economical and satisfactory sampling tool because it produces an adequate and reasonably uniform sample within a minute or two after the hole is started. The usual practice is to drill down to permafrost, with a 6 inch posthold auger, stop the machine and pull up the auger. About one gold pan of material could be obtained from the scroll; this is the sample. On steep rocky hillsides or where boulders are abundant, samples could be obtained more rapidly from hand-dug pits. Bulldozer trenching is slower than the other methods. It is difficult to estimate the cost of this essential part of the program because of the variable conditions there will be found in the field. "Two men using a tractor and sled to haul farming water and using the gasoline-powered auger to obtain samples,

could drill, samples, concentrate and evaluate 30 to 40 holes per 8 hour day" (J. J. Mulligan). Cleaning and concentrating a sample require more time than obtaining the sample. Panning will be done with standard gold pans. The samples will be sieved through 1/4 inch mesh screen. The washed oversize will be inspected for "nuggets" and discarded. Clay, soil, ice and organic matter will be washed off and decanted off. The heavy minerals will be then concentrated by the usual panning technique. It is estimated that more than a thousand pits will be necessary for a complete survey of all the claims. The panned samples will be graded visually and the results recorded on maps and on the sample sites. The areas that contained no trace of economic minerals will be disregarded. The areas of interest will be stripped of the overburden by bulldozer and the material will be shined and examined for minerals. The stripping should expose veins and mineral concentrations. Bulldozer trenching will be initiated during summer 1969 but it will not be finished until summer 1970. Diamond drilling will represent the last step of the exploration program. The drilling sites will be carefully selected on the basis of all the information gathered in the previous operations. The holes will be drilled with a conventional gasoline-powered drill. Normal core drilling procedures will be followed. Core recovery will be attempted in most instances and the sludge samples saved at all times. The diamond drilling will be executed by independent contractors. Hopefully the results of the program will provide all the information needed to evaluate the economical feasibility and the methods of mining the ore deposits. The task of the geologist and mining engineer will be then to produce a conclusive report on the economical potential of the claims owned by Goldstrike Mining.

(b) Access Roads - Since the grading and improvement of the access road leading from the Snake River Road by the Applicant in 1968, there will be no need for the building of further access roads to complete the proposed exploration work.

(c) Commencement of Work And Rate of Progress - If an OME contract is executed, exploration work will be started on or about June 15, 1969. If both Plans A and B are approved the work will be completed on or about October 15, 1970. Should the findings and report by the Company's exploration geologist on the McDuffee Mines (Plan A) be favorable, drilling will be commenced following the overburden removal program. The drilling would be completed on or about October 15, 1970. Some of the exploration work may be delayed until June 1970, as the result of inclement weather which may affect the operations during the months of September and October 1969.

Item 6. Experience. Applicant's exploration geologist is Doctor Giorgio Pannella of 554 Orange Street, New Haven, Connecticut 06511 (Telephone, Area Code 203, 776-6624). Dr. Pannella teaches geology

at Yale University. He has a BS Degree in Engineering, a Master's Degree in Geology, and PHD in geology from the University of Colorado. He has 12 years experience in geological research, mapping and mineral prospecting in the Alps and Appennins (Italy). He will be assisted by Mr. C. J. Phillips, who although not a graduate engineer, has had many years of practical experience in the field as a prospector and lay mining engineer. The Applicant's exploration program under Plan A and Plan B will be under the direction and control of Dr. Pannella. Mr. Phillips will procure and manage the workers necessary for the physical aspect of the exploration work and will provide the necessary equipment for bulldozing and sluicing operations.

Item 7. ESTIMATE OF COSTS

(a) Independent contracts

Bulldozer Trenching and stripping (at least 300 hours at $21.00 per hr). . . .	$ $ 6,300.00	
Diamond drilling (at least 1000 feet at $33.00 per foot).	33,000.00	
	$ 39,300.00	$39,300.00

(b) Personal Services

Geologist consulting fees (for the first part of the program) /May-June 1969/ . . .	$ 2,000.00	
Geologist supervision fees (for the first part of the program) /30 days at $100.00 per day/	3,000.00	
Geologist consulting, supervision and economical evaluation report fees (second part of the program)	13,500.00	
Geologist transportation and daily allowance	3,250.00	
Labor (4 men - 2 shift/day - $3.00 per hr. for 100 days).	19,200.00	
	$ 40,950.00	$80,250.00

(c) Operating materials and supplies

Lumber	$ 300.00	
Pipes	350.00	
Fuel	420.00	
4-16 inch gold pans (at $12.00)	48.00	
Miscellaneous (picks, shovels, hammers, helmets, etc.)	320.00	
Screens	50.00	
	$ 1,488.00	$ 81,738.00

(d) Operating equipment

Jeep and cat rental (120 days at $20.00 per day)	$ 2,400.00	
Two posthole auger rental (80 days at $21.00 per day)	1,680.00	
	$ 4,080.00	$ 85,818.00

(e) (f) Not applicable

(g) Miscellaneous

Quantitative samples assaying and analysis (at least 150 samples at average $55.00 per sample)	$ 8,250.00	
Semiquantitative analysis (50 samples at $35.00 per sample)	1,750.00	
Accounting	500.00	
Workmen's compensation and liability insurance	5,640.00	
	$ 16,140.00	$101,958.00

GRAND TOTAL $101,958.00

Goldstrike

LIST OF EXHIBITS TO OME APPLICATION

Description	Exhibit No.	Item Referenced
Letter dated 27 January 1969 from Goldstrike to Matanuska Valley Bank	A	1 (a)
Letter dated 27 January 1969 from Goldstrike to National Bank of Alaska	B	1 (a)
Letter dated 30 January 1969 from Goldstrike to Alaska State Bank	C	1 (a)
Letter dated 4 February 1969 from Alaska State Bank to Goldstrike	D	1 (a)
Letter dated 5 February 1969 from National Bank of Alaska to Goldstrike	E	1 (a)
Letter dated January 27, 1969, from The First National Bank of Anchorage to Goldstrike	F	1 (a)
Letter dated February 3, 1969, from Matanuska Valley Bank to Goldstrike	G	1 (a)
Quitclaim Deed dated 12 February 1969 from Vern A. Miller and Pearse M. Walsh conveying all of their interest in the 13 mining claims to Goldstrike	H	2 (a)
Mining Claim No. 1 Commet	I - 1	2 (b)
Mining Claim No. 2 Commet	I - 2	2 (b)
Mining Claim Bear Lode No. 2	I - 3	2 (b)
Mining Claim Glue Pot No. 1	I - 4	2 (b)
Mining Claim Glue Pot No. 2	I - 5	2 (b)
Mining Claim Mosquito	I - 6	2 (b)
Mining Claim Blueberry	I - 7	2 (b)
Mining Claim Lower Bear	I - 8	2 (b)
Mining Claim Steep Creek No. 1	I - 9	2 (b)
Mining Claim Steep Creek No. 2	I - 10	2 (b)

Goldstrike

Description	Exhibit No.	Item Referenced
Mining Claim Bear	I - 11	2 (b)
Mining Claim Glue Pot No. 4	I - 12	2 (b)
Mining Claim Glue Pot No. 3	I - 13	2 (b)
Preliminary Geologic Map of Nome D-1 Quadrangle, Seward Peninsula, Alaska (with Applicant's claims marked at approximate location)	J	2 (b)
"Sketch and Sample" map of Applicant's McDuffee Mines by A. B. Shallet, Mining Engineer, dated March 1941	K	3 (a), (c)
Report on "McDuffee Mines" dated December 27, 1968, by John J. Mulligan, Chief, Alaskan Mining Research Laboratory (Bureau of Mines)	L	3 (a) 3 (e)
Assay Report (Certificate) dated September 20, 1968, from Lauck's Testing Laboratores re "grab samples" from McDuffee Mines.	M	3 (d)
Letter dated May 23, 1969 from Southern Lead Company, Dallas, Texas, re assay on Antimony sample from Goldstrike claims	M - 1	3 (f)
Letter dated April 24, 1968 from Alaska Geological Consultants to Mr. Pete Walsh re the McDuffee Mines.	N	3 (f)

GOLDSTRIKE MINING, EXPLORATION AND DEVELOPMENT CORPORATION

REPLY TO RAM OFFICE Principal

HOME OFFICE
ARTHUR E. NEUMAN
PRESIDENT
1100 - 22ND ST., N. W.
SUITE 801
WASHINGTON, D. C. 20037
(202) 223-9556

PRINCIPAL OFFICE
ROGER A. McSHEA III
SECRETARY - TREASURER
1503 K STREET
ANCHORAGE, ALASKA 99501
(902) 277-9819

NOME OFFICE
FRED D. CRANE
EXECUTIVE VICE PRESIDENT
ALASKA OPERATIONS
P. O. BOX 160
NOME, ALASKA 99762

January 27, 1969

Matanuska Valley Bank
Commercial Loan Department
712 W. 4th Avenue
Anchorage, Alaska 99501

Gentlemen:

The Goldstrike Mining, Exploration and Development Corporation is anticipating developing thirteen unpatented mining claims in the vicinity of Nome starting after ice breakup this spring. To do the work required, i.e., for full exploration of all thirteen claims, including mapping and obtaining a full engineering report, will require in the neighborhood of $25,000.

Our claims are rich in gold and antimony, a recent sampling indicating a yield of almost two ounces of gold per ton of ore, and actual mining during the period 1938-40 yielding in excess of three ounces per ton of ore. The antimony has been estimated at between 30 and 52% pure.

We would like to apply for a term loan to be repaid over three years in the amount of $25,000, at your usual interest rate. Hoping that you will give this matter your earliest and favorable consideration, I remain,

Sincerely yours,

Roger A. McShea III

Roger A. McShea, III
Secretary-Treasurer
Goldstrike Mining, Exploration & Development Corporation
1503 K Street
Anchorage, Alaska 99501

RAM:jms

cc: Art Neuman

Exhibit A

GOLDSTRIKE MINING, EXPLORATION AND DEVELOPMENT CORPORATION

REPLY TO RAM OFFICE Principal

HOME OFFICE
ARTHUR E. NEUMAN
PRESIDENT
1100 - 22ND ST., N. W.
SUITE 801
WASHINGTON, D. C. 20037
(202) 223-9556

PRINCIPAL OFFICE
ROGER A. McSHEA III
SECRETARY - TREASURER
1503 K STREET
ANCHORAGE, ALASKA 99501
(902) 277-9819

NOME OFFICE
FRED D. CRANE
EXECUTIVE VICE PRESIDENT
ALASKA OPERATIONS
P. O. BOX 160
NOME, ALASKA 99762

January 27, 1969

National Bank of Alaska
Commercial Loan Department
4th & E
Anchorage, Alaska 99501

Gentlemen:

The Goldstrike Mining, Exploration and Development Corporation is anticipating developing thirteen unpatented mining claims in the vicinity of Nome starting after ice breakup this spring. To do the work required, i.e., for full exploration of all thirteen claims, including mapping and obtaining a full engineering report, will require in the neighborhood of $25,000.

Our claims are rich in gold and antimony, a recent sampling indicating a yield of almost two ounces of gold per ton of ore, and actual mining during the period 1938-40 yielding in excess of three ounces per ton of ore. The antimony has been estimated at between 30 and 52% pure.

We would like to apply for a term loan to be repaid over three years in the amount of $25,000, at your usual interest rate. Hoping that you will give this matter your earliest and favorable consideration, I remain,

Sincerely yours,

Roger A. McShea III

Roger A. McShea, III
Secretary-Treasurer
Goldstrike Mining, Exploration & Development Corporation
1503 K Street
Anchorage, Alaska 99501

RAM:jms

cc: Art Neuman

Exhibit B

GOLDSTRIKE MINING, EXPLORATION AND DEVELOPMENT CORPORATION

REPLY TO RAM OFFICE Principal

HOME OFFICE
ARTHUR E. NEUMAN
PRESIDENT
1100 - 22ND ST., N. W.
SUITE 801
WASHINGTON, D. C. 20037
(202) 223-9556

PRINCIPAL OFFICE
ROGER A. McSHEA III
SECRETARY - TREASURER
1503 K STREET
ANCHORAGE, ALASKA 99501
(902) 277-9819

NOME OFFICE
FRED D. CRANE
EXECUTIVE VICE PRESIDENT
ALASKA OPERATIONS
P. O. BOX 160
NOME, ALASKA 99762

January 30, 1969

Alaska State Bank
Commercial Loan Department
442 W. 5th Avenue
Anchorage, Alaska 99501

Gentlemen:

The Goldstrike Mining, Exploration and Development Corporation is anticipating developing thirteen unpatented mining claims in the vicinity of Nome starting after ice breakup this spring. To do the work required, i.e., for full exploration of all thirteen claims, including mapping and obtaining a full engineering report, will require in the neighborhood of $25,000.

Our claims are rich in gold and antimony, a recent sampling indicating a yield of almost two ounces of gold per ton of ore, and actual mining during the period 1938-40 yielding in excess of three ounces per ton of ore. The antimony has been estimated at between 30 and 52% pure.

We would like to apply for a term loan to be repaid over three years in the amount of $25,000, at your usual interest rate. Hoping that you will give this matter your earliest and favorable consideration, I remain,

Sincerely yours,

Roger A. McShea III

Roger A. McShea, III
Secretary-Treasurer
Goldstrike Mining, Exploration & Development Corporation
1503 K Street
Anchorage, Alaska 99501

RAM:jms

cc: Art Neuman

Exhibit C

ALASKA STATE BANK

OFFICES IN

ANCHORAGE • FAIRBANKS • KENAI

R. M. ABELL
SENIOR VICE PRESIDENT
P. O. BOX 240
ANCHORAGE, ALASKA 99501

4 February 1969

Goldstrike Mining, Exploration and Development Corporation
1503 "K" Street
Anchorage, Alaska 99501

Attn: Mr. Roger A. McShea III, Secretary-Treasurer

Dear Mr. McShea:

I would like to acknowledge your application of 30 January 1969 for a $25,000 loan, to be repaid in a three year period.

Unfortunately, because of the speculative nature of the undertaking, I must decline. The funds requested are simply not available for this purpose.

I would suggest that you consider an application for federal funds for this purpose, as it is my understanding that they are, under some conditions, available.

Yours truly,

R. M. Abell

RMA/ab

Exhibit D

NATIONAL BANK OF ALASKA

Head Office • Box 600 • Anchorage, Alaska 99501

February 5, 1969

Gold Strike Mining, Exploration &
Development Corporation
1503 "K" Street
Anchorage, Alaska 99501

Gentlemen:

We have reviewed your application for a $25,000 loan for the purpose of exploration and other work necessary for a mining operation near Nome, Alaska.

Since this is a new venture and you are unable to furnish us with the necessary financial information or security for the loan, we are unable to service your request.

Thank you for favoring us with your application and if we can be of service to you in the future, please feel free to call on us.

Very truly yours,

J. Town

J. Town (Mrs.)
Assistant Cashier

JT/ka

Exhibit E

THE FIRST NATIONAL BANK OF ANCHORAGE

P. O. BOX 720, ANCHORAGE, ALASKA

Main Office

January 27, 1969

Goldstrike Mining Exploration and Development Corp.
1503 K Street
Anchorage, Alaska

Gentlemen:

I regret to inform you that your request for a $25,000 term loan for exploration of mining claims in the Seward Peninsula, Alaska has been rejected this date by our Senior Loan Committee.

I am indeed sorry that we could not be of assistance to you in this matter and sincerely hope to have the opportunity in the future.

Sincerely,

W. M. VØGT
Vice President

WMV:dlf

Exhibit F

MATANUSKA VALLEY BANK

12 SOONER OR LATER 3 6 9

MATANUSKA
VALLEY BANK
POUCH 7012 ANCHORAGE, ALASKA 99501

February 3, 1969

Mr. Roger A. McShea, III, Secretary-Treasurer
Goldstrike Mining, Exploration & Development Corporation
1503 K Street
Anchorage, Alaska 99501

Dear Mr. McShea:

We have reviewed your proposal for developing thirteen unpatented mining claims in the vicinity of Nome this spring with a great deal of interest.

