MME Form 9
Rev. Nov. 65

UNITED STATES
DEPARTMENT OF THE INTERIOR
Geological Survey

OFFICIAL DOCKET FILE

Contract No. _____ Docket No. 6652

Application
- [x] Denied
- [ ] Withdrawn

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

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

Folder No. 1:

Left Side

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

Right Side

- [ ] Project Summary (final)
- [ ] Work Completed Analysis (final)

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

- [ ] Field Team Semiannual Report for Certified Project
- [ ] Final Field Team Report (Tab)
- [ ] Operator's Final Report (Tab)
- [ ] Interim Field Team Reports
- [ ] Operator's monthly reports and all attachments
- [x] On-site Exam. Report (Tab) 1/.8/68
- [ ] 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

CADGIE TAYLOR CO.
ROOM 404
3800 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012

Mine Office:
PINTLAR HOTEL
PHILIPSBURG, MONTANA 59858
Telephone:
(406) 859-3752

Telephone: (602) 264-5047

April 1, 1968

Mr. Frank E. Johnson, Chief
Office of Minerals Exploration
U. S. Geological Survey
Washington, D. C. 20242

Dear Mr. Johnson:

Docket No. OME-6652
CADGIE TAYLOR Property

Amendments to Application

We wish to further amend our application. Please replace 1 (b) and (c) with the following:

1 (b) The applicant, Cadgie Taylor Co., has 2 stockholders that control the corporation. Their names and percentage interests are as follows:

Sierra Silver Mining Company 3800 N. Central Avenue (Room 404) Phoenix, Arizona 85012	88%
Joe Metesh Pintlar Hotel Philipsburg, Montana 59858	10%
	98%
Other Stockholders	2%
Total	100%

Regarding a complete disclosure of the controlling stockholder, Sierra Silver Mining Company, we attach a prospectus from a registration statement filed with the U. S. Securities and Exchange Commission, Washington, D. C., in which this company registered 200,000 shares of common stock for sale to the public mainly for the purpose of raising funds to finance its share of the cost of the program.

Letter April 9, 1968

(May we direct your attention to Page 3, paragraph 1, Dr. G. C. Ridland, the largest stockholder of Sierra Silver Mining Company, will own 69.25% of the outstanding shares after completion of the distribution of the offering so that he will be in control of the policies of this company. The interest of Dr. Ridland and other stockholders have been diluted accordingly whereas the interest of Joe Metesh remains the same.)

1 (c) To finance its cost of the program, the applicant, Cadgie Taylor Co., has induced its largest stockholder, Sierra Silver Mining Company, to make a public offering of its securities, namely, 200,000 shares at $1.00 per share. The offering has been successful, and $95,000.00 of the offering is to be advanced to Cadgie Taylor Co. (see page 5 of the prospectus, under Use of Proceeds), so that it will be adequately financed to pay its share of the estimated cost of the exploration, 1/4 of $104,241.00, or $26,060.25 ($30,000.00 mentioned in the prospectus.)

5 Exploration Work. No amendment is being made here, but work is progressing on an accurate, topographic map of the property on a scale of 1 inch = 100 feet. Since this map is not entirely complete and topographic features are continually being added, we will not furnish the application with a copy until the government is about ready to prepare the contract covering the exploration program. At such time, the applicant will submit copies of the map amending (only to accuracy) the locations of the proposed drill sites.

End of amendments.

Yours very truly,

CADGIE TAYLOR CO.

G. C. Ridland, President

cc: Mr. D. R. MacLaren
Field Officer
Office of Minerals Exploration
New Federal Building
Spokane, Washington

PROSPECTUS

200,000 Shares

SIERRA SILVER MINING COMPANY

Room 404

3800 North Central Avenue, Phoenix, Arizona 85012

COMMON STOCK

(Par Value $0.02 Per Share)

Offering Price: $1.00 Per Share

These securities are being offered as a Speculation

	Price to Public (1)	Underwriting Commission (2)	Proceeds to Company (3)
Total Offering	$200,000.	$20,000.	$180,000.
Per Share	$1.00	$0.10	$0.90

(1) The offering price has been arbitrarily established by the Company which does not represent that the stock has a market value or could be resold at such price. There is presently no market for the securities of the Company. In addition to the 200,000 shares being offered, the Registration Statement covers 95,000 shares at $1.25, underlying non-transferrable options expiring June 18, 1969 (see Stock Options, page 13).

(2) The underwriting agreement provides that the Company will reimburse the underwriter for expenses not to exceed $3,000.00, grants the underwriter options to purchase 50,000 shares of the Company's common stock at $1.25 per share, not exercisable for one year after the effective date of the registration statement and expiring June 18, 1969, and provides for reciprocal indemnification between the underwriter and the Company. The 50,000 shares referred to in the foregoing sentence are included in the 95,000 shares referred to in (1) above. Prior to the public offering of the options or the shares of common stock underlying the options, a post-effective amendment indicating the terms of such offering, will be filed by the Company and declared effective. The underwriting agreement further allows the underwriter, as additional underwriting compensation, any excess of price for the optional stock received by the underwriter in excess of the price payable to the issuer (see Underwriting, page 19).

(3) There is no assurance that the Company will receive the proceeds indicated above. The underwriter will not purchase any of the shares offered herein, but will act only as an agent to sell them for the issuer. The underwriter has agreed to use his best effort to sell the entire issue within 60 days of the date of this prospectus, deposit the proceeds in escrow with the American Bank and Trust Company, and if the issue is not sold within the 60-day period, the escrow agent will promptly refund to purchasers their full purchase price without interest (see Underwriting, page 19).

THESE SECURITIES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE SECURITIES AND EXCHANGE COMMISSION NOR HAS THE COMMISSION PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

UNDERWRITER

WILLIS E. BURNSIDE AND CO., INC.

40 Exchange Place

New York, N. Y. 10005

The date of this Prospectus is March 7, 1968

Until June 5, 1968, all dealers effecting transactions in the registered securities, whether or not participating in this distribution, may be required to deliver a Prospectus. This is in addition to the obligation of dealers to deliver a Prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

No dealer, salesman or any other person is authorized by the company or the underwriter to give any information or to make any representation other than those contained in this Prospectus in connection with the offering described therein. This Prospectus does not constitute an offer to sell these securities within any state to any person to whom such offer would be unlawful.

The delivery of this Prospectus at any time does not imply that information herein is correct as of any time subsequent to its date.

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IN CONNECTION WITH THIS OFFERING, THE UNDERWRITER MAY OVER-ALLOT OR EFFECT TRANSACTIONS WHICH STABILIZE OR MAINTAIN THE MARKET PRICE OF THE CAPITAL STOCK OFFERED HEREBY AT LEVELS ABOVE THOSE WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME.

Transfer Agent and Registrar
NEVADA AGENCY AND TRUST CO.
2 Ryland Street, Reno, Nevada

INTRODUCTORY STATEMENT

The securities offered by this Prospectus are speculative and the reader should consider the following speculative factors:

1. Sierra Silver Mining Company (hereinafter called "the Company") does not possess, or have any interest in, ore reserves or in any known or proven commercial deposits of silver or other metals or minerals. The Company was organized on January 26, 1967. It has 4 directors who are experienced (see Management, page 15) in their particular fields of the mining business. They also serve as officers of the corporation. At present, the Company has one employee and an 88 per cent interest in a silver prospect through a subsidiary. It is making this public offering of its securities to finance exploration for commercially mineable silver deposits with the hope of finding same. On consummation of the offering, Dr. Ridland will own 69.25 per cent of the outstanding shares and will thus be able to control the policies of the Company.

2. Sierra Silver Mining Company, in addition to being organized to explore for silver, was founded for the purpose of acting in a consulting capacity to the mining industry and particularly to the "small mine," the segment of the industry concerned with the underground mining of narrow lode deposits—usually containing a combination of silver and gold as their more valuable constituents. The industry is presently dormant and has been for the past 25 years. The revival, if any, of this industry cannot be predicted but in any event would require a substantial rise in the price of silver, or gold, or both.

3. The Company has no income other than the proceeds of this offering. There is at present no appreciable demand for the services the Company proposes to offer, and in the event a demand does not materialize, or, if the price of silver (or gold) does not advance substantially, the investor may experience a total loss of his investment (see Silver Mining Business, page 7).

4. The proceeds from the sale of this offering are believed sufficient to begin the search for a commercially mineable silver deposit, but unlikely that they will be adequate to bring the deposit, if found, into production. If exploratory work proves favorable, the Company will have to obtain further financing. There is no assurance that the Company could obtain such financing and, if such financing is obtainable, that it would be on terms favorable to the Company.

5. Since the Company has no past history of operations, the price at which the shares are offered has been arbitrarily determined and bears no relationship to earnings, book value, or other criteria of value.

6. Presently, there is no market for the securities being offered (see Description of Stock, page 13).

7. If the consulting business or the exploration of properties proves unsuccessful, the Company may be faced with the possibility of liquidation. In such case, certain

directors, officers and promoters will, to the extent that assets are available for distribution, receive a disproportionately greater share of the assets in relation to their cash investment in the enterprise than will the public shareholders in that the holders of common stock are entitled to share ratably in the assets available for distribution.

8. The options granted by the Company to prior stock purchasers, as briefly indicated in Note (1) of the cover page of this prospectus, and as further described in the section entitled "Stock Options", on page 13, give these stockholders and the underwriter until June 18, 1969, the right to purchase 95,000 shares of Company's common stock at $1.25 per share. These options may be expected to be exercised at a time when the company would, in all likelihood, be able to obtain equity capital, if it should be needed then, by the sale of a new offering on terms more favorable than those provided for by the options. It should be further noted that the options granted by the Company gives the holders, for the life of the options, the opportunity to purchase additional securities at a nominal cost above the offering price and therefore an opportunity to profit from a rise in the market price of the Company's stock, and the Company, for the life of the options, may be deprived of favorable opportunities to secure additional equity capital if it should be needed for the purposes of the business. The issuer presently has no need for additional working capital in excess of the amount to be realized under the present offering.

9. If the Company receives and utilizes exploration assistance (see Exploration Assistance, page 11, and Use of Proceeds, page 6) and makes a discovery, certified by the Government, this will result in a lien on the property for a period of 10 years or until the funds are repaid in full.

10. As of October 31, 1967, the Company and its subsidiary had a combined cash balance of $1,114.00 and cash deposit of $10,000.00 for a total cash item of $11,114.00 (see page 23). Between October 31, 1967, and January 31, 1968, expenses incurred in their normal business operations such as surveying, sampling, assaying, legal fees, administrative, and travel, amounted to $8,973.00. Cash items on January 31, 1968, for the two companies totaled $2,141.00.

DILUTION

The directors, officers and promoters will hold 75.38% of the stock to be outstanding upon completion of this offering at a cost of $0.02 per share, prior purchasers will own 4.52% of the stock at a cost of $0.50 per share, and the public shareholders shall own 20.10% of the stock at a cost of $1.00 per share. The book value of the Company's stock as of October 31, 1967, was $0.05 per share. At the completion of the present offering the book value will be $0.21 per share. The public will sustain an immediate dilution of $0.79 per share while the promoters, officers and directors will receive an increase of $0.19 per share.

USE OF PROCEEDS

The offering to the public of 200,000 shares at $1.00 will gross $200,000.00. Net proceeds to the Company, after deducting underwriting commissions of $20,000.00 but before other expenses of the issue, will be $180,000.00. The Company anticipates the other expenses (for legal fees, advertising, transfer agent's fees, underwriting expenses, etc.) not to exceed $10,000.00 so that the net proceeds to the Company, if the issue is sold, will aggregate approximately $170,000.00.

The foregoing expense items will be paid first out of the net proceeds. Thereafter the Company anticipates using the proceeds as follows:

A. Advance of $95,000.00 to its subsidiary, Cadgie Taylor Co., on open account for which the subsidiary will spend on its own property, in the following order of priority:

1. Geological mapping		$ 2,500.00
2. Geochemical prospecting		5,500.00
3. Exploratory drilling (see page 11, Proposed Exploration)		
(a) short-hole program 6,000 feet (250′ max. depth) @ $4/ft.		24,000.00
(b) 1. long-hole program without Government aid 5,000 feet (1,200′ max. depth) @ $12/ft.		60,000.00
OR		
2. long-hole program with Government aid 9,950 feet (1,200′ max. depth) @ $12/ft.		
Company participation, 25%	$30,000.00	
plus 2,500 feet @ $12/ft.	30,000.00	
	$60,000.00	
4. Miscellaneous		3,000.00
		$95,000.00

B. Examination and possible acquisition of properties other than the one owned by the subsidiary to be carried on simultaneously with A, above, and for working capital $75,000.00

The geological mapping, referred to in A, 1, above, has been suspended for the winter. It has been completed to the point where three zones have been located that are believed to warrant exploratory work. An application for financial aid (see Exploration Assistance, page 11) has been prepared and filed with the U. S. Office of Minerals Exploration (O.M.E.) outlining a specific long-hole drilling program for the three zones. If a contract is entered into with the O.M.E. to do this work, the Subsidiary will be obliged to advance up to $27,000.00 for its share of the cost of the program. If a contract is not obtained, the Subsidiary will conduct only a portion of the proposed long-hole drilling project (see Proposed Exploration, page 11).

The Company has spent approximately $820.00 in the examination of other silver properties, but has taken no steps to acquire same.

The cost of the various programs itemized above for the Cadgie Taylor property are estimates. If the funds designated for any one category are not fully utilized at the conclusion of the program, or if after a program is underway and the management finds the results are negative, and the specific program should be terminated, the unspent funds may be transferred to one or more of the other categories to extend those programs. If, after a sufficient amount of geological mapping, geochemical prospecting, and drilling has been done to indicate to the management the chances of finding and proving a commercial deposit are such that the property does not warrant further expenditures for exploration, the management reserves the right to terminate the program and use the funds to acquire and explore other silver properties in the district or in the State of Montana.

As soon as the net proceeds from the sale of the issue are received by the Company, the management proposes to begin work at the Cadgie Taylor property as soon as is practical. Funds will be advanced by the Company to the Subsidiary from time to time and in amounts sufficient to take care of the Subsidiary's expenses until the full amount of $95,000 has been advanced. Until the funds are needed for the programs outlined above, they will be held by the Company as deposits in one or more commercial banks, with not more than 70% invested in short-term bonds or notes of the Federal Government, or Certificates of Deposits of commercial banks. A small proportion, and not more than 10% of its cash, may be employed from time to time in the purchase of silver bullion or silver futures contracts.

THE COMPANY

The Articles of Incorporation of Sierra Silver Mining Company (hereinafter referred to as "the Company") were signed on December 31, 1966, and filed with the Secretary of State for Nevada on January 26, 1967. Its principal place of business is located at Room 404, 3800 North Central Avenue, Phoenix, Arizona. It was organized to engage in the following activities:

(1) To explore for, and acquire silver mining properties, develop them and put them into production.

(2) To establish a consulting organization.

At the present time, the Company consists only of a board of directors, a slate of officers, one employee, and an 88%-owned subsidiary, Cadgie Taylor Co., with a silver prospect.

THE SUBSIDIARY

Cadgie Taylor Co. (hereinafter referred to as the Subsidiary) was organized by the promoters of the Company, on October 3, 1967, under the laws of the State of Montana, for the purpose of taking title to the Cadgie Taylor group of lode mining claims, located in the Philipsburg Mining District, Granite County, Montana (see Transactions by Organizers, page 19).

THE SILVER MINING BUSINESS

In relation to the mining industry, in general, silver mines are few in number and most of them are small; they rarely yield more than 500 tons per day in contrast to the average base metal or iron mine that produces in the order of thousands of tons per day. Silver deposits, that is, a natural deposit of metals in which silver is the dominant commercial element, are found almost invariably in lodes or veins that are narrow (one to four feet and rarely over five feet in width), and stand nearly vertically. Since nearly 90% of the world's silver production is a derivative of copper, lead, and zinc mining, such activity is not likely to be stimulated by an increase in the price of silver. Any expansion in silver mining may be expected to be in the re-opening of former, small lode mines, and the discovery of new lodes. The demand for geological, mining and metallurgical knowledge and experience can be expected to increase with the revival, if any, of the silver mining industry, and it is in this field that the Company plans to specialize.

It should be pointed out that, although the rise in the price of silver may encourage expansion in the exploration for silver, it does not necessarily follow that such efforts will be successful in locating and developing commercial deposits of silver, since silver, by its nature, is a rare and relatively scarce element, so that the hazards of searching for commercial deposits are great. Furthermore, the latest record-high price for silver (approximately $2.17 * per ounce) is not likely to be sufficiently high to convert any former, non-commercial deposits into commercial deposits since mining and milling costs have also risen proportionately over the past two or three decades.

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* On February 14, 1968, the cash price for silver was quoted in New York as $1.81 per ounce.

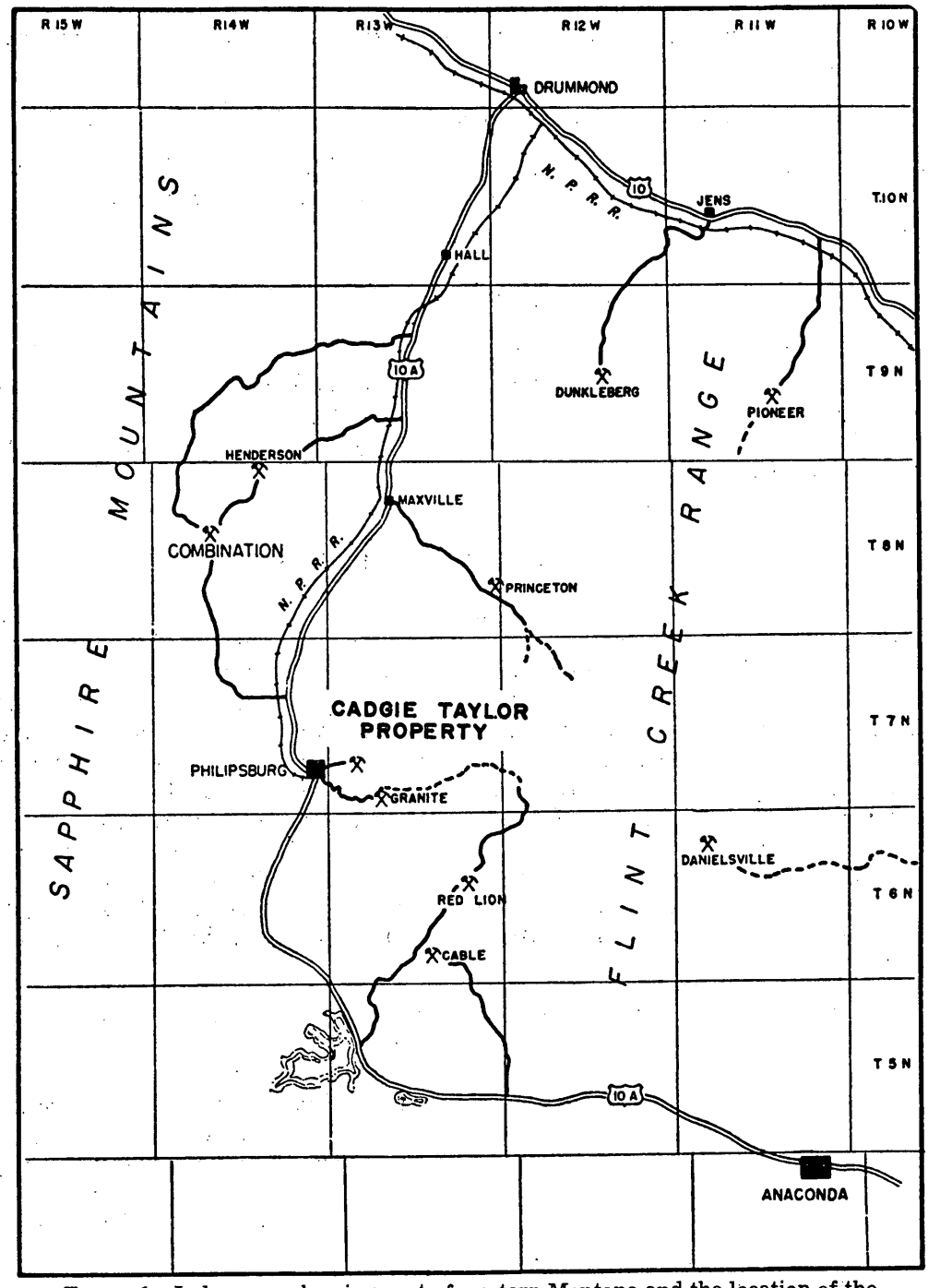

FIGURE 1. Index map showing part of western Montana and the location of the Cadgie Taylor property. Approximate Scale, 1 inch = 6 miles.

PROPERTY

Location and Access

The property, known as the Cadgie Taylor, consisting of 7 patented and 16 unpatented lode mining claims totalling approximately 400 acres, is located in Sections 17, 18, 19 and 20, Township 7 North, Range 13 West, Philipsburg Mining District, Granite County, Montana (Fig. 1). It is 3 miles by gravel road east of Philipsburg, a town in west central Montana with a population of approximately 1,100. Philipsburg is less than a mile east of U. S. Route 10A, a paved highway connecting the towns of Missoula and Anaconda.

Ownership

The Company does not directly own any property, but through an 88%-owned subsidiary, Cadgie Taylor Co., it controls the Cadgie Taylor property. The subsidiary owns a 100% interest in the property with one small exception, a claim 331 by 100 feet in size, comprising 0.75 of an acre, but has leased, from a non-affiliated third party, the mineral rights to this claim lying 200 feet or more below the surface. The lease carries a royalty of 10% on ores valued at $30 and less, and 20% on ores over $30 per ton based on the net smelter returns. The lease agreement includes an option to purchase the entire claim, including the upper 200 feet and surface rights, for $25,000.00. The lease and option agreement expires on October 6, 1970.

History

The Philipsburg Mining District is an elliptical area about 5 miles long in a northwest direction and about 3 miles at the widest point within which numerous properties yielded mainly silver ore, some yielded important quantities of manganese and zinc ore. Mining in the district began with the discovery of the Hope mine in 1864. Soon after, the Cadgie Taylor patented claims were located by James Patten just east of the Hope. The Hope and Cadgie Taylor properties are on Hope Hill at the northwest end of the district. Later, large silver ore bodies were discovered at the Granite and Bimetallic mines in the southeast end of the district and Philipsburg soon became one of the country's foremost silver-producing districts.

By 1892, the mines of the district, with the exception of the Hope, were closed. The Hope mill, built in 1867, continued to operate until 1904, not to be reopened again since the date of closing. During the period 1864-1904, some crude silver ore was shipped from the Cadgie Taylor. Production records were not kept prior to 1904; however, from reports that are available, production from the Hope was substantial while that of the Cadgie Taylor was minor. Similarly, reliable information is not available regarding the quantity and grade of ore mined, nor to what extent, if any, these operations were profitable.

Since 1904, the district has continued to yield substantial quantities of silver, most of which originated in the Trout mine, one mile south of the Cadgie Taylor. Although

important silver ore bodies were discovered and mined on the nearby Hope and Trout properties, there is no geologic or economic reason to expect similar mineral occurrences to exist on the Cadgie Taylor property.

In 1957, Joe Metesh acquired the Cadgie Taylor from the heirs of James Patten, and made sporadic shipments of silver-bearing quartz ore from the surface outcrop of one mineralized showing. From 1958 through 1966 he shipped approximately 8,000 tons averaging 8.3 ounces silver per ton. The Company does not know to what extent, if any, this operation was profitable.

In July, 1967, Joe Metesh sold the Cadgie Taylor property to Dr. Ridland (see page 19, Transactions by Organizers) who transferred the title to the Cadgie Taylor Co., a newly-formed Montana corporation.

Development Work

Little evidence exists today of the mining effort that realized the Cadgie Taylor production prior to 1904.

The hillsides were entered by tunnels now caved and the workings obviously are all shallow. Numerous, small surface pits exist on the property that are covered with soil and sizeable vegetative growth. Joe Metesh made an inclined, open cut into the side of the hill on one of the showings from which he derived his shipments.

The only recent activity at the Cadgie Taylor has been limited geological and topographic mapping, begun in August, 1967, and suspended in November, 1967.

Elsewhere in the district all mining activity is at a standstill except at the Trout mine where the Taylor-Knapp Co. has leased the property from the Trout Mining Company and is mining and milling approximately 50 tons of ore per day. Silver-zinc and manganese oxide concentrates are recovered. The Hecla Mining Company is conducting deep (below 1,000 feet) exploration in the Trout mine. The Company does not know to what extent, if any, these operations are profitable or successful.

Topography and Climate

The Cadgie Taylor property is located on the east side of Hope Hill, a rounded hill which is part of the western foothills of the Flint Creek Mountain Range. Rounded, grass-covered hills rise with moderate slopes from Flint Valley (altitude, 5,100 feet) to an altitude of 6,300 feet at the top of Hope Hill. A cover of second-growth pine and fir trees on the higher hills to the east extends down the western slopes and covers the Cadgie Taylor property. Bedrock is sparsely exposed on the property. Temperatures range from minus 35 in winter to plus 90 in summer. Precipitation is moderate; the winters are long and moderately severe but do not seriously handicap mining.

Geology

The Cadgie Taylor property straddles a geological contact that trends north-south approximately through the center of the property, dividing a granite batholith of Tertiary age on the east from a series of Paleozoic sedimentary rocks on the west. The granite is intrusive into these sedimentary rocks. Only one sedimentary formation, the Jefferson limestone (Devonian), underlies the Cadgie Taylor property. Silver occurs with earthy, brown and black oxide stains on quartz that has partially replaced certain horizons of the limestone, but not all stained quartz or siliceous replacements of limestone contain silver. Individual, mineralized zones are difficult to trace on the surface due to lack of exposure and topographic feature. Silver-mineralized occurrences, where observed, are variable, irregular, discontinuous and small, adding to the difficulties of exploration. While the sampling and mapping of exposed replacement and fracture zones have not proven the existence of any commercial deposits of silver ore, the Company believes it has sufficient geological information to go ahead and explore for such deposits by drilling.

Proposed Exploration

Two specific drilling programs have been planned. The first consists of a series of 30 short holes totaling 6,000 feet, ranging from 50 to 250 feet in depth. The purpose is to explore the zones along their strike, and to determine their true width, dip and silver content near the surface. The second program comprises 9,950 feet of BX diamond core drilling with the depth of the holes varying from a minimum of 350 feet to a maximum of 1,200 feet. The second program has been outlined in an application to the U. S. Office of Minerals Exploration for financial assistance in which the Government advances 75% of the cost of the program. This program may be extended for an additional 2,500 feet at the company's expense. The application is under consideration by this Government agency, and if it is not approved, the Company plans to proceed with a program reduced to 5,000 feet of drilling.

Exploration Assistance

The Federal Government, through its Office of Minerals Exploration (O.M.E.) may contribute financial aid to individuals or organizations who are prepared to explore their properties for a commercial deposit of a specific mineral or minerals. After the application has been received by the O.M.E. and the property examined by an O.M.E. official, the Government may enter into an agreement, if exploration is justified in the opinion of O.M.E., with the applicant to reimburse the applicant up to 75% (as is the case for silver) of the direct exploration costs of the specific program agreed upon. Expenses are reported monthly and the Government's participation is received 1 to 3 months later. If, in the opinion of the O.M.E., the exploration program fails to discover a commercial deposit, the applicant is not obliged to repay the funds advanced by the

government. On the other hand, if the O.M.E. is of the opinion a discovery has been made, it will certify to this effect, and record same in the Recorder's Office of the County in which the property is located together with a lien in the amount of the funds advanced. This lien remains an encumbrance on the title to the property for a period of 10 years or until the funds are repaid. A percentage of up to 5% of the proceeds derived from the sale of any products produced from the property must be paid to the Government until the funds advanced are repaid in full. The original recipient of the funds, or any subsequent owner of the property, however, is not obligated to produce or operate the property. Hence, the obligation to repay, if a discovery has been made, is contingent upon the actual production and sales of minerals derived from the property legally defined in the contract.

The Company's subsidiary has filed an application with the O.M.E. outlining a drilling program for the Cadgie Taylor property estimated to cost approximately $108,000.00. As of the date of this prospectus, the Government has not indicated its disposition of the Company's application, and there is no assurance that any financial assistance will be granted.

Facilities

Electric power is available one-half mile from the property. *Water* for all purposes is available in Brown Creek. The mines in the district are all wet and can be expected to make enough water for any contemplated mining and milling purposes. Fir and pine *timber* is plentiful on the property. A spur of the Northern Pacific *Railroad* (Fig. 1) runs south from Drummond on the main line, a distance of 27 miles and dead-ends at Philipsburg. If ore of commercial value is found, it may be sold to the Anaconda Company at Anaconda, 32 miles distant from the property, the smelter nearest to the property.

CAPITALIZATION

The Common (Capital) Stock of the Company (a) authorized, (b) outstanding on March 7, 1968, and (c) to be outstanding upon consummation of the offering contemplated, is as follows:

	(a) Authorized	(b) Outstanding	(c) To be outstanding after completion of the present offering
Common Stock, par value $0.02 per share	3,750,000	795,000	995,000

Upon completion of the present offering, there will be 995,000 of the Company's shares outstanding as indicated in Column (c). Of this total amount, 750,000 shares (75.38%) were purchased by the promoters for cash at par value, that is, $0.02 per share,

for a total cost of $15,000.00. A private placement of 45,000 shares of stock (4.52%), was made at $0.50 per share, for a total of $22,500.00. The public is offered 200,000 shares, or 20.10%, for $200,000.00.

With reference to the 45,000 shares that were sold for cash, the Company offered an added inducement in the form of non-transferrable options, expiring June 18, 1969, to these purchasers to acquire one additional share at $1.25 for every share purchased at $0.50.

DESCRIPTION OF STOCK

The shares offered hereunder are common stock with par value of $0.02 per share. This is the only class of stock authorized by the Charter. Shares participate equally, share for share, in voting rights, in such dividends as may be declared by the board of directors out of funds legally available for the payment thereof, and in assets available for distribution upon liquidation (see Introductory Statement, No. 7, page 3). Holders of the Company's shares have no preemptive, conversion, or subscription rights, nor any liability for further calls for assessments.

STOCK OPTIONS

The Company granted options to those who participated in the preliminary private financing, by purchasing 45,000 of the Company's common shares at $0.50 per share. For every share purchased at $0.50, they were granted an option by the Company to purchase one additional share at $1.25. In addition, the underwriter has been granted similar options on 50,000 shares. These options expire on June 18, 1969, and are non-transferrable, except by written permission of the Company. The 95,000 shares underlying the options are being registered simultaneously in the Registration Statement covering this public offering. The public should be aware, therefore, that its interest is subject to dilution in the amount of 95,000 shares, or from 20.10% to 18.35%, if options are fully exercised, making the total shares issued and outstanding 1,090,500.

Furthermore, it should be pointed out that the option holders have been given an opportunity to profit from a rise in the market for the common stock of the issuer, and the funds received by the Company, at the time the options are exercised, may not be needed. During the life of the options, the Company could conceivably be deprived of favorable opportunities to procure additional equity capital. Furthermore, the holders might exercise their options at a time when the Company would, in all likelihood, be able to obtain equity capital, if it needed capital then, by sale of a new offering on terms more favorable than those provided for by the options.

None of the directors, officers or promoters have any interest in any options granted and outstanding.

QUALIFIED STOCK OPTIONS

In December 1967, Sierra Silver Mining Company adopted a qualified stock option plan, under which 100,000 shares of Common Stock are reserved for issuance upon exercise of options designated as "qualified stock options" under Section 422 of the Internal Revenue Code. A copy of the Plan has been filed as an exhibit to the Registration Statement.

Under the Plan, which is administered by the board of directors, only key employees of Sierra Silver Mining Company and its subsidiaries, including officers and managerial or supervisory personnel, are eligible to receive options. Employees who own, directly or indirectly, more than 5% of the outstanding shares of Common Stock of the Company, are ineligible to receive options under the Plan. Options may not be granted after December 1972, and are exercisable over a period of not more than five years after the date of grant in cumulative annual installments of 25% commencing twelve months after the date of grant, and terminate as a result of the cessation of employment; the exercise price may not be less than the fair market value of the shares of Common Stock on the date the option is granted. If an option granted under the Plan terminates or expires without having been exercised in full, the unpurchased shares subject to that option will be available for a further grant of options under the Plan. Options may not be transferred other than by will or the laws of descent and distribution and, during the lifetime of the optionee, may be exercised only by him.

In order to qualify for the tax treatment which Section 421 of the Internal Revenue Code accords to an employee who acquires stock through the exercise of a "qualified stock option", he must make no disposition of such stock within the three-year period beginning on the day after the date on which the stock is issued to him. If the shares are held for such requisite statutory period, the employee will, for Federal income tax purposes, be entitled to treat any profit realized on disposition of the shares as long-term capital gain, rather than ordinary income; and the Company will not be entitled to any business expense deduction for Federal income tax purposes with respect to shares so acquired and disposed of by an optionee.

