



## **CONTACT INFORMATION**

Mining Records Curator  
Arizona Geological Survey  
1520 West Adams St.  
Phoenix, AZ 85007  
602-771-1601  
<http://www.azgs.az.gov>  
[inquiries@azgs.az.gov](mailto:inquiries@azgs.az.gov)

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ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: SIDEWHEEL MINE

ALTERNATE NAMES:  
RATTLING BOY  
LA FORTUNA  
BIG PEDRO  
LITTLE PEDRO

COCHISE COUNTY MILS NUMBER: 202

LOCATION: TOWNSHIP 20 S RANGE 22 E SECTION 23 QUARTER NE  
LATITUDE: N 31DEG 41MIN 03SEC LONGITUDE: W 110DEG 04MIN 40SEC  
TOPO MAP NAME: TOMBSTONE - 7.5 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:  
MANGANESE  
SILVER

BIBLIOGRAPHY:  
ADMMR SIDEWHEEL MINE FILE  
AZBM BULL. 187, P. 78  
USBM RI 5188, P. 30  
USBM IC 7990, P. 30  
ADMMR PIEDRAS DEL SOL MINING CO. FILE  
SEE ADMMR AZ MATERIALS & SERVICE CO FILE

SIDEWHEEL

COCHISE COUNTY  
TOMBSTONE DISTRICT  
T20S R22E Sec 23 NE

MILS Cochise Index # 202

File also includes information on the Rattling Boy, Silver Plume,  
Emerald, and Waubun

IC 7990, p. 30

ABM Bull. 187, p. 78

USBM RI 5188, p. 30

File also contains information on the Honeycomb (noneycomb) Mine

Side wheel file Portion of comp / 1984 annual report.

MSB  
an



**HABER**

## President's Letter to Shareholders

ARIZONA DEPT. OF MINES & MINERAL RESOURCES  
STATE OFFICE BUILDING  
416 W. CONGRESS, ROOM 161  
TUCSON, ARIZONA 85701

Dear Shareholders:

With the passage of the past year we have taken some rather dramatic forward steps in our Company and growth. At this time, I'd like to briefly review these activities with you.

Since the January (1984) announcement of our new gold extraction process, we have received more than 1,000 inquiries and sample 'problem ores' from gold mining interests throughout the world. This has provided us with an exceptional opportunity to broaden our understanding of the existing needs, as well as to extend our gold geochemistry by working with a diverse variety of 'problem ores' in the industry. Today we stand strong as, should I say, the world leader? I don't know of any other group anywhere that has, can, or is doing what we now have in geotechnology.

Many people, including some shareholders, have wondered how falling gold prices affect our Company's gold technology. The pressure of production costs, as gold prices fall, intensifies the need for alternative and more efficient and lower cost technology.

Therefore, we stand out as a geotechnology resource and can benefit directly from the attention given to gold production cost problems. Of course, when prices rise, this increases the value of our reserves and potential revenues.

The gold industry has large investments in its established methods, and costly equipment for its technologies. All this leads to an apparent skepticism and reluctance for easy adoption of new ways and new ideas. Therefore, the demonstrations of large scale, i.e. pilot processing with the Haber Gold Process becomes a vital goal for us at this time. At this writing, the completion of preparations for our pilot scale extraction of gold is well underway. We are confident that the successful demonstration of our new geochemical methods will do much to win additional levels of productive attention.

Since the gold announcement, we have added substantial reserve assets to the Company with several gold ventures. Our working policy has been to barter the use of our gold-geochemistry 'know-how' in exchange for a substantial position in mineral reserve properties. The importance and the special quality of our geotechnology is evidenced by the fact that the operators for these properties have seen fit to engage in this business with us. Of course, gold ores from these properties will be among the first to be processed in bulk during our forthcoming pilot tests of the Haber Gold Process. This shall prelude scale-up to actual gold production utilizing our proprietary technology.