Unfortunately, however, we do not have funds available for a loan of $25,000 for the term required for this project.

We appreciate your contacting us and trust that financial arrangements can be worked out.

Very truly yours,

W. E. Blackmon, Jr.
Assistant Cashier

WEB:mb

Exhibit B

RECORDED - ~~FILED~~
Cape Nome REC DIST.
2-20 1969

Cape Nome
69-60

Return to
261 59
Cape Nome Recording District

QUITCLAIM DEED

GRANTORS, Vern A. Miller and Pearse M. Walsh

for and in consideration of the sum of One Dollar ($1.00) and other good and valuable consideration, the receipt of all of which is hereby fully acknowledged, convey and quitclaim to,

Goldstrike Mining Exploration & Development Corporation

all of the interest which they have, if any, in the following real estate situate in the Second Judicial District, State of Alaska: the lode mining claims situated in the Snake River Watershed and recorded in the records of the Cape Nome Recording District:

Name of Claim	Locator	Cape Nome Ser. No.	Book	Page
(1) "No. 1 Commet"	H. W. Edwards	61-123	246	9
(2) "No. 2 Commet"	H. W. Edwards	61-124	246	11
(3) "Bear Lode #2	Elizabeth F. Edwards By H. W. Edwards	61-157	246	25
(4) "Glue Pot #1"	Vern A. Miller	61-161	246	29
(5) "Glue Pot #2"	H. W. Edwards	61-158	246	26
(6) "Mosquito"	Ella Tanner By Vern Miller	61-169	246	31
(7) "Blueberry"	"	61-170	246	32
(8) "Lower Bear"	Eliz.F. Edwards By H. W. Edwards	61-160	246	28
(9) "Steep Creek #1"	Vern A. Miller	61-126	246	15
(10) "Steep Creek #2"	Vern A. Miller	61-125	246	13
(11) "Bear"	Vern A. Miller	61-127	246	17
(12) "Glue Pot #4"	H. W. Edwards	61-159	246	27
(13) "Glue Pot #3"	Vern A. Miller	61-162	246	30

DATED this 12 day of February, 1969.

2:00 P.M.
Pearse Walsh
Tanner
Lower Bear Lode

Vern A. Miller
Vern A. Miller

20 Feb. 1969 Pearse M. Walsh
Pearse M. Walsh

STATE OF ALASKA
~~SECOND~~ Third JUDICIAL DISTRICT } SS

THIS IS TO CERTIFY, THAT BEFORE ME THIS DAY PERSONALLY APPEARED

Vern A. Miller ~~and Pearse M. Walsh~~ Pearse M Walsh

to me known and known to me to be the identical individuals named in and who executed the foregoing Quitclaim Deed; and they acknowledged to me that they executed the same freely and voluntarily on the date and for the purposes and considerations therein named.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal this 12 day of February, 1969.

February 1969

Agnes Kelso
Notary Public in and for Alaska

My Commission expires:

Notary Public for the State of Alaska
My Commission Expires
March 2, 1972

CAPE NOME
Serial No. 61-123

BOOK [illegible] PAGE [illegible]
Cape Nome Recording District

LODE LOCATION NOTICE CERTIFICATE

NOTICE IS HEREBY GIVEN that the undersigned, having discovered a Lode containing valuable minerals within the ground hereinafter described, locates and claims for Mining purposes 1500 feet linear measurement along said Lode, together with the ground containing the apex of

the same, situated in the...Cape Nome.....**Mining and Recording District, State of Alaska, and described as follows:**

COMMENCING at the INITIAL STAKE, which is placed...near Discovery about 1 1/4 miles from the mouth of Steep Creek, tributary of Goldbottom Creek in which is tributary of Snake River: It being located just west of Creekbed and about 350 feet northwesterly from a minor cabin.

Thence ~~300~~ 150 **feet**....southerly....**to a Stake Marked**..Post 2 No. 1 Commet

Thence 1500 feet...easterly....**to a Stake Marked**..Post 3 No. 1 Commet

Thence ~~300~~ 150 **feet**....northerly....**to a Stake Marked**..Post 4. No. 1 Commet E. and center

Thence 300 Feet in the same direction to a Stake Marked. Post 5. No. 1 Commet

Thence 1500 feet...westerly....**to a Stake Marked**. Post 6 no. 1 Commet

Thence 300 Feet to the INITIAL STAKE, upon which is Posted, a Copy of this notice. This claim is north of and adjoins lode claims no.s 1 and Steep Creek.

The Undersigned Claims all the Lodes and Veins having their Apexes within the ground herein described, together with all their dips, spurs and angles.

The LODE upon which This Claim is Located is the.....Commet.....**LODE**

This Claim shall be known as the....No. 1 Commet".....**LODE CLAIM.**

This Location is Made this...15.....**Day of**...June 1961 **19**.....

Witness:..s/Vern O. Miller..... ...s/H. W. Edwards.....**LOCATOR.**

Witness.....

CAPE NOME
Serial No. 61-123

BOOK 246 PAGE 10
Cape Nome Recording District

RECORDED - [redacted]
CAPE NOME REC. DIST.
DATE JUNE 9, 1961
TIME 11:30 A M
Requested by H.W. Edwards
Address NOME, ALASKA
S/James G. St.Amour

STATE OF ALASKA)
SECOND JUDICIAL DISTRICT) ss.

I, the undersigned, certify that this is a true and full copy of an original document on file in the District [illegible] Court, Second Judicial District, State of Alaska.

Witness my hand and the seal of this court this 16th day of Sept. 1968, at Nome, Alaska.

Loretta M. Entwistle
[redacted] Magistrate

By: _____
[redacted]

Exhibit "I-1"

CAPE NOME
Serial No. 61-124 CERTIFICATE
LODE LOCATION NOTICE

BOOK 246 PAGE 11
Cape Nome Recording District

NOTICE IS HEREBY GIVEN that the undersigned, having discovered a Lode containing valuable minerals within the ground hereinafter described, locates and claims for Mining purposes 1500 feet linear measurement along said Lode, together with the ground containing the apex of

the same, situated in the Cape Nome Mining and Recording District, State of Alaska, and described as follows:

COMMENCING at the INITIAL STAKE, which is placed near discovery and identical with initial state of lode claim "No. 1 Commet" about 1 1/4 miles from the mouth of Steep Creek, tributary of Godd Bottom Creek which is tributary of Snake River. It being located just west of Creek bed and about 350 feet Northwesterly from a miner's cabin,

Thence 300 feet northerly to a Stake Marked Post 2 No. 2 Commet

Thence 1500 feet westerly to a Stake Marked Post 3 No. 2 Commet

Thence 300 feet southerly to a ~~Stake~~ monument Marked Post 4 No. 2 Commet West and center

Thence ~~300~~ 150 Feet in the same direction to a ~~Stake~~ monument Marked Post 5 No. 2 Commet

Thence 1500 feet easterly to a Stake Marked Post 6 No. 2 Commet

Thence ~~300~~ 150 Feet to the INITIAL STAKE, upon which is Posted, a Copy of this notice. This claim adjoins "No. 1 Commet" lode claim on the latters west end & "No. 1 Steep Creek Lode Claim" on the latters north side.

The Undersigned Claims all the Lodes and Veins having their Apexes within the ground herein described, together with all their dips, spurs and angles.

The LODE upon which This Claim is Located is the Commet LODE

This Claim shall be known as the "No. 2 Commet" LODE CLAIM.

This Location is Made this 15 Day of June 1961

Witness: s/Vern O. Miller s/H. W. Edwards LOCATOR.

Witness

CAPE NOME
Serial No. 61-124

BOOK 246 PAGE 12
Cape Nome Recording District

STATE OF ALASKA)
SECOND JUDICIAL DISTRICT) ss.

I, the undersigned, certify that this is a true and full copy of an original document on file in the District Court, Second Judicial District, State of Alaska.

Witness my hand and the seal of this court this 16th day of Sept, 1968, at Nome, Alaska.

Magistrate

By

Deputy

RECORDED - FILED
CAPE NOME REC. DIST.
DATE June 9, 1961
TIME 11:30 A M
Requested by H.W. EDWARDS
Address NOME
S/James G. St. Amour

Exhibit "I-2"

CAPE NOME
Serial No. 61-157 BOOK 246 PAGE 25
Cape Nome Recording District

LODE LOCATION CERTIFICATE

Notice is hereby given that on the 10 day of July, 1961 the undersigned did discover, locate and stake, the Bear Lode #2 Lode Claim. The claim as marked upon the ground extended fifteen hundred feet along said Lode, 1400 feet S.E and 100 feet N.E from the point of Discovery and 300 feet on each side of the middle of said vein. The names of the locator of said claim are H.W. Edwards. The claim is situated on the S.W. slope of Distin Mountain at or near the head of Steep Creek in the Cape Nome Mining and Recording District, Alaska. The boundaries of the claim are as follows: Commencing at the Discovery Monument which is a three-foot high post and 11 inches through upon which the Location Notice is posted, thence 100 to the N Center of the Bear Lode #2 Lode Claim, thence 300 feet to the N.E. Corner, thence 1500 feet N.W. to N.W. corner, thence 300 to S.W. end Center stake then 300 to the S.W. Corner thence 1500 feet to the S.E. Corner, thence 300 N.E. to the place of beginning, the N.E. end center stake.

The boundaries between the stakes are indicated by the line stakes: arrows upon the stakes point out the direction of the boundaries. The Discovery stake is located on the South slope of Distin Mountain at or near Steep Creek Creek, in the Cape Nome Mining and Recording Precinct.

By Power of Attorney, Elizabeth F. Edwards
s/H.W. Edwards Locator

Witness s/ Vern Miller

RECORDED - [redacted]
Cape Nome REC. DIST.
DATE July 11, 1961
TIME 1:15 PM
Requested by Elizabeth Edwards
Address Nome, Alaska

"I-3"
Exhibit

Address Nome, Alaska

CAPE NOME

Serial No. 61-161

BOOK 246 PAGE 29

Cape Nome Recording District

LODE LOCATION CERTIFICATE

Notice is hereby given that on the ____ day of ____, 195__, the undersigned did discover, locate and stake, the Glue Pot #1 Lode Claim. The claim as marked upon the ground extended fifteen hundred feet along said Lode, 1,400 feet East and 100 feet West from the point of Discovery and ____ feet on each side of the middle of said vein. The names of the locator of said claim are ____ The claim is situated on the South slope of ____ Mountain at or near the head of Steep Creek in the Cape Nome Mining and Recording District, Alaska. The boundaries of the claim are as follows: Commencing at the Discovery Monument which is a three-foot high post and 1 inches through upon which the Location Notice is posted, thence 100 ft. to the West Center of the Glue Pot Lode Claim, thence 300 feet to the S.W. Corner, thence 1500 feet East to S.E. corner, thence 300 ft.N. to East end Center stake then 300' S. to the N.E. Corner thence 1500 feet to the N.W. Corner, thence 300 South to the place of beginning, the West end center stake.

The boundaries between the stakes are indicated by the line stakes: arrows upon the stakes point out the direction of the boundaries. The Discovery stake is located on the ____ slope of ____ Mountain at or near Steep Creek, in the Cape Nome Mining and Recording Precinct.

s/Vern Miller
Locator

Witnesss/ H.W. Edwards

RECORDED - [redacted]
Cape Nome REC. DIST.
DATE July 11, 1961
TIME 1:15 PM
Requested by E. Edwards
Address Nome, Alaska

STATE OF ALASKA)
SECOND JUDICIAL DISTRICT) ss.

I, the undersigned, certify that this is a true and full copy of an original document on file in the District ... e Court, Second Judicial District, State of Alaska.

Witness my hand and the seal of this court this 16th day of Sept. 1968, at Nome, Alaska.

Loretta M. Cutsforth
[redacted] Magistrate

By: ____
[redacted]

Exhibit I-4

CAPE NOME

Serial No. 61-158 [redacted]

BOOK 246 PAGE 26

Cape Nome Recording District

LODE LOCATION CERTIFICATE

Notice is hereby given that on the _____ day of _____, 195__, the undersigned did discover, locate and stake, the Glue Pot # 2 Lode Claim. The claim as marked upon the ground extended fifteen hundred feet along said Lode, 1400 feet East and 100 feet West from the point of Discovery and 300 feet on each side of the middle of said vein. The names of the locator of said claim are _____. The claim is situated on the South slope of _____ Mountain at or near the head of Steep Creek in the Cape Nome Mining and Recording District, Alaska. The boundaries of the claim are as follows: Commencing at the Discovery Monument which is a three-foot high post and 1 inches through upon which the Location Notice is posted, thence _____ to the West Center of the Glue Pot # 2 Lode Claim, thence _____ feet to the S.W. Corner, thence 1500 feet East to S.E. corner, thence _____ to _____ end Center stake then 300 to the N.E. Corner thence 1500 feet to the N.W. Corner, thence 300 ft. to the place of beginning, the West end center stake.

The boundaries between the stakes are indicated by the line stakes: arrows upon the stakes point out the direction of the boundaries. The Discovery stake is located on the _____ slope of _____ Mountain at or near Steep Creek, in the Cape Nome Mining and Recording Precinct.

s/H. W. Edwards
Locator

witness s/Vern Miller

RECORDED - [redacted]

CAPE NOME REC. DIST.

DATE July 11, 1961

TIME 1:15 PM

Requested by E. Edwards

Address NOME, ALASKA

Exhibit I-5

CAPE NOME
Serial No. 61-169

BOOK 246 PAGE 31
Cape Nome Recording District

LODE LOCATION CERTIFICATE

Notice is hereby given that on the 16 day of July, 1961, the undersigned did discover, locate and stake, the Mosquito Lode Claim. The claim as marked upon the ground extended fifteen hundred feet along said Lode, 100 feet West and 1400 feet East from the point of Discovery and 300 feet on each side of the middle of said vein. The names of the locator of said claim are is Ella Tanner by Power of Attorney Vern Miller. The claim is situated on the South slope of Distin Mountain at or near the head of Silver Creek in the Cape Nome Mining and Recording District, Alaska. The boundaries of the claim are as follows: Commencing at the Discovery Monument which is a three-foot high post and 4 inches through upon which the Location Notice is posted, thence 100 west to the S.W. Center of the Mosquito Lode Claim, thence 300 feet to the N.W. Corner, thence 1500 feet N.E. to N.E. corner, thence 300 to S.W. end Center stake then 300 S.E. to the N.E. Corner thence 1500 feet to the S.W. Corner, thence 300' N.W. to the place of beginning, the S.W. end center stake.

The boundaries between the stakes are indicated by the line stakes: arrows upon the stakes point out the direction of the boundaries. The Discovery stake is located on the South slope of Distin Mountain at or near Silver Creek, in the Cape Nome Mining and Recording Precinct.

RECORDED - [redacted]
CAPE NOME REC. DIST.
DATE July 16 1961
TIME 9:20 A M
Requested by ELLA TANNER
Address NOME, ALASKA

s/Ella Tanner
By Power of Atty. Locator s/Vern Miller
Witness s/H.W. Edwards

STATE OF ALASKA)
SECOND JUDICIAL DISTRICT) ss.

I, the undersigned, certify that this is a true and full copy of an original document on file in the District ... Court, Second Judicial District, State of Alaska.

Witness my hand and the seal of this court this 16th day of Sept. 1968, at Nome, Alaska.