The Plan contains anti-dilution provisions authorizing appropriate adjustments in the event of certain contingencies, including stock dividends and stock splits.

No options have been granted to date under the Plan, but may be granted from time to time following consummation of this offering.

MANAGEMENT

The directors of the Company are listed below with their corresponding office, shares owned of record and beneficially, and percentage owned as of October 31, 1967:

Name and Address	Office	Number of Shares Owned	Percentage
G. CARMAN RIDLAND 207 W. Clarendon Ave. Phoenix, Arizona 85013	President and Treasurer	690,000	86.78%
DONALD H. JARDINE P. O. Box 88 Philipsburg, Montana 59858	Vice President	20,000	2.52%
ROBERT H. REED 2019 Santa Rita Drive Las Vegas, Nevada 89105	Vice President	10,000	1.26%
JOHN G. BRENNAN 3023 E. Topaz Circle Phoenix, Arizona 85028	Secretary	10,000	1.26%

The promoters of the Company include those listed above and the following who are not presently directors or officers, and are no longer connected with the Company in any capacity:

Name and Address		Number of Shares Owned	Percentage
MAURICE A. CASTAGNE P. O. Box 95 Grand Canyon, Arizona 86023		10,000	1.26%
* MRS. LUCILLE BENNETT 508 West 17th Place Tempe, Arizona 85281		10,000	1.26%
	TOTAL SHARES	750,000	94.34%

* Widow of Paul H. Bennett who, until his death on March 28, 1967, was a promoter of the Company.

The directors of the Subsidiary are listed below with their corresponding office, shares owned of record and beneficially, and percentage owned as of October 31, 1967:

Name and Address	Office	Number of Shares Owned	Percentage Owned
G. CARMAN RIDLAND 207 W. Clarendon Ave. Phoenix, Arizona 85013	President and Treasurer	2,500	0.67%
JOE METESH Hotel Pintlar Philipsburg, Montana 59858	Vice President	37,500	10.00%
DONALD H. JARDINE P. O. Box 88 Philipsburg, Montana 59858	Vice President	2,500	0.67%
JOHN G. BRENNAN 3023 E. Topaz Circle Phoenix, Arizona 85028	Secretary	2,500	0.67%
SIERRA SILVER MINING COMPANY		330,000	88.00%
	TOTAL SHARES	375,000	100.00%

George Carman Ridland, 54, Director, President and Treasurer of the Company and its subsidiary, graduated from the University of British Columbia in 1936 with a degree of Bachelor of Applied Science in Geological Engineering. He received his Master of Arts and Doctor of Philosophy degree from Princeton University in 1938 and 1939, respectively, majoring in Economic Geology. Until December, 1961, he was continuously engaged in the occupation of a geological engineer. In January, 1962, and until August 15, 1967, he was engaged as an account executive for a member firm of the New York Stock Exchange. Since August 16, 1967, he has been employed by the Company.

Donald Hector Jardine, 40, Director and Vice President of the Company, was employed as a miner at Copper Rand Chibougamou Mines, Ltd. at Chibougamou, Quebec, from October 1, 1962, to April 15, 1963. From April 15, 1963, to April 30, 1963, he was unemployed while he travelled from Chibougamou to Markleeville, California. From May 1, 1963 to February 29, 1964, he was employed by Claude Lovestedt as mine surveyor and the operator of a small flotation mill at the Zaca silver mine near Markleeville, California. From March 1, 1964, through July 31, 1964, he was employed as a mine surveyor and sampler at the Copper Queen mine, Mayer, Arizona, by Canyon State Development Co. From August 1, 1964, to January 31, 1965, he was employed at an iron property near Young, Arizona, to supervise a diamond drilling program for Archean

Corporation. From February 1, 1965, to November 30, 1965, he returned to his former position with Claude Lovestedt at Markleeville, California. From December 1, 1965, to February 28, 1966, he was employed as a miner at a small lead mining operation 30 miles west of Tonopah, Nevada, by the Cordillera Corporation. From March 1, 1966, to April 30, 1967, he was again employed at the same occupation by the same employer at Markleeville, California. From May 1, 1967, to August 15, 1967, he was employed to supervise a diamond drilling program and survey old mine workings at a property near Winkelman, Arizona, by the Big Treasure Mining and Development Co. From August 16, 1967, to October 3, 1967, he was employed by Dr. Ridland to survey and map the Cadgie Taylor property near Philipsburg, Montana. Since October 4, 1967, he has continued at the same occupation for the Cadgie Taylor Co., the Company's subsidiary.

John Garrett Brennan, 44, Director, Secretary and Attorney of the Company, and its subsidiary, studied law at Gonzaga University in Spokane, Washington, graduating in 1949. He has been admitted to the practice of law in Montana, Illinois and Arizona, and has practiced in Arizona for the past five years. In addition to being self-employed as an attorney, he is at present the president of Monorail Car Washer, Inc.; the owner of Mile High Lode Mines, a silver, gold, copper prospect; the secretary of Arlington Mines (Arizona) Ltd.; and a partner in Commercial Commission Merchants.

Robert Harvey Reed, 51, Director and Vice President of the Company, but not the subsidiary, has resided and been employed at Las Vegas, Nevada, for the past 17 years. From September 1, 1950, to December 15, 1965, he was employed by an air-conditioning installation firm, the Acme Sheet Metal Co., beginning as a metal worker and advancing to sales manager in 1960. From December 16, 1965, to January 31, 1967, he was employed as sales engineer for a similar firm, Comfort Air Mechanical Contractors Co. From February 1, 1967, to the present he has been and is employed as district sales manager for Desert York, Inc., wholesale distributors of air-conditioning and related products made by York Corporation, a division of Borg-Warner Corporation.

Joe Metesh, 49, Vice President of the Subsidiary, has been self-employed at Philipsburg for the past 10 years. During this time and until June, 1967, he has sporadically mined and shipped ore from the Cadgie Taylor property, while contracting occasional construction and earth-moving jobs in the Philipsburg district. Mr. and Mrs. Metesh lease the Pintlar Hotel at Philipsburg. He devotes part of his time assisting his wife in managing and maintaining the hotel.

REMUNERATION OF DIRECTORS AND OFFICERS

The following table sets forth the names of three directors and officers showing the maximum salaries they may receive in any one year, according to the agreement of employment they have with the Company and its Subsidiary, the salaries received and accrued to October 31, 1967, and January 31, 1968.

Name and Position	Maximum Annual Remuneration	Salaries Accrued to Oct. 31, 1967 (see page 24)	Salaries Paid to Jan. 31, 1968	Salaries Accrued to Jan. 31, 1968
G. C. RIDLAND, President of both Companies	$24,000.00	$ 2,500.00	— 0 —	$ 5,500.00
D. H. JARDINE, Vice President of both Companies	$12,000.00	$ 600.00	$ 2,400.00	— 0 —
JOE METESH, Vice President of the Subsidiary	$ 9,600.00	— 0 —	— 0 —	— 0 —

No remuneration of any kind is to be offered to directors as such, but Dr. Ridland, as the chief executive officer, will devote at least 50% of his time to the business affairs of the Company, for which he is to receive a salary of $1,000.00 per month. Dr. Ridland also contemplates that he will employ part of his time performing services as a geological engineer for the Company, for which he is to be paid not more than $66.67 per day. If he devotes the full 50% to administrative affairs for $1,000.00 in any one month, and the other 50% to geological engineering, that is, 15 days at $66.67 per day for $1,000.00, the maximum salary that he can earn is $2,000.00 in any one month or $24,000.00 in one year. If he is employed as a geological engineer for more than 15 days in any one month, he will still be limited to the maximum monthly salary of $2,000.00.

No other remuneration is to be paid to officers as such, but services necessarily and usefully rendered the Company by officers, directors and others, in connection with its contemplated consulting work, and in connection with exploration, examination and operation of mining properties, and outside the scope of their duties as directors and officers, may be compensated at usual and customary rates such as would have to be paid others for similar services.

Dr. Ridland will personally supervise the exploration projects of the Company, assisted at intervals by Mr. Jardine in mapping, and sampling properties or deposits worthy of such attention.

On August 15th, Dr. Ridland personally employed Mr. Jardine at a salary of $600.00 per month to begin mapping the surface of the Cadgie Taylor property with the understanding that Mr. Jardine will receive a salary of $800.00 per month as soon as drilling or mining activity begins on the property, and a salary not to exceed $1,000.00 per month when actual mining production begins. Mr. Jardine's salary of $600.00 per month has been assumed and paid by the Subsidiary beginning October 1st. If and when he is employed by the Company on projects other than the Cadgie Taylor, he will receive no additional compensation. The Company will, however, reimburse the Subsidiary for his services.

Joe Metesh will supervise mining operations at the Cadgie Taylor property on a part-time basis at a salary not to exceed $800.00 per month. Since it is impossible to foresee any future mining operations at the property, it is not possible to know over what period of time Mr. Metesh may be employed.

TRANSACTIONS BY ORGANIZERS

The Company has not issued any shares for property or services and does not intend to issue any shares in such manner or for any consideration other than cash. The promoters purchased 750,000 shares of the Company's initial issue at par value, that is, at $0.02 per share, for a total cost of $15,000.00.

Dr. Ridland purchased the Cadgie Taylor mining claims from Joe Metesh in July, 1967, for $13,448.15, plus 10% of the promotional shares of a corporation to be formed. Cadgie Taylor Co. was organized under the laws of the State of Montana on October 4, 1967, with an authorized capitalization of 2,500,000 shares of $0.02 per share par value, and 375,000 shares were subscribed to by the organizers. Mr. Metesh subscribed to 10%, or 37,500 shares, Mr. Jardine to 2,500 shares, Mr. Brennan to 2,500 shares, and Dr. Ridland to the balance, or 332,500 shares. Metesh and Ridland paid for their subscriptions by deeding their respective interests in the Cadgie Taylor property to the new company, and Jardine and Brennan paid $50.00 each, the par value, for their respective subscriptions. (Under Montana corporate law, all directors must be stockholders.)

The Company (Sierra Silver Mining Company) purchased 330,000 shares of Cadgie Taylor Co. from Dr. Ridland for $19,418.80, being 88.0% of the outstanding shares, thus making it a subsidiary. The shares remaining with Dr. Ridland, 2,500, qualify him to remain a director of the subsidiary. The excess of the Company's purchase price over the cost to Dr. Ridland, $19,418.80, less $13,448.15, or $5,970.65, represents Dr. Ridland's expenses and time in examining, acquiring and mapping the Cadgie Taylor property, and in preparing an application to the U. S. Office of Minerals Exploration for financial assistance in exploring the property by drilling.

UNDERWRITING

The Company has entered into an underwriting agreement with Willis E. Burnside & Co., Inc., under the terms of which the underwriter has agreed, as agent, to use its best effort to sell all or none of the 200,000 shares covered by this Prospectus. The underwriter has agreed to begin the offering as soon as possible after the Registration Statement is effective, use his best efforts to sell the entire issue, and place the proceeds in escrow until the entire issue is sold. If the issue is not sold in 60 days after the effective date, the Escrow Agent is to return the funds promptly to the subscribers.

If the issue is sold by the underwriter, the Company has agreed, in addition to the $3,000.00 in expenses and an underwriting commission of 10% as disclosed on the front page of this Prospectus, to grant options to the underwriter to purchase 50,000 shares of the Company's common stock at $1.25 per share which options cannot be exercised for one year after the effective date of the registration statement, and expire June 18, 1969. Prior to the public offering of the options or the shares of common stock underlying the options, a post-effective amendment indicating the terms of such offering will be filed by

the Company and declared effective. The underwriting agreement further provides for reciprocal indemnification between the underwriter and the Company with reference to certain civil liabilities, including liabilities under the Securities Act of 1933.

The foregoing does not purport to be a complete statement of the terms of the underwriting agreement to which reference is hereby made. The foregoing statements are to be deemed qualified in all respects by such reference. A copy of the underwriting agreement is filed as an exhibit to the registration statement and is available for examination at the offices of the underwriter, the office of the Company, and the Washington office of the Securities and Exchange Commission.

The American Bank and Trust Company, 70 Wall Street, New York, N. Y., 10005, has been selected to act as Escrow Agent for the receipt of all proceeds arising out of the sale of this offering with a provision in the Escrow Agreement which will require the Ecrow Agent to refund promptly to purchasers the entire sum paid by each purchaser, without deduction, in the event that the entire offering is not sold and gross proceeds in the amount of $200,000.00 are not received therefor by 3:00 P.M. sixty (60) days after the effective date of the registration statement allowing for a normal collection period on checks and drafts received at the end of the period. The Escrow Agreement is also filed as an exhibit to the registration statement and available for examination.

REPORTS TO STOCKHOLDERS

The Company may issue frequent, interim reports to stockholders to keep them informed of progress in exploration, acquisitions, and in consulting contracts or commitments. An annual report shall be issued not later than 90 days after termination of each fiscal year of the Company which will contain certified financial statements as of the close of the fiscal year.

LEGAL OPINIONS

Legal matters in connection with the securities offered hereby have been passed upon for the Company by John G. Brennan, Room 404, 3800 North Central Avenue, Phoenix, Arizona 85012. Mr. Brennan is a director and secretary of the Company. The underwriter is represented by the legal firm, Battle, Fowler, Stokes and Kheel, 280 Park Avenue, New York, N. Y., 10017.

LITIGATION

There is no litigation or legal claims pending or contemplated against the Company as far as is known.

REPORT OF INDEPENDENT CERTIFIED PUBLIC ACCOUNTANTS

BOLAN, VASSAR & CO.
Certified Public Accountants
222 West Osborn Road
Phoenix, Arizona 85013

To The Board of Directors
Sierra Silver Mining Company
Phoenix, Arizona

We have examined the statements of assets and unrecovered promotional, exploratory, and development costs, liabilities and capital shares all as of October 31, 1967 and the related statements of cash receipts and disbursements for the period January 26, 1967 (inception) to October 31, 1967 of Sierra Silver Mining Company (a Nevada Corporation) and Subsidiary, Cadgie Taylor Co. (a Montana Corporation). Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In the financial statements transactions effected in cash, or by incurring obligations payable in cash, have been reflected in terms of dollars, and non-cash transactions have been reflected in terms of the number of shares of capital stock issued or issuable in effecting them, or in accordance with the applicable accounting requirements of the Securities and Exchange Commission.

It is our opinion that the basis stated in the preceding paragraph constitutes an acceptable basis of accounting for the Corporations at this time and the statements mentioned in the first paragraph present fairly the assets and unrecovered promotional, exploratory, and development costs, the liabilities, and the capital shares of Sierra Silver Mining Company and Subsidiary (Cadgie Taylor Co.) all as of October 31, 1967 and their cash transactions for the period January 26, 1967 (inception) to October 31, 1967.

BOLAN, VASSAR & CO.

Phoenix, Arizona

October 31, 1967

SIERRA SILVER MINING COMPANY AND SUBSIDIARY

STATEMENTS OF ASSETS AND UNRECOVERED PROMOTIONAL, EXPLORATORY AND DEVELOPMENT COSTS

October 31, 1967

	Sierra Silver Mining Company	Cadgie Taylor Co.
Current Assets:		
Cash	$ 1,014	$ 100
Total Current Assets	1,014	100
Other Assets and Unrecovered Promotional, Exploratory and Development Costs:		
88% Investment in Cadgie Taylor Co.—At Cost—(Note 1)	19,419	
Mining Property (Note 2)—		
Mining Claims Acquired from Promoters in Exchange for 370,000 Shares of Stock Par Value $0.02		—
Unrecovered Promotional, Exploratory and Development Costs—		
Geological	316	600
Administrative	2,543	
Property Examinations (Note 3)	820	
Deposit—50,000 Ounces Silver (Note 4)	10,000	
Organization Expense	1,424	1,106
Deferred Financing Expense (Note 5)	4,014	
Office Equipment	450	
	$40,000	$1,806

The accompanying notes are an integral part of this statement.

SIERRA SILVER MINING COMPANY AND SUBSIDIARY

NOTES TO STATEMENTS OF ASSETS AND UNRECOVERED PROMOTIONAL, EXPLORATORY AND DEVELOPMENT COSTS

October 31, 1967

(1) The statements include the accounts of Sierra Silver Mining Company and its Subsidiary, Cadgie Taylor Co. Sierra Silver acquired from G. C. Ridland 88% (330,000 shares) of the common stock of the Subsidiary in October 1967, at a cost of $19,419.

(2) The Cadgie Taylor property consists of seven patented claims, sixteen unpatented claims and one leased claim, all located in the Philipsburg (Flint Creek) Mining District, Granite County, Montana. The claims were originally assigned to the Subsidiary by G. C. Ridland and Joe Metesh in exchange for 370,000 shares of $0.02 par value common stock. As discussed in Note 1, G. C. Ridland subsequently transferred 330,000 shares of the stock to Sierra Silver Mining Company.

Terms of the lease agreement provide for payments of 10% of the net smelter returns on all ores valued up to $30 per ton and 20% on all ores valued $30 and up per ton. Cadgie Taylor has the option under the lease agreement to purchase the claim for $25,000. The agreement expires on October 6, 1970.

(3) It is the Company's policy to defer costs incurred such as travel and geological expense in examining various properties until a determination is made as to the feasibility of acquiring such properties. In the event a property is determined to be not desirable, costs incurred in the examination are then charged against operations.

(4) On September 26, 1967, Sierra Silver Mining Company transferred $10,000 to a commodity account and purchased five silver futures contracts traded on the Commodity Exchange, Inc., New York, N. Y. The table below shows the price of each contract upon acquisition, and the market price on October 31, 1967. Each contract is for 10,000 troy ounces and prices are in cents per troy ounce.

Contract Delivery Month	Purchase Price September 26, 1967	Market Price October 31, 1967
May, 1968	$177.50	$190.80
May, 1968	177.60	190.80
July, 1968	178.25	191.80
July, 1968	178.25	191.80
July, 1968	177.90	191.80

(5) These costs represent travel and other expenses incident to the financing of the Company. It is the intention to charge such expenses against Paid-In-Capital upon completion of financing.

SIERRA SILVER MINING COMPANY AND SUBSIDIARY

STATEMENTS OF LIABILITIES

October 31, 1967

	Sierra Silver Mining Company	Cadgie Taylor Co.
CURRENT LIABILITIES:		
Accrued Expenses Officers—		
Payroll	$2,500	$ 600
Travel and Other		1,106
Total Current Liabilities	$2,500	$1,706

NOTES:

(1) Annual assessment work of $100 per claim is necessary to protect title ot unpatented claims. Cadgie Taylor Co. has sixteen unpatented lode mining claims requiring expenditures in the next year.

(2) The Board of Directors of Sierra Silver Mining Company has authorized a maximum part time salary of $12,000 per annum to the President, G. C. Ridland, if he devotes at least one half of his time directing Company affairs. Donald H. Jardine, Vice President of Cadgie Taylor Co., is compensated at the rate of $600 per month.

(3) Expenses in connection with the proposed sale of stock discussed in Note 1—Statement of Capital Shares, exclusive of underwriting discounts, are estimated at $8,000.

SIERRA SILVER MINING COMPANY AND SUBSIDIARY

STATEMENTS OF CAPITAL SHARES

October 31, 1967

	Sierra Silver Mining Company	Cadgie Taylor Co.
Common Stock Par Value $0.02 Per Share:		
Authorized 3,750,000 Shares (Notes 1 and 2)		
Issued and Outstanding 795,000 Shares		
Issued for Cash 45,000 Shares—$22,500—Par Value	$ 900	$ —
Issued for Cash 750,000 Shares—$15,000—Par Value	15,000	
Authorized 2,500,000 Shares		
Issued and Outstanding 375,000 Shares		
Issued for Cash 5,000 Shares—$100—Par Value		100
Issued to Promoters in Exchange for Mining Claims Referred to in Note 2 to Statements of Assets and Unrecovered Promotional, Exploratory and Development Costs—370,000 Shares		—
	15,900	100
Paid-In-Capital ($0.48 Per Share on 45,000 Shares Sold for $22,500)	21,600	
	$37,500	$100

NOTES:

(1) On October 16, 1967, Sierra Silver Mining Company entered into an agreement with an underwriter providing for the sale of 100,000 shares of common stock, $0.02 Par Value, to the public on a "best efforts" basis. Terms of the agreement provide, among other things, options for the underwriter to purchase 25,000 shares of common stock at $1.25 per share to June 18, 1969.

(2) In connection with the sale of 45,000 shares of common stock, Sierra Silver granted options to the purchasers to obtain an additional share of stock at $1.25 per share (a total of 45,000 shares). The options expire on June 18, 1969.

(3) No underwriting discounts or commissions have been incurred on sale of the issued common stock of the Companies referred to in these statements.

SIERRA SILVER MINING COMPANY AND CADGIE TAYLOR CO.

STATEMENTS OF CASH RECEIPTS AND DISBURSEMENTS

For the Period January 26, 1967 (Inception) to October 31, 1967

RECEIPTS

	Sierra Silver Mining Company	Cadgie Taylor Co.
Sale of Common Stock:		
45,000 Shares at $0.50 Per Share	$22,500	$
750,000 Shares at $0.02 Per Share	15,000	
5,000 Shares at $0.02 Per Share		100
	37,500	100
Travel Advance	500	
Interest on Savings	107	
Total Receipts	38,107	100

DISBURSEMENTS

Travel Advance Repaid	500	—
Organization Expenses	1,424	
Geological Expenses	316	
Deferred Financing Costs	4,121	
Administrative	43	
Property Examinations	820	
Office Equipment Purchase	450	
Purchase of 330,000 Shares of Cadgie Taylor Co. (88%)	19,419	
Silver Futures Contracts	10,000	
Total Disbursements	37,093	—
Cash Balance at Beginning of Period	—	—
Cash Balance at Close of Period (October 31, 1967)	$ 1,014	$100

SIERRA SILVER MINING COMPANY

200,000 Shares

COMMON STOCK
(Par Value $0.02 Per Share)

Offering Price: $1.00 Per Share

PROSPECTUS

March 7, 1968

CADGIE TAYLOR CO.
3800 North Central Avenue
Room 404
Phoenix, Arizona 85012

OFFICIAL
COPY
O. M. E.
RECE ED
OCT 9 1967
INITIALS CODE
130
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October 6, 1967

Mr. Frank E. Johnson, Chief
Office of Minerals Exploration
U. S. Geological Survey
Washington, D. C. 20242

Dear Mr. Johnson:

Docket No. OME-6652
Cadgie Taylor (Silver Chief) Property

We have written three banks in Butte requesting a loan to cover the exploration program outlined in our application. We will forward the replies to you as they are received.

We have also requested a bid from a local mining company with a bulldozer for use of its equipment.

Yours very truly,

CADGIE TAYLOR CO.

G. C. Ridland, President

GCR-wp

CADGIE TAYLOR CO.
ROOM 404
3800 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012

CADGIE TAYLOR CO.
3800 North Central Avenue
Room 404
Phoenix, Arizona 85012

October 6, 1967

Mr. Frank E. Johnson, Chief
Office of Minerals Exploration
U. S. Geological Survey
Washington, D. C. 20242

Dear Mr. Johnson:

Docket No. OME-6652
CADGIE TAYLOR (Silver Chief) Property

Amendments to Application

After having discussed our application with Mr. Kirkimo in Washington and Mr. MacLaren at the property near Philipsburg, Montana, we wish to amend our application dated August 21, 1967, as follows:

1. Name of Applicant (Page 1) - Please change the name of the applicant from Silver Chief Mines, Inc. to Cadgie Taylor Co. Our lease to the Comanche Lode, U. S. Survey No. 5797, is being amended accordingly. There is no change in corporate ownership or in directors, officers or management of the applicant.

2. The correct spelling of the names of the claims comprising the property is as follows:

Incorrect Spelling	Correct Spelling
Cradgie Taylor	Cadgie Taylor
Silver Bar	Silvar Bar
Commanchee (278A)	Comanche (278)
Reta	Rita
Reta No. 2	Rita No. 2
Comanche (5797)	Commanchee (5797)

3. The address for James W. Young is:

P. O. Box 363
Philipsburg, Montana 59858

CADGIE TAYLOR CO.
ROOM 404
3800 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012

4. Under 3(f) "Reasons for expecting to find ore" we wish to add the following:

Since our application was filed on August 22, 1967, U.S.G.S. Bulletin 1237 has been published and released. It is titled "Geology and Ore Deposits of the Philipsburg District, Granite County, Montana", by William C. Prinz. We wish to draw attention to certain remarks in this publication in support of our reasons for expecting to find ore.

Page 1, first sentence, "The Philipsburg district is an economically important zinc- and silver-producing area---"

Page 31, first paragraph, "The distribution of the bedding veins on Hope Hill (the Cadgie Taylor mine is on Hope Hill on the northeast side of the Hope property) suggests that they may pass into steeply dipping veins at depth--." Since the veins of the Hope mine were bedded veins and relatively flat, one has to follow them off the Hope property to expect them to steepen. The veins on the Cadgie Taylor are steeper - 40°, 60° and nearly vertical veins have been observed. The last four words of this paragraph ".... further drilling is needed." To do any further drilling on Hope Hill to test the favorable, sedimentary horizons of the Jefferson limestone, one would almost have to do it on the Cadgie Taylor property.

Page 63, under "Suggestions for Further Exploration", second paragraph:

"Little deep exploration has been done north of the Two Percent mine. Areas below bedding veins, especially below groups of bedding veins trending parallel with the strike of steeply dipping veins, should be explored to see if bedding veins pass in depth into steep veins." The Cadgie Taylor property lies north of the Two Percent mine and has the geological features referred to here. Our proposed holes No. 2, 3, 4 and 5 are designed to test the No. 2, a bedded vein, to see if it steepens with depth and passes into a steeply dipping vein or veins. The No. 1 vein is a steeply dipping vein nearly parallel in strike to the No. 2, or bedded vein, but unsuitable for exploration because of its location relative to the property boundary.

The next paragraph, "Veins in the batholith should be tested --------." Our drill holes No. 15 and 16 are to test a persistent structure in the granite.

CADGIE TAYLOR CO.
ROOM 404
3800 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012

CADGIE TAYLOR CO.
ROOM 404
3800 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012

Plate 1 shows the veins on a portion of the Cadgie Taylor property.

Plate 7, especially Section C-C', shows the relationship of the ore occurrences to the sedimentary-granite contact. The Cadgie Taylor property has both sides of the contact for a length of 2,800 feet. If we can find where the favorably-replaceable beds of the Jefferson limestone formation are up against the granite contact, we should find ore. We believe it is at or near the No. 3 Zone, and we have Holes No. 6, 7, 8, 9, 10 and 11 to test this likelihood.

2. Exploration Work (Page 20)

We wish to amend the proposed drill holes, by eliminating No. 1, 13 and 14, and adding 15 and 16 (locations 15 and 16 shown on the accompanying Map 3).

Hole No.	Bearing	Dip	Depth of Hole	Targets
2	N 50°W	-50°	750'	Zone 2 @ 200' to 300'
15	S 5°E	-40°	800'	Zone 6 @ 400'
16	S 15°E	-40°	800'	Zone 6 @ 400'

No. 1 has been eliminated since it was expected to penetrate the No. 1 Zone beyond the side line of the Cadgie Taylor claim. No. 2, above, is amended to show the objective, the No. 2 zone at a depth of between 200 and 300 feet (since we are not sure of the exact dip of the zone). Also, regarding the possibility of the No. 2 zone apexing on the Commanchee (5797), we do not believe that it does, but if it does, we would still have full possession of the mineral rights below the 200-foot level by virtue of the lease and option on the Commanchee (5797).

Topographic and geological mapping is progressing on the property and we now have traced the granite-enclosed, No. 6 zone, intermittently, over a length of 2,400 feet, which indicates it may be a fracture of economic importance. The only favorable surface feature of the Granite Bimetallic vein, located 3 miles south of the No. 6 zone, was its length. It was traced in granite on the surface for over 5,000 feet, but its other surface features, such as width, alteration, silicification, and mineral content were all discouraging, and it was not economically important until a depth of 100 to 200 feet was reached on the vein. Rather heavy pyrite mineralization associated with quartz-vein material has been noted in dumps of pits and shafts along the course of the No. 6 vein.

May we add a note here that we are flexible in our thoughts as to the order in which the holes are to be drilled, and other specifications?

Former total drilling footage			10,150'
Footage added:	No. 15	800	
	No. 16	800	
		1600	
Footage eliminated:	No. 1	750	
	No. 13	700	
	No. 14	350	
		1800	
Difference, less			200
Amended total drilling footage			9,950'

3. Estimate of Costs:

7(a)	Eliminate No. 1		$ 8,038.00
	No. 13		6,132.50
	No. 14		3,034.00
			17,204.50
	Add: No. 15		
	Moving	8 hrs @ 10.50	84.00
	Overburden	20 @ 12.50	250.00
	0 - 250	250 @ 7.50	1,875.00
	250 - 500	250 @ 8.25	2,062.50
	500 - 750	250 @ 9.20	2,300.00
	750 - 800	50 @ 10.20	510.00
			7,081.50
	No. 16 (same as 15)		7,081.50
			14,163.00
	Grand total, drilling 9,950'		$94,746.00

7(b) Personal Services

Mr. Jardine and I will perform engineering and geological services for a total cost to the project of $800 per month
6 months @ 800.00 — $ 4,800.00

(c) Operating Materials and Supplies

Core boxes - please change from $2.00 per box, or $2,030.00, to $1.00 per box:
1015 boxes @ 1.00 — $ 1,015.00

(d) Operating Equipment

D-9 Caterpillar bulldozer
Eliminate stand-by time of

CADGIE TAYLOR CO.
ROOM 404
3800 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012

$3,000.00.
Add, snow removal, 2 hours,
once a week, 3 months
24 hours @ 30.00 $ 720.00

(f) Buildings

Eliminate building rental for
temporary core storage of
$100 per month - $600.
Instead, insert,
Temporary core storage
6 months @ 25.00 $ 150.00

Summary:

Amounts Eliminated		Amounts Added
Drilling	$17,204.50	$14,163.00
Personal services	12,000.00	4,800.00
Core boxes	2,030.00	1,015.00
Bulldozer	3,000.00	720.00
Core storage	600.00	150.00
	$34,834.50	$20,848.00

Former estimate of exploration:

program		$118,227.50
	$34,834.50	
reduced by	20,848.00	13,986.50
Amended Estimate		$104,241.00

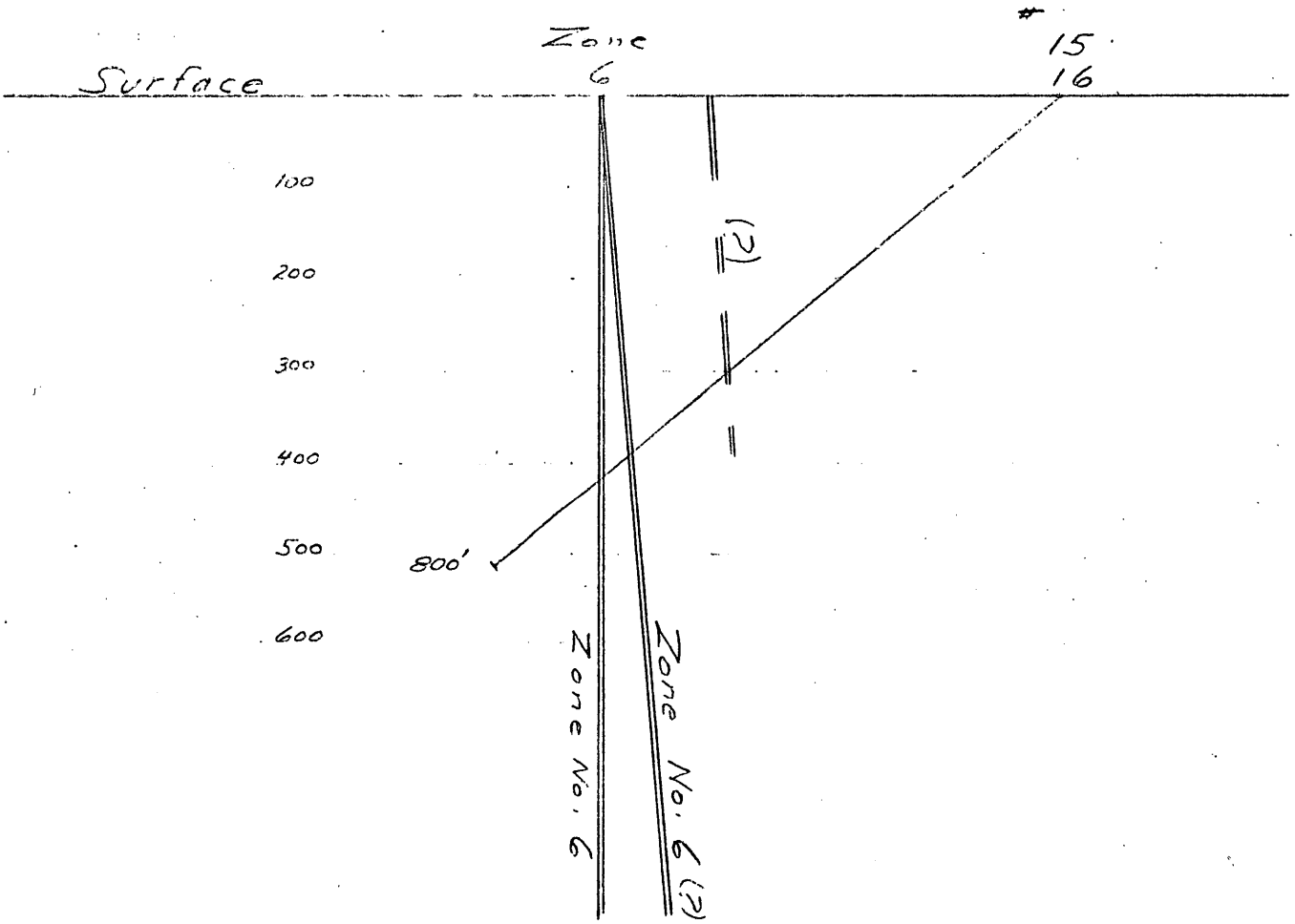
Yours very truly,

CADGIE TAYLOR CO.