Not least in importance in our recent geochemistry endeavors has been the pilot scale-up of our 'Alpha Process' for manganese-bearing silver ores. This was successfully completed at our Silver Tech mine site at Tombstone, Arizona this past August, about two months ahead of schedule. We, at Haber have felt all along that the success of this pilot scale-up was not a matter of *if* it will work,



but only *when*. The tests were refereed by Professor Quintos Fernando and analytical personnel at the University of Arizona.

Consequent to this, the Company has received preliminary approval to issue up to six million dollars in industrial revenue bonds by an authority of the State of Arizona to build a working silver-manganese plant for utilizing the Alpha Process. We are currently endeavoring to arrange for this financing. In addition, a larger scale pilot of silver and silver-manganese ores from Silver Tech is being completed by us for operation in the very near term. We do believe that we have been putting the right pieces together properly and that our growth continues to be strong.

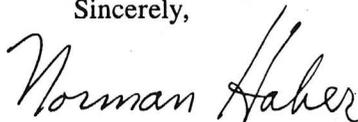
Other issues of our progress concerns ongoing work with our Electromolecular Propulsion (EMP) technology. Foremost, we have advanced our EMP methods for human protein analysis to a high degree of perfection. This achievement is, I dare say, all the more remarkable when one considers it the attainment, by dogged determination and devotion to pioneering work, of our EMP biochemical expert, Dr. Leslie Oppenheimer. The scientific application of EMP to lipoprotein analysis is for both the clinical diagnostics field and cardiovascular field. We have almost completed the 'software' programming for these applications. Along with this, we have produced three different levels of prototype EMP instruments for use with these tests. These devices range from a portable pocket-sized instrument for field use, to larger laboratory bench scale devices for performing larger numbers of clinical tests. Market indications for the lipoprotein test application appear to be significant in both quantity and sales potential, as well as societal need, given our rampant cardiovascular related disease and mortality rate.

We have also concluded the first phase study using EMP for the isolation and detection of aflatoxins in foods. This is part of a joint effort between the Company and Biotech, a genetic engineering firm in Maryland. Funding for this study is by the Public Health Service. The aflatoxins are a number of mold produced toxins which infest grain, nut, and milk products. They are carcinogenic; that is they cause cancer, and are dangerous, even in extremely minute amounts, when they occur in food products. Using EMP, we have developed a specific 'EMP software' and have demonstrated the feasibility to extract and detect these unique poisons from foods in less than two minutes. If funding continuance is forthcoming from the Federal agency, we plan to complete these developments to practical commercial devices.

As of November, 1984, we successfully concluded a \$3½ million public financing. This enables us to move forward with our overall development with a greater sense of freedom. The unit sold consists of one share of preferred (10% interest) stock, convertible to common stock at \$16.75 per share. Each unit also includes one warrant to purchase another share of common stock (until November 25, 1985) for \$15.00 a share, which, if exercised, provides another warrant to purchase one share of common stock for \$18.50 until November 26, 1986.

It is my hope that the information and material contained herein shall be read with interest and may add to your understanding of the diverse activities of our Company. Finally, I wish to thank our faithful shareholders whose support, friendship, and confidence definitely has and continues to contribute to our forward movement and growth.

Sincerely,



Norman Haber  
President

## BUSINESS

The Company is in the business of developing advanced chemical and electrochemical process technologies for separations, extractions and purifications and capitalizing upon these technologies commercially through joint ventures or subsidiaries. The Company believes it has developed a significant advance in gold recovery technology, the Haber Gold Process, and the first economical method for extracting silver from manganese bearing ores, the Alpha Process. The Alpha Process has been successfully tested in a pilot facility in Arizona and the Haber Gold Process and various of its other technologies have been successfully applied in large scale laboratory tests.