Loretta M. Outwater
Magistrate

Exhibit "I-6"

CAPE NOME BOOK 246 PAGE 32

Serial No. 61-170 Cape Nome Recording District

LODE LOCATION CERTIFICATE

Notice is hereby given that on the 16 day of July, 1961 the undersigned did discover, locate and stake, the Blueberry Lode Claim. The claim as marked upon the ground extended fifteen hundred feet along said Lode, 100 feet West and 1400 feet East from the point of Discovery and 300 feet on each side of the middle of said vein. The names of the locator of said claim are is Vern Miller By Power of Atty. for Ella Tanner. The claim is situated on the South slope of Distin Mountain at or near the head of Silver Creek in the Cape Nome Mining and Recording District, Alaska. The boundaries of the claim are as follows: Commencing at the Discovery Monument which is a three-foot high post and 4 inches through upon which the Location Notice is posted, thence 100 to the S.W. Center of the Mosquito Lode Claim, thence 30 feet to the S.W. Corner, thence 1500 feet S.E. to N.E. corner, thence 300 to East end Center stake then 300 to the N.E. Corner thence 1500 feet to the S.W. Corner, thence 300 N.W. to the place of beginning, the West end center stake.

The boundaries between the stakes are indicated by the line stakes: arrows upon the stakes point out the direction of the boundaries. The Discovery stake is located on the South slope of Distin Mountain at or near Silver Creek, in the Cape Nome Mining and Recording Precinct.

s/Ella Tanner
By Power of Atty. Locator s/Vern Miller

Witness s/H.W. Edwards

Exhibit "I-9"

RECORDED - [redacted]
CAPE NOME REC. DIST.
DATE July 16, 1961
TIME 9:20 A M
Requested by ELLA TANNER
NOME, ALASKA

CAPE NOME, BOOK 246 PAGE 28

NOME, ALASKA

CAPE NOME

Serial No. 61-160

BOOK 246 PAGE 28

Cape Nome Recording District

LODE LOCATION CERTIFICATE

Notice is hereby given that on the 10 day of July, 1961, the undersigned did discover, locate and stake, the Lower Bear Lode Claim. The claim as marked upon the ground extended fifteen hundred feet along said Lode, 100 feet East and 1400 feet West from the point of Discovery and 300 feet on each side of the middle of said vein. The names of the locator of said claim are Elizabeth F. Edwards P.O.A. H.W. Edwards. The claim is situated on the South slope of Distin Mountain at or near the head of Steep Creek in the Cape Nome Mining and Recording District, Alaska. The boundaries of the claim are as follows: Commencing at the Discovery Monument which is a three-foot high post and 4 inches through upon which the Location Notice is posted, thence 100 East to the East Center of the Lower Bear Lode Claim, thence 300 feet to the N.E. Corner, thence 1500 feet N.W. to N.W. corner, thence S.W. to West end Center stake then S.W. to the S.W. Corner thence 1500 feet to the S.E. Corner, thence 300 N.E. to the place of beginning, the East end center stake.

The boundaries between the stakes are indicated by the line stakes: arrows upon the stakes point out the direction of the boundaries. The Discovery stake is located on the South slope of Distin Mountain at or near Steep Creek, in the Cape Nome Mining and Recording Precinct.

RECORDED - [redacted]

CAPE NOME REC. DIST.

DATE July 11, 1961

TIME 1:15 PM

Requested by E. Edwards

Address NOME, ALASKA

s/Elizabeth F. Edwards

By Power of Atty. Locator s/H.W. Edwards

Witness s/Vern A. Miller

STATE OF ALASKA
SECOND JUDICIAL DISTRICT) ss.

I, the undersigned, certify that this is a true and full copy of an original document on file in the District ... e Court, Second Judicial District, State of Alaska.

Witness my hand and the seal of this court this 16th day of Sept, 1968, at Nome, Alaska.

Loretta M. Outwater
Presiding Magistrate

By _____
Deputy

Exhibit "I-8"

CAPE NOME
Serial No. 61-126

BOOK 246 PAGE 15
Cape Nome Recording District

LODE LOCATION NOTICE

NOTICE IS HEREBY GIVEN that the undersigned, having discovered a lode containing valuable minerals within the ground hereinafter described, locates and claims for Mining purposes 1500 feet linear measurement along said Lode, together with the ground containing the apex of

the same, situated in the Cape Nome.....Mining and Recording District, State of Alaska, and described as follows:

COMMENCING at the INITIAL STAKE, which is placed near a tailing dump located about 200' S.E. of a miner's cabin about one mile from the mouth and 200'. East of Steep Creek... And said claim is marked upon the ground by substantial posts, stakes and monuments as prescribed by law and is described as follows:.. Commencing at the Discovery stake, upon which this notice is posted, running thence in a northerly direction 300' to Post # 2.

.....

Thence ~~300~~ 450 feet in a westerly direction ...to a Stake Marked No. 3.....

Thence ~~1500~~ 1050 feet in a westerly direction ...to a Stake Marked... No. 4.....

Thence 300 feet in a sourtherly direction to a Stake Marked No. 5 west end of center line

Thence 300 Feet in ~~the same~~ a southerly direction to a Stake Marked No. 6.....

Thence 1500 feet.. in a easterly direction to a Stake Marked.. No. 7.....

Thence 300 Feet in a northerly direction to the INITIAL STAKE, upon which is posted, a copy of this notice.

The Undersigned Claims all the Lodes and Veins having their Apexes within the ground herein described, together with all their dips, spurs and angles.

The LODE upon which This Claim is Located is the..Steep Creek....LODE

This Claim shall be known as the..No. 1 Steep Creek.....LODE CLAIM.

This Location is Made this.....Day of..6/15.....19.61....

Witness: s/H.W. Edwards..... ...s/Vern Miller.....LOCATOR.

Witness.....

CAPE NOME
Serial No. 61-126

BOOK 246 PAGE 16
Cape Nome Recording District

RECORDED - [redacted]
CAPE NOME REC. DIST.
DATE JUNE 9, 1961
TIME 11:30 A M
Requested by H.W. Edwards
Address NOME

STATE OF ALASKA)
SECOND JUDICIAL DISTRICT) ss.

I, the undersigned, certify that this is a true and full copy of an original document on file in the District ... Court, Second Judicial District, State of Alaska.

Witness my hand and the seal of this court this 16th day of Sept., 1968, at Nome, Alaska.

Loretta M. Outwater
~~Presiding~~ Magistrate

~~By~~ _____
~~Deputy~~

Exhibit "I-9"

CAPE NOME
Serial No. 61-125

BOOK 246 PAGE 13
Cape Nome Recording District

LODE LOCATION NOTICE

NOTICE IS HEREBY GIVEN that the undersigned, having discovered a Lode containing valuable minerals within the ground hereinafter described, locates and claims for Mining purposes 1500 feet linear measurement along said Lode, together with the ground containing the apex of

the same, situated in the..Cape Nome.....Mining and Recording District, State of Alaska, and described as follows:

COMMENCING at the INITIAL STAKE, which is placed..about one mile from the mouth of Steep Creek, a tributary of Gold Bottom Creek, which is a tributary .of.Snake.River.in.the.Cape.Nome.Precinct..Discovery.Post is situate near a tailings dump located bout 200 ' S.E. of a miner's cabin about one mile from the.mouth.and.200'.east.of.Steep.Creek,.....

.....

Thence 300 feet..southerly.....to a Stake Marked..No..2.....

Thence 1500 feet.easterly.....to a Stake Marked..No..3.....

Thence 300 feet..northerly.....to a Stake Marked..No. 4 east end of center line

Thence 300 Feet in the same direction to a Stake Marked...No..5.....

Thence 1500 feet...westerly.....to a Stake Marked..No..6.....

Thence 300 Feet to the INITIAL STAKE, upon which is Posted, a Copy of this notice.

The Undersigned Claims all the Lodes and Veins having their Apexes within the ground herein described, together with all their dips, spurs and angles.

The LODE upon which This Claim is Located is the...."Steep Creek".LODE

This Claim shall be known as the....."No. 2 Steep Creek"...LODE CLAIM.

This Location is Made this.....Day of....6/15.....19..61....

Witness:..s/H.W. Edwards..... .....s/Vern Miller.....LOCATOR.

Witness.....

CAPE NOME
Serial No. 61-125

BOOK 246 PAGE 14
Cape Nome Recording District

RECORDED - [redacted]
CAPE NOME REC. DIST.
DATE JUNE 9, 1961
TIME 11:30 A M
Requested by H.W. Edwards
Address NOME
S/James G. Stramour

STATE OF ALASKA)
SECOND JUDICIAL DISTRICT) ss.

I, the undersigned, certify that this is a true and full copy of an original document on file in the District [illegible] Court, Second Judicial District, State of Alaska.

Witness my hand and the seal of this court this 16th day of Sept., 1968, at Nome, Alaska.

Loretta M. Outwater
[redacted] Magistrate

By:
Deputy

Exhibit "I-10"

CAPE NOME
Serial No. 61-127

BOOK 246 PAGE 17
Cape Nome Recording District

246 17

LODE LOCATION NOTICE

NOTICE IS HEREBY GIVEN that the undersigned, having discovered a Lode containing valuable minerals within the ground hereinafter described, locates and claims for Mining purposes 1500 feet linear measurement along said Lode, together with the ground containing the apex of

the same, situated in the Cape Nome Mining and Recording District, State of Alaska, and described as follows:

COMMENCING at the INITIAL STAKE, which is placed About 4000 feet above the mouth and 600' East of Steep Creek and about 150' east of the actual point of discovery. Said claim is marked upon the ground by substantial stakes, posts and monuments as prescribed by law, and described as follows:

Thence 300 feet in a northerly direction to a Stake Marked No. 2

Thence 1500 feet in a westerly direction to a Stake Marked No. 3

Thence 300 feet southerly to a Stake Marked No. 4 west and center line

Thence 300 Feet in the same direction to a Stake Marked No. 5

Thence 1500 feet easterly to a Stake Marked No. 6

Thence 300 Feet to the INITIAL STAKE, upon which is Posted, a Copy of this notice. This claim adjoins and is south of No. 1 Steep Creek Lode Claim.

The Undersigned Claims all the Lodes and Veins having their Apexes within the ground herein described, together with all their dips, spurs and angles.

The LODE upon which This Claim is Located is the Bear LODE

This Claim shall be known as the Bear LODE CLAIM.

This Location is Made this 28 Day of May 1961

Witness: s/H. W. Edwards s/ Vern Miller LOCATOR.

Witness

CAPE NOME
Serial No. 61-127

BOOK 246 PAGE 18
Cape Nome Recording District

RECORDED - [redacted]
CAPE NOME REC. DIST.
DATE JUNE 9, 1961
TIME 11:30 A M
Requested by H.W. Edwards
Address NOME,

STATE OF ALASKA)
SECOND JUDICIAL DISTRICT) ss.

I, the undersigned, certify that this is a true and full copy of an original document on file in the District ... Court, Second Judicial District, State of Alaska.

Witness my hand and the seal of this court this 16th day of Sept, 1961, at Nome, Alaska.

Loretta M. Outwater
~~Presiding~~ Magistrate

By
~~Deputy~~

Exhibit "I-11"

CAPE NOME

BOOK 246 PAGE 27

Serial No. 61-159

Cape Nome Recording District

LODE LOCATION CERTIFICATE

Notice is hereby given that on the ____ day of _____, 195__, the undersigned did discover, locate and stake, the Glue Pot # 4 Lode Claim. The claim as marked upon the ground extended fifteen hundred feet along said Lode, _____ feet _____ and _____ feet _____ from the point of Discovery and _____ feet on each side of the middle of said vein. The names of the locator of said claim are _____. The claim is situated on the _____ slope of Diston Mountain at or near the head of Grouse Creek in the Cape Nome Mining and Recording District, Alaska. The boundaries of the claim are as follows: Commencing at the Discovery Monument which is a three-foot high post and 1 inches through upon which the Location Notice is posted, thence _____ to the west Center of the _____ Lode Claim, thence N feet to the S.W. Corner, thence 1500 feet _____ to E corner, thence _____ to _____ end Center stake then _____ to the _____ Corner thence 1500 feet to the N.W. Corner, thence _____ to the place of beginning, the _____ end center stake.

The boundaries between the stakes are indicated by the line stakes: arrows upon the stakes point out the direction of the boundaries. The Discovery stake is located on the _____ slope of _____ Mountain at or near _____ Creek, in the ~~Cape Nome~~ Mining and Recording Precinct.

s/ H.W. Edwards

Locator

Witness s/Vern Miller

RECORDED - [redacted]

CAPE NOME REC. DIST.

DATE July 11, 1961

TIME 1:15 P M

Requested by E. Edwards

Address NOME, ALASKA

Exhibit "I-02"

CAPE NOME
Serial No. 61-162 [redacted]

BOOK 246 PAGE 30
Cape Nome Recording District

LODE LOCATION CERTIFICATE

Notice is hereby given that on the ____ day of ____, 195__, the undersigned did discover, locate and stake, the Glue Pot # 3 Lode Claim. The claim as marked upon the ground extended fifteen hundred feet along said Lode. 1400 feet ____ and 100 feet West from the point of Discovery and ____ feet on each side of the middle of said vein. The names of the locator of said claim are ____. The claim is situated on the South slope of ____ Mountain at or near the head of Steep Creek in the Cape Nome Mining and Recording District, Alaska. The boundaries of the claim are as follows: Commencing at the Discovery Monument which is a three-foot high post and 1 inches through upon which the Location Notice is posted, thence N.W. to the West Center of the Glue Pot # 3 Lode Claim, thence ____ feet to the ____ Corner, thence 1500 feet ____ to ____ corner, thence ____ to ____ end Center stake then 300 to the N.E. Corner thence 1500 feet to the N.W. Corner, thence ____ to the place of beginning, the West end center stake.

The boundaries between the stakes are indicated by the line stakes: arrows upon the stakes point out the direction of the boundaries. The Discovery stake is located on the ____ slope of ____ Mountain at or near Steep Creek, in the Cape Nome Mining and Recording Precinct.

RECORDED - [redacted]
CAPE NOME REC. DIST.
DATE July 11, 1961
TIME 1:15 PM
Requested by E. EDWARDS
Address NOME, ALASKA

s/ Vern O. Miller
Locator

Witness s/H.W. Edwards

STATE OF ALASKA)
SECOND JUDICIAL DISTRICT) ss.

I, the undersigned, certify that this is a true and full copy of an original document on file in the District Court, Second Judicial District, State of Alaska.

Witness my hand and the seal of this court this 16th day of Sept., 1968, at Nome, Alaska, Alaska.

Loretta M. Outwater
[redacted] Magistrate

By ____
[redacted]

Exhibit "I-13"

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
P. O. Box 550
Juneau, Alaska 99801

OFFICIAL
COPY
O. M. E.
RECEIVED
MAY 29 1969
INITIALS CODE

December 27, 1968

Mr. Arthur E. Neuman
Attorney & Counselor at Law
1100 17th Street N.W.
Washington, D. C. 20036

Dear Mr. Neuman:

Reference is made to duplicate requests through your office, and through Mr. Fred Crane of Nome, for information on the MacDuffee prospect. The day after the request was received, I met with Mr. Crane in Fairbanks, gave him the information I had on this property, and promised to send additional data after the end of the field season.

The MacDuffee (also spelled McDuffee) lode prospect is on Steep Creek, a tributary of Goldbottom Creek which in turn is a tributary of the Snake River, Seward Peninsula, Alaska. The prospect is 18 miles airline north of Nome, and 1 mile off the Snake River road, a narrow gravel road usually passable during the summer months. The MacDuffee prospect is one of the most readily accessible of a group of gold-antimony lode prospects in the metasedimentary rocks of the Mount Distin syncline. Although there has been some production, none of these prospects developed into profitable mines. A map showing the prospects is enclosed. Copies of published descriptions of some of the prospects and copies and notes regarding additional references are enclosed. Published data on the MacDuffee prospect is not available, probably because work was done during 1938, 1939, and 1940 whereas the others were discovered prior to World War I.