By G. C. Ridland
G. C. Ridland, President

cc: Mr. D. MacLaren
U.S.G.S.
Spokane, Washington

CADGIE TAYLOR CO.
ROOM 404
3800 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012



Scale 1" = 200'

CADGIE TAYLOR CO.
ROOM 404
3800 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012

CADGIE TAYLOR CO.
Room 404
3800 North Central Avenue
Phoenix, Arizona 85012

OFFICIAL COPY
O. M. E.
RECEIVED
OCT 27 1967
INITIALS CODE
130
120
110
130

October 24, 1967

Mr. Frank E. Johnson, Chief
Office of Minerals Exploration
U. S. Geological Survey
Washington, D. C. 20242

Dear Mr. Johnson:

Re: OME-6652 (Silver)
Cadgie Taylor (Silver Chief) Property

CADGIE TAYLOR CO.

Enclosed please find copies of our application for a loan made to two banks in Butte, Montana, and their replies.

A formal bid from an active, local (Philipsburg, Montana) company, Hawkeye Mining Corporation, for the use of its earth-moving equipment, is also enclosed. The Caterpillar D-8 they can make available is a lighter machine than the one we considered in estimating our costs to prepare our drill sites, but it probably would be just as satisfactory.

A lease and option has been secured by Cadgie Taylor Co. on the Commanchee (5797) Lode, which replaces the one to Silver Chief Mines, Inc. A copy of this lease and option is also enclosed.

Will you kindly accept these copies as additional exhibits to our application for financial assistance?

A copy of this letter and copies of the enclosures are being sent to the attention of Mr. D. R. MacLaren, in your Region I field office, Spokane, Washington.

Yours very truly,

CADGIE TAYLOR CO.

G. C. Ridland

G. C. Ridland, President

GCR-wp
Encl.

cc: Mr. D. R. MacLaren, Field Officer
Office of Minerals Exploration
New Federal Building
Spokane, Washington

G. CARMAN RIDLAND
Geological Engineer

TELEPHONE
(602) 274-2014

207 WEST CLARENDON AVENUE
PHOENIX, ARIZONA
85013

October 4, 1967

Miners Bank of Montana
Miners Bank Building
Butte, Montana

Cadgie Taylor Co.

Gentlemen:

Please consider this letter an application from Cadgie Taylor Co. for a loan of approximately $90,000.00. We have $30,000.00 for a core drilling exploration program on our silver property known as the Cadgie Taylor Mine located 3 miles east of Philipsburg, Montana, which we will match with your $90,000.00 loan to conduct a $120,000.00 program. We would like to begin the project before the snow begins to pile up in December and estimate that it will take 6 months to complete.

If the program is successful in making a discovery of commercially mineable silver ore, we believe we can obtain equity financing to bring the property into production and repay your loan.

The only asset we have for collateral, besides our modest cash position, is the property which we can offer for security. We would consider as a bonus to you, in addition to your regular interest rates on commercial loans such as this, some part of our equity in the property, because we realize that

1) there is an element of risk involved since we do not have collateral equal to the loan;

2) there are hazards involved in the search for silver ore bodies and in the mining business in general that are not consistent with the risks in other business enterprises.

For your mining department to make an appraisal of our property and the exploration project, we refer you to U. S. Geological Survey Bull. 1237, Page 30, where our property is briefly described, and Page 63, where this publication

G. CARMAN RIDLAND
Geological Engineer

recommends deep exploration north of the Two Percent mine (an indirect reference to the Cadgie Taylor which is one of the properties north of the Two Percent mine).

If you are interested and wish to discuss this matter further, we shall be pleased to call at your office and show you our proposed drilling program, the reasons why we are confident we will find a commercial deposit of silver, and to negotiate the specific terms of the loan.

Yours very truly,

CADGIE TAYLOR CO.

By G. C. Ridland
G. C. Ridland, President
Geological Engineer

GCR-wp

MINERS
BANK OF MONTANA N.A.
BUTTE, MONTANA 59701

Ocotber 16, 1967

Mr. G. C. Ridland, President
Cadgie Taylor Company
207 West Clarendon Avenue
Phoenix, Arizona 85013

Dear Mr. Ridland:

Our loan committee has reviewed your letter of October 4, 1967, and reached the conclusion that a loan as proposed would not be in keeping with our present lending policy.

We do appreciate your inquiry. It might be that banks located closer to the property in question would be interested. There is a bank in Philipsburg, Montana, and also one in Anaconda, Montana, and both of these firms are substantially closer to the property than we are. Actually we do not operate in this territory at all.

N.G.

Very truly yours,

Harold Pitts:ds

President

OUR 68th ANNIVERSARY
1900 1967

G. CARMAN RIDLAND
Geological Engineer

TELEPHONE
(602) 274-2014

207 WEST CLARENDON AVENUE
PHOENIX, ARIZONA
85013

October 4, 1967

Metals Bank and Trust Company
Metals Bank Building
Butte, Montana

Cadgie Taylor Co.

Gentlemen:

Please consider this letter an application from Cadgie Taylor Co. for a loan of approximately $90,000.00. We have $30,000.00 for a core drilling exploration program on our silver property known as the Cadgie Taylor Mine located 3 miles east of Philipsburg, Montana, which we will match with your $90,000.00 loan to conduct a $120,000.00 program. We would like to begin the project before the snow begins to pile up in December and estimate that it will take 6 months to complete.

If the program is successful in making a discovery of commercially mineable silver ore, we believe we can obtain equity financing to bring the property into production and repay your loan.

The only asset we have for collateral, besides our modest cash position, is the property which we can offer for security. We would consider as a bonus to you, in addition to your regular interest rates on commercial loans such as this, some part of our equity in the property, because we realize that

1) there is an element of risk involved since we do not have collateral equal to the loan;

2) there are hazards involved in the search for silver ore bodies and in the mining business in general that are not consistent with the risks in other business enterprises.

For your mining department to make an appraisal of our property and the exploration project, we refer you to U. S. Geological Survey Bull. 1237, Page 30, where our property is briefly described, and Page 63, where this publication

G. CARMAN RIDLAND
Geological Engineer

recommends deep exploration north of the Two Percent mine (an indirect reference to the Cadgie Taylor which is one of the properties north of the Two Percent mine).

If you are interested and wish to discuss this matter further, we shall be pleased to call at your office and show you our proposed drilling program, the reasons why we are confident we will find a commercial deposit of silver, and to negotiate the specific terms of the loan.

Yours very truly,

CADGIE TAYLOR CO.

By G. C. Ridland
G. C. Ridland, President
Geological Engineer

GCR-wp

METALS BANK & TRUST COMPANY BUTTE, MONTANA

October 17, 1967

Mr. G. C. Ridland, President
Cadgie Taylor Company
207 West Clarendon Avenue
Phoenix, Arizona 85013

Dear Mr. Ridland:

In reply to your letter of October 4,1967,I regret to advise that our bank will be unable to loan your company $90,000.00 to conduct a core drilling exploration program on your silver property in the Philipsburg area.

We wish to thank you for considering our bank in connection with this loan.

Very truly yours,

F. E. Lienemann
Vice President

FEL/jd

ESTABLISHED • 1882

HAWKEYE MINING CORPORATION

- MINING
- TRUCKING
- EXPLORATION
- DEVELOPMENT
- EQUIPMENT RENTALS

P. O. BOX 478 PHILIPSBURG, MONTANA 59858

October 2, 1967

Mr. Joe Metesh
Cadgie Taylor Company
c/o Pintlar Hotel
Philipsburg, Montana 59858

Dear Mr. Metesh:

In reply to your request, we are pleased to quote you the following rates for bulldozer rentals in this area. The rates, in every instance, include an operator:

Machine: Caterpillar D-8, Model 46-A, fully hydraulic with tilt blade
Rates: $30./hour when operating
$20./hour when "walking"

Machine: Allis-Chalmers HD-11 with hydraulic blade
Rates: $14./hour when operating
$9./hour when "walking"

Charges will begin as the equipment leaves our storage yard at the Pintlar Forest Products sawmill, if moving under its own power, and each and every mobilization (if more than one is required) will be billed at the "walking" rate. In the event that an available machine is located closer to your job site than the sawmill, then we will only charge you for mobilization from the closer location. If feasible, you can, of course, elect to have the equipment moved on a transport.

We look forward to being of service to you!

Very truly yours,
HAWKEYE MINING CORPORATION

Ronald C. Parker

Ronald C. Parker
General Manager

October 5, 1967

NOTICE OF CANCELATION OF LEASE AND OPTION

TO WHOM IT MAY CONCERN:

Please take notice that SILVER CHIEF MINES, INC., a Nevada corporation, Lessee in that certain lease made and entered into on the 3rd day of July, 1967, and recorded in Book 13 Miscellaneous, Page 338 (4 pages) Microfilmed, County of Granite, State of Montana, between James W. Young of Philipsburg, Montana, as Lessor, and Silver Chief Mines, Inc., a Nevada corporation, as Lessee, hereby declares said lease and option irrevocably and unconditionally cancelled, rescinded, set aside and from the time of execution and henceforth, is without force and effect in any manner whatsoever.

SILVER CHIEF MINES, INC.

By _____
Secretary

LEASE AND OPTION

This lease and option, made this 6th day of October, 1967, by and between JAMES W. YOUNG, of Philipsburg, Montana, the party of the first part, hereinafter called "Lessor", and CADGIE TAYLOR CO., a Montana corporation, with offices at Philipsburg, Montana, party of the second part, hereinafter called "Lessee", WITNESSETH:

That the party of the First Part, for and in consideration of the sum of Ten Dollars ($10.00), lawful money of the United States, to him in hand paid by the party of the second part, the receipt of which is hereby acknowledged, does hereby grant to the party of the second part, its successors or assigns, within the time herein mentioned, subject always to a compliance with the terms of the lease herein granted, the right to option and purchase all of his right, title and interest in and to the following described lode mining claim, situated, lying and being in the Flint Creek Mining District (unorganized), Granite County, Montana:

> A full interest in the Commanchee Extension Patented Quartz Lode Mining Claim, No. 5797, located in the Flint Creek (unorganized) Mining District,

together with the right of the said Lessee to mine and remove minerals and ore therefrom upon the terms and exceptions hereinafter stated.

The exceptions being that the said Lessor will hold and control for his own mining interests all surface mining and mining from the surface for a depth of 200 feet, of which the depth shall be measured from a bench mark which is a granite monument known as Corner No. 2 of the Commanchee Extension Survey No. 5797 and said Lessor shall have full control of any buildings or structures that will be built or demolished.

The purchase price to be paid to the said Lessor for his right, title and interest in the said mining claim, should this option be exercised by the Lessee, its successors or assigns, shall be the sum of Twenty-Five Thousand ($25,000.00) Dollars, and shall be paid on or before the 6th day of October, 1970, and in the event that this option is exercised, the said Lessor shall relinquish all rights and exceptions in this lease and said Lessee will have full control of said property. If the purchase price is not paid on or before the date specified, the lease will continue so long as the Lessee is conducting mining operations on its Cadgie Taylor property, and in any case, this lease will terminate October 6, 1987.

Royalties paid for ore extracted under the lease hereinafter by the said Lessee shall be credited on the said purchase price with the exception of the portion of this lease that is reserved by said Lessor.

This lease and option is in force from the date of this indenture.

Subject to the life of the above option to purchase, the said mining claim is hereby leased and let to the party of the second part, and it is agreed that during the life of said option said party of the second part, its heirs and assigns, may enter into possession of said mining claim and work and explore the same for ores and mine the same in a good and workmanlike manner, yielding and paying to the said party of the first part, as royalty on all ores mined therefrom and shipped to a smelter or reduction works,

10% on all ores valued up to $30.00 per ton
20% on all ores valued $30.00 and up per ton,

of the net smelter returns. By "net smelter returns" is meant the amount received for such ores from the mill or smelter after deduction therefrom the cost of milling, smelting and reasonable freight or haulage charges from the mine to the mill or smelter.

A duplicate bill of lading for each shipment of ore shall be given to the parties of the first part at the time of each shipment.

The deduction of the said royalties on ores and metals shall be made by the smelter or reduction works to which the ore is shipped, and payment shall be made by the smelter or reduction works to which the ore is shipped, and payment shall be made to JAMES W. YOUNG of Philipsburg, Montana, a party of the first part. At the time of each payment, the said smelter or reduction works shall furnish two (2) copies of the smelter returns with the royalty directly to the party of the first part.

In case the Lessee should receive any other amounts from the sale of such ores over and above the settlement made by the smelter or reduction works, the Lessee shall pay to the Lessor the same percentage of the additional receipts as specified in the above scale of royalties for the lots for which settlement is made.

To well and sufficiently timber workings on said mining properties at all points where proper in accordance with good mining.

To keep at all times the drifts, shafts, tunnels and other passages and workings of the demised premises used for mining purposes thoroughly drained and clear of all rock and rubbish of all kinds.

To not assign this lease and option, or any interest thereunder, and to not sublet the said premises or any part thereof, without the written consent of said Lessor, and to not allow any person or persons except the said Lessee, and its workmen, to take or hold possession of said premises or any part thereof under any pretense whatever.

To pay all taxes which, during the term hereof, may be lawfully levied upon all structures and improvements or other property constructed or installed or used by the said Lessee in connection with the rights herein granted, and shall also pay when due all net proceeds, occupation, license and output taxes lawfully levied upon all ores and minerals extracted from said premises hereunder. Upon the payment of such taxes, the Lessee shall promptly furnish the Lessor with satisfactory evidence of such payments.

To furnish all labor, materials and supplies necessary for this operation and hold the Lessor harmless against all liens, damages, claims or liabilities in any way growing out of this agreement.

To allow said Lessor, party of the first part, and his agents, to enter upon and into all parts of said mining premises for the purposes of inspection at all reasonable times.

In case the parties of the second part shall violate any of the covenants of this lease and option, upon its part to be performed, the party of the first part may give notice in writing specifying such default to the party of the second part, or its assigns, and in case such notice is given, the rights of the party of the second part or

its assigns under this lease and option shall terminate thirty (30) days from the giving of such notice, unless within said 30-day period the party of the second part, or its assigns, shall make good such default. In case such notice is given and such default is not made good in such 30 day period, the terms of this lease and option shall expire, and the same and the premises, together with the appurtenances, shall become forfeited to the party of the first part, and the party of the first part may thereupon, after demand of possession in writing, enter upon said premises and dispossess all persons occupying the same, with or without process of law, and with or without force. It is further understood that in case this lease and option is forfeited, the parties of the second part, after payment of all sums due to the date hereunder, may remove from said property all personal property of every kind and nature which may have been placed thereon by them including tracks, hoists, motors, compressors, etc., and the party of the second part shall be subject to no further liability hereunder.

The covenants and conditions of this lease and option shall be deemed continuing ones, so that any waiver by the party of the first part of his rights to declare a forfeiture on the occasion of a breach thereof shall not be deemed a waiver of the covenant or condition itself, or of his right to declare a forfeiture on the occasion of a subsequent breach.

The Lessee shall observe and comply with all applicable Federal and State laws, particularly in reference to the Workman's Compensation Act.

Each and every clause and covenant of this indenture shall extend to the heirs, executors, administrators and assigns of all parties hereto.

IN WITNESS WHEREOF, the said parties, Lessee and Lessor, have hereunto set their hands the day and year first above written.

James W. Young
LESSOR

CADGIE TAYLOR CO.

By
Joe Metesh
Vice President

ATTEST:

G. C. Ridland
Treasurer
LESSEE

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
GEOLOGICAL SURVEY
So. 157 Howard Street
Spokane, Washington 99204
August 29, 1967

OFFICIAL COPY
O. M. E.
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AUG 31 1967
INITIALS | CODE

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region I

Subject: Transmittal of Application for Assistance (Silver)
Silver Chief Mines, Inc.
Silver Chief Mine
Granite County, Montana

Of the three bank letters accompanying this application, one from the First National Bank of Phoenix, Arizona, declines on the grounds it cannot accept the proposed terms; another from the First National Bank of Denver declines because its policy is not to finance operations so far away. Possibly, one of these two refusals can be accepted along with the one from Flint Creek Valley Bank of Philipsburg.

The property comprises two separate groups of claims and one claim not connected to either group. On Map 1 the red line indicating exterior property boundaries shows some surveyed claims overlapping other surveyed and unsurveyed claims. The Billings, Montana office of the Bureau of Land Management kindly furnished the patent numbers and dates of patent, and will send a copy of the plat of the patented claims.

In the southerly group parts of Silver Chief No. 2 (unpatented), and Silver Bar (patented) are overlain by parts of Ranchero (patented) which has priority of patent. In the northerly group, part of Comanchee Extension 2343 overlies and has precedence over part of Cadgie Taylor 6180, however, the outline of this group shown on Map 2 appears to delete 2343. Amended Comanchee Extension 3383 has precedence and overlies part of Nelly 6178, Stardust and Silver Chief No. 3 (both unpatented). Silver Chief No. 3 is also partly overlain by Homestead 549 and 657. The claims actually involved in the subject application are Cadgie Taylor 6180, Comanche Extension 5797, Lycoming 1792, Nelly 6178, Stardust, Metesh, Ret~~s~~, and Mary.

On Map 2 the vein shown at Showing No. 1 as plotted is within 30 feet of an exterior property boundary toward which it dips at 60°. Hole No. 1 will cross this boundary line at a hole depth of about 580 feet and will not cut the vein until the hole depth is about

700 feet. This would rule out Showing No. 1 as an acceptable target. Showings No. 2, 3, 4, and possibly 5 may have merit. Apparently, there are additional samples at the Anaconda Smelter that cannot be assayed until the present strike is settled. The narrative accounts for the locations of all samples except 52874 shown on a report from Montana Laboratory.

Some of the costs are quite a bit out of line. For example, $1,000 per month for a full time engineer who apparently will do all the surveying and sampling, will keep all drill records and will map sections and logs is considerably higher than the rates paid for similar work on other projects. I remember Jardine whenhe supervised the DMEA project at the Cold Springs mine, Boulder County, Colorado (I do not recall the Docket No.) and consider him capable of doing this work. Because he is competent I find it hard to justify an additional $50 per day and 20 days per month for Ridland, and whom I also remember at Cold Springs, to do additional logging. One but not both might be necessary on a full time basis.

J. Metesh, Vice-President, owns a D-9 cat which he proposes to rent to the company at $30 per hour of use and at $500 per month of 6 months for stand-by while it is not in use. Even if it is considered proper for a company officer to rent or contract his equipment and personal services to the company, $30 per day is probably high and rental or contracting his equipment while it is not in use for 6 months is ridiculous.

I also consider $100 per month for rental of a building or shed in which to store drill core as way out of line.

D. R. MacLaren

D. R. MacLaren

Enclosures

MME Form 40
Jan. 65

RECEIVED
AUG 23 1967
O.M.E.

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

OFFICIAL COPY
O. M. E.
RECEIVED
AUG 31 1967

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR FINANCIAL ASSISTANCE IN MINERALS EXPLORATION

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

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

SILVER CHIEF MINES, INC.
ROOM 404
3800 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012

APPLICANT DO NOT USE THIS BLOCK

DOCKET NUMBER	6652
DATE RECEIVED	8/31/67
REGION	I
DIVISION CODE	

BUSINESS ORGANIZATION *(Check one)*

INDIVIDUAL	
CORPORATION	X
PARTNERSHIP	
OTHER *(Specify)*	

STATE IN WHICH FIRM IS ORGANIZED: Nevada

LIST CORPORATE OFFICERS OR PARTNERS HERE, IF APPLICABLE

NAME	ADDRESS	TITLE
Dr. G. C. Ridland	207 Clarendon Phoenix, Ariz. 85013	Pres & Treas.
Joe Metesh	Pintlar Hotel Philipsburg, Mont. 59858	Vice Pres.
Donald H. Jardine	Pintlar Hotel Philipsburg, Mont. 59858	Vice Pres.
John G. Brennan	3023 E. Topaz Circle Phoenix, Ariz. 85028	Secy.

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

ESTIMATED COST OF PROJECT: $ $118,227.50

PROPERTY NAME	LOCATION COUNTY	STATE
Silver Chief, also known as Cadgie Taylor	Granite	Montana

GENERAL INSTRUCTIONS

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

CERTIFICATION

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

Aug 21, 1967
DATED

G. C. Ridland
BY *(Signature)*

TITLE President

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—DHP, GPO, WASH., D.C.

Application for Financial Assistance in Mineral Exploration

1. Financial Eligibility:

(a) Attached are copies of correspondence with three lending institutions requesting financial assistance in carrying out the program of mineral exploration defined herein, and the replies of these institutions.

(b) The applicant has two stockholders that control the corporation. Their names and percentage interest are as follows:

Dr. G. C. Ridland, President, 207 W. Clarendon Avenue, Phoenix, Arizona 85013	86.0%
J. Metesh, Hotel Pintlar, Philipsburg, Montana 59858	10.0%
Other Stockholders	4.0%
	100.0%

(c) The applicant plans to make a public offering of some of its unissued shares to raise $50,000.00 to cover its administrative costs and its portion of the cost of the exploration project. It will be doubtful if this stock can be sold unless this application is approved.

2. Applicant's Rights in Land:

(a) The applicant owns the land to be explored, and the mineral rights therein, free and clear of all encumbrances, with one exception (see below).

(b) Legal Description:

The property to be explored outlined in red on Map No. 1, enclosed, consists of 8 patented and 16 unpatented lode mining claims located in unsurveyed Sections 17, 18, 19 and 20, Township 7 North; Range 13 West, in the Flint Creek Mining District, Granite County, Montana, to wit:

Patented Claims:

	Name	U. S. Survey No.
	Comanchee Ext.	5797
(Cradgie on map)	Cadgie Taylor	6180
	Lycoming	1792
	Nelly	6178
(Silver on map)	Silver Bar	6179
	Sweet Home	2672
	Golden Spar	10190
	E. 200 feet Comanche	278 (A) ?

Unpatented Claims:	Certificate of Location Recorded in Granite County	
Name	Book	Page
Silver Chief No. 1	24	567
Silver Chief No. 2	24	568
Silver Chief No. 3	24	564
Silver Chief No. 4	24	563
Rita (Reta on map)	24	571
Rita No. 2 "	24	574
Joe	24	575
Metesh	24	573
Stardust	24	565
Kevin Beaver	24	572
Pintlar	24	570
Mary	24	569
Tedo	24	566
Courtney	24	609
Ridland	24	610
S. C. No. 5	24	611

EXCEPTION: The applicant does not own the Comanchee Ext. (5797), a small claim completely surrounded by the Cadgie Taylor (6180). However, the company has a lease with an option to purchase all mineral rights 200 feet below the surface of said claim (copy of said Lease and Option, recorded in Book 13, Pages 338-341, enclosed).

The known workings and mineral showings are located on the claims Cadgie Taylor (6180), Comanchee Ext. (5797), Rita, Mary, Courtney, Stardust and Tedo. They are also believed to lie below the surface of Lycoming (1792) and Nelly (6178). The applicant refers to, or calls, the property the SILVER CHIEF PROPERTY.

(c) Five signed copies of MME Form 52 are submitted herewith. They are signed by James W. Young, owner of Comanchee Ext. (5797). All other land is owned by the applicant.

3. Physical Description:

(a) Map No. 2 shows the outline of the property and the mineralized showings on the property identified as Numbers 1, 2, 3, 4, 5, 6, 7, 9 and 10, and one of the showings off the property, Number 8.

The only evidence of mining and exploration work on the property prior to 1959, is in the form of a number of portals to tunnels. None of these tunnels are accessible today, and the dumps of most of them are covered with soil and vegetation.

In 1959, Joe Metesh (Vice President of the applicant) leased the patented claims, now owned by the applicant, from the former owners, James Patten, Earl Patten and E. McCracken. He drove an adit into a steep hillside on the vein designated as No. 1, a distance of 150 feet, then stoped the ground above to the surface. This work began in February of 1959, and has continued intermittently to the Fall of 1966, during which time he shipped 7,956 tons of ore with a minimum assay of 3.30 oz/t and a maximum of 21.40 oz/t silver. Small amounts of copper and gold occur,

but silver is the only metal present of commercial importance.

In April, 1967, Metesh made a surface cut with a bulldozer at the location of the No. 2 mineralized showing and exposed 150 feet of silicious, mineralized vein material. He was able to make one shipment from this cut, - 4 truck loads with a dry weight of 57.244 tons assaying 14.80 oz/t silver before the Anaconda Copper Co. smelter was closed by a strike. (See ore settlement sheet Lot B-791)

At each of the other showings designated on Map No. 2, some trenching has been done to improve their exposure. Most of this work was done in May, June and July, 1967.

(b) The applicant has had no interest in any of the above work since it only acquired the property in July, 1967. Joe Metesh, however, is a Director and Vice President of the applicant and owns 10% of the outstanding shares.

(c) Production: Prior to the operation of Joe Metesh, which began in 1959, the only record of production is given as $40,000.00 in silver. (U.S.G.S. PP78, page 219).

Since 1959, Metesh has shipped 8,013 tons containing 65,685.5 oz. of silver. The average is 8.26 oz/t having a net smelter return of $53,606.53. This is represented by 118

settlement sheets, of which copies of 4 are enclosed to show (1) the lowest silver assay, (2) the highest silver assay, (3) an average shipment, and (4) the latest shipment.

(d) There are no known ore reserves.

(e) The geology of the Philipsburg District, Montana, is described in U.S.G.S. PP. 78, 1913, and in U. S. Burea of Mines R. I. 4399, February 1949. The applicant's property is located on the east slope of Hope Hill and just east of the Hope mine which produced $4 million in silver during the period 1865 through 1905 (40 years).

General Geology - The applicant's property straddles a geological contact that trends north-south dividing a granite batholith of Tertiary age on the east from a series of Paleozoic sedimentary rocks on the west. The granite is intrusive into the sedimentaries. The sedimentary formations range from Cambrian to Devonian. The Jefferson limestone, of Devonian age, is approximately 1,000 feet thick. It is in the upper part of the series and is the only sedimentary formation on the property lying west of the granite contact. It is in most instances a pale-gray to black, thick-bedded, somewhat magnesian limestone changed to a marble near contact with the granite.

All ore bodies on Hope Hill are in Jefferson limestone. The granite is a medium-grained, gray rock with the mineral composition of a granodiorite. The property is largely mantled with soil and timber so that outcrops are scarce.

Structural Geology - The sedimentary rocks are folded into a regional anticline with the axis plunging in a northerly direction through Hope Hill, or approximately 1,000 feet west of the western edge of the applicant's property. Therefore, one may expect the strike of the limestone beds on the property to swing to the east and southeast against the granite and the dip to change from a relatively flat, northerly dip on top of the hill to an easterly dip and increasing as the contact with the granite is approached. Metamorphism and structural deformation mark the sedimentary-granite contact where it has been examined to the south, so one may expect the same on the SILVER CHIEF property.

Mineralized Zones - Silver mineralization is found in silicified zones usually following certain bedding planes in Jefferson limestone. The mineralized rock is similar in appearance in all the zones on the property. It is mostly broken quartz fragments with some calcite, barite and rhodochrosite stained with gossan composed of black, yellow and orange-colored, earthy oxides of manganese, iron and possibly antimony and/or arsenic.

Showing No. 1 (Map 2) is unusual in that it is a shear zone cutting the bedding of the limestone rather than conforming with it. It strikes N 40° E and dips 60° NW. It has been stoped as much as 125 feet to the surface from the adit that was driven in on the vein having a width of from 10 to 20 feet. The walls in places indicate slippage along the fracture zone. Typical quartz-barite gangue can be seen in the face which is stained with black and yellow metallic oxides.

Showing No. 2 (Map 2) - Remnants of a small stope is exposed at the surface at the southwest end of this exposure. The stope was apparently driven up along a bed of the mineralized limestone striking N 75 E and dipping 40° SE from one of the inaccessible tunnels below. The stope has a horizontal length of 40 feet and terminates upward at the level of the opening. It is full of muck. Pillars in the stope display a zone of brecciation conforming to the bedding of the limestone. Large angular fragments up to 1 1/2 feet in diameter are cemented by quartz, barite and calcite heavily stained with black, yellow and orange oxides. Samples from thisstope returned low silver values.

In April, Joe Metesh made a cut with a bulldozer extending 150 feet to the NE of the stope, to expose the bedrock. Excellent mineralized quartz was encountered along this exposure of bedrock. This mineralized zone, however, is not an extension of the zone exposed in the stope. It is a zone in bedding just below the one in the stope.

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ROOM 404
3800 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012

With the use of jackhammers and powder, Metesh loosened up silver-bearing ore in the cut over a length of 75 feet and over a horizontal width in one place of 25 feet and shipped 4 truck loads weighing 58.07 dry tons to the Anaconda Copper Company, at Anaconda, Montana. This bulk sample assayed 14.8 oz/t silver, 0.11% copper, and 62.5% silica (see Smelter Lot B-791 attached). The zone has been freshened up over the entire 150 feet now, of similar material and additional bulk samples would have been shipped to the Anaconda smelter, but the smelter is closed by a strike.

This formation is highly fractured and brecciated and partially replaced, partially filled, with quartz and related gangue minerals and gossan. The walls are not exposed, but a true width of the zone appears to be in excess of 12 feet. The strike and dip are also still undefined because the pit is not large enough to expose the margins of the zone. The pit has a N 20 E bearing and quarts stringers indicate a 40° dip to the SE. This is a new discovery made in April of this year considered by this writer to be one of major economic significance, and deserving further exploration.

Showing No. 3 is another silicified showing of impressive size. It outcrops on a hillside over a length of 140 feet. It strikes N 60 W and dips 60° SW. A bulldozer cut exposing its northwest extension indicates

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PHOENIX, ARIZONA 85012

at least a width of 50 feet. It is a quartz replacement of the limestone, well mineralized with black, brown and yellow oxides. A grab sample over a 10-foot fresh face assayed 5.60 oz/t silver.

Showing No. 4 - A recent surface cut exposed rusty, brown quartz stringers in granite. A sample from this showing was delivered to the assay laboratory of the Anaconda Copper Corporation, but the assay was not made prior to the closing due to a strike.

Showing No. 5 - A pile of gossan-stained, quartzose rock and marble surrounds a shallow trench 100 feet long that extends from a caved tunnel portal. The work obviously was done 50 to 70 years ago for even the rock pile is nearly buried with soil and vegetable matter. A representative grab sample, No. 52872, from the pile of approximately 25 tons assayed 11.40 oz/t silver. Since there are no granite fragments in the pile, the tunnel is probably in limestone.

Showing No. 6 - Another dump at the portal of an old, caved tunnel in granite was grab-sampled. No. 52873 assayed 1.80 oz/t silver.

Showing No. 7 - is a prominent outcrop of silicifed limestone lining up with Showings 1, 2, 3 and 6. No mineralization was observed.

Showing No. 8 - is the easterly extension of the Hope ore zone outcrop to show its geographic relation to the applicant's property.

Showing No. 9 - is a dump on the Sweet Home (3672) from a closed mine entrance that contains mineralized quartz.

Showing No. 10 - An 18-foot deep prospect shaft exposes a mineralized zone in limestone. It strikes N 10 E, dips steeply E, and appears to cut across the bedding. Mineralized quartz fragments were noted on the dump and in the surface cut that lies 60 feet S of the shaft. Samples taken here are likewise at the Anaconda Assay Laboratory.

(f) Reasons for Expecting to Find Ore:

1. Showings Nos. 1, 2, 3 and 4 have returned samples of commercial value. From Showing No. 1, 7,956.07 tons of ore have been extracted and shipped to the nearby Anaconda Smelter with an average grade of 8.26 oz/t silver. A 58.175 - ton bulk sample from Showing No. 2 assayed 14.80 oz/t silver. Showings No. 3 and 4 yielded assays of 5.60 oz/t and 11.40 oz/t, silver from representative grab samples. This is evidence of silver mineralization which can be expected to extend down and become enriched with depth.