The Company owns the fundamental patent, that is, the first patent to issue, for a process called ElectroMolecular Propulsion ("EMP"), which it believes has broad applications in the chemical, biomedical and electronic fields. Management believes that the Company, through its majority-held subsidiary, Life Signs, Inc., has made substantial progress in developing commercial applications of its EMP technology for lipoprotein blood analyzers, and other related instruments, to be used in diagnosing the risk of cardiovascular disease. EMP is also being applied to the isolation and purification of rare earth compounds and instruments to detect the presence of aflatoxins, a cancer-causing agent, in foodstuffs. Management also believes that a substantial commercial market exists for each of these applications. Additional projects for EMP and the Company's other technologies are being developed or explored.

### MARKET INFORMATION REGARDING THE COMPANY'S SECURITIES

The Company's Common Stock is traded over-the-counter and since April 17, 1984 has traded on the NASDAQ National Market System. The table below sets forth the ranges of bid quotations for the Company's Common Stock for the seven quarters ended February 29, 1984 and for the period from March 1 through April 16, 1984 as reported by the National Quotation Bureau, Inc. Such quotations reflect interdealer prices without mark-up, mark-down or commissions and do not necessarily represent actual transactions. The table also sets forth the ranges of the last sales prices of the Common Stock on the National Market System during the period from April 17, 1984 through May 31, 1984 and during the three quarters ended August 31, 1984, November 30, 1984 and February 28, 1985.

Quarter or Period Ended (1)	<u>High</u>	<u>Low</u>	Quarter or Period Ended (1)	<u>High</u>	<u>Low</u>
<u>1982</u>			<u>1984</u>		
August 31	10 7/16	5 13/16	February 29	18 3/4	12 11/16
November 30	9 3/8	6 7/16	April 16	16 7/16	13 15/16
			May 31	16 11/16	13
<u>1983</u>			August 31	16 1/16	12 3/4
February 28	9 13/16	6 9/16	November 30	15 3/4	12
May 31	15 5/8	7 1/2			
August 31	14 3/16	10 13/16	<u>1985</u>		
November 30	13 15/16	11 1/16	February 28	19 1/2	16 1/4

(1) Adjusted to reflect a stock split on a six shares-for-five shares basis which became effective on June 11, 1984.

There are approximately 1,733 holders of record of the Company's Common Stock

Units consisting of the Company's Preferred Stock and Class A Warrants are traded in the over-the-counter market under the NASDAQ symbol HABEu and are quoted in the Additional OTC listings in the *Wall Street Journal* and the *New York Times*. From November 16, 1984 until March 14, 1985 the bid quotations of the Units has ranged between 18½ and 31½.

**HABER, INC. AND SUBSIDIARY**  
**A Development Stage Enterprise**  
**NOTES TO FINANCIAL STATEMENTS (Continued)**  
**MAY 31, 1984, 1983 AND 1982**

Investment tax credit carryforwards of approximately \$11,000 are available to reduce future federal income taxes. If not used, the credits will expire as follows:

May 31, 1996	\$	2,900
1997		1,000
1998		2,600
1999		4,500

The Company does not file consolidated returns for federal tax purposes.

As of June 1, 1984, Life Signs, Inc. had a net operating loss carryforward for federal income tax purposes of approximately \$837,000. If not offset against taxable income, the operating loss carryforward will expire as follows:

Fiscal Year End May 31, 1996	\$	68,400
1997		128,700
1998		307,400
1999		332,500

The available net operating loss carryforwards for tax purposes, as detailed above, are reconciled to the financial statements as follows:

Available tax loss carryforwards		
The Company .....	\$	2,493,000
Life Signs.....		837,000
Previously expired losses no longer available for tax purposes .....		410,274
		<u>\$3,740,274</u>

**NOTE 7—INVESTMENTS IN LIMITED PARTNERSHIPS:**

In 1981, the Company formed Life Signs, a limited partnership in which it and Life Signs, Inc. are the general partners, to fund the Company's research and development in the cardiovascular area. Upon formation of the partnership, the Company and Life Signs, Inc. granted the partnership a non-exclusive, royalty free license to utilize certain aspects of the Company's technology for research and development of proprietary medical devices and formulations. At the same time, the Company contracted with the partnership to perform product research and development for applications within the cardiovascular field. Under the contract, the Company has been developing diagnostic devices and medical and educational programs for the reduction of risk of cardiovascular disease. The Company believes additional research is required and, inasmuch as the partnership's existing capital for research has been largely expended, the Company anticipates that the partnership may seek additional capital as has been its practice.