The principal workings at the MacDuffee prospect include an open pit about 20 feet deep, a shaft estimated to be about 40 feet deep, an adit, and some other underground workings not accessible at the time. Mr. Vern Miller, Nome, Alaska, a former owner had a map of the workings that was made about 1940 or 1941. This map is not in the Bureau files. The size of dumps and visible workings would suggest that total production of the property was not over 100 tons, about half from the open pit, and half from underground. A small mill on the property was largely dismantled but the size of the mill tail disposal area would suggest that vein material was hand sorted from the country rock then crushed and ground to liberate the gold. Discussion with "old timers" in the Nome area suggests that the annual production averaged about $1,000 to $2,000 per year for the three years 1938, 1939, and 1940, but this cannot be documented.

Exhibit "L"

In addition to the principal workings, the MacDuffee includes some prospect pits in the area generally indicated by the two "X" marks on the map. Also, the present claim group probably includes the Tanner prospect 300 feet upstream. The Tanner prospect is a small hand dug pit along the stream bank that exposes stibnite-bearing schist and marble near the base of a massive series of marbles.

Steep Creek was mined for placer gold from the mouth upstream almost to the MacDuffee lode workings. The size of the placer workings indicates a shallow narrow deposit minable by hand methods, but a record of production is not available at this time.

The MacDuffee prospect is in a series of interbedded schists and marbles that conformably underlie a massive series of marbles. The local strike of both the schists and marbles is S 80° W and the dip is about 20° N. This is part of the southern limb of the Mount Distin syncline. Gold and stibnite occur with quartz, pyrite, and arsenopyrite in veins, veinlets, and lenses aligned on joints, fractures, and bedding planes in muscovite schists. In the Mount Distin area sulfide mineral deposition is most common in zones of deformation where north-south folding has been superimposed on the major east-west folding. Such cross folding is not evident at the MacDuffee prospect, possibly because of limited exposures. The veins, veinlets, and lenses at the MacDuffee prospect individually are small. The larger than average veins are estimated to range from less than an inch to a maximum of 6 inches in width and extend 10 to 20 feet vertically and horizontally. Lenses aligned with bedding might be somewhat larger. Obviously only a stockwork of such veins, veinlets, and lenses could be mined. Workings are too limited in extent to indicate whether or not a stockwork exists.

The writer visited the MacDuffee prospect in 1963 at the request of the owners. The following recommendations were made at that time. These recommendations were repeated to Mr. Crane last summer:

1. The gold in the Steep Creek placers probably was derived from the bedrock in the vicinity of the MacDuffee prospect. The general extent of gold in bedrock outcrops can be found by panning the detrital overburden now being washed down the slopes into Steep Creek. This should be done systematically. A series of sample pits should be dug on both banks of Steep Creek about 100 feet from the stream. Pits should be dug at 100-foot intervals roughly paralleling the stream. Start about 1/4 mile upstream from the mouth and continue upstream to the Tanner prospect. The depth of the pits should be 2 or 3 feet below the bottom of vegetation (normally to frost or to bedrock). The sample from each pit should be one gold pan of the finer material (pass through a 1/4-inch mesh screen). The sample can be panned on the spot and the gold and stibnite content estimated visually or weighed. The holes that contain appreciable amounts of gold should be prominently marked.

2. Uphill about 100 feet from each pit containing gold dig another and similar pit and pan it also. Mark pits containing gold. Continue both upstream and uphill until no more gold is found. This will delimit the gold-bearing overburden.

3. Set up a small placer mining outfit including a giant and a sluice box. Water can be obtained from upper Steep Creek using pipe readily available in the Nome area. A pump and a bulldozer would be handy but are not essential. Starting at the MacDuffee workings (or where sampling indicates the most abundant gold in overburden), strip the gold-bearing overburden down to bedrock and put it through a sluice box. This will not only expose the outcrop for sampling, but also the amount of gold recovered in sluicing the overburden will indicate where the more valuable lode outcroppings may be found. If little gold can be recovered in this operation, it is unlikely that the underlying lode outcroppings will prove profitable to mine.

4. After stripping the overburden, sample the lode outcroppings. The sampling and evaluation of the lode outcropping should be done by a competent mining engineer or exploration geologist before drilling or undertaking underground development.

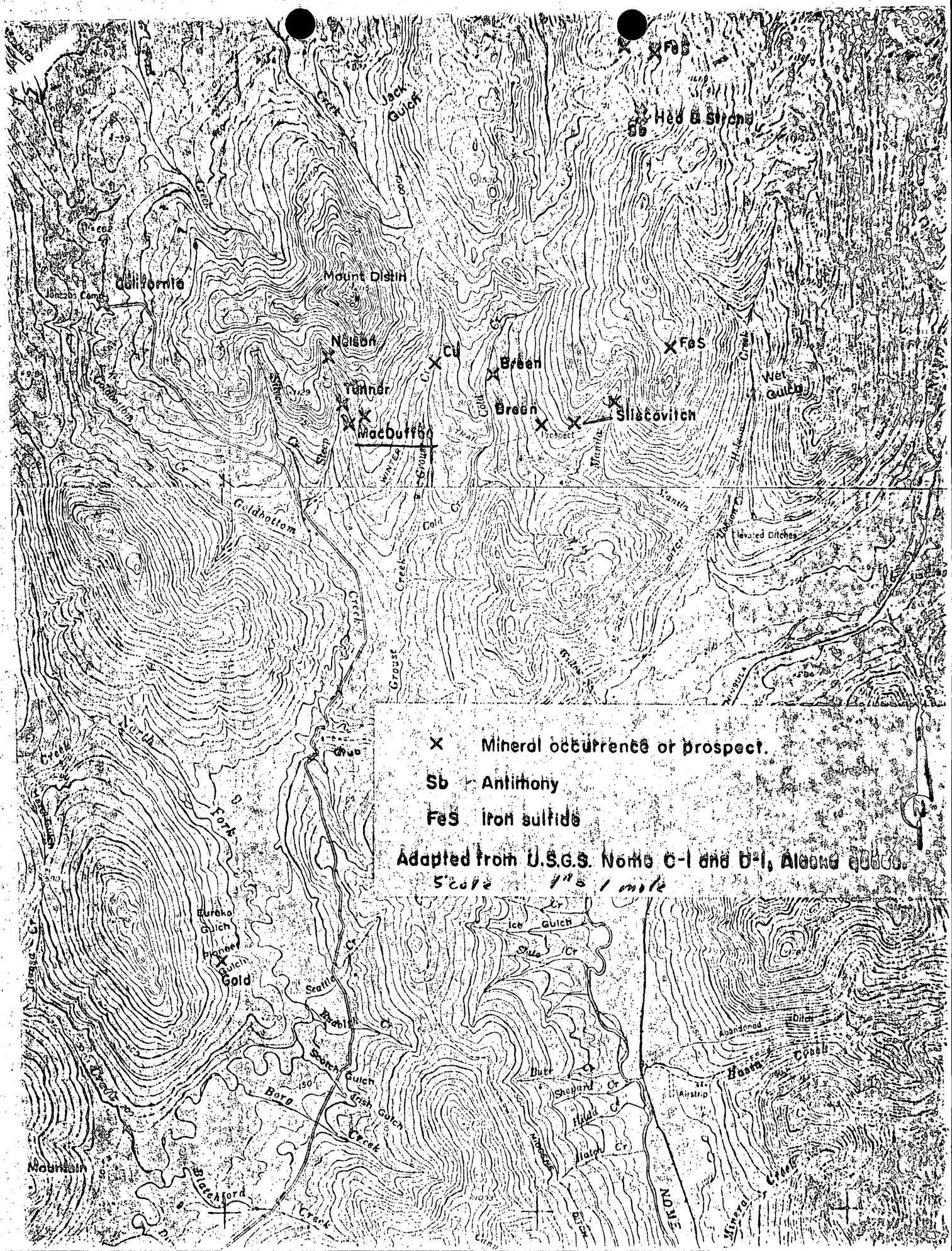
Feel free to inquire if you need additional information. Inquiries are welcomed at any time but queries requiring much research can be answered more completely during the winter months. During the summer practically the entire staff is engaged in field projects so that the persons having the specific information that you require may not be available.

Sincerely yours,

John J. Mulligan

John J. Mulligan
Chief
Alaskan Mining Research Laboratory

Enclosures



× Mineral occurrence or prospect.

Sb – Antimony

FeS Iron sulfide

Adapted from U.S.G.S. Nome C-1 and D-1, Alaska quads.

Scale 1" = 1 mile

Alaska
Seward Peninsula

USGS-B 662

LODE MINING AND PROSPECTING ON SEWARD PENINSULA.

By J. B. Mertie, Jr.

INTRODUCTION.

The lodes of Seward Peninsula give promise of coming importance but are as yet for the most part undeveloped. The Big Hurrah mine, in the Solomon district, produced gold from 1903 to 1907 but has not been operated since that time. Several small shipments of gold ore have been made from the Sliscovich mine, on Manila Creek, in the Nome district, but these were more in the nature of samples for mill tests than commercial shipments. Except on these two properties, gold lode development is still in the stage of prospecting.

Lode mining of some of the semiprecious and base metals, however, has been done on a small scale, though these lodes also are still largely undeveloped. Work has been done chiefly on tungsten, antimony, copper, tin, iron, zinc, silver-lead, and bismuth lodes. A beginning has also been made in the development of certain graphite lodes.

The following description of the Seward Peninsula lodes is intended to be merely a statement of progress and development to date. A more complete account, describing in some detail the mineralization of the lodes and embodying the results of microscopic and metallographic studies, will be published later.

GOLD.

SLISCOVICH.

The Sliscovich mine, near the head of Manila Creek, has been described in some detail by Chapin,[1] and as little or no recent work has been accomplished, this description will not be elaborated. The latest shipment from this mine was made in the fall of 1916,

[1] Chapin, Theodore, Mining on Seward Peninsula, Alaska: U. S. Geol. Survey Bull. 592, pp. 403-404, 1914.

when 25 tons of picked antimony ore was shipped to Tacoma, Wash. From data in possession of the writer it appears, however, that this ore contained considerable gold and a rather low percentage of antimony. This justifies the designation of the mine as an antimony-gold mine, rather than an antimony mine.

CALIFORNIA.

The California quartz lode is near the mouth of an east-side tributary of Goldbottom Creek, at an elevation of about 630 feet. This is the same property referred to by Chapin[1] as the Connelly & Janusen quartz mine.

The lode matter consists of shattered quartz and country rock, which are heavily iron stained and mineralized. The ore body lies along a shear zone, which has a general strike of N. 15° W. The shearing seems to have taken place along a number of faults, with this general strike and with variable dips to the northeast, but to have been concentrated along the hanging-wall side of the shear zone. The hanging wall is therefore marked by a well-defined fault, with slickensided walls. Below the hanging wall, for about 4 feet, the lode matter is greatly crushed, iron stained, and mineralized, and it is from this part of the lode that the ore has so far been taken. The footwall is not well defined, the lode merging gradually into the country rock on that side.

The country rock in this vicinity is chlorite and sericite schist, with considerable graphitic slate and some thin bands of limestone. These rocks contain a system of old quartz veins, which are parallel to one another and lie conformably with the cleavage of the schist, striking N. 40° E. and dipping 50° SE. The shear zone, which strikes N. 15° W., cuts diagonally across the quartz veins and the character of the lode matter is therefore variable. At one locality it may be entirely the red, iron-stained, shattered schist; at another it may be dominantly the mineralized vein quartz. Thus on the north bank of the creek the shear zone intersects a 10-foot quartz vein, whereas on the south bank the mineralization is largely in schist.

The lode system is crosscut by the creek and well exposed. The mineralizing solutions were effective for a considerable distance laterally, for the iron staining is plainly apparent for 300 feet upstream from the lode and for a considerable distance downstream. The owner says that this zone of shearing may be traced 1 mile to the northwest and 2 miles to the southeast.

Pyrite and arsenopyrite are the principal mineralizing agents, but here and there a little free gold may be seen. In this as well as in most other gold lodes in the Nome district very little quartz has been

[1] Chapin, Theodore, op. cit., p. 402.

introduced with the mineralizing solutions. Stibnite is reported to be present in seams 2 inches or less in thickness, but these were not seen by the writer. Hydrous manganese oxide is present in the gouge. Molybdenum and tungsten also are reported from assays.

The development work to date consists of a 70-foot shaft, sunk on a 60° incline on the bank of the creek and an open cut near the shaft. The shaft was filled with water at the time of the writer's visit and such ore as was being mined was taken from the open cut. Mining was being done on a very small scale. A mill with three 1,000-pound stamps and a concentrator are utilized in treating the ore. The mill is run by water power, the water being delivered by a ditch from Fred Gulch. The mill has a rated capacity of 10 tons in 24 hours, but it is not at present in the best condition. The owner milled but 30 tons in 1915 and on account of the deep snow in the creek and mill trouble had milled only 8 tons by the last of September, 1916.

The 4 feet of ore along the hanging wall is said to have a value of about $50 a ton, as indicated by assays, but the owner has been able to obtain only from $8 to $10 a ton from the plates. It is therefore inferred that much of the gold is either mechanically intergrown with the sulphides, in particles of microscopic or submicroscopic size, or chemically combined with the sulphides.

STEINER.

The Steiner gold lode, owned by Martin Steiner, is on a spur between Penny River and one of its small tributaries, about 4½ miles from the mouth of Penny River, at an elevation of 200 feet. No work was in progress at the time of the writer's visit, and the shaft house was closed and the mine inaccessible. The shaft is reported to be 135 feet deep, and a tunnel at the bottom has been driven 100 feet to the east.

The rock on the dump is an iron-stained pyritized schist. Two kinds of quartz are present—one dull, opaque, and iron stained, and the other clear and granular. A little calcite is present in the clear variety. The relation existing between the two varieties of quartz is not known, nor are any data available concerning the character of the lode.

BOULDER CREEK.

A number of lode claims on Boulder Creek, owned by W. L. Cochrane and Claus Rodine, are being prospected for gold. The Boulder lode, embracing several of these claims, is on the southwest side of Boulder Creek, at an elevation of about 250 feet. Development work on this lode up to November, 1916, consisted of a tunnel driven 92 feet into the hillside, on the southwest side of the creek. The direction of the tunnel, S. 60° W., is about the same as that of the cleavage in the

lode and may perhaps be present in an amount as great as 50 per cent of the cassiterite. When eventually this lode is worked the wolframite should constitute a valuable part of the product.

MISCELLANEOUS LOCALITIES.

Several other small tungsten lodes in Seward Peninsula have been worked by placer-mining methods. These include the lode on Twin Mountain Creek, the Lynx claim, on the north side of Glacier Creek, and another small lode on the divide between Glacier and Rock creeks.

ANTIMONY.

SLISCOVICH.

No work was in progress at the Sliscovich mine at the time of the writer's visit, but the mine was entered and an examination made of the antimony ore in place. At the end of the main adit, about 300 feet from the tunnel entry, an inclined shaft has been sunk on the vein, which has a general northeast strike and dips 45° NW. At about the 25-foot level in this incline a drift has been driven to the southwest, and from this drift the antimony ore was apparently taken. Below this point a good deal of caving has occurred in the incline.

At the 25-foot level the quartz vein strikes N. 45° E. and dips 48° NW. The attitude of the country rock, which is schist, is nearly horizontal, a measurement at one place on the cleavage giving a strike of N. 55° E. and a dip of 5° NW. The quartz vein is 3 feet thick in this drift and has a smooth, slickensided hanging wall and gouge along the footwall. The antimony ore (stibnite) occurs as lenses in the quartz, which is much shattered and iron stained. Plainly the quartz vein has been reopened and the stibnite deposited in the shattered vein. On the 25-foot level the body of stibnite is 1 foot thick and contains much glassy quartz, which accounts for the low percentage of stibnite reported from the last shipment of ore.

HED & STRAND.