2. The property straddles the limestone-granite contact and most, if not all, of the deposits found in the district, see Figure 17, U.S.G.S. PP. 78, are close to this contact. Although

deposits are known to occur on both sides of the contract, the program proposed in this application is confined to the limestone.

3. The Hope mine lying to the west of the Silver Chief property contained very large ore bodies formed by replacement in certain sedimentary horizons in Jefferson limestone. The Silver Chief property is on the strike of these favorable horizons. The proposed drilling program is designed to test the easterly extension of the beds that were susceptible to replacement in the Hope mine.

4. Secondary Enrichment: The surface exposures of the mineralized zones are all highly oxidized. This is a characteristic of the district. Please refer to U. S. G. S. Pp. 78, page 205. In reference to the Bimetallic Mine, it states: "Poor Oxidized Ore. From the surface to depths locally as great as 300 feet or more is a zone of oxidized ore consisting..... of quartz broken and stained with iron and manganese oxides ..... It carries less than 30 ounces of silver...." The maximum silver assay obtained on the applicant's property is 21.40 oz/t and the deepest a sample has been taken below surface is in the No. 1 Zone at a depth of 120 feet. There is little question that

silver and other metals have been leached from the oxidized zone and transported below. Especially in the case of the No. 1 and No. 3 Showings, at least, there is good chance that silver has been re-deposited in an enriched sulphide zone. Again, with reference to the Bimetallic Mine, the U.S.G.S., Pp. 78, page 204, describes the secondary, or enriched zone, as follows: "Where the primary sulphide ore is fractured the secondary cracks are often filled with ruby silver, argentite, and gray copper. Of these ruby silver is by far the most important. Locally, zinc blende and chalcopyrite fill cracks and appear to be secondary. The secondary ore carries from 50 to 1,000 oz. of silver and from $4 to $8 gold .... by far the greater portion (of the enriched ore) occurs from 300 to 800 feet below the surface." The drilling program proposed herein is designed to test the No. 1 and No. 3 Zones in this possible enriched horizon of between 300 and 800 feet below the surface.

5. Greater Susceptability of Limestone to Siliceous Replacement (Mineralization) at or near its contact with an intrusive granite.

The limestone-granite contact on the applicant's property is covered by overburden; however, the surface trace of the contact can

be placed quite accurately on the property because the soil over granite is a darker color than soil over limestone. Also, all rock fragments and boulders in the overburden over granite are granitic, whereas limestone fragments are in the soil over the limestone formation. Since the contact is not exposed, its nature can only be surmised by the reports of others who have observed it or other points. Quoting from Professional Paper 78, page 97, "the irruptive nature of the contact is made evident by strong contact metamorphism in the sediments about the entire perifery, by the projection of apophyses into these, and by marginal variations in the granodiorite.... (pg. 98) .... It is noteworthy that the contact nearly follows in many places the bedding of adjacent sediments ..... it (also) cuts across the bedding and the mass is not in any strict sense a laccolith.

"It is cut by some fault fissures near Philipsburg but apparently not by any of the major faults in the adjacent sediments..."

On page 211, in describing the Midnite and True Fissure Mines, "At the contact with granite the sedimentary rocks strike north and dip 57° E. The contact plane has apparently the same strike and dips rather more steeply toward the granite. The True Fissure vein ends abruptly at the contact, which is disturbed by

movement, and the Chief vein, which occurs about 50 feet to the north, is probably an extension of the same fissure."

On Page 182, "At present none of silver-bearing replacement veins can be followed directly from the sedimentary rocks into the granite....According to report the San Francisco vein was followed from the granite into the limestone, but was also found to be shattered and broken at the contact and offset toward the south. The Scratch Awl vein was also found disturbed at the contact of the sedimentary rocks and granite. Such scanty observations as could be made in the field and reports of old workings now inaccessible indicate that the fault planes at the contact dip toward the granite."

From the foregoing, one can expect the horizons of limestone favorable to replacement to be steeper in dip, and much more fractured, in the vicinity of the contact. Hence, the opportunity for impregnation and replacement by mineralizing solutions could be greatest in the area where these particular ore-bearing horizons of the Jefferson limestone approach the contact. To pinpoint a target more precisely, probably the most logical place to expect large, replacement deposits, enriched by the downward movement of silver freed by surface

oxidation, would be in a zone where the favorable horizons of the Jefferson formation are within 0 to 1000 feet of the contact and from 300 to 800 feet below the surface. It is with this in mind that drill holes Numbered 6 through 14 are spotted in the proposed exploration program.

The five reasons outlined above for expecting to find commercial deposits of silver on the Silver Chief property are considered by the applicant to make this an outstanding exploration project.

3. Physical Description: (continued)

(g) Reports: Except for the two Government publications, U.S.G.S., Pp. 78 "Geology and Ore Deposits of the Philipsburg Quadrangle, Montana", by Emmons and Calkins and U. S. Burea of Mines R. I. 4399 "Core-drill Testing for Base-metal Mineralization below the Hope Silver Mine, Granite County, Montana" by John W. Cole, no other reports are known to the writer. The foregoing reports are out of print.

With reference to the latter report, we wish to make one comment. In 1946 the Burea of Mines drilled two diamond-drill holes to test a dolomitic bed, the Hasmark of Cambrian Age, in which ores of the Trout mine and other neighboring properties were found. They lie

3,000 feet south of the Hope and Silver Chief properties. The Hasmark formation plunges to the north dropping about 1000 feet, vertically, in the 3000 feet. The holes were drilled nearby vertically to a depth of 1,745 and 1,800 feet, respectively. Low-grade mineralization was intersected in the Hasmark. The Trout mine ranked third in silver production in the Philipsburg camp. Although production was derived from the dolomitic Hasmark, it came mainly from steeply-dipping, fillings and wall replacement of fracture or shear zones and not bedded deposits as at the Hope. The Hope deposits were contained in a high-lime, low magnesium formation, the Jefferson of Devonian Age, in which certain beds apparently are highly susceptible to replacement.

In Arizona, the great replacement deposits of Bisbee and Superior, it is interesting to note, were bedded replacements in Martin (Devonian) limestone at or near its contact with intrusive granite.

4. Accessibility of Property

(a) Names and addresses of individuals who will meet the OME representatives and show him the property:

Joe Metesh, Hotel Pintlar, Philipsburg, Montana
Phone: (406) 859-3752

Dr. G. C. Ridland
207 W. Clarendon Avenue, Phoenix, Arizona
Phone: (602) 274-2014 and (602) 264-7111

(b) Nearest supply point is Butte, Montana, which is served by Northwest Airlines, Western Airlines, and the Northern Pacific R.R. Butte is 1 hour, or 58 miles distant by auto on first-class, paved, U. S. Route 10 and 10-A from Philipsburg. The property is 3 miles by gravel road East of Philipsburg. The Anaconda Copper Company smelter, where crude silver ore is gladly received is located at Anaconda, 29 miles by paved highway from Philipsburg, in the direction of Butte.

5. Exporation Work:

The applicant is now making a topographic and geologic map of the property on a scale of one inch to 100 feet, and 10 foot contour intervals. It will be completed prior to beginning the proposed drilling program.

The program proposed herein is confined to BXWL diamond core drilling on the limestone side of the contact. The proposed locations are shown in plan on Map 2, and sections through each hole, or set of holes, are attached. The proposed holes are tabulated as follows:

MME Form 40

Hole No.	Bearing	Dip	Depth of Hole	Targets
1	N 50 W	-19°	750'	Zone 2 @ 300'; No. 1 @ 700'
2	N 50 W	-50°	750'	Zone 2 @ 525'
3	N 50 W	-90°	500'	Zone 2 @ 350'
4	N 25 W	-50°	750'	Zone 2 @ 525'
5	N 20 W	-50°	650'	Zone 2 between 340 & 480 ft.
6	N 20 E	-30°	350'	Zone 3 @ 250'
7	N 20 E	-30°	350'	Zone 3 @ 250'
8	N 20 E	-50°	700'	Zone 3 @ 520'
9	N 20 E	-50°	700'	Zone 3 @ 520'
10	N 20 E	-40°	1200'	Zone 3 @ 1050'
11	N 20 E	-40°	1200'	Zone 3 @ 1050'
12	N 15 W	-40°	1200'	Extension, Zone 2
13	N 15 W	-50°	700'	Extension, Zone 2
14	N 15 W	-30°	350'	Open
			10,150'	

Hole No. 1 is designed to test the ground between Zone No. 1 and Zone No. 2 in addition to the Zones themselves. Zones 1 and 2 are back to back and would intersect if the ground above the surface had not been eroded away. Zone 1 is a fissure crossing bedding and Zone 2 is conformable to the bedding. However, parallel subsidiary fractures below the No. 1 might intersect the favorable beds below No. 2 Zone to form other anticlinal traps for mineralizing solutions.

Hole No. 2 likewise tests the ground between Zones 1 and 2 as well as Zone 2.

Hole No. 3 should intersect Zone No. 2 below the 300 ft horizon where secondary enrichment is most likely to be found (between 300 and 800 feet).

Hole No. 4 is to be drilled from the same station, but at a 25° swing to the north. It appears as Hole No. 2 on the cross-section illustration.

Hole No. 5 is to test for the easterly extension of Zone 2.

Hole No. 6 is to test the downward extension of Zone 3, a prominent, wide, well mineralized quartz vein.

Hole No. 7 is to test the northwesterly extension of Zone 3.

Hole No. 8 is in the same plane as No. 6 to sample Zone 3 in the secondary enriched zone.

Hole No. 9 is in the same plane as No. 7 to sample Zone 3 in the secondary enriched zone.

Hole No. 10 is primarily to test the ground below No. 1 and the collar of No. 6, but may be extended to 1200 feet to test Zone 3 at a vertical depth of 700 feet, well into the secondary enriched zone. It can be stopped at 800 feet unless good values are obtained in Holes 8 and 6.

Hole No. 11 is drilled for the same reason as Hole No. 10. It is in the same plane as No. 9 and No. 7.

Holes No. 12, 13 and 14 are to be drilled only if values are obtained in the drill holes on either side, and there is good reason to expect the mineral zones to extend into the ground that can be reached by 12, 13 and 14.

6. Experience:

The applicant, Silver Chief Mines, Inc., is a new company, and the property is its first acquisition. The Board of Directors are also the officers and they are all experienced mining men:

Dr. G. C. Ridland, President, graduated from the University of British Columbia in geological engineering in 1936, and from Princeton University with an A. M. degree in 1938, and Ph.D. degree in 1939, majoring in Economic Geology. He spent 5 summer field

seasons with the Geological Survey of Canada, managed the Cold Spring Tungsten, Inc. mine in Colorado from 1949 to 1958, and had a geological consulting office in Denver, Colorado, from 1947 to 1961. Dr. Ridland will map the surface geology and be on hand to log and sample the drill core.

Mr. Joe Metesh, Vice President, is an experienced miner and small mine operator. He has worked underground for the Anaconda Copper Corp. at Butte and the Trout Mining Co. at Philipsburg. He has leased and worked many properties in Montana, including the Silver Chief property from 1959 to the present, during which time he produced and shipped to the Anaconda smelter 8,014 tons of ore containing 66,533 ounces of silver. He owns a full compliment of mining equipment including hoists, drills, portable compressors, and a D-9 cat, all of which he will put to use for the applicant to further the exploration program proposed herein. He will supervise the actual performance of the exploration work.

Dr. Donald H. Jardene, Vice President, has been engaged in mining operations nearly all his life. After graduating from high school in Quebec, he completed a course in surveying with the C.T.S.I. He was employed as mine surveyor for Ascot Metals Corp., a 500-ton per day gold producer in Quebec, a similar position with

Campbell Chibougamau Mines, Ltd. a 3000-ton-per-day copper producer in Quebec, and others. In 1952, he moved to Colorado where he was mine engineer at the Cold Spring Tungsten mine under Dr. Ridland's supervision, and more recently employed in exploration projects by Cons. Eldorado Mining Company, also under Dr. Ridland's supervision. He is an experienced miner, sampler, assayer, and mine surveyor. He will be in charge of spotting and surveying the drill holes, mapping and charting drill hole logs, and he will assist Dr. Ridland in logging and sampling drill cores.

Mr. John G. Brennan, Secretary, attorney, was born and raised in Montan close to the Coeur d'Alene mining district of Idaho. He was admitted to the Bar in Montana in 1948, and is still a licensed attorney in Montana, although now he makes his home and practices law in Phoenix, Arizona.

7. Estimate of Costs:

(a) Independent Contracts

Bids from three major diamond drilling contractors are attached. The low bid appears to be that of Boyles Bros. Diamond Drilling Co. The estimated cost of each hole is given below using the Boyles prices for BXWL core drilling. Overburden drilling, cementing, reaming and casing costs are

necessarily estimated. High estimates are made for reaming and casing Holes 2 and 4 as there is a possibility that some old shallow workings might be encountered and it may be necessary to case through these openings.

No. 1

Mobilization	2 @ 750.	$1,500.00
Oberburden	20' @ $12.50	250.00
0 - 250	250' @ 7.50	1,875.00
250 - 500	250' @ 8.25	2,062.50
500 - 750	250' @ 9.20	2,300.00
Cementing	2 @ 14.75	29.50
Surveying	2 @ 10.50	21.50
		$8,038.00

No. 2

Moving	2 @ 10.50	21.00
Overburden	20 @ 12.50	250.00
0 - 250	250' @ 7.50	1,875.00
250 - 500	250' @ 8.25	2,062.50
500 - 750	250' @ 9.20	2,300.00
Cementing	2 @ 14.75	29.50
Reaming & Casing	300 @ 5.25	1,575.00
Surveying hole	2 @ 10.50	21.00
		$8,134.00

No. 3

Moving	2 hrs @ 10.50	21.00
Overburden	20 @ 12.50	250.00
0 - 250	250 @ 7.50	1,875.00
250 - 500	250 @ 8.25	2,062.50
Surveying	1 @ 10.50	10.50
		$4,219.00

No. 4		
Moving	2 hrs. @ 10.50	21.00
Overburden	20 @ 12.50	250.00
0 - 250	250 @ 7.50	1,875.00
250 - 500	250 @ 8.25	2,062.50
500 - 750	250 @ 9.20	2,300.00
Cementing	2 @ 14.75	29.50
Surveying	2 @ 10.50	21.00
Reaming & Casing	100 @ 5.25	525.00
		$7,084.00

No. 5		
Moving	8 hrs. @ 10.50	84.00
Overburden	20 @ 12.50	250.00
0 - 250	250 @ 7.50	1,875.00
250 - 500	250 @ 8.25	2,062.50
500 - 650	150 @ 9.20	1,380.00
Cementing	2 @ 14.75	29.50
Surveying	2 @ 10.50	21.00
		$5,702.00

No. 6		
Moving	8 hrs. @ 10.50	84.00
Overburden	10 @ 12.50	125.00
0 - 250	250 @ 7.50	1,875.00
250 - 350	100 @ 8.25	825.00
Surveying Hole	1 @ 10.50	10.50
		$2,919.50

No. 7		
Moving	8 hrs. @ 10.50	84.00
Overburden	10 @ 12.50	125.00
0 - 250	250 @ 7.50	1,875.00
250 - 350	100 @ 8.25	825.00
Surveying Hole	1 @ 10.50	10.50
		$2,919.50

No. 8		
Moving	8 hrs @ 10.50	84.00
Overburden	20 @ 12.50	250.00
0 - 250	250 @ 7.50	1,875.00
250 - 500	250 @ 8.25	2,062.50
500 - 700	200 @ 9.20	1,840.00
Surveying	1 @ 10.50	10.50
		$6,122.00

No. 9		
Moving	8 hrs @ 10.50	84.00
Overburden	20 @ 12.50	250.00
0 - 250	250 @ 7.50	1,875.00
250 - 500	250 @ 8.25	2,062.50
500 - 700	200 @ 9.20	1,840.00
Surveying	1 @ 10.50	10.50
		$6,122.00

No. 10		
Moving	8 hrs. @ 10.50	84.00
Overburden	30 @ 12.50	375.00
0 - 250	250 @ 7.50	1,875.00
250 - 500	250 @ 8.25	2,062.50
500 - 750	250 @ 9.20	2,300.00
750 - 1,000	250 @ 10.20	2,550.00
1,000 - 1,200	200 @ 11.00	2,200.00
		$11,446.50

No. 11		
Moving	8 hrs. @ 10.50	84.00
Overburden	30 @ 12.50	375.00
0 - 250	250 @ 7.50	1,875.00
250 - 500	250 @ 8.25	2,062.50
500 - 750	250 @ 9.20	2,300.00
750 - 1,000	250 @ 10.20	2,550.00
1,000 - 1,200	200 @ 11.00	2,200.00
		$11,446.50

No. 12

Moving	8 hrs. @ 10.50	84.00
Overburden	30' @ 12.50	375.00
0 - 250	250 @ 7.50	1,875.00
250 - 500	250 @ 8.25	2,062.50
500 - 700	250 @ 9.20	2,300.00
750 - 1000	250 @ 10.20	2,550.00
1,000 - 2,000	200 @11.20	2,240.00
Casing & Reaming	200 @ 14.75	2,950.00
Surveying Hole	3 @ 10.50	31.50
		$14,468.00

No. 13

Moving	8 hrs. @ 10.50	84.00
Overburden	20 @ 12.50	250.00
0 - 250	250 @ 7.50	1,875.00
250 - 500	250 @ 8.25	2,062.50
500 - 700	200 @ 9.20	1,840.00
Surveying Hole	2 hours @ 10.50	21.00
		$6,132.50

No. 14

Moving	8 hrs. @ 10.50	84.00
Overburden	20 @ 12.50	250.00
0 - 250	250 @ 7.50	1,875.00
250 - 350	100 @ 8.25	825.00
		$3,034.00

Grand Total, drilling 10, ~~150~~ 950 feet $97,787.50

Overburden 290

7. Estimate of Costs: (continued)

(b) Personal Services

Estimated length of time for the program is 12 months using one rig or six months using two rigs. All three drilling companies report they can supply two rigs for the job. D. H. Jardine is the full-time engineer on the job. He will spot all holes, survey the holes, receive the core and sludge samples, keep all drilling records and map sections and logs. His salary is $1,000 per month.

6 months @ $1,000.00	$6,000.00

Dr. G. C. Ridland will log all samples all drill core on a part-time basis at $50/day. It is estimated that he will require 20 days a month on the job. 20 x 50 is $1,000 per month.

6 months @ $1,000.00	$6,000.00
	$12,000.00

(c) Operating Materials and Supplies

Core boxes, boxes for 10 feet of BX core, 1015 boxes @ $2.00.	$2,030.00
Cement (estimated)	250.00
Casing abandoned or lost, 100' x $2	200.00
	$2,480.00

(d) Operating Equipment

D-9 Catterpillar bulldozer:

J. Metesh owns the above piece of equipment that he will keep on a standby basis throughout the program at a no-use rental of $500 per month. He will move pumps, hose, water tanks, trucks that get stuck, assist in all moves of the drill rigs, build roads to all drill sites (see red lines on Map 2) and level drill sites. He will charge $30.00 per hour for time in use including driver. Estimated time in use, 2 hours per hole.

14 holes @ 2 hours 28 hours	
28 hours used time @ $30.00	$ 840.00
6 months not in use @ $500.00/mo.	3,000.00
Total Rental Charge	$3,840.00

(e) Initial rehabilitation and repairs. None

(f) Buildings - None to build. A building will be required to store drill core. A building can be rented in Philipsburg, three miles away for this purpose for $100/mo.

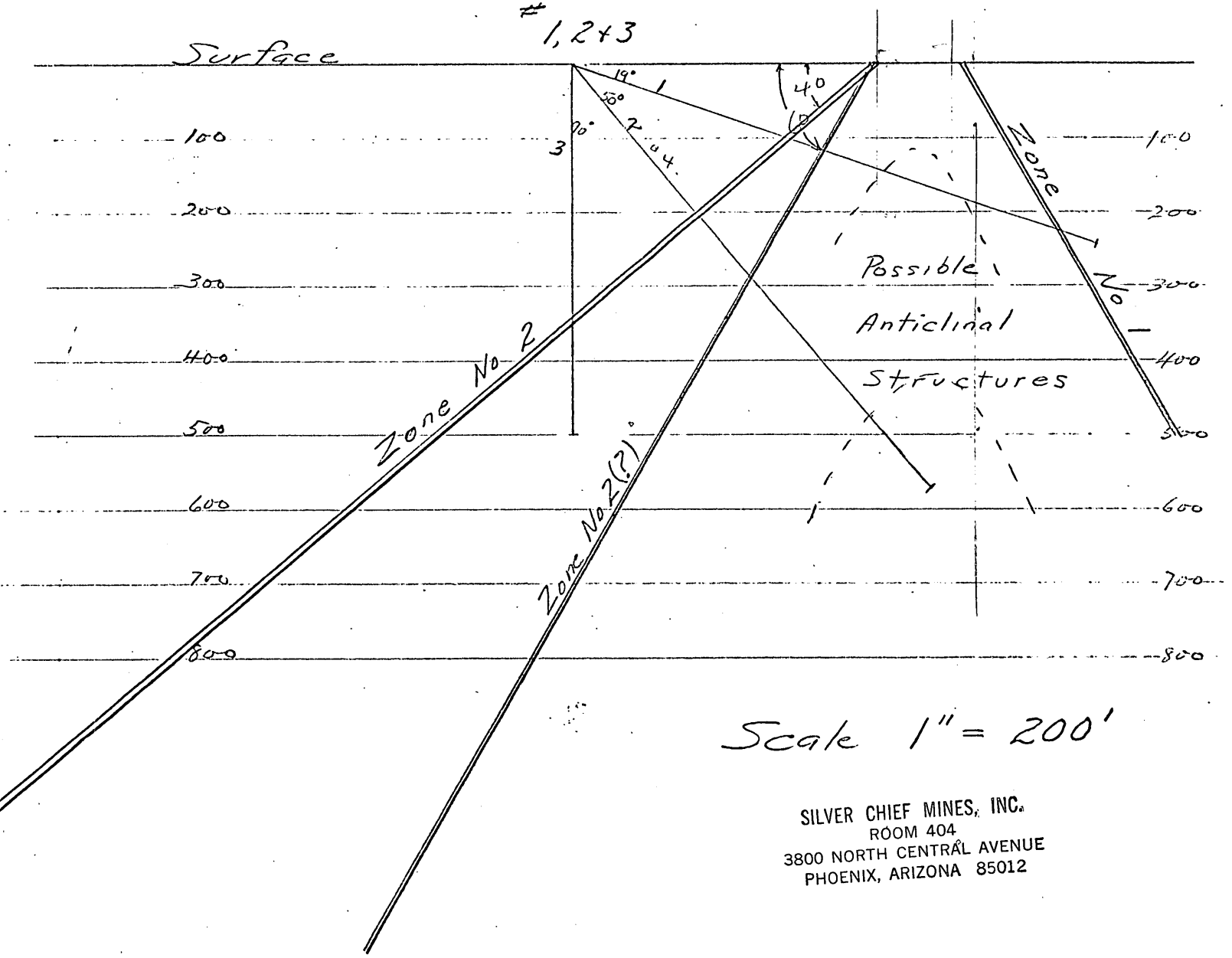
6 months @ $100.00	$ 600.00

(g) Miscellaneous

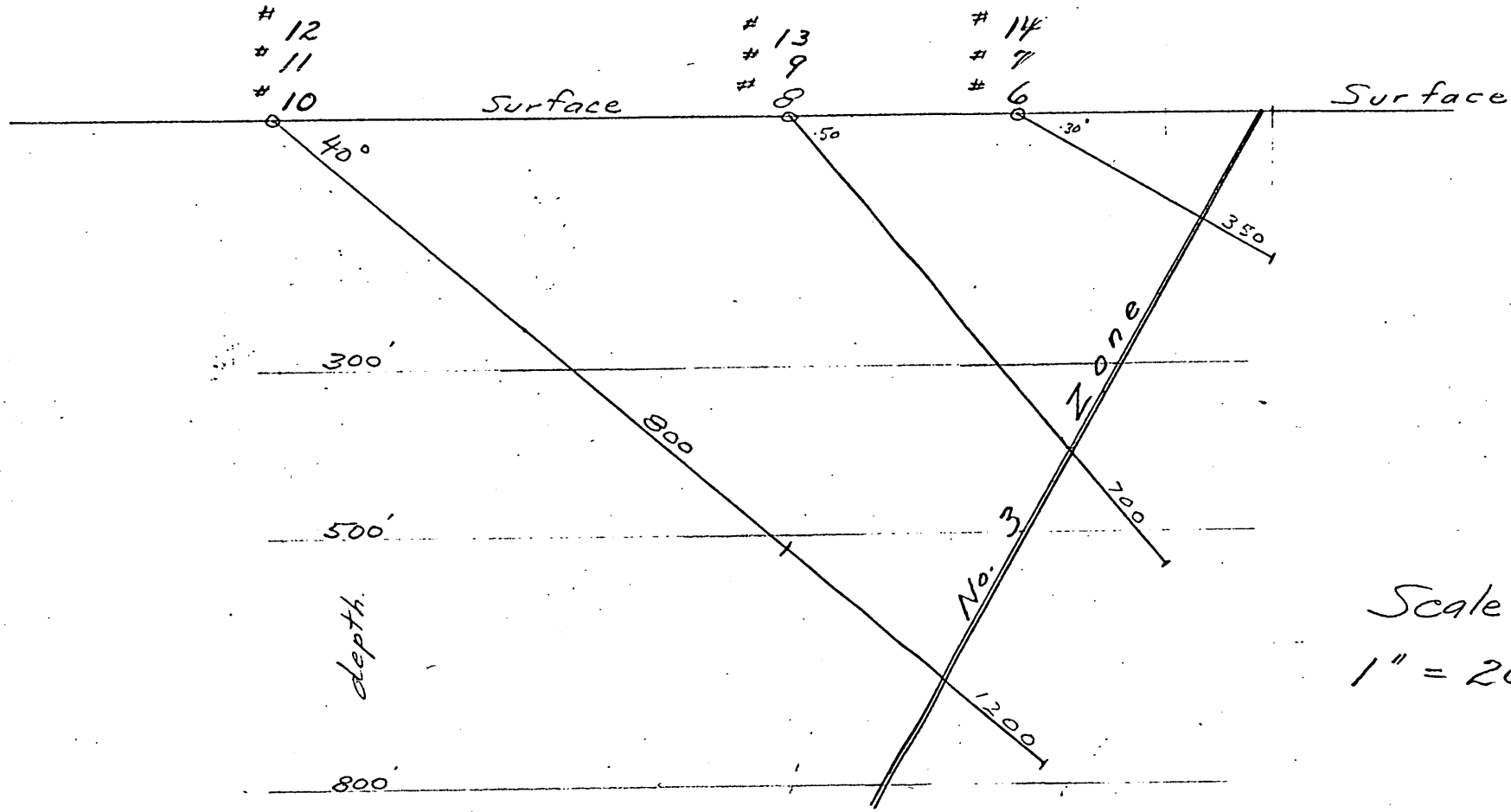
1.	The rental of the D-9 in 7 (d) includes all repairs and upkeep.	$ 0.0
2.	Bookkeeping and typing logs and reports $50.00 per month for six months	300.00
3.	Workman's compensation and employee's liability insurance - 6% of $12,000	720.00
4.	Payroll taxes - 5% of $12,000	600.00
		$1,520.00

SUMMARY OF COSTS

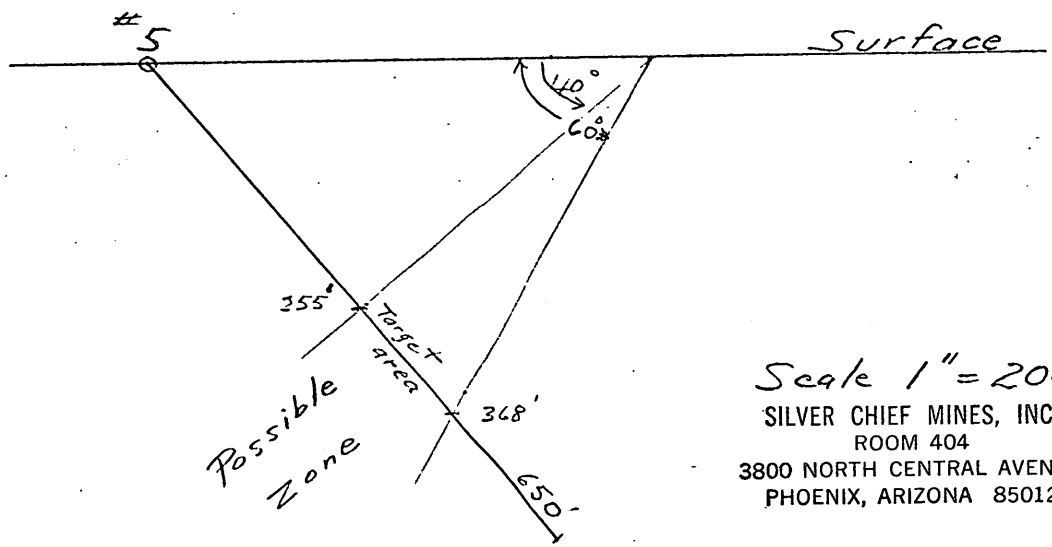
7	(a)	$97,787.50
	(b)	12,000.00
	(c)	2,480.00
	(d)	3,840.00
	(e)	-0-
	(f)	600.00
	(g)	1,520.00
		$118,227.50



SILVER CHIEF MINES, INC.
ROOM 404
3800 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012



Scale:
1" = 200'



Scale 1" = 200'

SILVER CHIEF MINES, INC.
ROOM 404
3800 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012

MONTANA LABORATORY COMPANY

CHEMISTS AND ASSAYERS

Philipsburg, Montana, May 31, 1967

The Following Analyses Were Made For G. C. Ridland

Sample No.	Per Cent H_2O	Ozs. Silver Per Ton	Ozs. Gold Per Ton	$ Gold Per Ton	Per Cent Copper	Per Cent Mn. Dioxide	Per Cent Iron	Per Cent Lead	Per Cent Manganese	Per Cent Silica	Per Cent Zinc
52871		5.60									
52872		11.40									
52873		1.80									
5287-4		26.30									

SILVER CHIEF MINES, INC.
ROOM 404
3800 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012

MONTANA LABORATORY COMPANY

By W. L. Riesenhauer

181-P-15645—5M—11-2-64 **The Anaconda Company, Anaconda Sampler**

RECEIVED FROM Joe Metesh

ADDRESS Philipsburg, Montana

MINE Cudgie Taylor Ore

ANACONDA, MONTANA, 59711 May 12, 1966

SMELTER LOT B-542 (May a/c)

CAR NUMBER	WEIGHTS Pounds Gross	WEIGHTS Per Cent Water	WEIGHTS Pounds Dry	ASSAYS Per Cent Copper	ASSAYS Ounces Silver	ASSAYS Ounces Gold	TREATMENT CHARGE Dollars	PRICE PER TON Dollars	VALUE Dollars	Draft No.
5 Trucks	170,700	1.40	168,310	.18	8.15	.004	2.40	6.39	$ 537.75	
James W. Young, Haul @ $ 2.50 per ton									213.38	
									324.37	
Jim Patton, Royalty @ 10%									32.44	
									$ 291.93	

84 T @ 8.15

SILICA 61.0
ALUMINA .61
IRON 1.3
CaO 11.8

COPY

PAYMENT FOR METALS				
Copper	@	Less 3½c		
Silver less 1 oz	@ 128.900¢	Less 6c	8.79	
Gold	@			
Date of Quotations	4/29/66			

TREATMENT	
BASE	3.75
Add—12c for each 1% Iron	.16
Add—10% of sum of metal payments in excess of $15.00	
Deduct—2.5c for each 1% Silica in excess of Alumina	1.51
NET TREATMENT - - - - - - - - - -	2.40

An extra charge of $5.00 made for sampling all lots under ten tons.

Rates subject to change without notice.