Under a related agreement, the Company has the right, exercisable until December 31, 1985, to purchase the technology developed by it for the partnership in exchange for a perpetual royalty. Generally speaking, the royalty is based upon the Company's net sales and will not exceed 6% unless

**HABER, INC. AND SUBSIDIARY**  
**A Development Stage Enterprise**  
**NOTES TO FINANCIAL STATEMENTS (Continued)**  
**MAY 31, 1984, 1983 AND 1982**

the partnership's capitalization is increased beyond \$2,400,000, which will cause a pro rata increase in the royalty. Pending purchase of the technology any revenues of the Company from the use of the technology are subject to a royalty of 150% of the royalties payable after purchase.

Pursuant to the partnership agreement, the Company and Life Signs, Inc. are entitled in the aggregate to receive two percent of the partnership's capital available for allocation, as determined under the partnership agreement, until the limited partners have recouped their capital contributions. Thereafter, they are entitled to share in such funds in amounts increasing from 20% to 50% thereof. In addition, the Company and Life Signs, Inc. may purchase all of the outstanding limited partnership interests upon vote of the limited partners as provided in the partnership agreement.

Life Signs, Inc.'s subsidiary, which operates BCHC, has agreed to pay the partnership a royalty at the rate of up to 6% of its net sales, but not in excess of up to 33 $\frac{1}{3}$ % of its net cash flow in any year. This royalty will be payable until the partnership repays certain indebtedness incurred by the partnership in connection with the sale of limited partnership interests on a deferred payment basis.

In 1980, the Company formed another limited partnership, Lodestone, to fund the research and development of new process technologies, including that of EMP, for the extraction and purification of precious metals. The general partners are the Company and Norman Haber, the President of the Company, who have assigned to Lodestone all their rights to the application of EMP to the milling and refining of precious metals indigenous to the United States and platinum group metals of North American origin. Mr. Haber became a general partner in order to satisfy certain net worth requirements under the Internal Revenue Code and thereby facilitate the sale of interests in the partnership.

Upon formation of Lodestone, the Company contracted to research and develop processes relating to the extraction and purification of precious metals. While the Company has accomplished substantial research under the contract and has developed three hydrometallurgical processes, additional research remains. Since Lodestone funds have been largely expended, the Company contemplates that the partnership may seek additional capital.

Under a related agreement, the Company agreed to purchase the developments pertaining to the rights assigned to Lodestone when and if such research and development is completed. The consideration for the purchase is payment of a royalty on the Company's net revenues from commercializing such development for 20 years following the date of purchase. The amount of the royalty will be determined by formula based upon the total capital contributions of the limited partners, but will not exceed 6% of net revenues so generated. The Company may defer the purchase of technology for up to 24 months following completion of its development. Should the Company derive revenues from any such developments prior to its purchase, the royalty will be increased by 50% until such time as the purchase is consummated.

Under the partnership agreement and subject to certain variations, the Company and Norman Haber as general partners are initially entitled to 1% of Lodestone's profits, losses and distributions and the limited partners are entitled to 99%. The percentage allocable to the general partners increases to 50% in increments after the limited partners have received specified distributions based upon their capital contributions. In addition, the Company is entitled to purchase all limited partnership interests in the partnership upon vote of the limited partners, as specified in the partnership agreement. The Company will receive 90% of the profits and distributions allocable to the general partners at such time as the general partners become entitled to receive in excess of 1% of such profits and distributions.

**HABER, INC. AND SUBSIDIARY**  
**A Development Stage Enterprise**  
**NOTES TO FINANCIAL STATEMENTS (Continued)**  
**MAY 31, 1984, 1983 AND 1982**

Under the terms of the agreements described above, the Company does not guarantee successful completion of the research and development projects and, accordingly, will be entitled to retain the entire amounts paid pursuant to the research and development agreements, whether or not the research and development work is successful.