The Hed & Strand mine is near the head of Lost Creek, a tributary of Stewart River, at an elevation of about 1,250 feet. The present developments consist of a tunnel driven southeast 250 feet into the hillside, a drift for 100 feet to the northeast and 140 feet to the southwest at 90 feet from the entry, and another drift 170 feet to the northeast, at 190 feet from the entry. The tunnel intersects the vein 80 feet from the entry. At this point the vein is about 4 feet thick and consists of white quartz and stibnite. The antimony occurs as a body 2 feet thick along the footwall. The vein strikes

N. 45° E. and dips 48° NW. but is irregular, thickening and thinning, and is offset slightly by numerous slips. At the end of the northeast drift, which starts 90 feet from the entry, the vein consists of two thin seams of stibnite with about 2 feet of crushed schist and gouge lying between them.

From the first drift southeast in the main tunnel some interesting structural data may be obtained. The strike of the schist country rock is N. 15° W. and the dip 15° E. Numerous faults cut across the tunnel, striking in a general northeasterly direction and dipping as a rule conformably with the antimony vein—that is, northwest. Several measurements on these faults were as follows: Strike N. 20° E., dip 58° NW.; strike N. 45° E., dip 75° NW.; several striking about N. 45° E., with varying degrees of dip to the northwest; one striking northeast and dipping steeply southeast. One of these faults, striking N. 45° E. and dipping 75° NW., which shows in the main tunnel 180 feet from the entry, cuts through and displaces a vein of white quartz, that stands vertical and strikes N. 52° W. The quartz is offset 2 feet along the tunnel wall. In general these fault planes are merely iron stained and slickensided, but here and there one carries a thin seam of clear granular quartz.

Most of the stibnite is of high grade, but "ore of lower grade, consisting of stibnite, pyrite, and vitreous quartz, also occurs in the deposit."[1] The vitreous quartz resembles the quartz which occurs sparingly along the fault planes, as above described. No gold is reported from the stibnite in the mine, but a little gold is present in the quartz and schist in the vein and along the walls.

Shipments of antimony ore were made from the Red & Strand mine in August and October, 1915, and in June, 1916. In all, [illegible] tons of ore has been mined and shipped. Of the last shipment, consisting of 71 tons, only 19 tons has yet been sold.

At the forks of the creek, upstream from the mine, the stibnite crops out in a vein about 1 foot thick, with a footwall of the white, opaque quartz. At another locality in the creek near by the stibnite lies in two narrow stringers, separated by about 2 feet of similar white quartz. This quartz is said to assay as high as $0 a ton, and gold to the value of $2 a ton is said to be present in the stibnite at this point.

A body of granitic rock, considerably metamorphosed, crops out on the ridge at the head of Last Creek, and this also is reported to show on assay a low content of gold.

CHRISTOPHOSEN.

The Christophosen property is at an elevation of 1,500 feet on Waterfall Creek, a tributary of Last Chance Creek, in the Snake

[1] Brooks, A. H., Antimony deposits of Alaska: U. S. Geol. Survey Bull. 649, p. 53, 1916.

ZINC.

CHRISTOPHOSEN.

A zinc prospect consisting of two claims owned by G. Christophosen is on the ridge between Penny River and the head of Oregon Creek, at an elevation of 1,600 feet. The prospect lies N. 64° E. from the mouth of Nugget Creek.

The ore occurs in a small saddle on the ridge, in a narrow band of limestone country rock. A short distance away, on both sides of the saddle, the country rock is schist, and this rapid alternation of limestone and schist is a characteristic geologic feature in this vicinity. The strike of the country rock is N. 30° E., and the dip about 30° SW. There appears to be no well-defined vein, but instead an iron-stained zone of mineralization, which trends approximately S. 8° E. The lode was located originally by float in the valley of Penny River. Development work consists mainly of a caved shallow shaft.

The ore is sphalerite, with a little pyrite, in a quartz gangue. Two kinds of quartz are present—the white, opaque variety and the clear, vitreous quartz. The latter appears to be either contemporaneous with the ore deposition or at least closely connected with it genetically. The ore is said to carry also some gold.

NELSON.

On Steep Creek, a tributary of Goldbottom Creek, at an elevation of about 1,050 feet, is the Nelson prospect tunnel, driven 55 feet N. 55° E. into the hill on the east side of the creek. The country rock is limestone striking N. 15° W. and dipping 18° W. A well-developed vertical joint plane strikes in same direction as the tunnel. The tunnel was full of water at the rear, and no one was seen on the property.

About 20 feet above the tunnel a small lead-zinc stringer was observed in the limestone. A little pyrite is also present with the galena and sphalerite.

Sphalerite is also reported in association with metalliferous lodes in other parts of Seward Peninsula.

BISMUTH.

The following extract from a report by Moffit[1] gives the only information so far collected concerning the bismuth lodes on Seward Peninsula:

> It has been known for a number of years that bismuth is present on Charley Creek, a tributary to Sinuk River from the south. It was first found in the

[1] Moffit, F. H., Geology of the Nome and Grand Central quadrangles, Alaska: U. S. Geol. Survey Bull. 533, p. 133, 1913.

CERTIFICATE

LAUCKS TESTING LABORATORIES
INCORPORATED

MAin 2-0727
1008 WESTERN AVENUE
SEATTLE, WASHINGTON 98104

CHEMISTS
SAMPLERS · INSPECTORS
ASSAYERS · SPECTROGRAPHERS
BIO-CLINICAL CHEMISTRIES

LABORATORY NO. 42999

DATE September 20, 1968

CLIENT Arthur E. Neuman
1100 Seventeenth Street. N. W.
Washington, D. C. 20036

REPORT ON ORE

SAMPLE IDENTIFICATION

A - Samples 1, 2, 3, and 6 combined as Sample No. 1
Pride of the Mountain No. 1 and 2

B - Samples 4 and 5 combined as Sample No. 2
Antimony No. 1 and 2

C - Sample No. 7 - Cripple Creek

TESTS PERFORMED AND RESULTS:

Semi-quantitative Spectrographic Analysis:

A		B		C	
Silicon	31.%	Antimony	30.%	Iron	62.%
Calcium	2.7	Calcium	12.	Silicon	2.1
Magnesium	0.30	Arsenic	0.55	Aluminum	0.74
Iron	1.4	Silicon	4.0	Barium	3.4
Sodium	2.9	Aluminum	1.1	Magnesium	0.15
Aluminum	7.9	Magnesium	1.2	Manganese	0.071
Copper	0.0049	Iron	4.0	Lead	trace
Manganese	0.055	Lead	0.048	Vanadium	0.016
Boron	trace	Manganese	0.11	Copper	0.10
Chromium	0.019	Titanium	0.031	Sodium	trace
Titanium	0.12	Sodium	0.085	Zinc	0.23
Tin	0.0055	Nickel	0.0014	Titanium	0.011
Vanadium	0.0029	Copper	0.0061	Nickel	0.0048
Silver	0.00028	Cobalt	Trace	Cobalt	0.0046
Zinc	trace	Strontium	0.018	Strontium	0.12
Nickel	0.0033	Potassium	0.52	Chromium	0.0096
Zirconium	0.011	Chromium	0.0070	Calcium	0.15
Cobalt	trace	Other elements	nil	Gallium	trace
Potassium	trace			Other elements	nil
Strontium	0.027				
Other elements	nil				

Exhibit "M"

THIS REPORT IS SUBMITTED FOR THE EXCLUSIVE USE OF THE PERSON, PARTNERSHIP, OR CORPORATION TO WHOM IT IS ADDRESSED. SUBSEQUENT USE OF THE NAME OF THIS COMPANY OR ANY MEMBER OF ITS STAFF IN CONNECTION WITH THE ADVERTISING OR SALE OF ANY PRODUCT OR PROCESS WILL BE GRANTED ONLY ON CONTRACT. THIS COMPANY ACCEPTS NO RESPONSIBILITY EXCEPT FOR THE DUE PERFORMANCE OF INSPECTION AND/OR ANALYSIS IN GOOD FAITH AND ACCORDING TO THE RULES OF THE TRADE AND OF SCIENCE.

CERTIFICATE

LAUCKS TESTING LABORATORIES
INCORPORATED

MAin 2-0727
1008 WESTERN AVENUE
SEATTLE, WASHINGTON 98104

LABORATORY NO. 42999

Arthur E. Neuman

Sample A:

Weight of sample submitted ---------- 2220 grams
Weight of "nugget" submitted -------- 26.1 milligrams

The as received sample was crushed and pulverized, to pass a No. 60 sieve. A representative portion of the as received sample was tested for free gold content -- by amalgamation. A portion of the tailings, from amalgamation, was fire assayed. A second portion of the tailings was fire assayed, after addition of the "nugget" to it.

Results were as follows:

1. As received sample-- Free gold, troy ounces per ton -- 1.54
2. Tailings -- Gold, troy ounces per ton ---------- None
   Silver, troy ounces per ton ---------- Trace
3. Weight of gold in "nugget" ---------- 22.94 Milligrams
4. Weight of silver in "nugget" ---------- 2.13 Milligrams

The gold in the sample was all in the free (mercury amalgamateable) state.

The "nugget" was, by request, considered a part of the as received ore sample.

A fineness determination was not made on the free gold found by amalgamation. For calculating purposes, it was considered to be 1000 fine.

Employing the above information, the gold and silver content of the as received sample, by calculation, was as follows:

	Troy Ounces Per Ton
Gold ----------	1.84
Silver ----------	0.03

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CERTIFICATE

LAUCKS TESTING LABORATORIES

INCORPORATED

MAin 2-0727
1008 WESTERN AVENUE
SEATTLE, WASHINGTON 98104

LABORATORY NO. 42999

Arhtur E. Neuman

	Troy Ounces Per Ton		
	Gold	Silver	Antimony
Sample B	0.04	Trace	28.3%
Sample C	0.02	Trace	———

Respectfully submitted,

LAUCKS TESTING LABORATORIES, INC.

F. P. Owens

F. P. Owens

FPO:rc

THIS REPORT IS SUBMITTED FOR THE EXCLUSIVE USE OF THE PERSON, PARTNERSHIP, OR CORPORATION TO WHOM IT IS ADDRESSED, SUBSEQUENT USE OF THE NAME OF THIS COMPANY OR ANY MEMBER OF ITS STAFF IN CONNECTION WITH THE ADVERTISING OR SALE OF ANY PRODUCT OR PROCESS WILL BE GRANTED ONLY ON CONTRACT. THIS COMPANY ACCEPTS NO RESPONSIBILITY EXCEPT FOR THE DUE PERFORMANCE OF INSPECTION AND/OR ANALYSIS IN GOOD FAITH AND ACCORDING TO THE RULES OF THE TRADE AND OF SCIENCE.

SOUTHERN LEAD CO.
P. O. BOX 6195 / DALLAS, TEXAS 75222 / (214) 331-3241

May 23, 1969

Mr. Arthur E. Neuman, President
Goldstrike Mining, Exploration and Development Co.
1100-22nd St., N. W.
Washington, D. C. 20037

Dear Mr. Neuman:

The sample of antimony which you mailed to us assayed 44.7% antimony and 17.2% sulfur. The sulfur content is higher than we normally use, and so long as an antimony to sulfur ratio of $3\frac{1}{2}$ to (1) is available, we do not buy material containing a 44.7% to 17.2%.

I do appreciate your mailing the sample and should you have a lot which is in the ratio mentioned, I would appreciate a sample of it.

Very truly yours,

SOUTHERN LEAD COMPANY

James H. Thrash,
Vice-President/Purchasing

JHT:ps

Exhibit M-1

TELEPHONE: 272-4114

ALASKA GEOLOGICAL CONSULTANTS

ENGINEERING GEOLOGY ☆ MINING ☆ GEOPHYSICS ☆ GROUNDWATER ☆ PETROLEUM

4610 SPENARD ROAD
ANCHORAGE, ALASKA 99503

April 24, 1968

Mr. Pete Walsh
Box 179
Nome, Alaska 99762

Dear Pete

Several years ago while in Nome I looked at a prospect which you and Mr. Vern Miller hold together. It was the combination gold-Stibnite property just north-west of Nome about 25 miles.

While on the property I took serveral samples of each mineral and was quite enthusisastic over the gold, mainly because of its free milling charateristics and the apparent indication of several peroids of enrichment. I still have the samples in my office and they provide a good conversational piece as they very strongly show free gold.

I was wondering if you took my advice and attempted to open up both prospects for further and more detailed examination. Also with the increased activity in mining I would be extremely interested to know the status of these propects.

Hope to be hearing from you soon.

Yours truly,

BGP/bh

Exhibit "N"

MAP MF-248

DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

PRELIMINARY GEOLOGIC MAP OF THE NOME D-1 QUADRANGLE, SEWARD PENINSULA, ALASKA

By
C. H. Hummel

MINERAL INVESTIGATIONS
FIELD STUDIES MAP MF-248

OFFICIAL
COPY
O. M. E.
RECEIVED
MAY 29 1969
INITIALS | CODE

PUBLISHED BY THE U. S. GEOLOGICAL SURVEY
WASHINGTON, D.C.
1962

Exhibit "J" and K

MAP MF-248

John H. DeYoung, Jr.
13 Aug 77

Summary of OME 6795 File

Location: Nome quad, Alaska; on the south slope of Mt. Distin about 29 km north of Nome

Commodity: Sb (stibnite) and Au

Property name(s): McDuffee mines or prospect, Steep Creek; see p. 3 of attached OME application for names of 13 claims.

Operator: Gold Strike Mining, Exploration, and Development Corp. - 13 unpatented claims acquired by quitclaim deed from Vern A. Miller and Pearse M. Walsh on 12 Feb 69. Claims had been recorded in 1961.

Geology: Description in pages 5 and 6 of OME application attached.
Map of claims (Shallit - 1941) attached.
Letter by J.J. Mulligan (27 Dec 68) attached.
Memo by C.L. Hummel (27 Jan 70) attached.

History: First application to OME on 29 May 69. Request was for a $100,000 loan to develop the property. Failure to submit a revised exploration program resulted in the application being declared inactive on 19 Oct 70.

The OME application estimates production from the McDuffee mines from 1937 through 1941 at 100 tons of ore averaging about 3.28 oz/T (91 t @ 112.5 g/t). The 1941 sketch by A.B. Shallit indicates 53 t @ 110.2 g/t. No production information on antimony or on claims not in the "McDuffee mines" grouping. No record of gold placer production below McDuffee mines on Steep Creek is available. USGS mapping was done in the area in 1953-54 and 1956-57.

Resource information: The discontinuity of structures related to mineralization contribute to the difficulty in estimating ore reserves. Mulligan has suggested digging a series of exploration pits to delimit the gold-bearing overburden and then placer mining the gold-bearing overburden while exposing the outcrop for sampling. Shallit's 1941 map indicates two areas where gold values exceed 0.38 oz/T (13.0 g/t). A 4-inch (10-cm) sample in the lower adit contains 19.22 oz/T (659 g/t) and a 5-inch (13-cm) sample in the open-cut below the limestone-schist contact contains 9.88 oz/T (339 g/t). As noted above, the average grade of gold ore produced from 1937 through 1941 was about 110 g/t. Samples of grab material assayed in 1968 contained 1.84 oz/T (63.1 g/t) of gold.

6795 (p.2)

Samples of stibnite assayed 30 to 52 percent antimony with an antimony to sulfur ratio of about 2.6 to 1.

References: USGS Bull 662-I (p. 425 ff) on antimony-gold lodes in the Mt. Distin vicinity (Mertie, 1918); USGS Field Studies Map MF-248 (Hummel, 1962).

MME Form 7
(2/63)

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Date	Surname	Code
10/19/70	Emerick	120
		220

OCT 19 1970

Goldstrike Mining Exploration
and Development Corporation
1100 22nd Street, N. W.
Washington, D. C. 20037

Re: OME-6795 (Antimony-Gold)
Goldstrike Mining Exploration
and Development Corporation
Mc Duffee Mines
Cape Nome Recording District, Alaska

Gentlemen:

Inasmuch as we have not received the revised exploration program mentioned in your letter of August 30, 1970, to Mr. H. K. Stager, Field Officer, Region II, we are placing your application in our inactive file.