Extensions and footings correct.
SILVER CHIEF MINES, INC.
ROOM 404
3800 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012

The Anaconda Co., Anaconda Sampler
By E. M. Boyle

181-P-15645—5M—11-2-64 **The Anaconda Company, Anaconda Sampler** #2

RECEIVED FROM Joe Metesh

ADDRESS Philipsburg, Montana

MINE Comanche Extension Ore - 5797

ANACONDA, MONTANA, 59711 May 4, 1967

SMELTER LOT B-791 (April a/c)

CAR NUMBER	WEIGHTS Pounds Gross	WEIGHTS Per Cent Water	WEIGHTS Pounds Dry	ASSAYS Per Cent Copper	ASSAYS Ounces Silver	ASSAYS Ounces Gold	TREATMENT CHARGE Dollars	PRICE PER TON Dollars	VALUE Dollars	Draft No.
4 Trucks	116,350	1.60	114,488	.11	14.80	.002	2.52	14.44	$ 826.60	
Ben Walkup, Haul @ $ 2.50 per ton									145.44	
									681.16	
James W. Young, Royalty @ 10%									68.12	
									$ 613.04	

53 T 14.8

SILICA 62.50
ALUMINA .60
IRON 1.0
CaO 11.4

COPY

PAYMENT FOR METALS				
Copper	@	Less 3½c		
Silver less 1 oz	@128.900¢	Less 6c	16.96	
Gold	@			
Date of Quotations	4/21/67			

TREATMENT	
BASE	3.75
Add—12c for each 1% Iron	.12
Add—10% of sum of metal payments in excess of $15.00	.20
Deduct—2.5c for each 1% Silica in excess of Alumina	1.55
NET TREATMENT - - - - - - - - - -	2.52

An extra charge of $5.00 made for sampling all lots under ten tons.

Rates subject to change without notice.

Extensions and footings correct.
SILVER CHIEF MINES, INC.
ROOM 404
3800 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012

The Anaconda Co., Anaconda Sampler
By C. R. Fish

F. 15645—6-61—5M.
Standard.

The Anaconda Company, Anaconda Sampler

RECEIVED FROM Joe Metesh

ADDRESS Philipsburg, Montana

MINE Cudgie Taylor - Ore

ANACONDA, MONTANA, October 5, 1961

SMELTER LOT B-220 (Sept. a/c)

CAR NUMBER	WEIGHTS Pounds Gross	WEIGHTS Per Cent Water	WEIGHTS Pounds Dry	ASSAYS Per Cent Copper	ASSAYS Ounces Silver	ASSAYS Ounces Gold	TREATMENT CHARGE Dollars	PRICE PER TON Dollars	VALUE Dollars	Draft No.
7 Trucks	250,650	3.23	242,554	.04	3.30	.010		2.99	$ 362.62	
Joe Metesh, haul @ $2.50 per ton									313.31	
Jim Patton, Royalty @ 10%									$ 49.31	
									4.93	
									$ 44.38	

121 T - 3.3 Ag

SILICA 75.2
ALUMINA 2.7
IRON 1.5
CaO 7.1

COPY

PAYMENT FOR METALS					
Copper	Less .5%	@	Less 3½c		
Silver	100%	@ .80¢	Less 6c	$	2.64
Gold	100%	@ $31.81825			0.32
Silica					0.03
Date of Quotations	9/20/61				

TREATMENT	
BASE	
Add—12c for each 1% Iron	
Add—10% of sum of metal payments in excess of $15.00	
Deduct—2.5c for each 1% Silica in excess of Alumina	
NET TREATMENT	

An extra charge of $5.00 made for sampling all lots under ten tons.

Rates subject to change without notice.

Extensions and footings correct.
SILVER CHIEF MINES, INC.
ROOM 404
3800 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012

The Anaconda Co., Anaconda Sampler
By J. H. McCrea
METALLURGIST

181-P-15645—5M—11-2-64

The Anaconda Company, Anaconda Sampler

RECEIVED FROM Rita Taylor

ADDRESS Philipsburg, Montana

MINE Cudgie Taylor Ore

ANACONDA, MONTANA, 59711
December 23, 1965

SMELTER LOT B-424 (December a/c)

CAR NUMBER	WEIGHTS Pounds Gross	WEIGHTS Per Cent Water	WEIGHTS Pounds Dry	ASSAYS Per Cent Copper	ASSAYS Ounces Silver	ASSAYS Ounces Gold	TREATMENT CHARGE Dollars	PRICE PER TON Dollars	VALUE Dollars	Draft No.
5 Trucks	162,650	2.30	158,909	.06	21.40	.004	2.37	22.70	$1,803.62	
Betty Young, Haul @ $ 2.50 per ton									203.31	
									1,600.31	
Jim Patton, Royalty @ 10% Net Returns									160.03	
									$1,440.28	

81 T 21.4

SILICA 59.4
ALUMINA .3
IRON .8
CaO 14.1

SILVER CHIEF MINES, INC.
ROOM 404
3800 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012

COPY

PAYMENT FOR METALS					
Copper		@	Less 3½c		
Silver	less 1 oz	@ 128.900¢	Less 6c		25.07
Gold		@			
Date of Quotations	12/10/65				

TREATMENT	
BASE	3.75
Add—12c for each 1% Iron	.10
Add—10% of sum of metal payments in excess of $1500	-
Deduct—2.5c for each 1% Silica in excess of Alumina	1.48
NET TREATMENT	2.37

An extra charge of $5.00 made

Extensions and footings correct.

The Anaconda Co., Anaconda Sampler

G. CARMAN RIDLAND
Geological Engineer

TELEPHONE
(602) 274-2014

207 WEST CLARENDON AVENUE
PHOENIX, ARIZONA
85013

June 21, 1967

First National Bank of Arizona
Rosenzweig Center Branch
Phoenix, Arizona

Attention: Mr. James L. Edwards,
Manager

Gentlemen:

A recently organized mining company, Silver Chief Mines, Inc., has a most interesting silver prospect located at Philipsburg, Montana. I have studied the geological features of this property and have outlined a one-hundred thousand ($100,000.00) dollar exploration program for the property. The company has no funds now, but its promoters believe they can raise $25,000 to $50,000 for the company, particularly if the company can borrow $75,000 to $80,000 to carry out my program of diamond drilling.

The company wishes to borrow $75,000 from you for 5 years. It can secure the loan with its only asset, its mining property, consisting of approximately 300 acreas near Philipsburg. I consider the probability of discovering and developing commercial grade silver ores as excellent, but such would be essential to the ability of the borrower to repay the loan. Some equity bonus could be arranged in addition to interest on the loan.

If you are interested in such a transaction, I shall be pleased to come in and go over the details with you, and aid in any way that I can to expedite the loan.

Yours very truly,

G. C. Ridland
For Silver Chief Mines, Inc.

dmw

SILVER CHIEF MINES, INC.
ROOM 404
3800 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012

FIRST NATIONAL BANK OF ARIZONA

ROSENZWEIG CENTER OFFICE TELEPHONE 271-6113
3800 NORTH CENTRAL AVENUE PHOENIX, ARIZONA 85012

August 15, 1967

G. C. Ridland
Silver Chief Mines, Inc.
3800 North Central
Room 404
Phoenix, Arizona

Dear Mr. Ridland:

Your application for a $75,000.00 loan for five years has been considered, however we will be unable to extend any funds to the company at this time. The reason for this decline is based on several reasons.

First, the bank would be unable to extend terms that you have requested. Loans of this nature are generally written for a maximium term of three years. Second, the financial position would not substantiate a loan of that amount, and third, we would be unable to take the three hundred acres near Philipsburg as collateral.

Thank you for applying at First National Bank, and if we may be of any other banking service, please do not hesitate to contact us.

Sincerely,

Ronald K. Hold

RONALD K. HOLD
Assistant Manager

RKH:bc

SILVER CHIEF MINES, INC.
ROOM 404
3800 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012

G. CARMAN RIDLAND
Geological Engineer

TELEPHONE
(602) 274-2014

207 WEST CLARENDON AVENUE
PHOENIX, ARIZONA
85013

June 21, 1967

Flint Creek Valley Bank
Philipsburg, Montana

Attention: Mr. Zane G. Marfitt,
Cashier

Gentlemen:

Mr. Joe Mettesh, a local resident whom you know, and I are associating ourselves in business under the name, "Silver Chief Mines, Inc." This corporation has the option to purchase a 100% interest in a property near Philipsburg, known as the Cadgie Taylor, which it plans to exercise in the next few days.

The writer is a professional Geological Engineer, registered in the states of Arizona, Colorado and Nevada, who has studied the geological features of the Cadgie Taylor property and is prepared to recommend to the Silver Chief Mines, Inc., a program for exploring the property by means of diamond core drilling; said program to cost in the vicinity of $100,000.00. Both Mr. Mettesh and I feel confident such a program will result in the discovery of silver-bearing mineral deposits of such grade as to be mined profitably to more than pay the cost of such a program.

Silver Chief Mines, Inc. is hereby applying to you for a loan to aid in this enterprise, since you are a local institution that can conveniently appraise the potential this property appears to have. We believe we can raise 15% to 25% of the funds required if you will match our funds with the loan. We cannot guarantee that we will find commercial silver deposits, nor can we offer any collateral for the loan other than a mortgage on the mining property.

If you will express your interest in our project and outline approximately your terms for, say a $75,000.00 loan for approximately 5 years, we will submit maps, reports, and a legal description of the property to be pledged and we will cooperate in any way you wish to show your engineers or consultants the property and why we are so confident of success.

Yours very truly

G. C. Ridland

G. C. Ridland
For Joe Mettesh and
Silver Chief Mines, Inc.

dmw

cc: Mr. Joe Mettesh

SILVER CHIEF MINES, INC.
ROOM 404
3800 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012

"LOCATED IN [illegible]IC GRANITE COUNTY, RICH IN LIVESTOCK AND M[illegible] RESOURCES"

FLINT CREEK VALLEY BANK

PHILIPSBURG, MONTANA

B. G. PAIGE, PRESIDENT
ERICK V. JOHNSON, VICE-PRESIDENT
ZANE G. MURFITT, CASHIER

CLAUDE J. SORENSEN, ASSISTANT CASHIER
AGNES L. KEARNS, AUDITOR

July 7, 1967

Mr. G. C. Ridland
Geological Engineer
207 West Clarendon Ave.
Phoenix, Arizona 85013

Re: Silver Chief Mines, Inc.

Dear Mr. Ridland,

This will acknowledge receipt of your letter wherein you make application to our Bank for a $75,000 loan for your mining project on the Cadgie-Taylor property located in our local mining district.

I am sorry to advise you that we do not make mining loans of this nature and further more this loan application exceeds our loan limit.

I hope that you can make other arrangements for your financing and I wish you success in your undertaking.

Very truly yours,

B. G. Paige,
President

BGPmm

SILVER CHIEF MINES, INC.
ROOM 404
3800 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012

G. CARMAN RIDLAND
Geological Engineer

TELEPHONE
(602) 274-2014

207 WEST CLARENDON AVENUE
PHOENIX, ARIZONA
85013

June 21, 1967

First National Bank of Denver
Denver, Colorado

Attention: Mr. John Welborn,
Vice President

Gentlemen:

A recently organized mining company, Silver Chief Mines, Inc., has a most interesting silver prospect located at Philipsburg, Montana. I have studied the geological features of this property and have outlined a one-hundred thousand ($100,000.00) dollar exploration program for the property. The company has no funds now, but its promoters believe they can raise $25,000 to $50,000 for the company, particulary if the company can borrow $75,000 to $80,000 to carry out my program of diamond drilling.

The company wishes to borrow $75,000 from you for 5 years. It can secure the loan with its only asset, its mining property, consisting of approximately 300 acres near Philipsburg. I consider the probability of discovering and developing commercial grade silver ores as excellent, but such would be essential to the ability of the borrower to repay the loan. Some equity bonus could be arranged in addition to interest on the loan.

If you are interested in such a transaction, I shall be pleased to fly to Denver and go over the details with you, and aid in any way that I can to expedite the loan.

Yours very truly,

G. C. Ridland

G. C. Ridland
For Silver Chief Mines, Inc.

dmw

SILVER CHIEF MINES, INC.
ROOM 404
3800 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012

THE FIRST NATIONAL BANK OF DENVER
P. O. BOX 5808 TELEPHONE 266-2211
DENVER, COLORADO 80217

PHILLIP J. HOGUE
ASSISTANT CASHIER

June 28, 1967

Mr. G. C. Ridland
207 West Clarendon Avenue
Phoenix, Arizona 85013

Dear Mr. Ridland:

Your correspondence of June 24 directed to Mr. John Welborn has come to my attention for reply. Mr. Welborn is no longer with our bank and is devoting his full attention to ranching in Wyoming.

I have reviewed your request for financing the exploration of silver properties near Philipsburg, Montana with our loan committee. It is our bank's policy not to become directly involved in financing operations so far from Denver. We, therefore, cannot express any interest in your proposal.

Sincerely,

Phillip J. Hogue

Phillip J. Hogue
Assistant Cashier

PJH/rer

SILVER CHIEF MINES, INC.
ROOM 404
3800 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012

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

Boyles Bros. DRILLING COMPANY

CONTRACTORS-ENGINEERS-GEOLOGISTS

1415 Riverside P.O. Box 4307
SPOKANE, WASHINGTON 99202
Phone (509) KE 4-0862

General Offices and Plant
1624 Pioneer Road P. O. Box 58
SALT LAKE CITY, UTAH 84110
Phone 487-7595

BRANCH OFFICES
PHOENIX
RENO
SPOKANE
DENVER
SACRAMENTO
SANTIAGO, CHILE
LIMA, PERU

July 17, 1967

G. C. Ridland - Geological Engineer
Silver Chief Mines, Inc.
207 Clarendon Avenue
Phoenix, Arizona 85013

Dear Sir:

The following schedule of items is quoted as our proposal for doing the drilling near Phillipsburgh, Montana as per your letter dated 6-23-67, our telephone conversation and field inspection.

ITEMS

1. Mobilization, demobilization and set up on first hole: $750.00 each drill rig.

2. Drilling and casing unconsolidated overburden: $12.50 per foot.

3.

Diamond Drilling:	NC	NXWL	BXWL	AX
0.0 to 250 feet	$ 9.20 pr. ft.	$ 8.25 pr. ft.	$7.50 pr. ft.	$7.50 pr. ft.
250 to 500 "	10.50 " "	9.20 " "	8.25 " "	8.25 " "
500 to 750 "		10.50 " "	9.20 " "	9.20 " "

4. Reaming and casing: $5.25 per foot.

5. Cementing, waiting for cement to set during a regular drill shift and drilling out cement: $14.75 per hour plus cost of cement, cement substitutes, drill mud and additives.

6. Moving from hole to hole, tearing down, setting up, installation and recovery of water supply systems: $10.50 per hour each 2 man crew.

7. Casing left in holes at your request: List price f.o.b. the job site.

8. Delays for your convenience, drill hole surveys, etc.: $10.50 per hour.

9. Adequate roads will be furnished and maintained to level drill sites at no cost to Boyles Bros. Drilling Co..

10. Boyles Bros. will furnish within 3 weeks after notice to proceed drills of suitable design and capacity with all fittings, accessories and supplies to do the work. The drills will be operated 2 shifts per day 6 days per week under the direct supervision of a foreman driller who will operate a drill one shift each day and an area superintendent.

Boyles Bros. Drilling Co.

E. G. Tucker

E. G. Tucker - District Manager

SILVER CHIEF MINES, INC.
ROOM 404
3800 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012

(219) 872-7221

JOY MANUFACTURING COMPANY
900 WOODLAND AVENUE • MICHIGAN CITY, INDIANA 46360

August 4, 1967

Mr. G. C. Ridland
Room 2-A
207 West Clarendon Avenue
Phoenix, Arizona 85013

Dear Mr. Ridland:

Mr. Trujillo, our Salt Lake representative, looked over the area where you may perform a core drilling project near Phillipsburg, Montana. We understand that holes will be drilled at an angle of 50 to 60 degrees. The holes will run in depth from 500 to 1,000 feet. The total footage guaranteed is 4,000 feet. You will arrange to make and maintain suitable access roads and level the drill sites. Water is available within 1,500 feet of each drill site. Based on the above information, we submit the following prices:

	NX Wireline	BX Wireline
0. to 500. feet	$8.80/ft.	$8.40/ft.
500. to 1000. feet	$9.40/ft.	$9.00/ft.
Mobilization	Lump Sum	$1,000.00.
Delays for your convenience		$12.00 per hour.
Cementing and/or plugging if necessary		$15.00 per hour.
Reaming if necessary		$5.00 per foot.
Drilling Mud Used		$1.80 per 50-lb. bag.
Drilling Mud Additives Used		At job site cost.
Casing lost or ordered left in place	NX	$3.00 per foot.
	BX	$2.00 per foot.

Thank you for asking us to quote on your requirements.

Yours truly,

JOY MANUFACTURING COMPANY

J. M. Murray
(amm)

J. M. Murray, Manager
Contract Drill Division

JMM:rh

SILVER CHIEF MINES, INC.
ROOM 404
3800 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012

OUR '91 75TH YEAR '66

Longyear

E. J. LONGYEAR COMPANY
GENERAL OFFICES, 76 SOUTH 8th STREET
MINNEAPOLIS, MINNESOTA 55402, U.S.A.
TELEPHONE (612) 339-7631 • CABLE LONGCO

865 West 2600 South
P. O. Box 15218
Salt Lake City, Utah
August 8, 1967

Silver Chief Mines, Inc.
207 West Clarenda Avenue
Phoenix, Arizona

Attention: Mr. G. C. Ridland

Gentlemen:

In response to your recent request, we are pleased to submit below for your consideration, our proposal for your proposed exploratory drilling program to be carried out near Philipsburg, Montana.

1. We understand that the project as now planned will consist of approximately 5,000 linear feet of drilling in 24 holes with a maximum inclination of 55° as measured from the horizontal.

2. The overburden is not expected to exceed 30 feet in depth. The formation is to consist of a limestone capping and quartzite.

3. We also understand that water is readily available from a stream approximately 2,000 feet from the drilling area with a maximum lift of 200 feet.

4. We further understand that you will provide without charge, tractor service as required for maintenance of access roads and preparation of drill sites.

5. Contractor agrees to furnish, pay for, and provide at the drilling sites specified, any and all labor, material, equipment, tools and power, except as noted above, necessary for this drilling at the rates and charges as follows:

   a) Mobilization and demobilization of personnel and drilling equipment - $750.00 Lump Sum per drill unit

SILVER CHIEF MINES, INC.
ROOM 404
3800 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012

b) Overburden drilling - 0 - 50' in depth $ 9.00/ft.

c) Diamond Core drilling

	BQWL	AQWL
0 - 250 feet in depth	$ 9.00/ft.	$ 8.75/ft.
250 - 500 feet in depth	-------	$ 9.00/ft.
500 - 750 feet in depth	-------	$ 9.75/ft.

d) Reaming for casing, if and when required - All sizes $ 3.45/ft.

e) Cementing, waiting for cement to set, drilling out cement, and any other drill hole stabilizing operations - $16.50/hr.

f) Casing left in hole at your request - 100% List Price
Casing lost in hole - 80% List Price

g) Drill hole inclination tests and delays for your convenience, or for which you are responsible - $14.50/hr.

h) Cement, drill mud, and drill mud additives to be invoiced to you at our cost, f.o.b. job site.

i) Rig Time - this charge to apply to all time spent in moving, rigging up and down, installing and dismantling water line - $14.50/hr., with two man crew

j) Drill cores will be turned over to your representative at individual drill hole locations in core boxes furnished by you.

6. For this work Contractor will use two Longyear diamond core drills of suitable design and capacity. We propose to operate a minimum of two-eight hour shifts per drill, six days per week, and employ a driller-foreman to supervise and direct the drilling operations.

7. It is understood that Contractor will take all precautions regarding fire prevention which shall be reasonably required by Client or by local or state regulations and practices.

8. Contractor and its employees will not disclose information or show cores to unauthorized third parties without the prior permission of Client.

SILVER CHIEF MINES, INC.
ROOM 404
3800 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012

9. Statements will be prepared as promptly as possible after the first of each month, and payment shall be due within twenty days from date of invoice.

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

11. We appreciate the opportunity to quote on this project and hope that our proposal will be accepted. If awarded the contract we would be prepared to commence operations within approximately two weeks of official notice to proceed.

12. Prior to commencement of drilling operations, Client shall make the necessary financial arrangements for payment of invoices.

Sincerely,

E. J. LONGYEAR COMPANY

D. F. Crotty

David F. Crotty, Mgr.
Rocky Mt. Zone
Contract Drilling Div.

DFC:ec

ACCEPTED:

SILVER CHIEF MINES, INC.

By:_____

Date:_____

SILVER CHIEF MINES, INC.
ROOM 404
3800 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012

LEASE AND OPTION

This lease and option, made this 3rd day of July, A.D., 1967 by and between James W. Young of Philipsburg, Montana, the party of the first part, hereinafter called the Lessor and Silver Chief Mines, a Nevada Corporation with office in Philipsburg, Montana, party of the second part, hereinafter called the Lessee, WITNESSETH:

That the party of the First Part, for and in consideration of the sum of ten dollars ($10.00); lawful money of the United States, to them in hand paid by the party of the Second Part, the receipt of which is hereby acknowledged, do hereby grant to the party of the Second Part; their successors or assigns, within the time herein mentioned, subject always to a compliance with the terms of the lease herein granted, the right to option and purchase all of their right, title and interest in and to the following described lode mining claim, situated, lying and being in the Flint Creek Mining District, (unorganized), Granite County, Montana:

> A full interest in the Comanchee Extension Patented Quartz Lode Mining Claim, No. 5797, located in the Flint Creek (unorganized) Mining District,

together with the right of the said Lessee to mine and remove minerals and ore therefrom upon the terms and exceptions herein after stated.

The exceptions being that the said Lessor will hold and control for his own mining interests all surface mining and mining from the surface for a depth of 200 feet, of which the depth shall be measured from a bench mark which is a granite monument known as Corner No. 2 of the Commanchee Extension Survey No. 5797 and said Lessor shall have full control of any buildings or structures that will be built or demolished.

The purchase price to be paid to the said Lessor for their right, title and interest in the said mining claim, should this option be excercised by the said Lessee, their successors or assigns, shall be the sum of Twenty-five Thousand Dollars ($25,000); and shall be paid on or before the 3rd day of July, 1970, and in the event that this option is excerized the said Lessor shall relinquish all rights and exceptions in this lease and said Lessee will have full control of said property.

Royalties paid for ore extracted under the Lease hereinafter by the said Lessee shall be credited on the said pruchase price with the exception of the portion of this Lease that is reserved by said Lessor.

SILVER CHIEF MINES, INC.
ROOM 404
3800 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012

This Lease and Option is in force from the date of this indenture.

Subject to the life of the above Option to purchase, the said Mining claim is hereby leased and let to the party of the Second Part and it is agreed that during the life of said Option said party of the Second Part, their heirs and assigns, may enter into possession of said mining claim and work and explore the same for ores and mine the same in a good and workmanlike manner, yielding and paying to the said parties of the First Part as royalty on all ores mined therefrom and shipped to a smelter or reduction works,

10% on all ores value up to $30.00 per ton
20% on all ores value $30.00 and up per ton

of the net smelter returns. By "net smelter returns" is meant the amount received for such ores from the mill or smelter after deduction therefrom the cost of milling, smelting and reasonable freight or haulage charges from the mine to the mill or smelter.

A duplicate bill of lading for each shipment of ore shall be given to the parties of the First Part at the time of each shipment.

The deduction of the said royalties on ores and metals shall be made by the smelter or reduction works to which the ore is shipped, and payment shall be made by the smelter or reduction works to which the ore is shipped, and payment shall be made to JAMES W. YOUNG of Philipsburg, Montana, a party of the First Part. At the time of each payment the said smelter or reduction works shall furnish two (2) copies of the smelter returns with the royalty directly to the partty of the First Part.

In case the Lessees should receive any other amounts from the sale of such ores over and above the settlement made by the smelter or reduction works, the Lessees shall pay to the Lessor the same percentage of the additional receipts as specified in the above scale of royalties for the lots for which settlement is made.

To well and sufficiently timber workings on said mining properties at all points where proper in accordance with good mining.

To keep at all times the drifts, shafts, tunnels and other passages and workings of the demised premises used for mining purposes thoroughly drained and clear of all rock and rubbish of all kinds;

To not assign this Lease and Option, or any interest thereunder, and o not sublet the said premises or any part thereof, without the written ssents of said Lessors and to not allow any person or persons except

SILVER CHIEF MINES, INC.
ROOM 404
3800 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012

the said Lessees and his or their workmen to take or hold possession of said premises or any part thereof under any pretense whatever;

To pay all taxes which, during the term hereof, may be lawfully levied upon all structures and improvements or other property constructed or installed or used by the said Lessees in connection with the rights herein granted, and shall also pay when due all net proceeds, occupation, license and output taxes lawfully levied upon all ores and minerals extracted from said premises hereunder. Upon the payment of such taxes the Lessees shall promptly furnish the Lessor with satisfactory evidence of such payments;

To furnish all labor, materials and supplies necessary for this operation and hold the Lessor harmless against all liens, damages, claims or liabilities in any way growing out of this agreement.

To allow said Lessor, party of the First Part, and his agents to enter upon and into all parts of said mining premises for the purposes of inspection at all reasonable times.

In case the parties of the Second Part shall violate any of the covenants of this Lease and Option, upon their part to be performed, the Party of the First Part may give notice in writing specifying such default to the party of the Second Part or their assigns, and in case such notice is given, the rights of the party of the Second Part or their assigns under this Lease and Option shall terminate thirty (30) days from the giving of such notice, unless within said 30 day period the parties of the Second Part or their assigns shall make good such default,. In case such notice is given and such default is not made good in such 30 day period, the terms of this Lease and Option shall expire, and the same and the premises, together with the appurtenances, shall become forfeited to the party of the First Part, and the party of the First Part may thereupon, after demand of possession in writing, enter upon said premises and disposess all persons occupying the same, with or without process of law, and with or without force. It is further understood that in case this Lease and Option is forfeited, the parties of the Second Part, after payment of all sums due to the date hereunder, may remove from said property all personal property of every kind and nature which may have been placed thereon by them including tracks, hoists, motors, compressors, etc., and the parties of the Second Part shall be subject to not further liability hereunder.

SILVER CHIEF MINES, INC.
ROOM 404
3800 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012

The covenants and conditions of this Lease and Option shall be deemed continuing ones, so that any waiver by the party of the First Part of their rights to declare a forfeiture on the occasion of a breach thereof shall not be deemed a waiver of the covenant or condition itself, or of their right to declare a forfeiture on the occasion of a subsequent breach.

The Lessees shall observe and comply with all applicable Federal and State laws, particularly in reference to the Workman's Compensation Act.

Each and every clause and covenant of this indenture shall extend to the heirs, executors, administrators and assigns of all parties hereto.

IN WITNESS WHEREOF, the said parties, Lessee and Lessor, have hereunto set their hands and seals the day and year first above written.

SILVER CHIEF MINES, INC. 1967 NEVADA

SILVER CHIEF MINES, INC., Lessee

by Joe Metesh

Joe Metesh, Vice President

Attest: G. C. Ridland

G. C. Ridland, Treasurer

James W. Young

James W. Young - Lessor

STATE OF MONTANA)
) ss.
County of Granite)

This instrument was acknowledged before me this 3rd day of July, 1967, by James W. Young.

Notary Public
My Commission Expires 12-28-69
Residing at Philipsburg, Montana

32154

STATE OF MONTANA, County of Granite } ss

I hereby certify that the within instrument was filed in my office on the 14th day of July A.D., 19 67 at 8:5 minutes past 12 o'clock M., and is recorded on page ____ of book 13 of Mortgages Records of Granite County, State of Montana.

Attest my hand: Agnes M. McDonald
County Recorder

Fees $ 8.00 By Marcella Gehle
Deputy

(4)

SILVER CHIEF MINES, INC.
ROOM 404
3800 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012

MME Form 52
Jan. 1959

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

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

LIEN AND SUBORDINATION AGREEMENTS[1]

To the United States of America:

That certain land in the County of Granite, State of Montana,

described as follows:[2] Comanchee Extension described as follows:

Comanchee Extension Patented Quartz Lode Mining Claim, U. S.

Survey No. 5797, located in the Flint Creek Mining District.

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

SILVER CHIEF MINES, INC.[3]

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

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

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

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

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

Owner is reserving the top 200 feet of ground and buildings consisting of an A-Frame, compressor house, and ore bin for his own use. No other encumbrances.

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

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

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

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

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

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

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

Dated this 19th day of August, 1967.

X James W. Young (Seal) _____ (Street) Philipsburg Montana (City & State)

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

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

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

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

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

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

_____ (Corporate Seal)

MME Form 52
Jan. 1959

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

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

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Comanchee Extension Patented Quartz Lode Mining Claim, U. S.

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SILVER CHIEF MINES, INC.[3]

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

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

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

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

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

Owner is reserving the top 200 feet

of ground and buildings consisting of an A-Frame, compressor house,

and ore bin for his own use. No other encumbrances.

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

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

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

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

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

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

Dated this 19th day of August, 1967.

James W. Young (Seal) _____ (Street) (City & State)

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

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

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

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

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

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

_____ (Corporate Seal)

INT.-DUP. SEC., WASH., D.C. 21103

MME Form 52
Jan. 1959

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

FOR GOVERNMENT USE ONLY
Operator
Docket No. OME –
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(b) Being the holder of a claim, lien, or encumbrance against the land, hereby subordinates his claim, lien, or encumbrance in or against the land and in any production therefrom to the rights of the Government under the Contract with respect to royalty on production and liens to secure same.[4]

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

3. Represents and undertakes that there is no claim, lien, or encumbrance upon the undersigned's right, title, claim, or interest in or against the land other than the following: (If "none" insert the word "none". Do not leave blank.) Owner is reserving the top 200 feet of ground and buildings consisting of an A-Frame, compressor house, and ore bin for his own use. No other encumbrances.

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

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

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

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

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

Dated this 19th day of August, 1967.

James W. Young (Seal) _____ (Street) (City & State)

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

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

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

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

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

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

_____ (Corporate Seal)

MME Form 52
Jan. 1959

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

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

LIEN AND SUBORDINATION AGREEMENTS 1/

To the United States of America:

That certain land in the County of Granite, State of Montana,

described as follows: 2/ Comanchee Extension described as follows:

Comanchee Extension Patented Quartz Lode Mining Claim, U. S.

Survey No. 5797, located in the Flint Creek Mining District.

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

SILVER CHIEF MINES, INC. 3/

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

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

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

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

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

Dated this 19th day of August, 1967.

James W. Young (Seal) _____ (Street) (City & State)

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

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

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

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

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

_____ (Corporate Seal)

INT.-DUP. SEC., WASH., D.C. 21103

MME Form 52
Jan. 1959

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

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

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SILVER CHIEF MINES, INC. 3/

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_____ (Corporate Seal)

INT.-DUP. SEC., WASH., D.C. 21103

News
Kellogg, Idaho
(Cir. D 4,258)

APR 22 1968

Allen's P.C.B. Est. 1888

SEARCH PLANNED

Sierra Silver Mining Co. of Phoenix, Ariz., is planning an extensive exploratory drilling program at the 88 per cent owned Cadgie Taylor silver property in Montana's Philipsburg Mining District, according to a company offering circular. Dr. Carman Ridland, Phoenix geological engineer, is company president.

OME application: (Dr. G. C. Ridland)

OME-6652 Silver Chief Mines, Inc. (Silver)
Silver Chief (Cadgie Taylor) Property
Granite County, Montana
Denied 4/19/68

Kirk –

Was this before or after the OME application was denied?

Bill Prinz

Simultaneous event!

Sierra Silver & Joe Motesh controlled Cadgie Taylor Co. – phoned Prinz 5/27/68.

Kirk

OME 6652

Spokane, Wash.
Spokesman Review
(Circ. D. 88,715 - S. 129,724)

JUL 12 1968

Allen's P.C.B. Est. 1888

Silver Ore Found

Sierra Silver Mining Co. announced drilling crews on the property near Philipsburg, Mont., have uncovered a silver ore zone containing about 40,000 tons of ore averaging five ounces of silver per ton. Dr. G. C. Ridland, president, said the material could be mined by open pit methods.

How about that!

Bill

Sierra Silver Strike Looks 'Good,' Also Making New Tests in Utah

PHILIPSBURG, Mont. — In its first drilling effort for silver, Sierra Silver Mining Co. claims to have come up with a "discovery."

Announcement of the strike was made on the site by Dr. G. C. Ridland, president of Sierra, whose corporate headquarters are in Phoenix, Ariz.

Also under development by Sierra is the silver reef property in Leeds, Utah. Extensive metallurgical tests are in progress there in an effort to improve the yield from silver-bearing sandstone.

Dr. Ridland, with 25 years of experience in the gold and silver mining business, was formerly the resident geologist for Giant Yellowknife.

Results of the Philipsburg discovery so far indicate a body of mineralized, silver-bearing quartz averaging better than nine feet in width containing approximately 40,000 tons averaging approximately five ounces/ton silver.

Because this material lies close to the surface and can be mined by open pit methods and shipped directly to the smelter in Anaconda, Mont., only 31 miles away, it is believed to represent a good strike.

Diamond core drilling began at the property the first week in June and is continuing at a rapid pace—so rapidly that core logging and splitting are considerably behind drilling, the company said.

To date, 15 holes have been drilled and assay results have been received from nine.

The Philipsburg site is one of a complex of silver-gold mines the company is developing.