**NOTE 8—INVESTMENT IN SILVER TECH MINES, INC.:**

In August, 1983, Silver Tech Mines, Inc., a joint venture corporation, was formed by the Company in conjunction with Houston Mining & Resources, Inc. to commercialize the Alpha Process, a silver manganese extraction technology developed by the Company under such contract with Lodestone. Pursuant to the contract, the Company has the option to purchase such process from Lodestone (see Note 7), and pending such purchase, is empowered to grant licenses to the process.

The Company was issued 2,700,000 shares of Silver Tech Mines, Inc. stock in exchange for a royalty-free license covering the use of the Alpha Process. In addition, the Company has incurred costs in the initial organization of the joint venture.

The investment in Silver Tech Mines, Inc. is reflected in the accompanying balance sheet at the amount of the actual organization costs incurred, adjusted for the Company's proportional share of gain and losses. No value has been ascribed to the royalty-free license.

**NOTE 9—LONG-TERM DEBT:**

Long-term debt is comprised as follows:

	May 31, 1984			May 31, 1983
	Due After One Year	Due Within One Year	Total	Total
Mortgage Note Payable—United Jersey Bank—interest at 13.5% per annum—secured by land and building located at 437 Main Road, Towaco, New Jersey—repayable in monthly installments of \$779 from November 15, 1980 through September 15, 1985, with a final payment of \$51,180 due on October 15, 1985	\$52,715	\$2,073	\$54,788	\$54,678
Loan Payable—Peoples National Bank of New Jersey—interest at 15.5% per annum—secured by 1979 automobile—repayable in monthly installments of \$105 from September 25, 1983 through August 15, 1986	1,436	955	2,391	—
Loan Payable—Peoples National Bank of New Jersey—interest at 7.25% per annum—secured by a passbook—repayable in quarterly installments of \$450	—	—	—	1,809
	<u>\$54,151</u>	<u>\$3,028</u>	<u>\$57,179</u>	<u>56,487</u>

## NEWS

### DOREMUS & COMPANY

120 BROADWAY NEW YORK NY 10271

212 964-0700

BOSTON  
CHICAGO/ROCKFORD  
LOS ANGELES

MINNEAPOLIS  
SAN FRANCISCO  
WASHINGTON, D.C.

CONTACT: (201) 263-0990  
Joan Harvey; Gabriel Berde

HABER, INC./ 470 Main Road,  
Towaco, NJ 07082

FOR IMMEDIATE RELEASE: 8/29/84

(201) 263-0635  
direct to PR

## Haber Inc. Announces Successful Field Pilot Test of its Alpha Process – Major New Technology For Strategic Manganese-Silver Ores

CA 621-2105

Houston, Texas and Towaco, N.J. — The Alpha Process is the first known process to economically extract silver from manganese bearing ores. — Haber Inc., (NASDAQ Symbol, HABE) and Houston Mining & Resources announce the successful completion of a large scale testing of Haber's proprietary Alpha Process on the manganese-silver ores at their mine site in Tombstone, Arizona.

The pilot test was observed and independently verified by Dr. Quintus Fernando, Professor of Chemistry (University of Arizona), an internationally recognized consultant in metals technology and a fellow of the Royal Society of Chemistry in Great Britain. Utilizing independent assays performed by the University of Arizona Laboratories in Tucson, Dr. Fernando reported that 95% of the manganese was recoverable in commercial grade purity, and virtually all the silver. He noted that the two stage process employs – “innovative chemistry that is not practiced at present by the mining community.” In his opinion, large scale production of silver and manganese by the Alpha Process is commercially feasible and he stated that similar recoveries should be realized without undue engineering problems. The Company estimates that the high manganese values

recoverable by the Alpha Process at the mine can pay for the entire extraction and processing costs of both the manganese and silver.