Should you desire to reopen the application at some future time with a revised exploration proposal you may do so by filing a new application Form 40, referring to this OME docket number and furnishing the information pertinent to your new proposal. This information should include new bank letters dated within 90 days of filing the new application and complete cost estimates for the new proposal supported by bids from drilling or other applicable contractors.

Sincerely yours,

Harold Kirkemo (glo)

Harold Kirkemo
Chief, Office of
Minerals Exploration

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

WLEmerick/bsl 10/19/70

UNITED STATES
DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY
Office of Minerals Exploration
345 Middlefield Road
Menlo Park, California 94025

October 15, 1970

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Memorandum

To: Chief, Office of Minerals Exploration
Washington, D. C.

From: Field Officer
Region II

Subject: OME-6795 (Antimony-Gold)
Goldstrike Mining, Exploration and Development Corporation
McDuffee Mines
Cape Nome Recording District, Alaska

Inasmuch as the subject Applicant has not done any work at the property during the last two field seasons and has not submitted a revised exploration proposal, I recommend that the application be transferred to the inactive file. The Applicant could be informed that if it desires to reopen the application at some future time a new Form 40 will be required, together with new bank letters, revised exploration proposal, and complete cost estimates supported by bids from drilling and/or other contractors.

H. K. Stager

GOLDSTRIKE MINING, EXPLORATION AND DEVELOPMENT CORPORATION

HOME OFFICE
ARTHUR E. NEUMAN
PRESIDENT
1100 - 22ND ST., N. W.
SUITE 801
WASHINGTON, D. C. 20037
(202) 223-9556

PRINCIPAL OFFICE
ROGER A. McSHEA III
SECRETARY - TREASURER
1503 K STREET
ANCHORAGE, ALASKA 99501
(902) 277-9819

NOME OFFICE
CJ Phillips
~~FRED D. CRANE~~
EXECUTIVE VICE PRESIDENT
ALASKA OPERATIONS
P. O. BOX ~~750~~ 370
NOME, ALASKA 99762

REPLY TO Home

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August 30, 1970

H. K. Stager, Field Officer
Office of Mineral Exploration, Region II
U. S. Geological Survey
U. S. Department of Interior
345 Middlefield Road
Menlo Park, California 94025

RE: OME 6795 (Antimony-Gold) GMEDC - McDuffee Mines
Cape Nome Recording District

Dear Mr. Stager:

In reply to your August 18, 1970 letter concerning a change in plans on our OME Loan application for development of the McDuffee Mines for antimony and gold, I wish to state the following.

With your permission, we would like to submit a revised proposal limiting our application to antimony only. We have recently reviewed the ore potential of our properties and have found better antimony potential in some of our other claims. We have some antimony claims in which grab samples assay over 50% antimony which we believe are better prospects for an OME loan.

Accordingly, if you will, please keep our OME application open. I will, very shortly, submit revised figures and other geological data to reflect the revisions sought.

Your considerations herewith are appreciated.

Very truly yours,

Arthur E. Neuman

Arthur E. Neuman, President

AEN/ms
CC: CJ Phillips
Roger McShea
Val Burke

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SEP - 4 1970
OFFICE OF MINERALS EXPLORATION
U.S. GEOLOGICAL SURVEY
MENLO PARK, CALIF.

Office of Minerals Exploration
345 Middlefield Road
Menlo Park, California 94025

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AUG 19 1970
INITIAL & CODE

August 18, 1970

Goldstrike Mining, Exploration and
Development Corporation
1100 22nd Street, N.W.
Washington, D.C. 20037

Re: OME-6795 (Antimony-Gold)
Goldstrike Mining, Exploration
and Development Corporation
McDuffee Mines
Cape Nome Recording District, Alaska

Gentlemen:

In reference to your application for exploration assistance at the McDuffee Mines, I am informed by Mr. C. L. Hummel, Geologist, U.S.G.S., Alaskan Branch, who has recently returned to Menlo Park from the Nome area, that you have not been able to complete any of the preliminary work contemplated at the property. He also informs me that from his conversations with your field geologist, in Nome and on the plane enroute home, that he understands there has been a change in your exploration plans for the area.

Will you please advise us as to your present plans and if you wish to withdraw your original application. You may perhaps wish to submit a revised proposal at this time or when sufficient field work has been completed to justify an alternate exploration plan.

Sincerely yours,

H. K. Stager
Field Officer
OME, Region II

cc: OME, Wash., D.C.
Dir. RF
ACG RF
MP RF
Docket

HKStager:mkh

Office of Minerals Exploration
345 Middlefield Road
Menlo Park, California 94025

February 27, 1970

Pulled 4/23

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MAR 4 1970

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Goldstrike Mining Exploration
and Development Corporation
1100 22nd Street, N.W.
Washington, D.C. 20037

Re: OME-6795 (Antimony-Gold)
Goldstrike Mining Exploration
and Development Corporation
McDuffee Mines
Cape Nome Recording District, Alaska

Gentlemen:

Your application for exploration assistance at the McDuffee Mines has been referred to this office for further study, a field examination if warranted, and recommendations.

I have discussed the geology of the mine area with geologists of the Alaskan Branch, who are familiar with the area, and find that it is generally agreed that the known veins are small, discontinuous, and of questionable economic potential. The geological work and prospect pits that were part of the work planned by you for last summer may have yielded additional information that would be of value in our appraisal. If this work was done as planned, will you please furnish us with a copy of any maps, assay data, etc., that resulted. As pointed out in Mr. Kirkemo's letter of January 22, 1970, this type of preliminary work is not eligible for assistance under OME regulations, but if this work permits you to now plan a drilling program aimed at specific targets, it may be possible to justify Government participation in the costs of the drilling. A map showing the location of the drill sites and specific exploration targets will be required.

Because of the present OME funding limitations it is not probable that a contract, if justified, can be prepared in time for a project to be started this coming season. Geologists of the Alaskan Branch will be in the Nome

area this summer, however, and it is my intention to have one of them examine your property, report on the results of your work during the 1969 and 1970 seasons, and gather any other information available. If preliminary work justifies Government participation in the costs of an exploration drilling program, it may be possible for OME to assist you in such a program during the summer of 1971.

Sincerely yours,

H. K. Stager
Field Officer
OME, Region II

cc: OME, Wash., D.C.
Dir. RF
ACG RF
MP RF
Docket

HKStager:mkh

Alaska Mineral Resources Branch
345 Middlefield Road
Menlo Park, California 94025

January 27, 1970

O. M. E.
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glc 1 | 20
HK 1 | 20
~~EJ 1 | 20~~

Memorandum

To: H. K. Stager, Field Officer
Office of Minerals Exploration

From: C. L. Hummel

Subject: OME-6795 (Antimony-Gold)
Goldstrike Mining Exploration and Development Corporation
McDuffee Mines
Cape Nome Recording District, Alaska

The gold-antimony deposits near Nome on the claims concerned are some of the numerous veins localized in small fractures and faults along a large syncline in a medium-grade schist and marble sequence. The size of the individual deposits, and thus their economic potential, is limited by that of the structures, which are small and discontinuous.

No comment is necessary about the preliminary exploration because it is not covered by the loan and so presumably has been done during the preceding field season along the lines suggested by Mulligan (USBM). The first stage of Federal loan involvement must be examination and evaluation of the results of this work as the basis for a drilling program. As you indicated, Pete Sainsbury is the obvious first choice to do this.

Two points relating to any further exploration are in order: (1) The greatest care must be exercised to avoid correlating two or more small vein-bore hole intercepts to make one much larger deposit; and (2) full evaluation and realization of the economic potential will also require metallurgical and mineral dressing studies. The former because of the probable character of the deposits described above; and the latter because some and perhaps much of the gold occurs as inclusions in pyrite, which is a moderate to abundant constituent in the veins, or is strongly stained by iron oxides derived from it in detrital deposits. Misuse or misinterpretation of data involving either or both of these factors could affect grade, reserve, and recovery calculations.

C. L. Hummel

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
1/22/70	Peterson	120
		120
1/23	Cac	220
		120M

JAN 23 1970

AIRMAIL

Memorandum

To: Field Officer, Region II

From: Chief, Office of Minerals Exploration

Subject: OME-6795 (Antimony-Gold)
Goldstrike Mining Exploration and
Development Corporation
McDuffee Mines
Cape Nome Recording District, Alaska

In accordance with the Applicant's request of January 15 we are resuming the processing of his application for exploration assistance, and we are referring it to you for further study, a field examination if warranted, and recommendations. In this connection, perhaps there are Survey personnel who have worked in the project area that may be consulted to aid in arriving at a decision regarding the proposal without making an on-site examination.

A review of the Applicant's cost estimate indicates that most costs are considered high. If a contract is contemplated, the Applicant should provide the necessary data to support these estimates.

Harold Kirkemo (gla)

Harold Kirkemo

cc: Director's Reading File
Mineral Resources File
OME Docket
OME Reading File
Mr. Peterson
130

ECPeterson/bsl 1/22/70

MME Form 7
(2/63)

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Date	Surname	Code
1/22/70	Peterson	120
		120
		220
		120M

Mr. Arthur E. Neuman, President
Goldstrike Mining Exploration
and Development Corporation
1100 22nd Street, N. W.
Washington, D. C. 20037

JAN 23 1970

Re: OME-6795 (Antimony-Gold)
Goldstrike Mining Exploration and
Development Corporation
McDuffee Mines
Cape Nome Recording District, Alaska

Dear Mr. Neuman:

Thank you for your letter of January 15, 1970. We appreciate your views and support of the OME program. In accordance with your request we shall continue to keep your application for exploration assistance in active status.

We have reviewed the application and find that the portion relating to geological examination, survey, and mapping is not eligible for assistance under OME regulations. The program is limited to exploration of specific targets in specific areas, and excludes participation in work required to locate these targets and to obtain the necessary supporting geologic evidence. Such preliminary information should be obtained by the Applicant at his own expense prior to submitting an application.

In addition, please note that if any of the proposed work is to be contracted (drilling, bulldozing, etc.), cost estimates should be supported by bids from three contractors for each work item, if possible.

At this time we are referring the application for further consideration to Mr. H. K. Stager, Field Officer, Region II, U. S. Geological Survey, Building 2, 345 Middlefield Road, Menlo Park, California 94025.

The processing of the application will follow the action outlined in our letter to you dated December 19, 1969. Mr. Stager will notify you if he requires additional information concerning the application.

Sincerely yours,

Harold Kirkemo (gla)

Harold Kirkemo
Chief, Office of
Minerals Exploration

cc: Director's Reading File
Mineral Resources File
OME Docket
OME Reading File
OME Region II
Mr. Peterson
~~130~~

ECPeterson/bsl 1/22/70

GOLDSTRIKE MINING, EXPLORATION AND DEVELOPMENT CORPORATION

HOME OFFICE
ARTHUR E. NEUMAN
PRESIDENT
1100 - 22ND ST., N. W.
SUITE 801
WASHINGTON, D. C. 20037
(202) 223-9556

PRINCIPAL OFFICE
ROGER A. McSHEA III
SECRETARY - TREASURER
1503 K STREET
ANCHORAGE, ALASKA 99501
(902) 277-9819

NOME OFFICE
~~FRED D. CRANE~~ C. J. Phillips
EXECUTIVE VICE PRESIDENT
ALASKA OPERATIONS
P. O. BOX ~~160~~ 370
NOME, ALASKA 99762

OFFICIAL COPY
O. M. E.
RECEIVED
JAN 19 1970
INTERIOR DOCS
Sol 1/30
Sol 1/20 M
HR 1/20
ER 1/20 P

REPLY TO Home

January 15, 1970

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

Re: OME-6795 (Antimony-Gold)
Goldstrike Mining Exploration and
Development Corporation
McDuffee Mines
Cape Nome Recording District, Alaska

Dear Mr. Kirkemo:

Thank you for your December 19, 1969 letter advising of the status of our OME loan application, the above referenced, and the difficulty your office is encountering in implementing Public Law 85-701 as it relates to the Office of Minerals Exploration Program. You state that because of curtailment of the program due to the failure of Congress to provide sufficient funds to cover the applications that have been filed and being received, there has resulted some delay in processing of the applications including our application for a $100,000.00 loan to develop the antimony-gold claims we own in the Seward Peninsula of Alaska.

It is our understanding that for Fiscal Year 1970, Congress has only appropriated a token sum which, in effect, makes the Act of no significance insofar as the intent of the legislators who originally enacted the law to assist the faulting American mineral and mining industry.

We recognize your extremely difficult task in deciding upon the priorities with the meager available funds appropriated by Congress and know that this will result in depriving worthy applicants of an opportunity to develop mineral properties that would substantially support the heavy metals program as enunciated by Congress. The OME Program is a very good step in assisting the American mining industry and to bring it back to a sound economic level to the benefit of the nation's economy. However, in the hopes that Congress will soon realize the folly in neglecting the OME Program and appropriate sufficient funds, we wish to keep our application in an active status for consideration by your office, albeit delayed for processing due to curtailment of funds this fiscal year.

Copy to R-II

Of further consideration in helping our application alive is, as you undoubtedly know, the fact that the current market price of antimony, which is also the subject of our OME application, has skyrocketed to $17.86 - $18.75 per unit (Jan. 1970 quotation) from a year ago price of $6.25 - $6.34. Although inflation appears to be upon us resulting from, among other things, rising labor and material costs, the tremendous surge in the price of antimony is the outgrowth of the failure of Congress to lend further support towards developing America's mineral resources. Prices like this, in turn, feed inflation.

Recently, a leading metal refining company in southwest U.S., unable to purchase antimony concentrated ore on a local basis from mining companies, purchased antimony ore in the field and hired an independent contractor to retrieve it from a somewhat remote and inacessible area in the Sawtooth mountains near Fairbanks, Alaska. It seems to be a deplorable state of affairs when a smelting company must go to these extremes to obtain a source of supply for a metal ore that could very easily be made available in greater quantities F.O.B. shipping point to industrial users by the efforts of companies such as ours.

The McDuffee Mines contain indeterminate amounts of high-grade antimony ore (over 44%) which, if further developed by exploratory efforts such as trenching, diamond core drilling, etc., could reveal economic bodies of antimony ore that could be mined and thus help to alleviate the current price crisis in antimony. Being a new and small concern, we need the help of the OME loan. When, and if, your office reaches the point where it can consider our application, we should like to supplement it with current and uptodate information on the antimony in the McDuffee Mines.

I am taking the liberty of sending a copy of this letter to selected congressmen to apprise them of the facts and in the hopes of enlisting their support in voting for additional funds for the OME Program.

Sincerely yours,

Arthur E. Neuman

Arthur E. Neuman
President

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
12/19/69	Peterson	120
		120
12/19	cal	220
		120M

DEC 19 1969

Goldstrike Mining Exploration
and Development Corporation
1100 22nd Street, N. W.
Washington, D. C. 20037

Re: OME-6795 (Antimony-Gold)
Goldstrike Mining Exploration and
Development Corporation
McDuffee Mines
Cape Nome Recording District, Alaska

Gentlemen:

We wrote you on July 18, 1969, to advise that our funding situation then precluded full consideration of your application for financial assistance to explore the McDuffee mines. In late November 1969 we learned that funds for contracting purposes in the fiscal year ending June 30, 1970, are sufficient for only a few new contracts. The extent of future contracting will depend on availability of funds.

Owing to curtailment of the program, the processing of applications is being delayed. Therefore, field examinations necessary to reach decisions on applications are being made largely in connection with other field work of the program. In due course of time we will inform you whether or not your application can be approved for a contract when funds are available. Priority on available funds will be given to approved applications offering the best opportunities for making significant discoveries.

Under these circumstances, should you wish to withdraw your application, please so advise. If you wish to keep your application in active status, we will process it as explained above.

We regret that this action is necessary, but under present funding circumstances we cannot offer better service at this time.