The others include the Bald Mountain silver-gold mining property located three miles southwest of Homestake Mining's famous gold mine at Lead, S. D.

The Bald Mountain property covers approximately 3,400 acres, including a number of buildings and other facilities, replacement value of which is estimated in excess of three million dollars.

American Metal Market, July 11, 1968

OME-6652 (Silver)
Silver Chief Mines, Inc.
(Cadgie Taylor) Property
Granite County, Montana

Denied 4/19/68

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
4/16/68	[illegible]	120
"	On leave	110
4/17	Kirkgard	220
4/19	[illegible]	
4/19	[illegible]	
		110
		220

Dr. G. C. Ridland
President
Cadgie Taylor Co.
3800 North Central Avenue, Room 404
Phoenix, Arizona 85012

Re: OME-6652 (Silver)
Silver Chief Mines, Inc.
Silver Chief (Cadgie Taylor) Property
Granite County, Montana

Dear Dr. Ridland:

We have carefully studied your application for financial assistance to explore the Silver Chief property and other information available to us. These data indicate that the probability of disclosing significant ore reserves on the property is not sufficiently promising to justify Government participation in the proposed exploration. We regret, therefore, to inform you that your application is denied, but without prejudice to the property.

We wish to thank you for your interest in the minerals exploration program and for bringing your property to our attention.

Sincerely yours,

FRANK E. [illegible]

Frank E. Johnson
Chief, Office of
Minerals Exploration

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

HKirkemo/gla 4-16-68

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
4/16/68		120
"	On leave	110
		220
7/19	Johnson	
		110
		220

April 16, 1968

Memorandum

To: The File

From: Assistant Chief, Office of Minerals Exploration

Subject: OME-6652 (Silver)
Silver Chief Mines, Inc.
Silver Chief (Cadgie Taylor) Property
Granite County, Montana

Justification for Denial of Application

Silver Chief Mines, Inc., submitted an application in August 1967 for a program of diamond drilling totalling 10,150 feet at an estimated cost of $118,227.50. On the basis of his field examination, the Field Officer, Region I, concluded that the chance of making a significant discovery in one area is "a bit better than fair," and in two other areas "only fair." W. C. Prinz, geologist, U. S. Geological Survey, who has worked extensively in the Philipsburg district and published the results of his work, concurs in the Field Officer's conclusions. If further consideration of the application is desired, the Field Officer proposes 3,015 feet of diamond drilling at an estimated total cost of $35,734.00.

In the first area considered by the Field Officer for drilling there is a question involving extralateral rights, and a provision in a Lease and Option agreement which prohibits the Applicant from exploring and mining the first 200 feet of vertical depth beneath one of the claims. Values ranging from 8 to 14 ounces of silver per ton are indicated from samples and ore shipments from mineralized structures in the area. Considering these factors, expenditure of Government funds to explore in this area does not appear to be warranted.

In the second area one or two drill holes are suggested to explore beneath oxidized vein material assaying 5.6 ounces silver per ton across a width of 10 feet. The Field Officer recognizes this as a long-shot recommendation bordering on prospecting. More work should be done here to further study and sample this structure before undertaking a drilling program.

The third area is within granite and, although traced over a strike length of 2400 feet, there is no evidence that economically important mineralization is present on the surface or that it may exist at depth.

None of the three areas proposed for exploration offers promise of significant ore bodies, and at one area there are problems involving extralateral rights and option restrictions. Accordingly, I recommend that the application be denied without prejudice to the property.

Harold Kirkemo

Harold Kirkemo

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

HKirkemo/gla 4-16-68

CADGIE TAYLOR CO.

ROOM 404
3800 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012

Mine Office:
PINTLAR HOTEL
PHILIPSBURG, MONTANA 59858
Telephone:
(406) 859-3752

Telephone: (602) 264-5047

April 9, 1968

OFFICIAL COPY
O. M. E.
RECEIVED
APR 11 1968
INITIALS | CODE
120
120
120

Mr. Frank E. Johnson, Chief
Office of Minerals Exploration
U. S. Geological Survey
Washington, D. C. 20242

Dear Mr. Johnson:

Docket No. OME-6652
CADGIE TAYLOR Property

left hand side

Enclosed please find additional amendments dated April 1, 1968, to our application.

We are now financed and prepared to begin the exploration program by June 1, providing we can obtain drilling equipment by then.

In any case, we plan to do some preliminary shallow drilling on the No. 2 zone which will be more of a development nature to aid in planning a shipping program for the ore exposed at this location.

We also plan to test the No. 1 zone by drilling which you advised us you would not explore because of the nearness of the apex to our property boundary.

Will you please give us some indication as to the date we may enter into a contract with O.M.E. for exploration and the date we might begin such work?

Yours very truly,

CADGIE TAYLOR CO.

G. C. Ridland

G. C. Ridland, President

GCR-wp
Encl.

OME

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
GEOLOGICAL SURVEY
U. S. Court House, Rm. 656
W. 920 Riverside Avenue
Spokane, Washington 99201
January 18, 1968

(Dispatched)
JAN 18 1968

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region I

Subject: Application Examination Report
OME-6652 (Silver)
Cadgie Taylor Co.
(Formerly Silver Chief Mines, Inc.)
Silver Chief (Cadgie Taylor) Property
Granite County, Montana

OFFICIAL COPY
O. M. E.
RECEIVED
JAN 22 1968

INITIALS	CODE
gla	130
bsl	120
~~fg~~	~~110~~
	120

Field Examination Report

LOCATION AND PROPERTY

The claims are located in secs. 17, 18, 19, and 20, T. 7 N., R. 13 W. P.M., Flint Creek Mining District, Granite County, Montana. The applicant lists 7 patented and 16 unpatented claims in 2 groups and 1 isolated patented claim. All the proposed work is in one of the groups comprising the following (pl. 1):

Patented Claims

Name	Mineral Survey No.	Patent No.	Patent date
Commanchee Ext.	5797	40909	4/19/1905
Cadgie Taylor	6180	38293	3/18/1904
Lycoming	1792	15468	1/ 4/1890
Nelly	6178	36642	5/15/1903

Unpatented Claims

Name	Book	Page
Silver Chief No. 3	24	564
Silver Chief No. 4	24	563
Rita	24	571
Rita No. 2	24	574
Joe	24	575
Netesh	24	573
Stardust	24	565
Kevin Beaver	24	572
Pintlar	24	570
Mary	24	569
Tedo	24	566
Courtney	24	609
Ridland	24	610
S.C. No. 5	24	611

These locations are filed at the Granite County Courthouse, Philipsburg, Montana. The applicant owns all the claims but one. He controls Commanchee Ext. (MS 5797, Pat. 40909) by virtue of a lease which reserves to the owner all mineral rights to a depth of 200 feet below the surface.

Patent numbers and dates were furnished by the Billings office of BLM who also furnished a copy of the survey plat. The plat shows an odd-shaped claim at the northeast end of Commanchee Ext., MS 5797. It appears on the BLM plat without a name but is identified by Patent No. 42308. Apparently, the applicant was unaware of this when he colored the exterior boundary of this claim group. This boundary has been corrected in plate 1.

Parts of unpatented Silver Chief No. 3, Ridland, and S.C. No. 5 are in conflict with patented claims. If it should be necessary to drop these three claims, no harm will result as none of the proposed work will be done on them.

GEOLOGIC SUMMARY

Sedimentary rocks in the Philipsburg area, mostly Cambrian through Devonian in age, have been folded into a broad anticline that plunges toward the north. The easterly limb of the anticline is cut off by a granitic intrusive of Tertiary age. On the applicant's claims only Jefferson limestone of Devonian age and granite are exposed at the surface.

Deposits of silver-bearing ore have formed in silicified zones that follow certain beds in the limestone and along steeply dipping quartz veins that cut across the bedding. There is some evidence to suggest that the bedding veins may pass into steeply dipping veins at depth.

In the sedimentary rocks there are two sets of steeply dipping quartz veins, one striking west and the other striking northwest. In the northern part of the district the west-striking veins dip steeply to the south; the northwest veins dip 50°-70° SW.

Most steeply dipping veins in the granite strike about east and dip south, but their strike is more apt to vary than that of the veins in sedimentary rocks.

Quartz is the most common mineral and in some veins it is frequently the only one that is readily identified. Other fairly common gangue minerals are rhodochrosite, barite, and mica. The most abundant sulfide is sphalerite followed by galena, pyrite, tennantite, chalcopyrite, ruby silver and enargite (Prinz, 1967; Cole, 1949; Emmons and Calkins, 1913).

ORE EXAMINATION

The applicant's Map 2 indicates the locations of 10 showings. During the examination, made September 30, 1967, in the company of C. C. Ridland, President, Joe Metesh, and Donald H. Jardine, Vice-Presidents, all showings except 4, 7, 8, and 9 were visited.

The first stop was at showing 2. A shallow drift was driven along a silicified bedding zone, but was accessible for only about 20 feet. Below the level there is an old stope now full of debris; apparently, the bed had been stoped from one of several tunnels, most of them inaccessible, whose dumps are 50-100 feet down hill (to the east). The hanging wall was sharp but irregular and in places was brecciated; the footwall was gradational. As nearly as I could tell, the vein strikes N. 15°-20° E. and dips 45° SE., but the irregularity of the walls made the determination difficult. The applicant says the strike is N. 75° E., but this is definitely in error. For about 150 feet northeasterly from the adit the ground has been partly bulldozed exposing the continuation of the bedding deposit or possibly a footwall replacement therefrom. Last season Metesh shipped from the bulldozed area 58.07 dry tons to Anaconda; settlement was based on an assay of 14.8 ounces silver per ton and 0.11 percent copper. The only sulfides that the examiner could find were very small bits of a silvery metallic mineral, probably stibnite. A composite chip and grab sample taken by the Field Officer, representing a width of 14-15 feet assayed 8.1 ounces silver per ton, Nil lead, Tr zinc, and Tr copper.

Leaving showing 2, showing 1 was visited. This is a tunnel said to have been driven 150 feet into the hillside by Joe Metesh during the period 1959-1966. From this adit 8,013 tons of ore having an average grade of 8.2 ounces silver per ton have been shipped. The applicant describes this structure as a shear zone cutting across, rather than conforming with, the bedding. Admittedly, the examiner could not with certainty recognize any bedding other than the "shear zone" and is of the opinion that this mineralization is along a westerly dipping bedding plane. This interpretation is based on the following:

1. In a plunging anticline the strikes of beds on the east limb will tend to converge northerly with those on the west limb. In this case, the east limb beds strike N. 15°-20° E. and the structure at showing 1 strikes N. 35°-40° E. Dips on the east limb range from 30°-55° E.; those on the west limb range from 45°-70° W. (Prinz, 1967, p. 12). Dips observed by the Field Officer are 45° E. at showing 2 and 60° W. at showing 1; each within the limits noted by Prinz.

2. On his section through holes 1, 2, and 3, the applicant indicates "possible anticlinal structures" between zones 1 and 2, indicating that he also has some doubts that the vein mined from the adit at showing 1 cuts across the bedding. The beds projected northerly on plate 1 appear to diverge, but this is because the ground slope in that direction is steeper than the anticlinal plunge.

The next stop was at a tunnel below the road and indicated by "A" on plate 1. The applicant, after preparing his application, found that by a little mucking he could reopen the adit portal and that one or two small cave-ins could be crossed. The tunnel starts in a south-westerly direction, swinging westerly. At about 250 feet is a drift, partly caved, from which at least 3 stopes had been mined, 1 of them possibly to the old stope below the tunnel at showing 1. It is equally possible that the stopes were cut on parallel bedding plane veins stratigraphically above the one at showing 1. A survey carrying vertical distances would be necessary to determine the true relations. There is no record of the tonnage and grade taken from the lower workings.

At showing 10 is an old shaft said to be 18 feet deep and exposing a mineralized zone in limestone. The shaft was caved and covered over so that a structure said to strike N. 10° E. and dip steeply to the east was not seen. On the dump a few quartz fragments with a few very small bits of unidentifiable sulfide minerals were seen. A few tens of feet southerly from the shaft a shallow pit, sloughed, and somewhat overgrown by bushes exposed an apparent quartz zone, but whether it was in place or represented float was not clear; no sulfide minerals were noted.

At showing 3, two trenches, with heavy quartz float between and beyond them, expose a quartz zone up to 45 or 50 feet wide that strikes N. 60°-70° W. and dips 60° SW. The quartz in the westernmost trench contains black, brown, and yellow oxides. The same oxides with a few blebs of a greenish oxide mineral were also seen near the easternmost trench in an outcrop just above the road. The applicant reports a grab sample taken across a fresh face 10 feet wide that assayed 5.60 ounces silver per ton. The examiner took a chip sample of scattered quartz across a width of 28 feet wide in and about the westernmost cut; it assayed 0.7 ounce silver per ton, Nil lead, Nil zinc, and Tr copper.

Showing 5 is an old trench now so overgrown by brush and so badly sloughed that it cannot be followed. However, at its southerly end there is a pile of rocks, mostly marble and some quartz. The rocks are more iron- and manganese-stained than any seen elsewhere on the property and contained pyrite in notable amounts. Whether they came from the trench or from a reported tunnel collared at the north end is not known; neither is the length and bearing of any such tunnel known. No granite was seen in the pile so it can only be assumed that the tunnel parallels the nearby granite contact. Whether it was driven as far as the vein seen at showing 3 is speculative and doubtful as the muck pile is too small to suggest the necessary length of about 450 feet. A grab sample taken by the applicant, which he considers representative, assayed 11.4 ounces silver per ton.

Showing 6 is a dump about a caved shaft in granite. The dump also extends easterly about 100 feet where it ends in an old adit portal now caved tight. The dump comprised mostly granite with some quartz; pieces of both were stained by iron oxides and many small pyrite crystals were seen. A grab sample from the dump taken by the applicant assayed 1.8 ounces silver per ton.

POSSIBLE EXPLORATION

There are three showings that might be worth consideration as possible areas for exploration. They are: (1) the easterly dipping bedding vein seen at showing 2 and in tunnel "A;" (2) the steeply dipping quartz zone at showing 3; (3) the vein that was followed by the caved adit and shaft at showing 5.

(1) This area appears to be the most promising one but may have to be ruled out because of a possible extralateral rights conflict. Plate 1 and figure 1, traced from the applicant's Map 2 but corrected to include an unnamed Claim Pat. No. 42508, show the relationship between the easterly dipping bedding vein, the easterly side lines of Commanchee Ext. (Pat. No. 40909) and the unnamed claim (Pat. No. 42508), a location for three drill holes not less than

100 feet from an exterior boundary, and the estimated position of the crosscut and drift from the portal at "A." It is of necessity assumed that the applicant's claim boundary (Pat. No. 40909) and the trace of the vein are reasonably accurate.

In the sections on figure 1 the altitudes of the vein outcrop, the collars of the drill holes and portal "A" are estimates, believed to be correct within 20 feet. There appears to be very little, if any, chance that the easterly dipping bedding vein apexes on the unnamed claim (Pat. No. 42508), but there is a chance that it might apex on Commanchee Ext. (Pat. No. 40909). The latter possibility was discussed with Al Martin in the Spokane office of the BLM. Although he is not a qualified legal authority, he is of the opinion that even though the apex were on the Commanchee Ext. claim, by the terms of the lease the claim owner has no rights, extralateral or otherwise, below a horizontal plane 200 feet beneath the surface.

A final decision as to the acceptability of holes 1, 2, and 3 as located on figure 1 should be left to legal interpretation. The hole attitudes and targets will be described under recommendations.

(2) This is a typical northwesterly striking quartz vein, dipping steeply to the southwest and cutting across the bedding. No fresh sulfide minerals were seen, but the brown, yellow, and green oxides suggest the former presence of iron and copper sulfides; and the black oxides suggest the presence of manganese and possibly iron sulfide. Where seen, the oxides were generally not very abundant, but much of the vein is covered by soil mantle; there could be other more promising areas.

(3) The vein from which came the oxide-stained and pyrite-bearing quartz and granite seen on the dump was not exposed at the caved tunnel portal. The length of the tunnel and the backs it might have developed are not known, nor is the depth of the shaft. From the present size of the dump the tunnel is probably not much more than 200 to 300 feet long and the shaft is probably less than 50 feet deep. However, some of the dump could have been washed away during the years since the openings were made. If any shipping grade pockets were found, they could have been mined and shipped. There simply are no shipping or other records that can be identified with these workings.

The applicant, in a letter dated October 6, 1967 (a week after the examination) states " * * * we now have traced the granite-enclosed, No. 6 zone, intermittently, over a length of 2,400 feet, which indicates it may be a fracture of economic importance." He then compares its length and poor surface showing with that of the Granite-Bimetallic vein, pointing out that in the latter "surface features, such as width, alteration, silicification, and mineral content,

were all discouraging, and it was not economically important until a depth of 100 to 200 feet was reached * * *." On this basis he proposes diamond drilling two holes, each to a depth of 800 feet. These would cut the vein at a depth of about 400 feet at intercepts 300 feet apart. The applicant's Map 3 traces the vein uphill toward the east, indicating a steeply south to vertical dip which conforms to the attitude of other steep-dipping quartz veins in the granite which range from vertical to 80° S. However, on his section he shows the vein as steeply dipping to the north or vertical. If the dip is to the south, the proposed holes could cut the vein within 100 feet of an exterior boundary.

CONCLUSIONS

It is concluded that the chance of making a significant discovery in the area of the applicant's showing 2 is a bit better than fair. On the basis of present showings and available data it is concluded that the chance of making a significant discovery at his showing 3 is only fair and at showing 6 is about the same.

RECOMMENDATIONS

Depending on the legal interpretation of the applicant's rights to the easterly dipping bedding vein at his showing2 and with the concurrence of Bill Prinz who is more familiar with the area than I am, the following program is recommended for further consideration.

1. From a drill site approximately along the easterly side line of the Cadgie Taylor claim about 110 feet northerly from the junction of this side line with the southern side line of the Lycoming claim, drill hole 1, BWL size core (1-5/8 inch I.D.) bearing approximately N. 32° E. at -55° to a depth of 250 feet. This hole is designed to cut the easterly dipping bedding vein about 100 feet east of Metcah's pit and about 325 feet down dip from the pit, or 300 feet down dip from the outcrop projected to the plane of the hole, and 180 to 200 feet down dip from the workings from the portal at "A" (fig. 1).

2. From the same drill site, drill hole 2 bearing approximately N. 62° E. at -50° to a depth of 250 feet. This hole is designed to cut the same bedding vein about 100 feet southeast of hole 1 and about 340 feet down dip (220 feet vertically) from near the portal at showing 1, and about 120 feet down dip from the workings from portal "A" (fig. 1).

3. If either hole 1 or hole 2 cut a zone of significant width and mineral content, from the same drill site, drill hole 3 vertically to a depth of 325 feet. This hole is designed to explore the significant showings found in holes 1 and/or 2 at a further depth of 130 to 150 feet (fig. 1).

4. From a drill site about 200 feet S. 40° E. of the corner common to Metesh, Rita, Mary, and Stardust claims, drill hole 4 bearing approximately N. 22° E. at -50° to a depth of 300 feet. This hole is designed to explore the mineralized quartz zone at showing 3 at a dip depth of about 230 feet (fig. 2). This is recognized as a fairly long-shot recommendation based on the black, brown, yellow, and green oxide stains seen at places on the surface and the applicant's cut sample that assayed 5.6 ounces silver over a width of 10 feet. Actually this hole is not very far from being classed as prospecting.

5. Only if hole 4 cuts a zone of significant width and mineral content, from a drill site approximately 160 feet S. 70° W. of the corner common to the claims cited in item 4, drill hole 5 bearing approximately N. 22° E. at -50° to a depth of 300 feet (fig. 2). This hole is designed to explore about 300 feet northwesterly the showing in hole 4.

6. From a drill site about 650 feet S. 65° E. of the common corner mentioned in item 4, drill hole 6 bearing S. 5° E. at -40° to a depth of 820 feet. If the dip does not exceed 65° S., the vein will not cross an exterior boundary until a vertical depth of about 1,100 feet has been reached. If the average dip is 85° S., the vein will cross an exterior boundary at a depth of about 625 feet or about 90 feet vertically below the hole intersection. It is therefore recommended that in this case the specification that the Government will not contribute to the cost of any work done within 100 feet of an exterior boundary be waived (fig. 3).

7. If hole 6 cuts a zone of significant width and mineral content, from a drill site about 200 feet N. 75° E. of site 6, drill hole 7 bearing S. 15° E. at -40° to a depth of 770 feet (fig. 3). Waiving of the "not within 100 feet" requirement is recommended in this case also.

DISCUSSION

These recommendations are made "for further consideration" because of some of the questions that depend upon administrative determination.

1. The extralateral rights question may affect the acceptability of holes 1, 2, and 3. If these three holes need not be excluded on that ground they are recommended.

2. The rather weak evidence on which holes 4 and 5 are based might place their drilling too far into the category of prospecting. If they are not considered to be prospecting, their drilling is recommended, with hole 5 depending upon the results of hole 4.

3. If holes 6 and 7 may not be completed within 100 feet of an exterior boundary, it is possible that they might not reach the vein and therefore would have no target to justify their drilling. If they can be drilled to completion even though their toes may fall within this distance, their drilling is recommended, with hole 7 depending upon the results of hole 6.

COSTS

Approximately 70 feet of access road will be required to reach the site of holes 1, 2, and 3; 400 feet to the site of hole 4; 350 feet to the site of hole 5; 550 feet to the site of hole 6; and 350 feet to the site of hole 7; total access road required, 1,720, say 1,750 feet. Slopes are moderately steep and thickly timbered, an average advance of only 100 feet per hour is not unreasonable; estimated time required, 17.5 hours. An average of 4 hours each for the preparation of drill sites or 20 hours should suffice. Estimated time required to bulldoze access trails and drill sites, 37.5 say 40 hours. Snow removal will require an additional 24 hours. Total dozer time 64 hours.

Drilling should be started with not less than BNWL or equivalent size, but provision should be made to reduce this to AXWL or equivalent should it become necessary, particularly in holes 6 and 7. Analysis of three bids submitted indicates that Boyles Brothers' bid totals only 86 percent of the totals of the bids submitted by Joy and Longyear, and will be used in this cost estimate. One or two confusing items in the bid were clarified by a discussion with E. C. Tucker, Boyles' District Manager.

Holes 1 through 5 should be surveyed when completed; hole 6 and 7 should be surveyed at 400 feet and when completed.

Actual Cost

1. Independent Contracts

Bulldozing

Mobilization and demobilization, 1 bulldozer	$ 50.00*
Bulldozing access roads, drill sites and snow removal	1,920.00*
D-8 or D-9, 64 hours at $30.00/hr.	
Mobilization and demobilization and 4 moves between holes, 1 surface drill unit	1,300.00*
Overburden drilling and setting of casing, 120 feet at $12.50/ft.	1,500.00
Diamond core drilling, 3,015 feet	24,194.00

Price per foot

Depth	EXWL and AXWL
0-250	$7.50
250-500	8.25
500-750	9.20
Over 750	10.00

Reaming and casing, 100 feet	525.00
EXWL and AXWL at $5.25/ft.	
Lost casing in completed holes, 40 feet	60.00*
EXWL and AXWL at $1.50	
Cementing, 8 hours at $10.75/hr.	86.00
Drilling out cement, 70 feet at $4.00/ft.	280.00
Surveying with in-hole instrument 30 hours at $10.50/hr.	315.00
	$30,230.00

*Indicates maximum

2. Personal Services

None except:

1 - Supervisor-engineer-geologist 4 months at $800/month	$ 3,200.00	
		$ 3,200.00

3. Operating Materials and Supplies

Cement, drill mud, additives, and hole plugging agents	$ 275.00	
In-hole surveying equipment	350.00	
Rental of surveying equipment 7 holes at $50.00 each		
Cost of acid and bottles 7 holes at $10.00 each		
Cardboard core boxes 303 at $1.00 each	303.00	
Sludge catching and sampling supplies	75.00	
		$ 1,003.00

7. Miscellaneous

Assaying for silver, lead, zinc, and copper 50 samples at $8.50 each	$ 425.00	
Accounting and office expenses 4 months at $50.00/month	200.00	
Core storage, 4 months at $25.00/month	100.00	
Payroll taxes, FICA, insurance, etc.	576.00	
		$ 1,301.00
Total Estimated Cost of the Project		$35,734.00
Government Participation at 75%		$26,800.00

D. R. MacLaren

Enclosures
Distribution:
CME
USGS(SRO)
Docket
MacLaren

REFERENCES

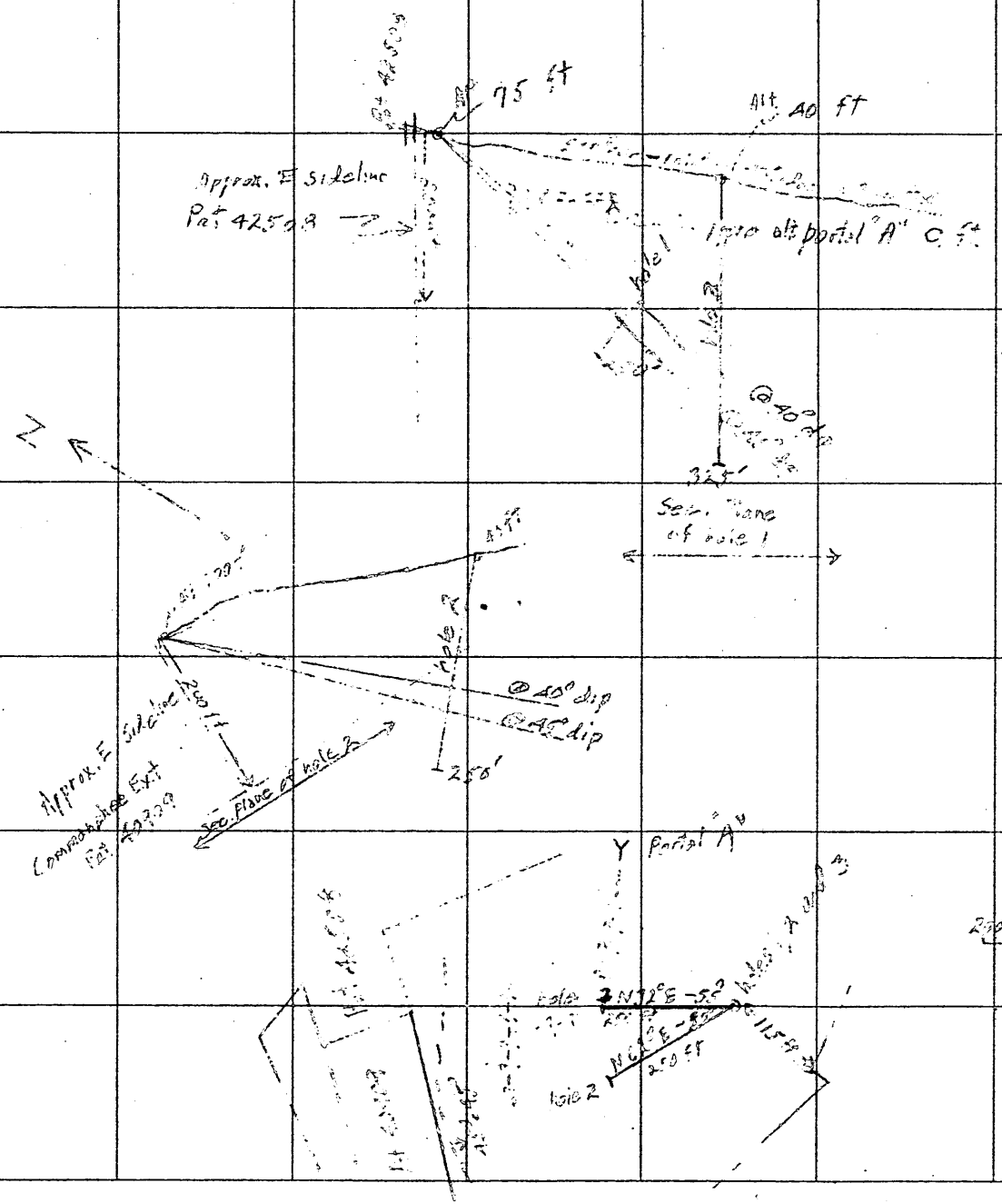
Prinz, W. C., 1967, Geology and ore deposits of the Philipsburg district, Granite County, Montana: U. S. Geol. Survey Bull. 1237, 66 p.

Cole, J. W., 1949, Core-drill testing for base-metal mineralization below the Hope silver mine, Granite County, Montana: U. S. Bur. Mines Rept. Inv. 4399, 9 p.

Emmons, W. H., and Calkins, F. C., 1913, Geology and ore deposits of the Philipsburg quadrangle, Montana: U. S. Geol. Survey Prof. Paper 78, 271 p.

U S Interior Department
Geological Survey

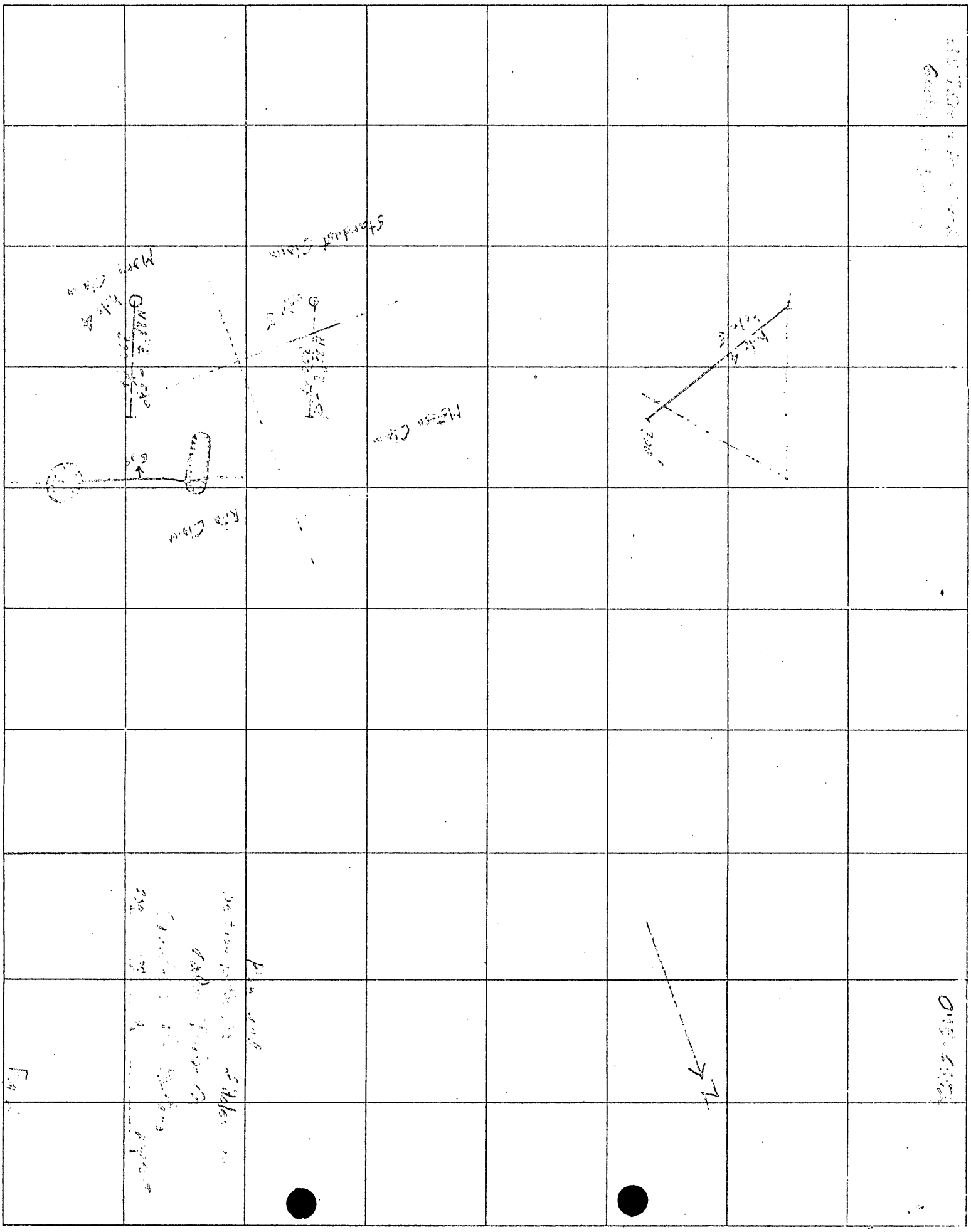
OME 6652



Plan and
Sections in the Pioneer Holes 1 and 2
Cada & Taylor Co
Granite County, Montana

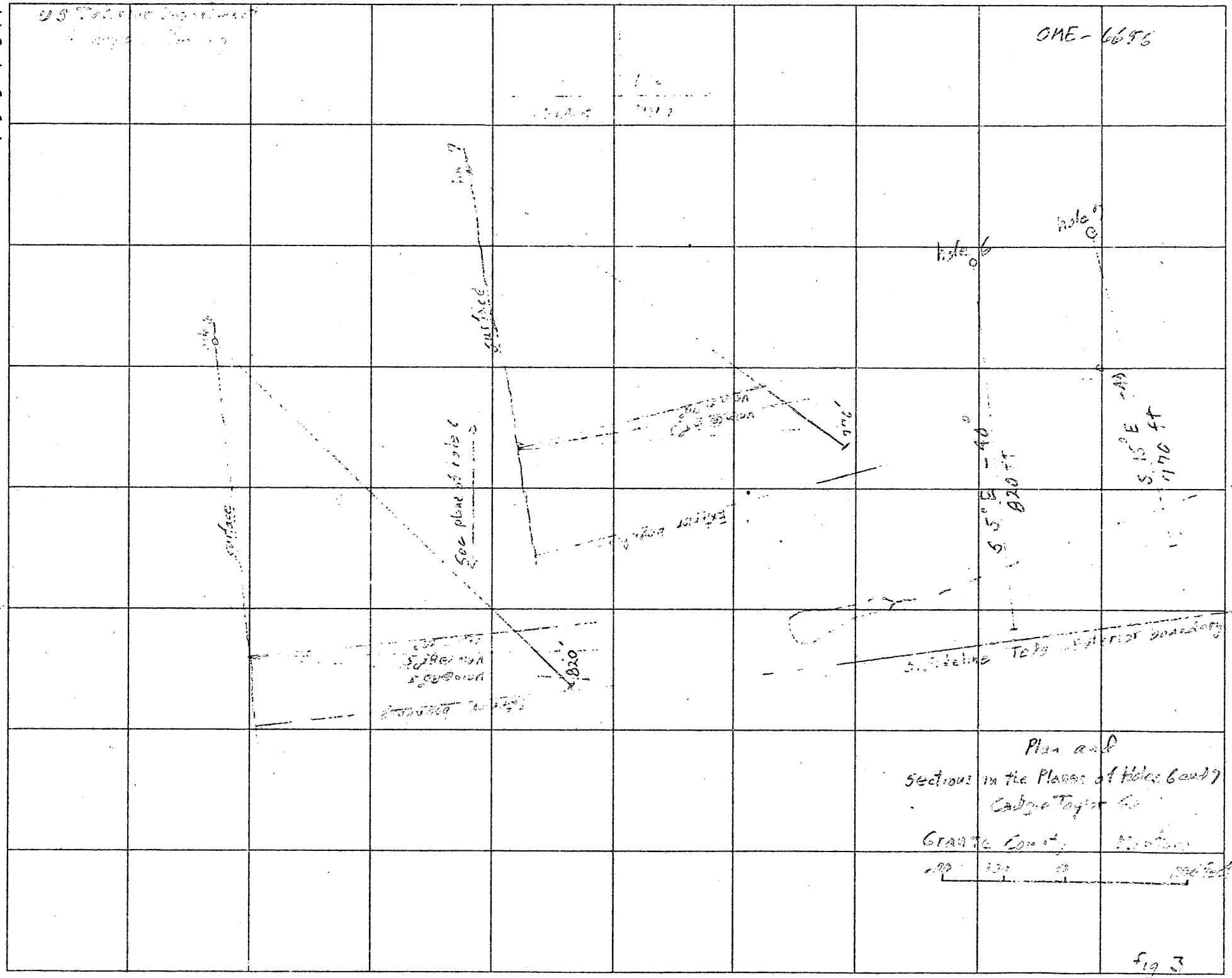
Fig 1

J. A. Gendron Co., Spokane
K&E ALBANENE 196M 62943



J. A. Gendron Co., Spokane

K+E ALDANENE 199GM TRACING PAPER 402943



J. A. Gendron Co., Spokane
K+E ALBANENE 108M 62043

12/7/67

Dr. Ridland phoned at 3:25 P.M. and discussed progress with SEC in registering stock.