Sincerely yours,

Harold Kirkemo (gla)

Harold Kirkemo
Chief, Office of
Minerals Exploration

cc: Director's Reading File
Mineral Resources File
OME Docket
OME Reading File
OME Region II
Mr. Peterson

ECPeterson/bsl 12/19/69

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
7/18/69	Peterson	120
		120
7/22	cac	220
		120M

JUL 18 1969

Goldstrike Mining Exploration
and Development Corporation
1100 22nd Street, N. W.
Washington, D. C. 20037

Re: OME-6795 (Antimony-Gold)
Goldstrike Mining Exploration and
Development Corporation
McDuffee Mines
Cape Nome Recording District, Alaska

Gentlemen:

Reference is made to your application for exploration assistance dated May 29, 1969.

We have postponed processing applications received recently pending information regarding availability of funds for the fiscal year beginning July 1, 1969. Although appropriations have not yet been made for the current year, we understand that funds will be much less than were available for the year that ended June 30, and we are authorized to operate only at the level of the anticipated reduced funds. Under this situation, action on pending applications must be postponed, as proposed contracts already drafted and awaiting execution will require more funds than are available. When we can again process new applications, first priority will be given to those offering the best opportunities for making significant discoveries.

We regret that we cannot make a decision on your application at present and we are unable to estimate when we may be of possible assistance to you. When circumstances permit, we will process your application within the limitations stated above.

Sincerely yours,

Harold Kirkemo (glc)

Harold Kirkemo, Chief
Office of Minerals Exploration

cc: Director's Reading File
Mineral Resources File
OME Docket
OME Reading File
Region II
Mr. Peterson

ECPeterson/bsl 7/18/69

May 29, 1969

Goldstrike Mining Exploration
and Development Corporation
1100 22nd Street N. W.
Washington, D. C. 20037

Subject: OME-6795

Gentlemen:

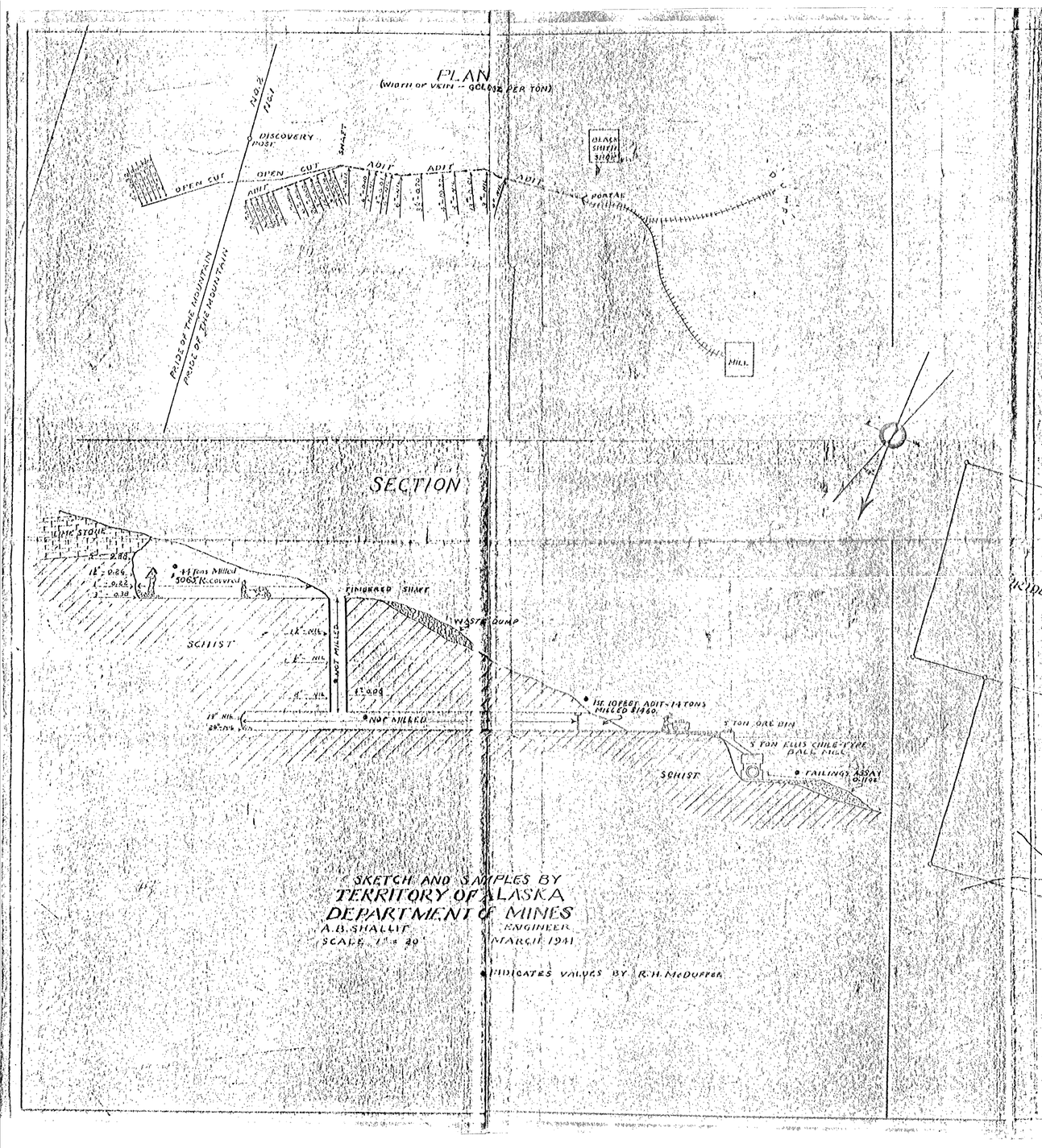
Your application for exploration assistance, dated May 29, 1969, submitted to our office at Washington, D. C., has been assigned Docket No. OME-6795.

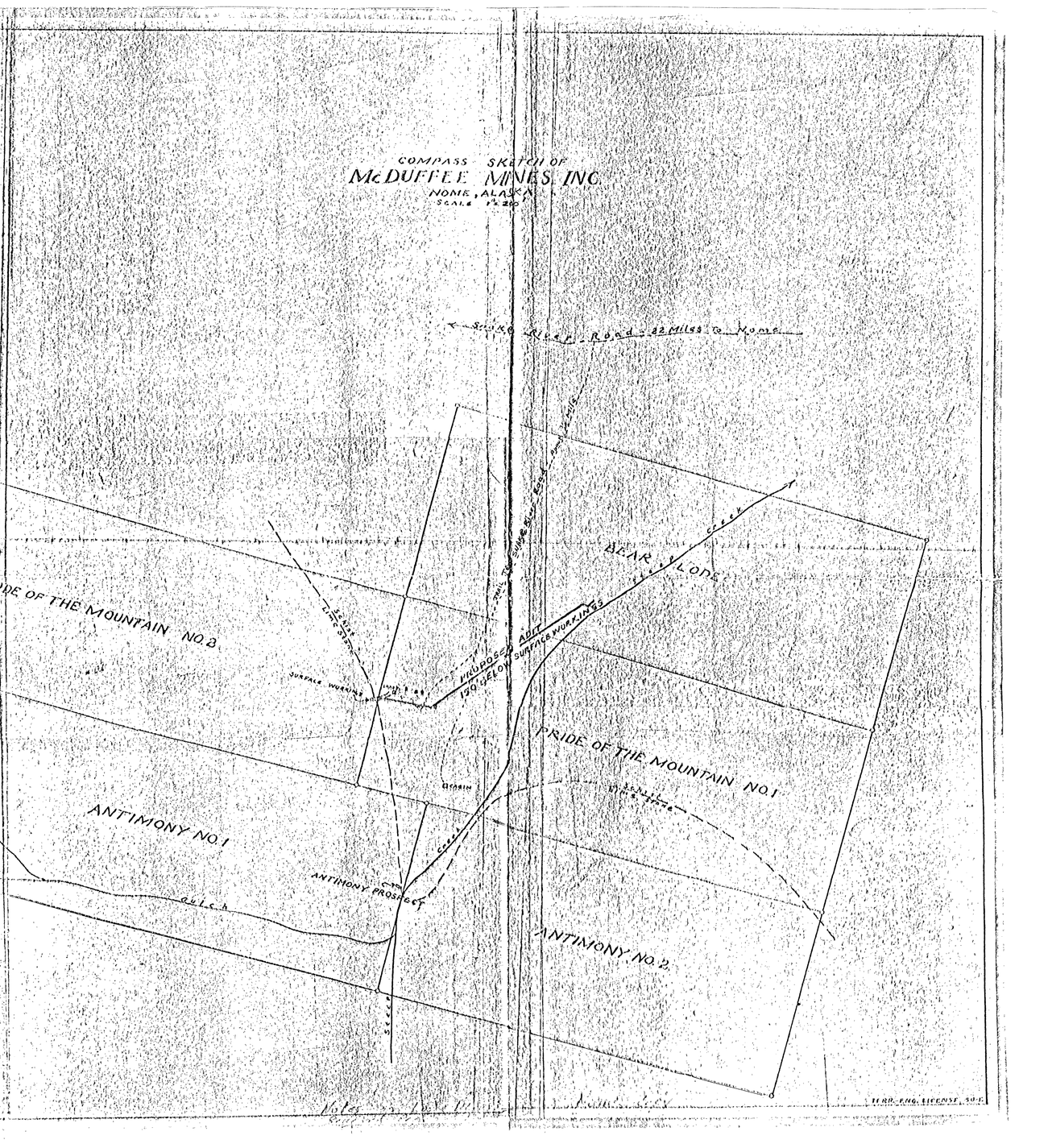
Please identify all future correspondence relating to your application by this docket number.

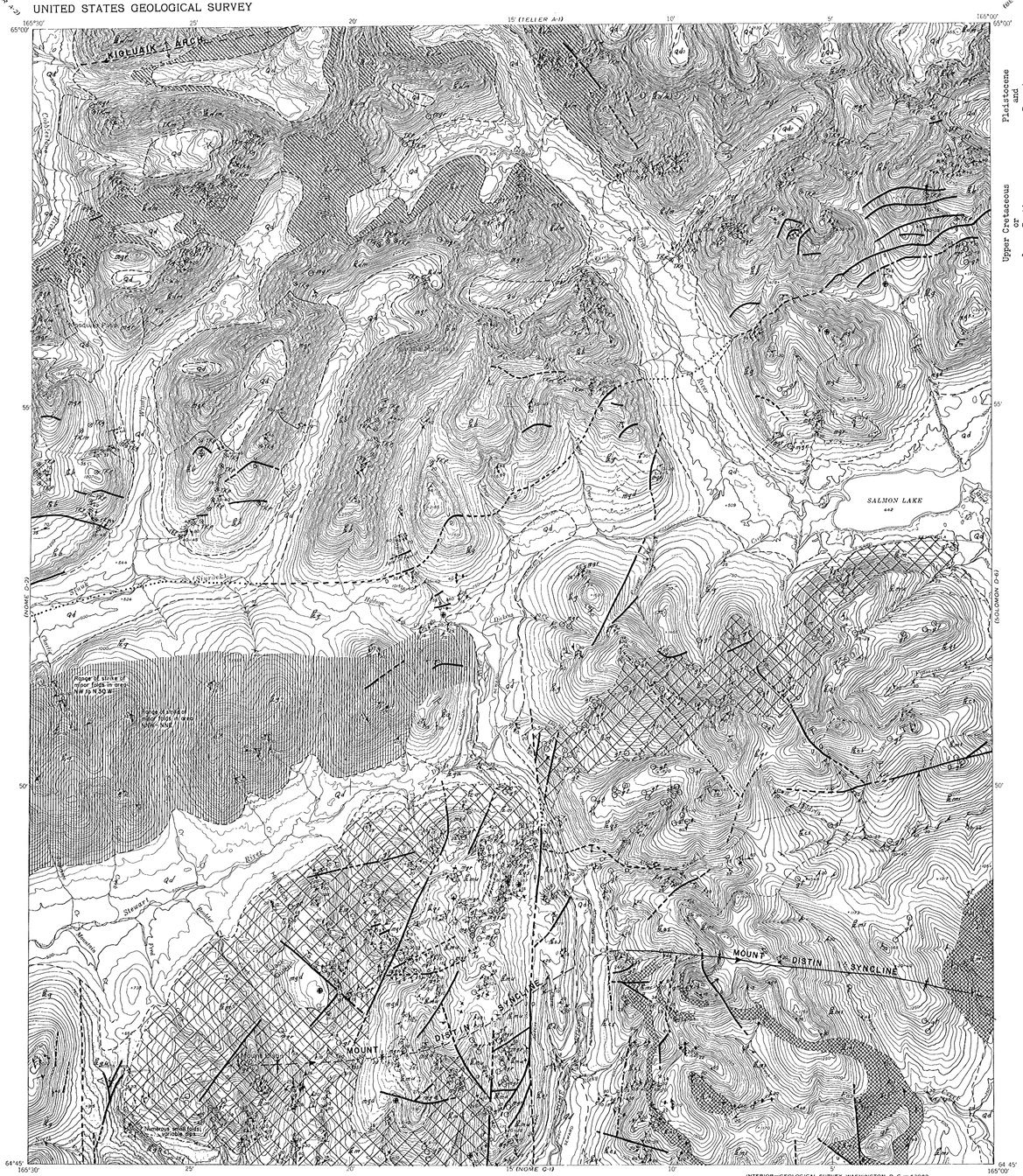
Sincerely yours,

Harold Kirkemo
Chief, Office of
Minerals Exploration

Copy to R-II - Maps will
be mailed as soon as reproduced.


PLAN
(WIDTH OF VEIN -- GOLD PER TON)
DISCOVERY POST
SHAFT
OPEN CUT
OPEN CUT
ADIT
ADIT
ADIT
ADIT
PORTAL
MILL
PRIDE OF THE MOUNTAIN
PRIDE OF THE MOUNTAIN
SECTION
LIME STONE
SCHIST
FINISHED SHAFT
SCHIST
SCHIST
SKETCH AND SAMPLES BY
TERRITORY OF ALASKA
DEPARTMENT OF MINES
A.B. SHALLIT ENGINEER
SCALE 1" = 20'
MARCH 1941
INDICATES VALUES BY R.H. McDUFFEE


COMPASS SKETCH OF
McDUFFEE MINES INC.
NOME, ALASKA
SCALE 1" = 200'
NOME-BEAR ROAD - 22 MILES TO NOME
PRIDE OF THE MOUNTAIN NO. 3
BEAR LODE
PRIDE OF THE MOUNTAIN NO. 1
ANTIMONY NO. 1
ANTIMONY PROSPECT
ANTIMONY NO. 2
SURFACE WORKINGS
ADIT
SURFACE WORKINGS
GRAVEL
CREEK
GRAVEL
CREEK
GULCH



Base from Army Map Service topographic quadrangles

INTERIOR—GEOLOGICAL SURVEY WASHINGTON D C—62089

Geology mapped in 1953–54 and 1956–57

EXPLANATION

SEDIMENTARY DEPOSITS

Qd

Unconsolidated deposits
Mainly glacial, glaciofluvial, and alluvial deposits, but locally includes eluvium

IGNEOUS ROCKS

TKg

Granitic intrusives
Dikes and sills

TKm

Mafic intrusives
Dikes and sills

TKp

Pegmatite
Dikes and sills

METAIGNEOUS ROCKS

mgr

Metagranitic sills

mgd

Metagranodioritic sills

gt

Greenstone sills

METASEDIMENTARY ROCKS

The following lithologic units were previously included in the Nome Group (Brooks, A. H., Richardson, G. B., and Collier, A. J., 1901, Reconnaissance in the Cape Nome and Norton Bay regions, Alaska: U. S. Geol. Survey Spec. Pub., p. 29, also Moffit, F. H., 1913, Geology of the Nome and Grand Central Quadrangles: U. S. Geol. Survey Bull. 533, p. 17-19)

Pzms

Interbedded marble and schist
Well-stratified sequence comprised principally of the following rocks: non-graphitic to slightly graphitic, quartz-chlorite-muscovite schist and chlorite-muscovite schist, non-graphitic to slightly graphitic calcareous and quartzo-calcareous-chlorite-muscovite schist, blue-gray and gray marble and buff-weathering and gray schistose marble, garnetiferous and non-garnetiferous amphibolite, and impure calcareous and non-calcareous quartzite. Garnet and feldspar are constituents of some chlorite-muscovite schist. Units consisting mainly of marble are shown with cross-hatched pattern. Contact with underlying calcareous schist gradational

Pzcs

Calcareous schist
Composed almost entirely of calcareous-rich rocks, including non-graphitic to slightly graphitic chlorite-muscovite schist and quartz chlorite-muscovite schist, buff-weathering calcareous chlorite-muscovite schist, buff-weathering and gray schistose marble, and sparse blue-gray marble. Contact with underlying quartzite and schist gradational

Pzqs

Interbedded quartzite and schist
Predominantly green to gray-green chlorite-muscovite schist and quartz-chlorite-muscovite schist and spotted, feldspathic variants of them with intimately interbedded lenticles and beds of buff- to brown-weathering calcareous quartzite and yellow-green argillaceous quartzite; lenticles range in size from a fraction of an inch in thickness and a few inches long to several feet in thickness and several tens to hundreds of feet long; minor units include calcareous chlorite-muscovite schist and gray and buff-weathering schistose marble. Variants of all units with amphibole and garnet are sparingly present in the northern outcrop belt extending from upper Nome River to upper Eldorado River. Contact with underlying schist gradational

Pzmu / Pzm

Marble
Pzmu consists mainly of calcareous, quartzo-calcareous, and quartz-chlorite-muscovite schist but includes blue-gray and gray marble, buff-weathering and gray schistose marble, and black quartzite. Gradational with underlying rock
Pzm, principally platy, slabby and massive blue-gray and gray marble, and buff-weathering and gray schistose marble; minor units include calcareous chlorite-muscovite schist, and graphitic and non-graphitic chlorite-muscovite schist and quartz-chlorite-muscovite schist. Contact with underlying graphitic, calcareous schist gradational

Pzgu / Pzg

Graphitic, calcareous schist
Pzgu, uppermost part of this unit is markedly more graphitic than the rest; includes gray to dark-gray, moderately to highly graphitic, calcareous quartz - chlorite-muscovite schist; graphitic quartz-chlorite-muscovite schist; gray, dark-gray, and black marble; and black quartz schist and black quartzite. Gradational with underlying rock
Pzg, predominantly gray, slightly graphitic, calcareous quartz schist; minor units include blue-gray, gray, and black marble, graphitic chlorite-muscovite schist, quartz-chlorite-muscovite schist, and black quartz schist and black quartzite. Non-graphitic to slightly graphitic quartz-chlorite-muscovite schist, and black graphitic quartz schist and black graphitic quartzite predominate in units shown by vertical line pattern. This unit in fault contact with what is considered to be next underlying rock

Note: Rocks making up all of the following lithologic units were previously included in the Kigluaik Group. See references cited above

Pzb

Interbedded biotite schist and quartzite
Composed mainly of interbedded gray and black graphitic quartzite and red-brown-weathering biotite schist. Garnet, sillimanite, and staurolite are constituents of some schist. Minor units include calc-silicate rocks and diopside-bearing quartz-feldspar biotite schist. Contact with underlying marble gradational

Pzdm

Dolomitic and calcitic marble
Predominantly, white dolomitic marble and grayish-white to gray, impure biotite- and diopside-bearing calcitic marble; minor units include pale green, calc-silicate rocks, grayish-green to greenish-gray, diopside-bearing quartz-feldspar-biotite schist, and orange-, red-, and brown-weathering quartz-feldspar schist and quartz-biotite schist. Parts of the unit in which schist predominates are shown by inclined line pattern

Contact
Short dashes where approximately located; short dashes alternating with dots where inferred, extrapolated, or semi-obscured. All contacts queried where doubtful

Contact of unconsolidated deposit, approximately located

Fault, showing dip
Dashed where approximately located or inferred; dotted where concealed; queried where doubtful. U, upthrown side; D, downthrown side

Lineament or fault from aerial photographs

Anticline, approximately located
Showing trace of axial plane and direction of plunge of axis

Syncline
Showing trace of axial plane and direction of plunge of axis. Dashed where approximately located; queried where doubtful

Bearing and plunge of minor fold axis

Bearing of horizontal minor fold axis

Strike and dip of bedding foliation from aerial photographs

Strike and direction of dip of beds from aerial photographs

Horizontal bedding foliation

Strike and dip of bedding foliation

Strike of vertical bedding foliation

Strike and dip of bedding foliation
Open arrow shows bearing and plunge of lineation

Strike and dip of bedding foliation
Solid arrow shows bearing and plunge of minor fold axis lying in plane of foliation

Strike and dip of bedding foliation
Open arrows indicate bearing of horizontal lineation

Bearing and plunge of lineation

Bearing of horizontal lineation

Bearing and plunge of pencil structure

Strike and dip of joint

Strike of vertical joint

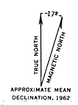
Mine or prospect
Numbers refer to mines and prospects listed below

1. Breen (East); Sb
2. Breen (West); Sb
3. California (Jensen); Au
4. Charley Creek; Bi
5. Copper Creek; Cu
6. Copper King; Cu, Pb
7. Copper Mountain; Cu
8. Hed and Strand; Sb
9. Lindfors; Sb
X 10. MacDuffee (East); Au
X 11. MacDuffee (West); Au, FeS
12. Moffit; graphite
13. Nelson (Steep Creek); Pb, Zn
14. Nelson Gulch; Sch
15. Sliscovitch; Sb
16. Sliscovitch (South); Sb
17. Spring; Sb
X 18. Tanner; Sb
19. Thompson; Sb, Zn
20. Wyoming; FeS

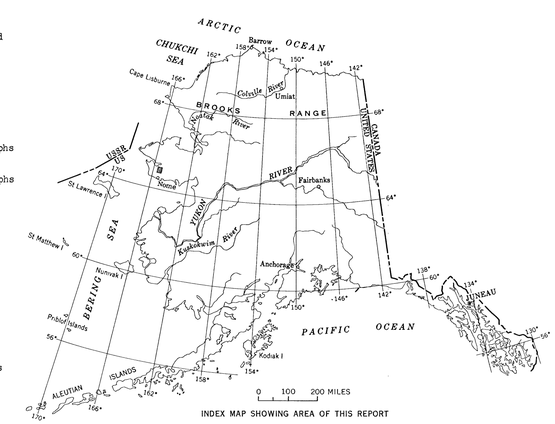
The names of the mines and prospects above are those by which they are referred in previous geologic literature of the area.

21. 53AHu 123; FeS
22. 53AHu 131; FeS
23. 53AHu 169; Sch
24. 53AHu 174; Sch
25. 53AHu 254; Cu
26. 53AHu 294; Sch
27. 54AHu 280; FeS
28. 54AHu 465 (Float); Cu
29. 54AHu 510; Sb
30. 54AHu 518; Sb
31. 54AHu 519; Sb
32. 54AHu 522; FeS
33. 57AHu 132; Cu
34. 57AHu 135; FeS
35. 57AHu 216; Sch
36. 57AHu 244; graphite
37. 57AHu 272; Zn, Sch
38. 57AHu 278; graphite
39. 57AHu 291; FeS
40. 57AHu 300; Sch
41. 57AHu 347; FeS

Prospects 21 through 41 were found or relocated during the current geologic investigation and no names could be found for them; they are here listed according to the field station designations. The principal constituents of the mines and prospects are indicated as follows: Au, native gold; Cu, copper; FeS, iron sulfides, mainly pyrite and arsenopyrite but rarely pyrrhotite; Pb, lead; Sb, antimony; Sch, scheelite.



X Claims
Owned By
Goldstrike
Mining Exploration
& Development Corp.



INDEX MAP SHOWING AREA OF THIS REPORT

PRELIMINARY GEOLOGIC MAP OF THE NOME D-1 QUADRANGLE, SEWARD PENINSULA, ALASKA

By
C. H. Hummel

SCALE 1:63 360

1 0 1 2 3 MILES

CONTOUR INTERVAL 50 FEET
DATUM IS MEAN SEA LEVEL

1962

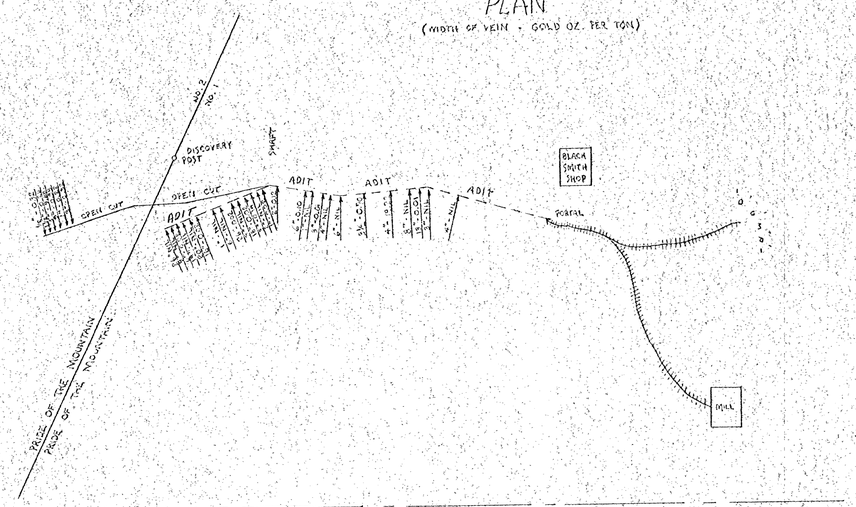
MINERAL INVESTIGATIONS
FIELD STUDIES MAP MF-248

For sale by U. S. Geological Survey, price 50 cents

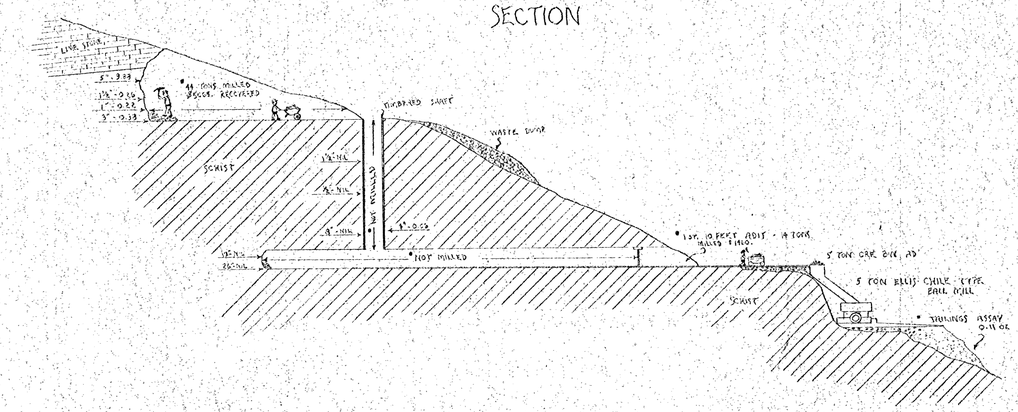
REVISIONS				
SYM	ZONE	DESCRIPTIONS	DATE	APPROVED

PLAN

(WIDTH OF VEIN - GOLD OZ. PER TON)



SECTION



SKETCH AND SAMPLES BY

TERRITORY OF ALASKA

DEPARTMENT OF MINES

A.B. SHALLIT — ENGINEER

SCALE 1" = 20' — MARCH 1941

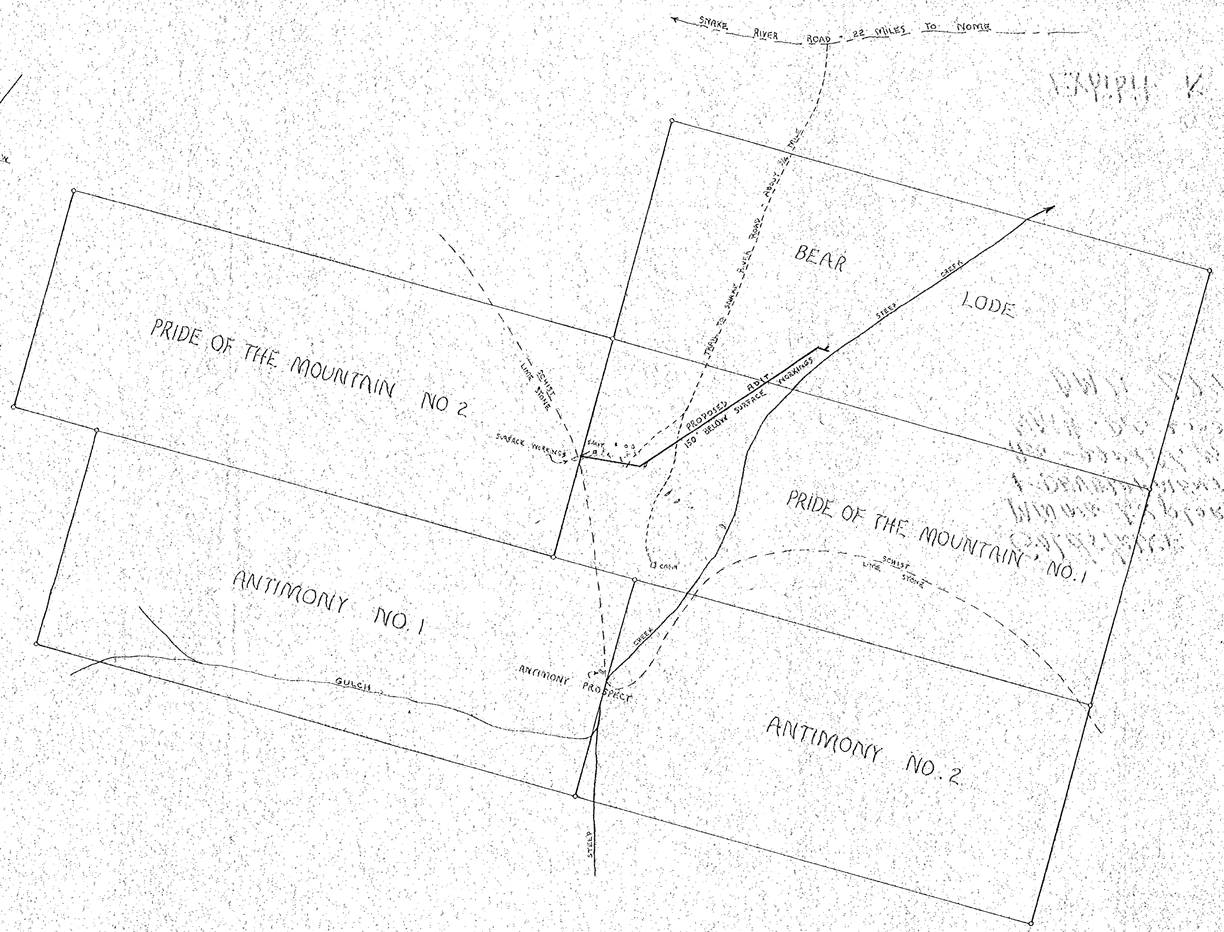
• INDICATES VALUES BY R.H. McDUFFEE

COMPASS SKETCH OF

McDUFFEE MINES INC.

NOME, ALASKA

SCALE 1" = 200'



TOLERANCES UNLESS OTHERWISE SPECIFIED	MATERIAL	DATE	STOUT STATE UNIVERSITY MENOMONIE, WISCONSIN
DECIMAL ± .005	DRAWN		DEPT. SHT.
FRACTIONAL ± 1/64	TRACED		
ANGULAR ± 1/2°	CHECKED	SCALE NO	COURSE OF

PRINTS TO