May be back in D.C. Xmas week or after Jan. 1 for SEC purposes. Would like to meet and discuss geology with Bill Pring. May check in with OME at same time

Kirkemo

Mr Werner
963-3411
1/31/68

Sierra Silver Mining Co.
Attorney Brennen
Dr. G.C. Ridland
$27,000

Silver Chief Mines.
6652

Any prior experience with Dr. Ridland on earlier OME & DMEA applications
Call Werner if any.

Security Exchange Commission

2-5-68

Kirk —

I like the way Mac states the chances of making a significant discovery — "a bit better than fair". I concur.

Bill Price

MME FORM (ERENCE SLIP
REV. 2-59 OFFICE OF MINERALS EXPLORATION

TO: Chief, OME	DATE	INITIALS
1.	12/ 1/67	
Re: OME-6652 (Silver)		
2. Silver Chief Mines, Inc.		
Silver Chief (Cadgie Taylor) Property		
3. Granite County, Montana		
4. MLS		
Mary L. Smelser for		
5. D. R. MacLaren		
FROM: Fld. Officer, Reg. I		

FOR: Check items for action desired

____ Action	____ Reply for signature of	
____ Approval	____ Investigate	____ Surname
____ Comment	____ Recommendations	____ Signature
____ Conference	____ Rewrite	____ File
____ Instructions	X Your information	

REMARKS:

ORIGINAL COPY
U. S. M. E.
RECEIVED
DEC 4 1967

INITIALS	CODE
gla	130
BLR	20
	110
HK	120

INT.-DUP. SEC., WASH., D.C. M56300-62

Harold Kirkham
OME

G. CARMAN RIDLAND
Geological Engineer

TELEPHONE
(602)
264-5047
274-2014

ROOM 404
3800 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012

Mr. D. F. MacLaren
Field Officer
Office of Minerals Exploration
New Federal Building
Spokane, Washington

Dear Mr. MacLaren:

I expect to be at the Lesser Sahara Hotel, Spokane on December 1, 2 and 3 and look forward to seeing you at the mining meeting.

Very truly yours,

G. C. Ridland

CADGIE TAYLOR CO.
Room 404
3[illegible] North Central Avenue
Phoenix, Arizona 85[illegible]

November 28, [illegible]

Mr. Frank E. Johnson, Chief
Office of M[illegible]
U. S. Geological Survey
Washington, D. C. [illegible]242

Dear Mr. J[illegible]:

[illegible]
Cadgie Taylor [illegible]

The investigator will [illegible] you to discuss the above application [illegible] time during these 4 days. May we have [illegible] t, say, for 3:00 p.m. on Thursday, the [illegible]

If you have made your decision as to [illegible]er we will obtain air for exploration, perhaps [illegible] the contract at that time.

Yours very truly,

CADGIE TAYLOR CO.

G. [illegible]

GCR-wp

cc: Mr. D. R. MacLaren
Field Officer
Office of Minerals Exploration
New Federal Building
Spokane, Washington

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
11/30/67	Kirkemo	120
		110
1/30	Cal	220
		120M

NOV 30 1967

AIRMAIL

Dr. C. C. Ridland
President
Cadgie Taylor Co.
3800 North Central Avenue, Room 404
Phoenix, Arizona 85012

Re: OME-6652 (Silver)
Silver Chief Mines, Inc.
Silver Chief (Cadgie Taylor) Property
Granite County, Montana

Dear Dr. Ridland:

In reply to your letter of November 28, 1967, we will be glad to meet with you at any time convenient to you during your stay in Washington December 5 through December 8. The proposed appointment for December 7 at 3:00 p.m. is satisfactory to us. If other appointments prevent me from meeting with you at that time, Mr. Kirkemo will be present to meet with you.

We will not have completed our study of your application before you arrive in Washington. Mr. D. R. MacLaren, OME Field Officer, Region I, was advised by his physician to take an extended rest in November and, therefore, his report of field examination of your property and those of other applicants were necessarily delayed. Fortunately he returned to his office this week and we expect that his reports will be forthcoming soon.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's Reading File
Division File
Economic Geology File
OME docket
OME Reading File
OME Field Officer Region I
Mr. Kirkemo

HKirkemo/gla 11-29-67

23263

OFFICIAL
COPY
O. M. E.
RECEIVED
NOV 30 1967
INITIALS

CADGIE TAYLOR CO.
Room 404
3800 North Central Avenue
Phoenix, Arizona 85012

November 28, 1967

Mr. Frank E. Johnson, Chief
Office of Minerals Exploration
U. S. Geological Survey
Washington, D. C. 20242

Dear Mr. Johnson:

Re: OME-6652 (Silver)
Cadgie Taylor (Silver Chief) Property

The undersigned will be in Washington, D. C. from December 5 through December 8, and wishes to call on you to discuss the above application for assistance sometime during these 4 days. May we have an appointment, say, for 3:00 p.m. on Thursday, the 7th?

If you have made your decision as to whether we will obtain aid for exploration, perhaps we can discuss the contract at that time.

Yours very truly,

CADGIE TAYLOR CO.

G. C. Ridland, President

GCR-wp

cc: Mr. D. R. MacLaren
Field Officer
Office of Minerals Exploration
New Federal Building
Spokane, Washington

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
9/15/67		120
"	Johnson	110
9/15	[illegible]	220
		120M

AIRMAIL

SEP 15 1967

Memorandum

To: Field Officer, Region I

From: Assistant Chief, Office of Minerals Exploration

Subject: OMM-6652 (Silver)
Silver Chief Mines, Inc.
Silver Chief (Cadgie Taylor) Property
Granite County, Montana

The application is referred to you for further consideration and your recommendations. We understand that you have scheduled a field examination of the property for September 30, 1967.

Dr. Ridland, President, Silver Chief Mines, Inc., visited this office today, and I discussed with him a number of items which require clarification in order to complete the application. Ridland will be in Philipsburg when you examine the property and some of the problems we discussed may be resolved with you. He said he would write us also. A copy of the rough draft list of items I reviewed with him is enclosed. I gave the original copy to Ridland, and I am sure he will refer to it in discussions with you. In addition to the items listed, I showed him the problem with claim overlaps which you noted in your memorandum to us dated August 29.

I was fortunate enough last week to obtain Bill Prinz's comments on the geological aspects of this proposal before he left for a month's field project near Atlantic City, Wyoming. Bill recalled that the mineralized structure he examined at the Cadgie Taylor property was a quartz vein with a minor quantity of manganese oxides present. A comparison of geological conditions at the Granite-Bimetallic deposit with those at the Silver Chief property is not feasible because wholly unrelated situations are present at each property. The presence of sulfides and associated secondary enrichment at the Granite-Bimetallic mine accounted for its rich ore, and the absence of sulfides probably accounts for the low tenor of ore at the Silver Chief. Sulfides were present also at the Hope mine and accounted for the rich ore mined from that deposit.

Careful examination should be made of exposures in the trenches excavated recently by Mr. Metesh to determine whether pyrite or other sulfides are present in the veins below the surface or shallow cuts

23263

which are devoid of sulfides. If sulfides are present in significant quantities, perhaps a modest program of exploration is warranted.

Dr. Ridland understood our reluctance to explore near the Commanchee Extension claim and volunteered to drop further consideration of that area if the apex problem is as serious as the map indicates.

We look forward to your examination report and recommendations.

Harold Kirkemo

Harold Kirkemo

Enclosure

cc: Director's Reading File
Division File
Economic Geology File
OME Docket
OME Reading File
Mr. Kirkemo
130

HKirkemo/gla 9-15-67

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
9/15/67	Kirkemo	120
		110
		220
		120M

AIRMAIL

SEP 15 1967

Dr. G. C. Ridland
Silver Chief Mines, Inc.
Room 404
3800 North Central Avenue
Phoenix, Arizona 85012

Re: OME-6652 (Silver)
Silver Chief Mines, Inc.
Silver Chief (Cadgie Taylor) Property
Granite County, Montana

Dear Dr. Ridland:

Although your application is incomplete for the reasons discussed with you here today by Mr. Kirkemo, we are referring your application to Mr. D. R. MacLaren, Field Officer, Region I, Office of Minerals Exploration, U. S. Geological Survey, South 157 Howard Street, Spokane, Washington 99204. Mr. MacLaren has arranged with Mr. Metesh to examine the Silver Chief property on September 30, 1967.

A field referral of an application usually is not made until the required information is received from the Applicant. However, in the interest of saving time and travel and to be able to examine the property before snow covers the surface, Mr. MacLaren has arranged to include Philipsburg in the schedule for his forthcoming 10-day trip.

Requests for information necessary to complete your application should not be construed as a commitment by the Government to grant an exploration contract.

Sincerely yours,

FRANK E. JOHNSON/gla

Frank E. Johnson
Chief, Office of
Minerals Exploration

Copy to: Dr. G. C. Ridland
c/o Mr. Joe Metesh
Pintlar Hotel
Philipsburg, Montana 59858

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

HKirkemo/gla 9-15-67

23263

Dr. G. C. Ridland
Silver Chief Mines, Inc.
Room 404
3800 North Central Avenue
Phoenix, Arizona 85012

Re: OME-6652 (Silver)
Silver Chief Mines, Inc.
Silver Chief (Cadgie Taylor) Property
Granite County, Montana

Dear Mr. Ridland:

Preliminary review of your application for financial assistance to explore the Silver Chief property shows that additional information is needed to complete the application.

We note several differences in the spelling of claims shown on your claim map and on the list on pages 3 and 4 of the application. In the event of a contract, the names or identification of the following claims should be converted.

Claim Map	List on Pages 3 and 4
Cradgie, Taylor	Cadgie Taylor
Silver Bar	Silver Bar
Commanchee, Survey No. 278A	Commanchee, Survey No. 278
Reta	Rita
Reta No. 2	Rita No. 2

No address is shown for James W. Young on the Lien and Subordination Agreements document.

Proposed drill holes 1, 2, 3, and 4 would extend outside the boundaries of the property or across a claim for which you do not have the mineral rights above the 200-foot level. Proposed Hole 1 would cut Zone 2 at a depth of about 100 feet, and Hole 2 would cut the same zone at a depth of about 200 feet and about 250 feet from the collar, not at 525 feet as listed on page 20. In the event Zone 2 should apex on the Commanchee claim, there would be a problem concerning mineral rights outside the boundaries of that claim.

In your estimate of costs we note that the estimate for Personal Services is considerably greater than usual allowances on OME contracts for such services. One engineer or geologist should be above to supervise the project, locate drill holes, and to log and sample drill case.

The estimated cost of case boxes is greater than the usual allowance.

The estimated rental charged for a bulldozer during 6 months of non-use is not acceptable. The charge for the use of a bulldozer during periods it is actually used on the project is allowable providing the charge per hour conforms with the average rate charged in the district for similar equipment.

The request for rental of a storage facility for drill case at 100 per month is likewise unacceptable.

Temporary storage should be provided at a much lower cost to the project.

August 31, 1967

Silver Chief Mines, Inc.
Room 404
3800 North Central Avenue
Phoenix, Arizona 85012

Subject: OME-6652

Gentlemen:

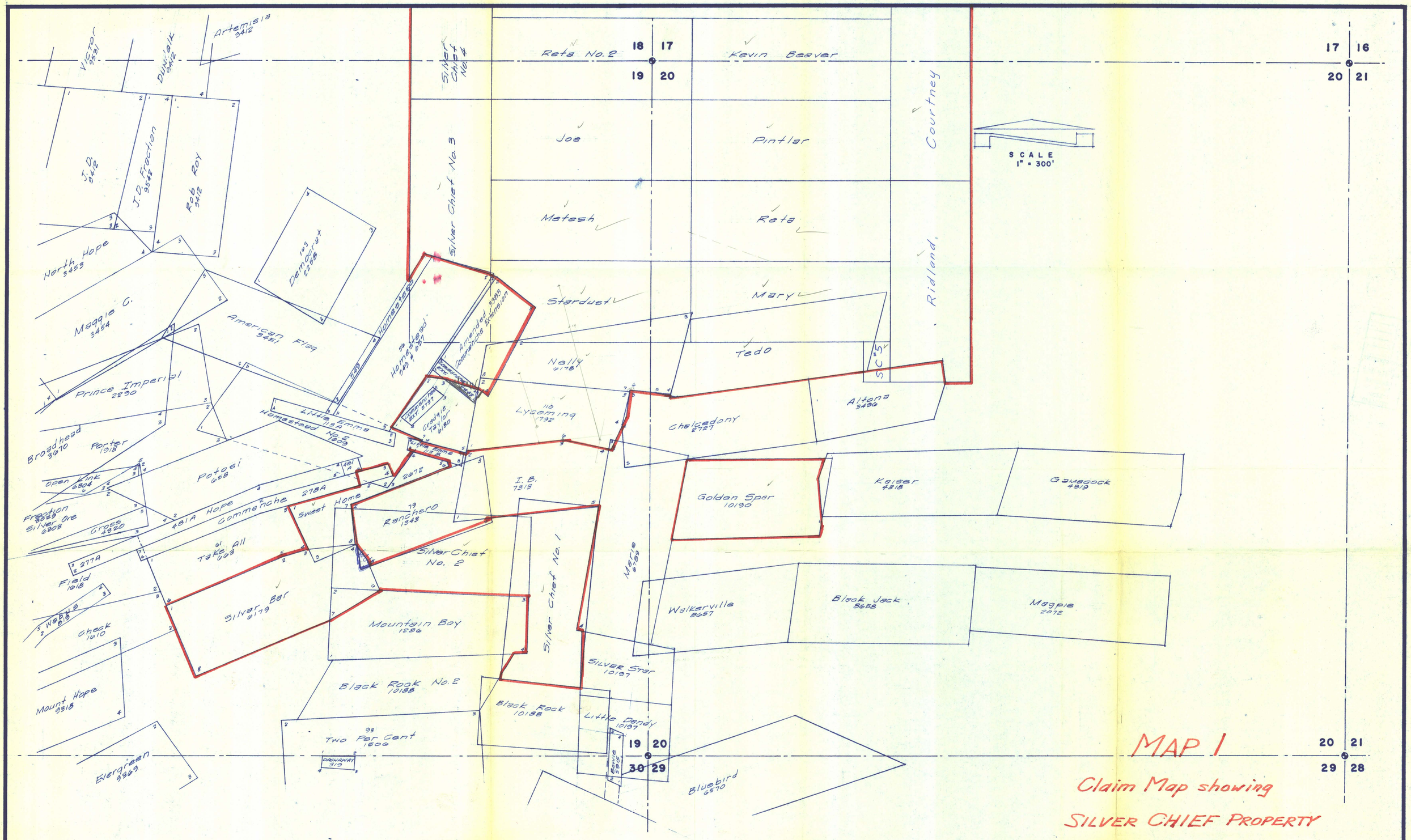
Your application for exploration assistance, dated August 21, 1967, submitted to our office at Spokane, Washington, has been assigned Docket No. OME-6652.

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

Sincerely yours,

Frank E. Johnson
Chief, Office of
Minerals Exploration

Copy to Region I



MAP 1

Claim Map showing

SILVER CHIEF PROPERTY

blocked in Red

SILVER CHIEF MINES, INC.

FLINT CREEK MINING DISTRICT

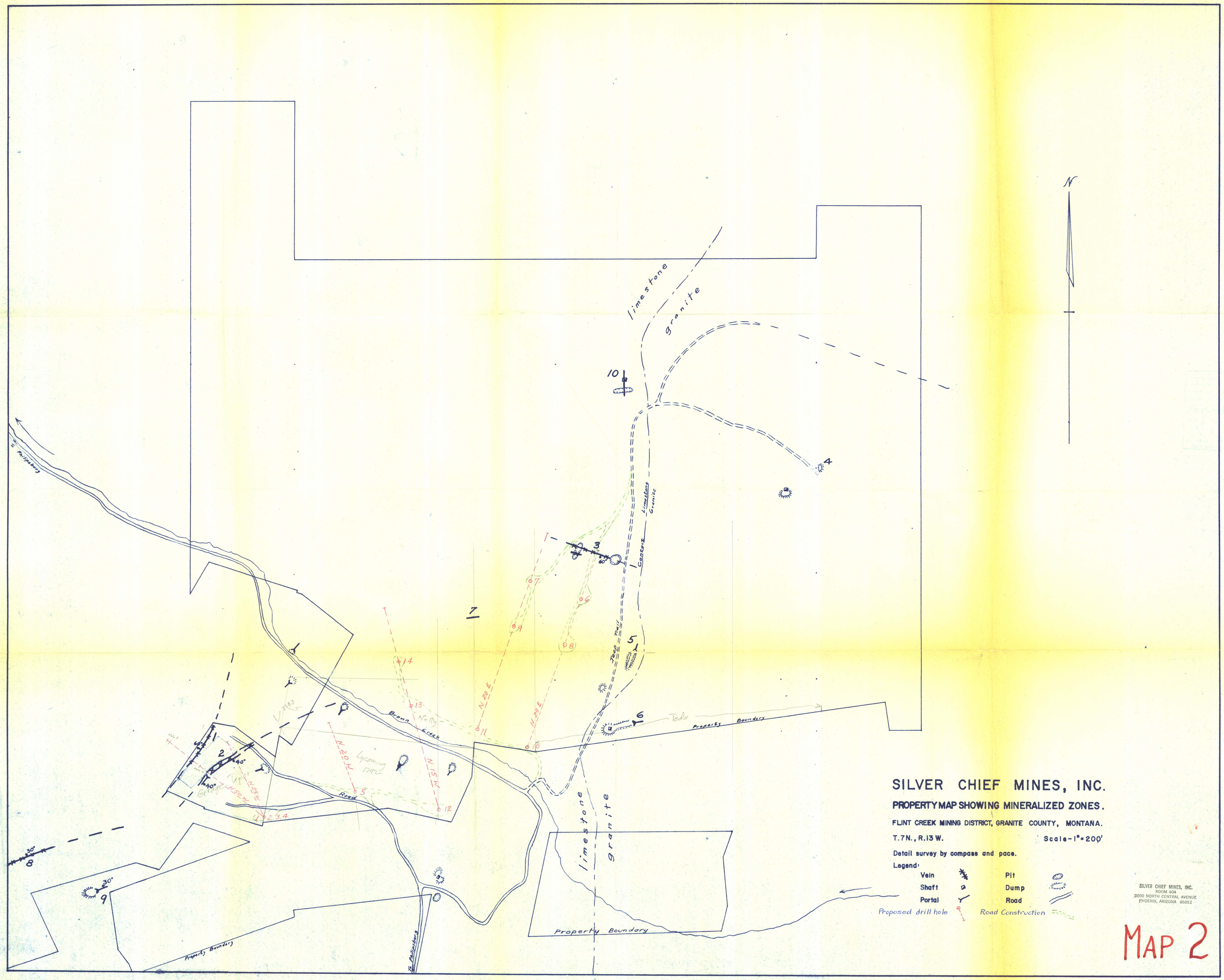
T. 7 N., R. 13 W.

GRANITE COUNTY, MONTANA

SILVER CHIEF MINES, INC.
ROOM 404
3800 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012

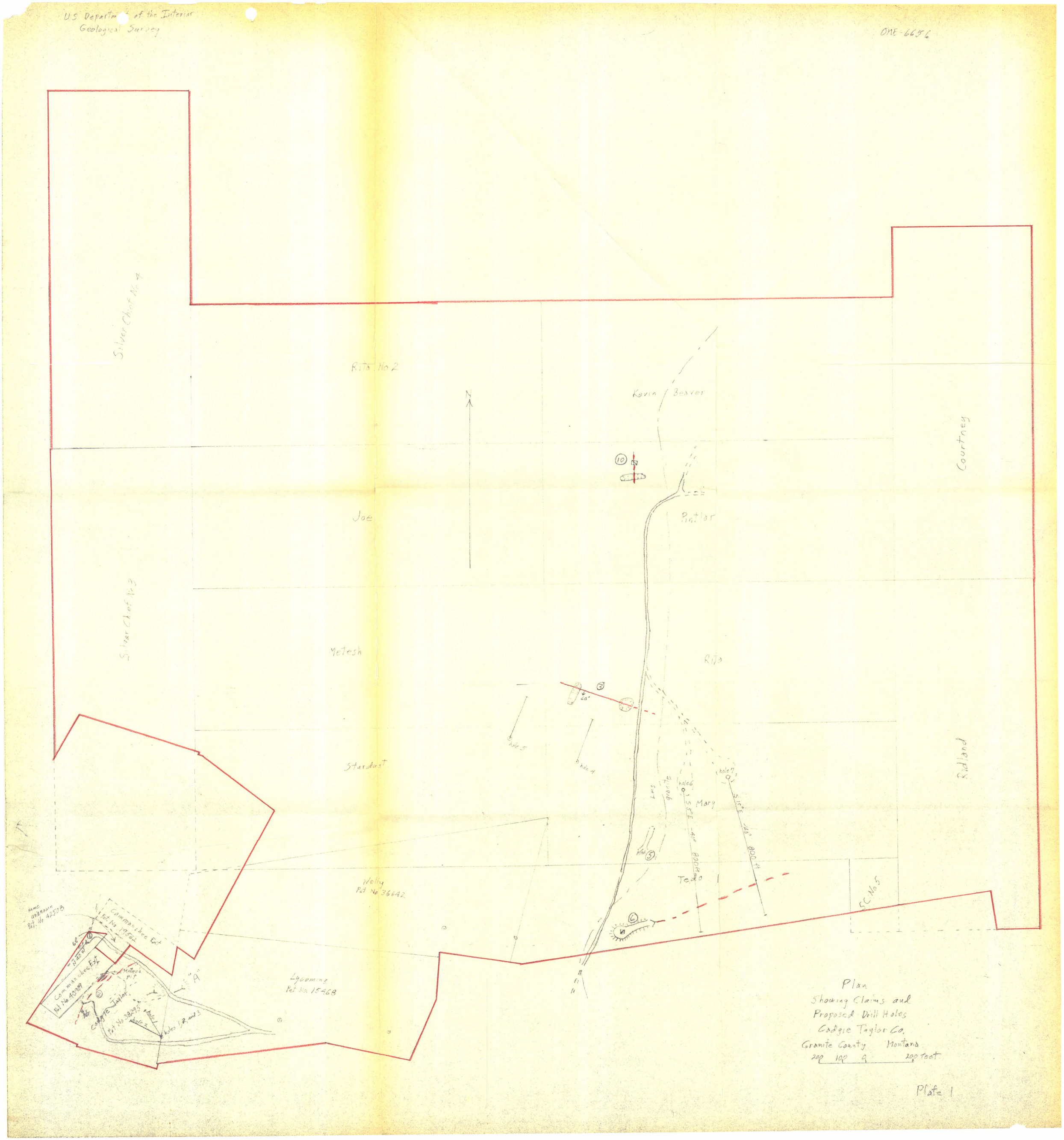
REV. 6/19/67

274-01-01


N
limestone
granite
Contact
Limestone
Granite
Tad = Trail
Tado
Property Boundary
Brown Creek
Road
Lycoming 1792
N 20 E
N 20 E
N 20 W
N 15 W
N 25 W
N 30 W
To Philipsburg
To Philipsburg
Property Boundary
Property Boundary
limestone
granite
1
2
3
4
5
6
7
8
9
10
11
12
13
14
SILVER CHIEF MINES, INC.
PROPERTY MAP SHOWING MINERALIZED ZONES.
FLINT CREEK MINING DISTRICT, GRANITE COUNTY, MONTANA.
T.7N., R.13W.
Scale-1"=200'
Detail survey by compass and pace.
Legend:
Vein
Pit
Shaft
Dump
Portal
Road
Proposed drill hole
Road Construction
SILVER CHIEF MINES, INC.
ROOM 404
3800 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012
MAP 2

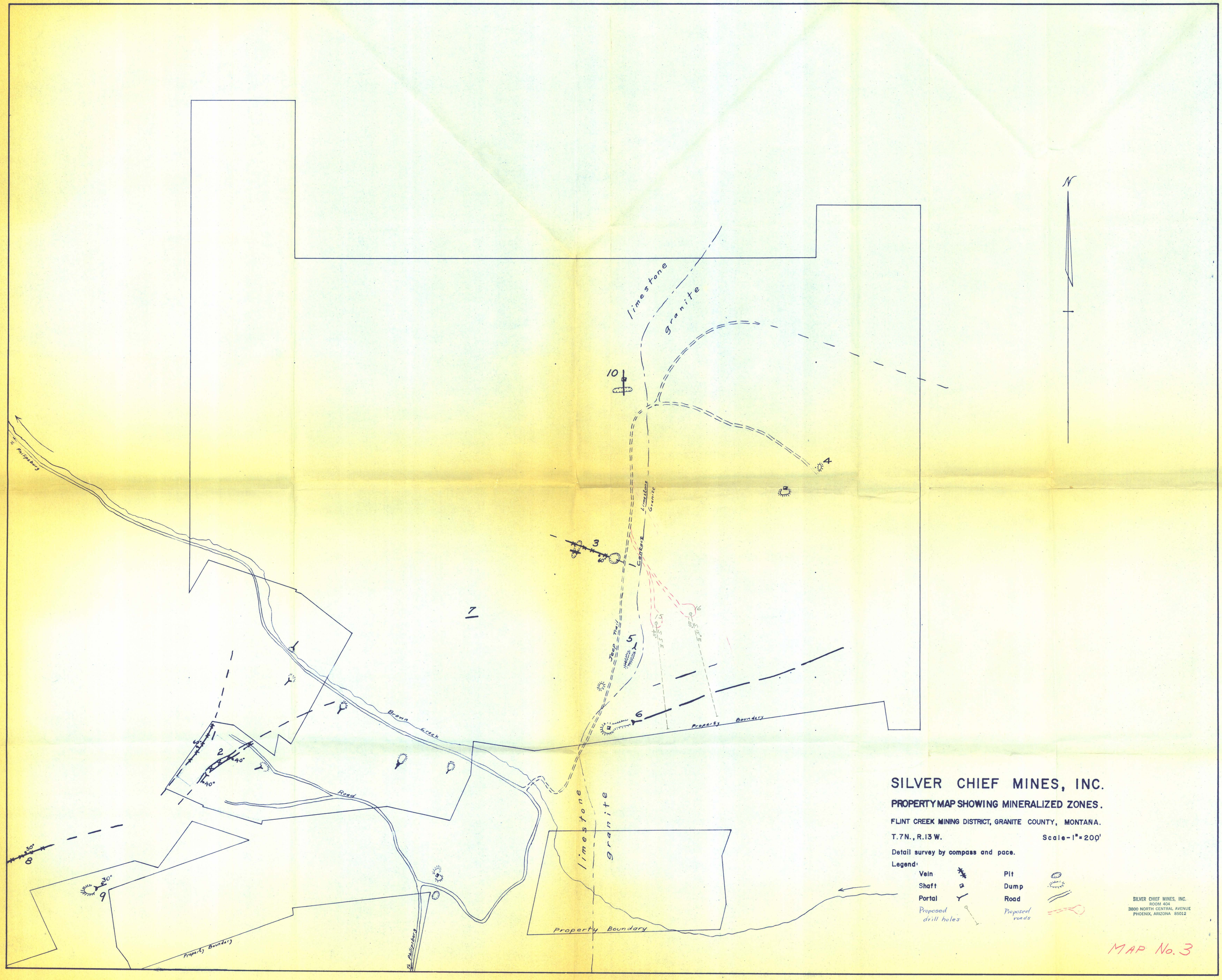
U.S. Department of the Interior
Geological Survey

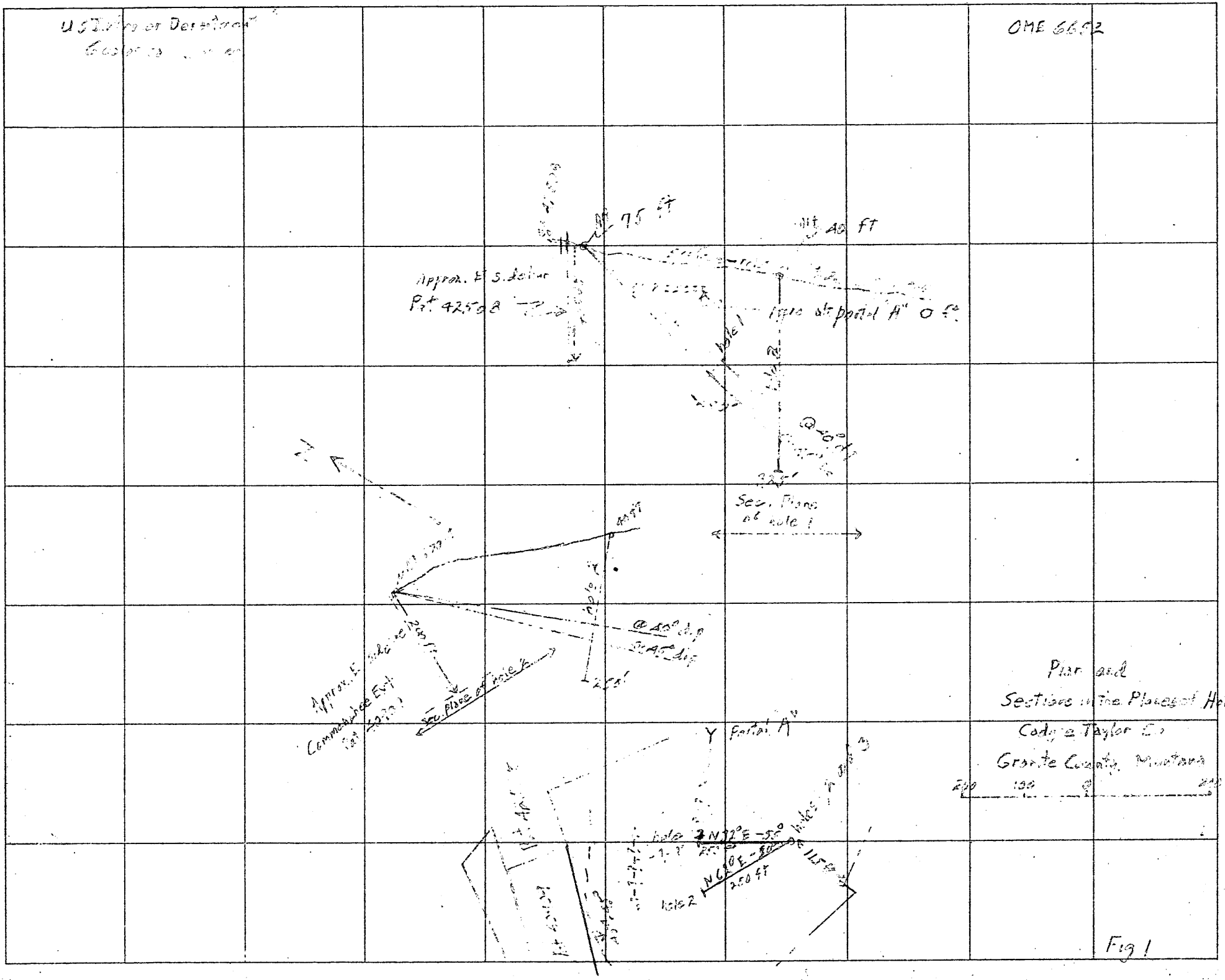
OME-6656



Plan
Showing Claims and
Proposed Drill Holes
Cadgie Taylor Co.
Granite County Montana
200 100 0 200 feet

Plate 1

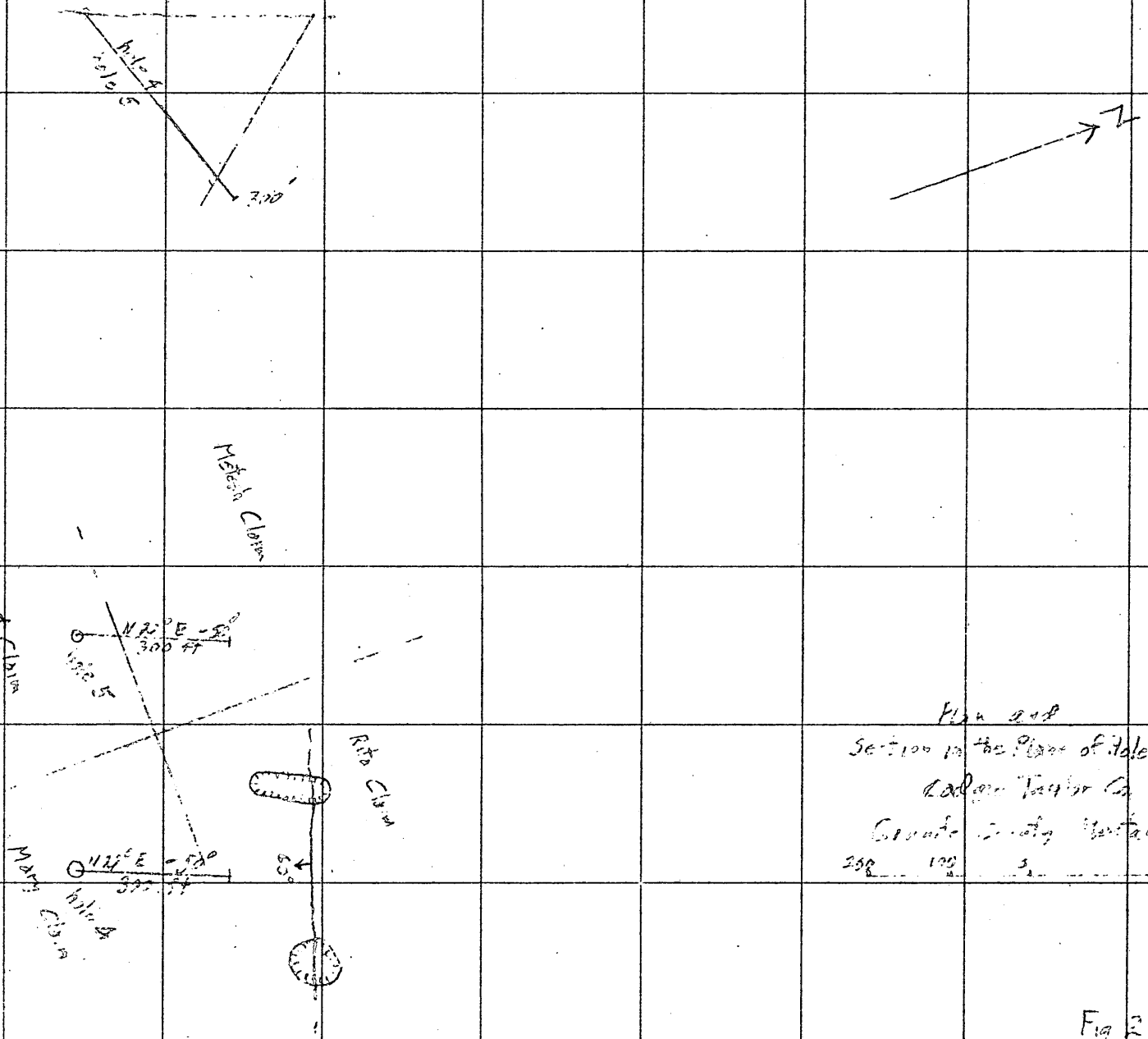

N
limestone
granite
10
4
3
1
Contact
Limestone
Granite
7
5
Jeep Trail
6
Property Boundary
Brown Creek
2
40°
Road
limestone
granite
8
30°
9
Property Boundary
To Philipsburg
To Philipsburg
SILVER CHIEF MINES, INC.
PROPERTY MAP SHOWING MINERALIZED ZONES.
FLINT CREEK MINING DISTRICT, GRANITE COUNTY, MONTANA.
T.7N., R.13 W.
Scale-1"=200'
Detail survey by compass and pace.
Legend:
Vein
Shaft
Portal
Proposed drill holes
Pit
Dump
Road
Proposed roads
SILVER CHIEF MINES, INC.
ROOM 404
3800 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012
MAP No. 3



J. A. Gendron Co., Spokane
K+E ALBANENE 198M TRACING PAPER 62943

U.S. Interior Department
Geological Survey

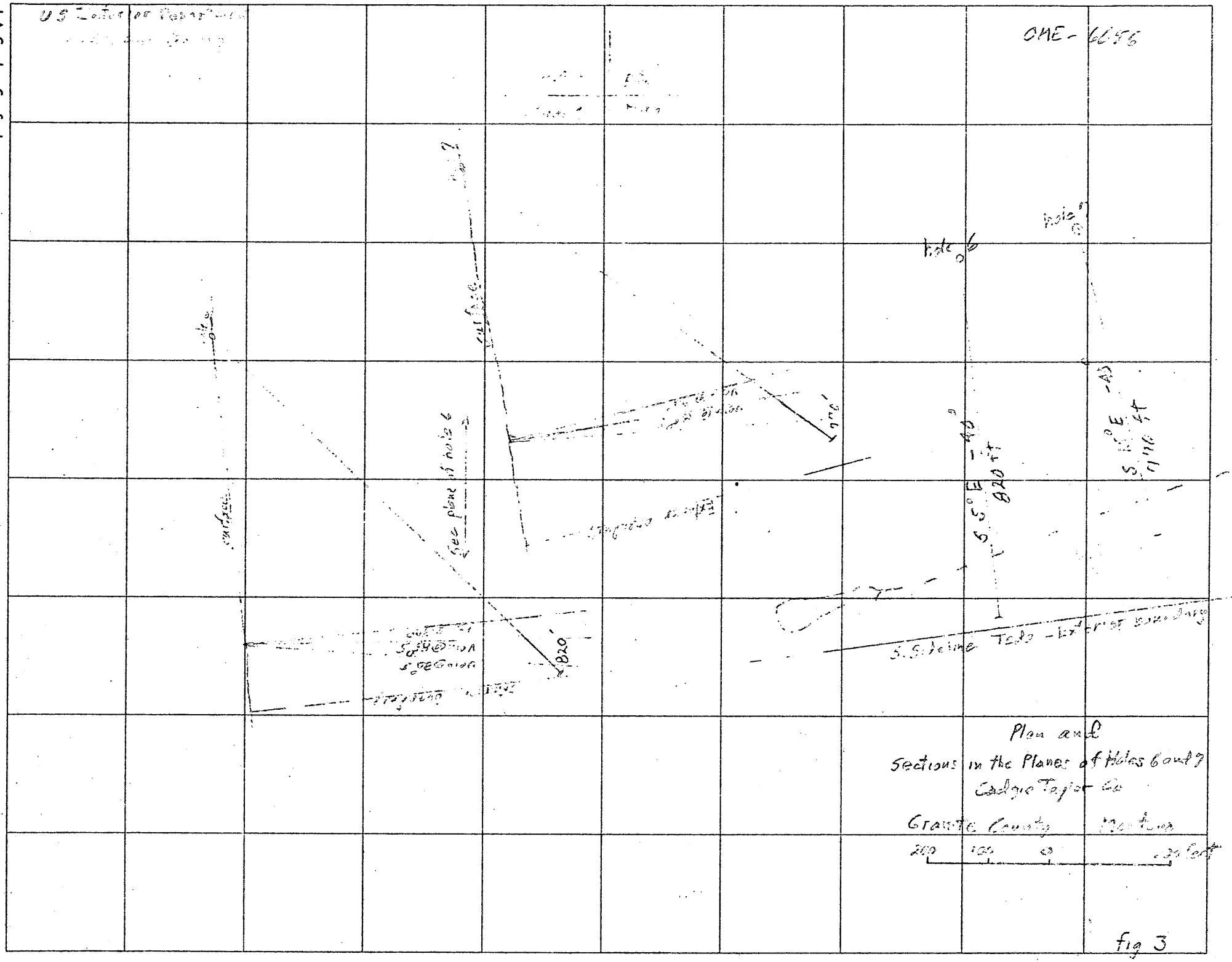
OME-6652



Plan and
Section in the Plane of Holes
Golden Taylor Co.
Granite County Montana
Scale 100 ft. Report

Fig 2

K+E ALBANENE 100M TRACING PAPER
J. A. Gendron Co., Spokane



J. A. Gendron Co., Spokane
K+E ALBANENE 195M TRACING PAPER 62943

Docket

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
GEOLOGICAL SURVEY
U. S. Court House, Rm. 656
W. 920 Riverside Avenue
Spokane, Washington 99201
January 18, 1968

Dispatched
JAN 19 1968

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region I

Subject: Application Examination Report
CME-6652 (Silver)
Cadgie Taylor Co.
(Formerly Silver Chief Mines, Inc.)
Silver Chief (Cadgie Taylor) Property
Granite County, Montana

LOCATION AND PROPERTY

The claims are located in secs. 17, 18, 19, and 20, T. 7 N., R. 13 W. P.M., Flint Creek Mining District, Granite County, Montana. The applicant lists 7 patented and 16 unpatented claims in 2 groups and 1 isolated patented claim. All the proposed work is in one of the groups comprising the following (pl. 1):

Patented Claims

Name	Mineral Survey No.	Patent No.	Patent date
Commanchee Ext.	5797	40909	4/19/1905
Cadgie Taylor	6180	38293	3/18/1904
Lycoming	1792	15468	1/ 4/1890
Nelly	6178	36642	5/15/1903

See Maps in folder

Unpatented Claims

Name	Book	Page
Silver Chief No. 3	24	564
Silver Chief No. 4	24	563
Rita	24	571
Rita No. 2	24	574
Joe	24	575
Metesh	24	573
Stardust	24	565
Kevin Beaver	24	572
Pintlar	24	570
Mary	24	569
Todo	24	566
Courtney	24	609
Ridland	24	610
S.C. No. 5	24	611

These locations are filed at the Granite County Courthouse, Philipsburg, Montana. The applicant owns all the claims but one. He controls Commanchee Ext. (MS 5797, Pat. 40909) by virtue of a lease which reserves to the owner all mineral rights to a depth of 200 feet below the surface.

Patent numbers and dates were furnished by the Billings office of BLM who also furnished a copy of the survey plat. The plat shows an odd-shaped claim at the northeast end of Commanchee Ext., MS 5797. It appears on the BLM plat without a name but is identified by Patent No. 42508. Apparently, the applicant was unaware of this when he colored the exterior boundary of this claim group. This boundary has been corrected in plate 1.

Parts of unpatented Silver Chief No. 3, Ridland, and S.C. No. 5 are in conflict with patented claims. If it should be necessary to drop these three claims, no harm will result as none of the proposed work will be done on them.

GEOLOGIC SUMMARY

Sedimentary rocks in the Philipsburg area, mostly Cambrian through Devonian in age, have been folded into a broad anticline that plunges toward the north. The easterly limb of the anticline is cut off by a granitic intrusive of Tertiary age. On the applicant's claims only Jefferson limestone of Devonian age and granite are exposed at the surface.

Deposits of silver-bearing ore have formed in silicified zones that follow certain beds in the limestone and along steeply dipping quartz veins that cut across the bedding. There is some evidence to suggest that the bedding veins may pass into steeply dipping veins at depth.

In the sedimentary rocks there are two sets of steeply dipping quartz veins, one striking west and the other striking northwest. In the northern part of the district the west-striking veins dip steeply to the south; the northwest veins dip 50°-70° SW.

Most steeply dipping veins in the granite strike about east and dip south, but their strike is more apt to vary than that of the veins in sedimentary rocks.

Quartz is the most common mineral and in some veins it is frequently the only one that is readily identified. Other fairly common gangue minerals are rhodochrosite, barite, and mica. The most abundant sulfide is sphalerite followed by galena, pyrite, tennantite, chalcopyrite, ruby silver and enargite (Prinz, 1967; Cole, 1949; Emmons and Calkins, 1913).

OME EXAMINATION

The applicant's Map 2 indicates the locations of 10 showings. During the examination, made September 30, 1967, in the company of C. C. Ridland, President, Joe Metesh, and Donald H. Jardine, Vice-Presidents, all showings except 4, 7, 8, and 9 were visited.

The first stop was at showing 2. A shallow drift was driven along a silicified bedding zone, but was accessible for only about 20 feet. Below the level there is an old stope now full of debris; apparently, the bed had been stoped from one of several tunnels, most of them inaccessible, whose dumps are 50-100 feet down hill (to the east). The hanging wall was sharp but irregular and in places was brecciated; the footwall was gradational. As nearly as I could tell, the vein strikes N. 15°-20° E. and dips 45° SE., but the irregularity of the walls made the determination difficult. The applicant says the strike is N. 75° E., but this is definitely in error. For about 150 feet northeasterly from the adit the ground has been partly bulldozed exposing the continuation of the bedding deposit or possibly a footwall replacement therefrom. Last season Metesh shipped from the bulldozed area 58.07 dry tons to Anaconda; settlement was based on an assay of 14.8 ounces silver per ton and 0.11 percent copper. The only sulfides that the examiner could find were very small bits of a silvery metallic mineral, probably stibnite. A composite chip and grab sample taken by the Field Officer, representing a width of 14-15 feet assayed 8.1 ounces silver per ton, Nil lead, Tr zinc, and Tr copper.

Leaving showing 2, showing 1 was visited. This is a tunnel said to have been driven 150 feet into the hillside by Joe Metesh during the period 1959-1966. From this adit 8,013 tons of ore having an average grade of 8.2 ounces silver per ton have been shipped. The applicant describes this structure as a shear zone cutting across, rather than conforming with, the bedding. Admittedly, the examiner could not with certainty recognize any bedding other than the "shear zone" and is of the opinion that this mineralization is along a westerly dipping bedding plane. This interpretation is based on the following:

1. In a plunging anticline the strikes of beds on the east limb will tend to converge northerly with those on the west limb. In this case, the east limb beds strike N. 15°-20° E. and the structure at showing 1 strikes N. 35°-40° E. Dips on the east limb range from 30°-55° E.; those on the west limb range from 45°-70° W. (Prinz, 1967, p. 12). Dips observed by the Field Officer are 45° E. at showing 2 and 60° W. at showing 1; each within the limits noted by Prinz.

2. On his section through holes 1, 2, and 3, the applicant indicates "possible anticlinal structures" between zones 1 and 2, indicating that he also has some doubts that the vein mined from the adit at showing 1 cuts across the bedding. The beds projected northerly on plate 1 appear to diverge, but this is because the ground slope in that direction is steeper than the anticlinal plunge.

The next stop was at a tunnel below the road and indicated by "A" on plate 1. The applicant, after preparing his application, found that by a little mucking he could reopen the adit portal and that one or two small cave-ins could be crossed. The tunnel starts in a southwesterly direction, swinging westerly. At about 250 feet is a drift, partly caved, from which at least 3 stopes had been mined, 1 of them possibly to the old stope below the tunnel at showing 1. It is equally possible that the stopes were cut on parallel bedding plane veins stratigraphically above the one at showing 1. A survey carrying vertical distances would be necessary to determine the true relations. There is no record of the tonnage and grade taken from the lower workings.

At showing 10 is an old shaft said to be 18 feet deep and exposing a mineralized zone in limestone. The shaft was caved and covered over so that a structure said to strike N. 10° E. and dip steeply to the east was not seen. On the dump a few quartz fragments with a few very small bits of unidentifiable sulfide minerals were seen. A few tens of feet southerly from the shaft a shallow pit, sloughed, and somewhat overgrown by bushes exposed an apparent quartz zone, but whether it was in place or represented float was not clear; no sulfide minerals were noted.

At showing 3, two trenches, with heavy quartz float between and beyond them, expose a quartz zone up to 45 or 50 feet wide that strikes N. 60°-70° W. and dips 60° SW. The quartz in the westernmost trench contains black, brown, and yellow oxides. The same oxides with a few blebs of a greenish oxide mineral were also seen near the easternmost trench in an outcrop just above the road. The applicant reports a grab sample taken across a fresh face 10 feet wide that assayed 5.60 ounces silver per ton. The examiner took a chip sample of scattered quartz across a width of 28 feet wide in and about the westernmost cut; it assayed 0.7 ounce silver per ton, Nil lead, Nil zinc, and Tr copper.

Showing 5 is an old trench now so overgrown by brush and so badly sloughed that it cannot be followed. However, at its southerly end there is a pile of rocks, mostly marble and some quartz. The rocks are more iron- and manganese-stained than any seen elsewhere on the property and contained pyrite in notable amounts. Whether they came from the trench or from a reported tunnel collared at the north end is not known; neither is the length and bearing of any such tunnel known. No granite was seen in the pile so it can only be assumed that the tunnel parallels the nearby granite contact. Whether it was driven as far as the vein seen at showing 3 is speculative and doubtful as the muck pile is too small to suggest the necessary length of about 450 feet. A grab sample taken by the applicant, which he considers representative, assayed 11.4 ounces silver per ton.

Showing 6 is a dump about a caved shaft in granite. The dump also extends easterly about 100 feet where it ends in an old adit portal now caved tight. The dump comprised mostly granite with some quartz; pieces of both were stained by iron oxides and many small pyrite crystals were seen. A grab sample from the dump taken by the applicant assayed 1.8 ounces silver per ton.

POSSIBLE EXPLORATION

There are three showings that might be worth consideration as possible areas for exploration. They are: (1) the easterly dipping bedding vein seen at showing 2 and in tunnel "A;" (2) the steeply dipping quartz zone at showing 3; (3) the vein that was followed by the caved adit and shaft at showing 5.

(1) This area appears to be the most promising one but may have to be ruled out because of a possible extralateral rights conflict. Plate 1 and figure 1, traced from the applicant's Map 2 but corrected to include an unnamed Claim Pat. No. 42508, show the relationship between the easterly dipping bedding vein, the easterly side lines of Comanchee Ext. (Pat. No. 40909) and the unnamed claim (Pat. No. 42508), a location for three drill holes not less than

100 feet from an exterior boundary, and the estimated position of the crosscut and drift from the portal at "A." It is of necessity assumed that the applicant's claim boundary (Pat. No. 40909) and the trace of the vein are reasonably accurate.

In the sections on figure 1 the altitudes of the vein outcrop, the collars of the drill holes and portal "A" are estimates, believed to be correct within 20 feet. There appears to be very little, if any, chance that the easterly dipping bedding vein apexes on the unnamed claim (Pat. No. 42508), but there is a chance that it might apex on Commanchee Ext. (Pat. No. 40909). The latter possibility was discussed with Al Martin in the Spokane office of the BLM. Although he is not a qualified legal authority, he is of the opinion that even though the apex were on the Commanchee Ext. claim, by the terms of the lease the claim owner has no rights, extralateral or otherwise, below a horizontal plane 200 feet beneath the surface.

A final decision as to the acceptability of holes 1, 2, and 3 as located on figure 1 should be left to legal interpretation. The hole attitudes and targets will be described under recommendations.

(2) This is a typical northwesterly striking quartz vein, dipping steeply to the southwest and cutting across the bedding. No fresh sulfide minerals were seen, but the brown, yellow, and green oxides suggest the former presence of iron and copper sulfides; and the black oxides suggest the presence of manganese and possibly iron sulfide. Where seen, the oxides were generally not very abundant, but much of the vein is covered by soil mantle; there could be other more promising areas.

(3) The vein from which came the oxide-stained and pyrite-bearing quartz and granite seen on the dump was not exposed at the caved tunnel portal. The length of the tunnel and the backs it might have developed are not known, nor is the depth of the shaft. From the present size of the dump the tunnel is probably not much more than 200 to 300 feet long and the shaft is probably less than 50 feet deep. However, some of the dump could have been washed away during the years since the openings were made. If any shipping grade pockets were found, they could have been mined and shipped. There simply are no shipping or other records that can be identified with these workings.

The applicant, in a letter dated October 6, 1967 (a week after the examination) states " * * * we now have traced the granite-enclosed, No. 6 zone, intermittently, over a length of 2,400 feet, which indicates it may be a fracture of economic importance." He then compares its length and poor surface showing with that of the Granite-Bimetallic vein, pointing out that in the latter "surface features, such as width, alteration, silicification, and mineral content,

were all discouraging, and it was not economically important until a depth of 100 to 200 feet was reached * * *." On this basis he proposes diamond drilling two holes, each to a depth of 800 feet. These would cut the vein at a depth of about 400 feet at intercepts 300 feet apart. The applicant's Map 3 traces the vein uphill toward the east, indicating a steeply south to vertical dip which conforms to the attitude of other steep-dipping quartz veins in the granite which range from vertical to 80° S. However, on his section he shows the vein as steeply dipping to the north or vertical. If the dip is to the south, the proposed holes could cut the vein within 100 feet of an exterior boundary.

CONCLUSIONS

It is concluded that the chance of making a significant discovery in the area of the applicant's showing 2 is a bit better than fair. On the basis of present showings and available data it is concluded that the chance of making a significant discovery at his showing 3 is only fair and at showing 6 is about the same.

RECOMMENDATIONS

Depending on the legal interpretation of the applicant's rights to the easterly dipping bedding vein at his showing2 and with the concurrence of Bill Prinz who is more familiar with the area than I am, the following program is recommended for further consideration.

1. From a drill site approximately along the easterly side line of the Cadgie Taylor claim about 110 feet northerly from the junction of this side line with the southern side line of the Lycoming claim, drill hole 1, EWWL size core (1-5/8 inch I.D.) bearing approximately N. 32° E. at -55° to a depth of 250 feet. This hole is designed to cut the easterly dipping bedding vein about 100 feet east of Metesh's pit and about 325 feet down dip from the pit, or 300 feet down dip from the outcrop projected to the plane of the hole, and 180 to 200 feet down dip from the workings from the portal at "A" (fig. 1).

2. From the same drill site, drill hole 2 bearing approximately N. 62° E. at -50° to a depth of 250 feet. This hole is designed to cut the same bedding vein about 100 feet southeast of hole 1 and about 340 feet down dip (220 feet vertically) from near the portal at showing 1, and about 120 feet down dip from the workings from portal "A" (fig. 1).

3. If either hole 1 or hole 2 cut a zone of significant width and mineral content, from the same drill site, drill hole 3 vertically to a depth of 325 feet. This hole is designed to explore the significant showings found in holes 1 and/or 2 at a further depth of 130 to 150 feet (fig. 1).

4. From a drill site about 200 feet S. 40° E. of the corner common to Metesh, Rita, Mary, and Stardust claims, drill hole 4 bearing approximately N. 22° E. at -50° to a depth of 300 feet. This hole is designed to explore the mineralized quartz zone at showing 3 at a dip depth of about 230 feet (fig. 2). This is recognized as a fairly long-shot recommendation based on the black, brown, yellow, and green oxide stains seen at places on the surface and the applicant's cut sample that assayed 5.6 ounces silver over a width of 10 feet. Actually this hole is not very far from being classed as prospecting.

5. Only if hole 4 cuts a zone of significant width and mineral content, from a drill site approximately 160 feet S. 70° W. of the corner common to the claims cited in item 4, drill hole 5 bearing approximately N. 22° E. at -50° to a depth of 300 feet (fig. 2). This hole is designed to explore about 300 feet northwesterly the showing in hole 4.

6. From a drill site about 650 feet S. 65° E. of the common corner mentioned in item 4, drill hole 6 bearing S. 5° E. at -40° to a depth of 820 feet. If the dip does not exceed 65° S., the vein will not cross an exterior boundary until a vertical depth of about 1,100 feet has been reached. If the average dip is 85° S., the vein will cross an exterior boundary at a depth of about 625 feet or about 90 feet vertically below the hole intersection. It is therefore recommended that in this case the specification that the Government will not contribute to the cost of any work done within 100 feet of an exterior boundary be waived (fig. 3).

7. If hole 6 cuts a zone of significant width and mineral content, from a drill site about 200 feet N. 75° E. of site 6, drill hole 7 bearing S. 15° E. at -40° to a depth of 770 feet (fig. 3). Waiving of the "not within 100 feet" requirement is recommended in this case also.

DISCUSSION

These recommendations are made "for further consideration" because of some of the questions that depend upon administrative determination.

1. The extralateral rights question may affect the acceptability of holes 1, 2, and 3. If these three holes need not be excluded on that ground they are recommended.

2. The rather weak evidence on which holes 4 and 5 are based might place their drilling too far into the category of prospecting. If they are not considered to be prospecting, their drilling is recommended, with hole 5 depending upon the results of hole 4.

3. If holes 6 and 7 may not be completed within 100 feet of an exterior boundary, it is possible that they might not reach the vein and therefore would have no target to justify their drilling. If they can be drilled to completion even though their toes may fall within this distance, their drilling is recommended, with hole 7 depending upon the results of hole 6.

COSTS

Approximately 70 feet of access road will be required to reach the site of holes 1, 2, and 3; 400 feet to the site of hole 4; 350 feet to the site of hole 5; 550 feet to the site of hole 6; and 350 feet to the site of hole 7; total access road required, 1,720, say 1,750 feet. Slopes are moderately steep and thickly timbered, an average advance of only 100 feet per hour is not unreasonable; estimated time required, 17.5 hours. An average of 4 hours each for the preparation of drill sites or 20 hours should suffice. Estimated time required to bulldoze access trails and drill sites, 37.5 say 40 hours. Snow removal will require an additional 24 hours. Total dozer time 64 hours.

Drilling should be started with not less than BWL or equivalent size, but provision should be made to reduce this to AXWL or equivalent should it become necessary, particularly in holes 6 and 7. Analysis of three bids submitted indicates that Boyles Brothers' bid totals only 86 percent of the totals of the bids submitted by Joy and Longyear, and will be used in this cost estimate. One or two confusing items in the bid were clarified by a discussion with E. O. Tucker, Boyles' District Manager.

Holes 1 through 5 should be surveyed when completed; hole 6 and 7 should be surveyed at 400 feet and when completed.

REFERENCES

Prinz, W. C., 1967, Geology and ore deposits of the Philipsburg district, Granite County, Montana: U. S. Geol. Survey Bull. 1237, 66 p.

Cole, J. W., 1949, Core-drill testing for base-metal mineralization below the Hope silver mine, Granite County, Montana: U. S. Bur. Mines Rept. Inv. 4399, 9 p.

Emmons, W. H., and Calkins, F. C., 1913, Geology and ore deposits of the Philipsburg quadrangle, Montana: U. S. Geol. Survey Prof. Paper 78, 271 p.

US Department of the Interior
Geological Survey

OME-6656

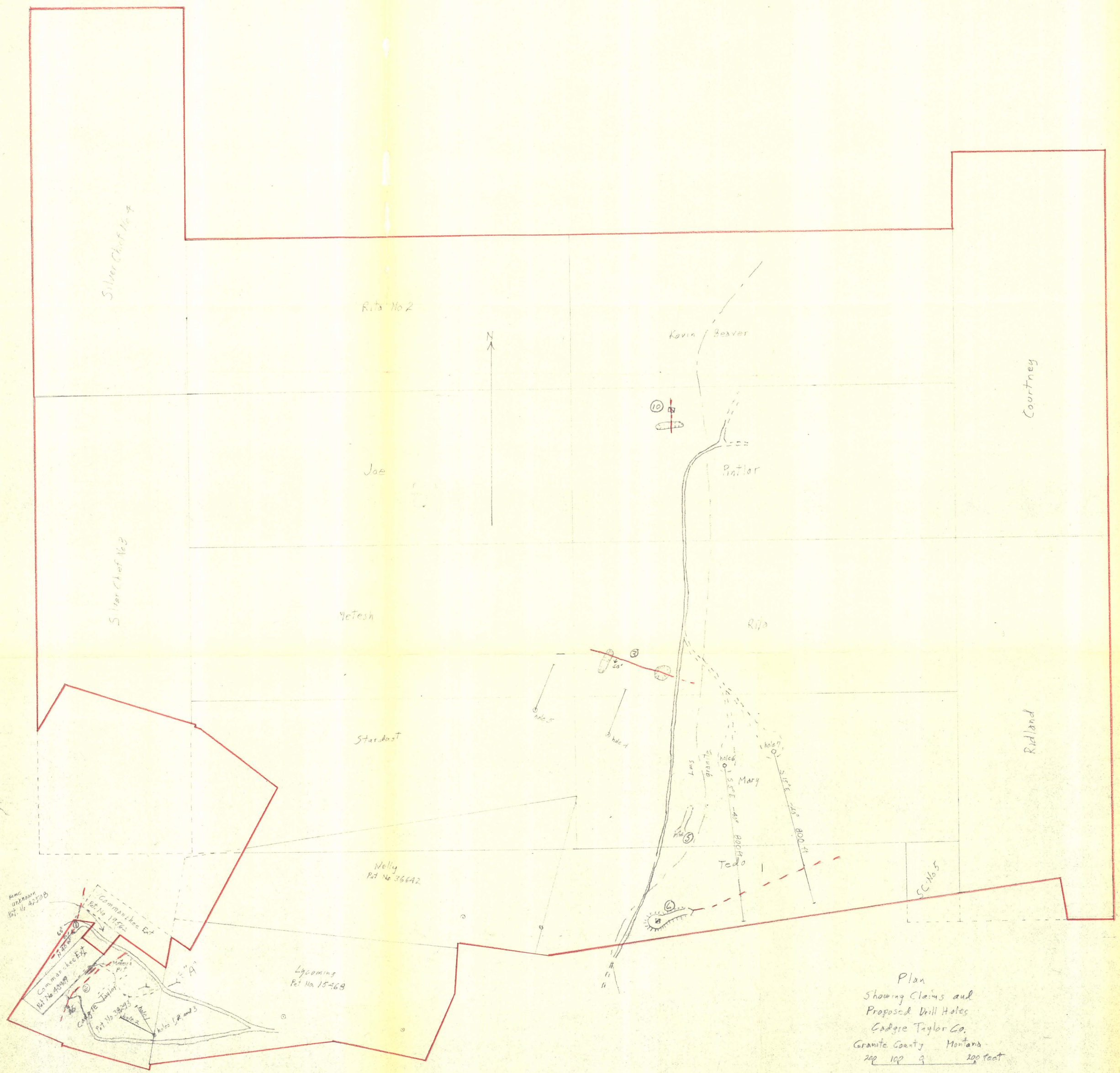


Plate 1

Maps w/ appln. & fin. rept.