The tests were conducted at a newly constructed facility located on the claims of Silver Tech Mines Inc, a joint venture formed by Haber Inc. and Houston Mining and Resources, Inc. The Company said the initial test was performed on approximately one-quarter ton of ore taken from its property, which the University of Arizona assayed at 13.23 ounces of silver per ton and approximately 300 pounds of manganese per ton. The mine has extensive silver-manganese reserves on 43 claims covering approximately 3½ square miles.

Although manganese is classified as a strategic material and there are large known reserves in the United States, over 98% of the U.S. supply is imported from Africa and Brazil. The Alpha Process was developed in 1982 by Mr. Norman Haber, Chairman and Dr. John Lee, Senior Scientist, at Haber, Inc. The Company believes that the recoveries shown by the tests further validate the Alpha Process as the only economic method for the extraction of silver and manganese from ores which are thought to be present in large quantities in the Southwestern United States. Based upon these results, Haber, Inc. is proceeding with the construction of a semi-works plant leading to a large production mill.

Haber, Inc. is a publicly held high technology company. It has also developed new process technology for the extraction of gold, and owns fundamental patents on a new electrochemical process (Electro-Molecular Propulsion).

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BONDING APPLICATION : SILVER TECH MINES, Inc.  
Subsidiary of HABER, INC.

1. Silver Tech Mines, Inc./Haber, Inc.

Executive Office: 470 Main Road  
Towaco, New Jersey 07082  
(201) 263,0990

General Office: Silver Tech Mines, Inc.  
to be located in Tucson, Arizona

2. Business Description:

Silver Tech Mines (STM) is being developed as a full line mining company engaged in the extraction, refining and marketing of the non-ferrous metals, specifically silver and manganese. It is a 42% owned subsidiary of Haber, Inc. an advanced technologies company that develops and commercializes cost effective alternatives to conventional extraction and purification processes. STM is a licensee of Haber's Alpha Process which has been shown to economically recover chemical grade manganese carbonate and silver from manganiferous ores indigenous to the Southwestern Region of the United States. STM owns mineral reserves in Cochise County of Arizona that have been valued to exceed \$300 million. Engineering studies indicate STM will be able to successfully apply the Alpha Process to these ores to become one of the lowest cost producers of silver in the United States, and the only domestic supplier of manganese which is deemed a strategic metal by the Federal Government.

3. (a) STM's mining and processing operation will be approximately 2.2 miles southwest of the City of Tombstone, located in Cochise County, Arizona. The general offices, which have not as yet been permanently established, are intended to be situated in Tucson, Arizona.

(b) The intended use of the proceeds from a bond offering will be to finalize the engineering and construct a mill employing the Alpha Process. Funds will also be expended to improve the existing infrastructure and provide the working capital to commence operations.

(c) Presently, STM is making use of independently contracted labor and employees of Haber on temporary assignment. The Company has also established technical liasion with consultants at the University of Arizona in Tuscon. Upon completion of the intended funding, STM will staff up to employ approximately 25 people to oversee the engineering and construction of the mill and off-sites. An engineering firm will be retained to act as general

contractor that in turn will local labor and businesses as sub-contractors. The Company is envisioned to employ approximately 300 persons at the mine and mill when in full operation and will have a general office staff of nearly 30 people in Tucson.

4. Over the past year, STM has invested approximately \$700,000 in the construction of a facility to prove out the economics of the Alpha Process. These funds were provided through a private placement of STM's equity which was arranged by Haber, Inc.. Haber, Inc. has also recently completed a public offering of its equity, where Arizona investor participation was quite high. The underwriter was First Affiliated Securities, which has offices within Arizona. Local offices of E.F. Hutton, an investment banking firm that participated in the Selling Group of the Haber offering, have also expressed interest in the proposed STM offering. Paine Webber, another large investment banking firm, has reviewed the intended bond offering at their corporate offices in New York and has expressed a desire to underwrite the offering. The officers of both STM and Haber believe the offering can be effected with a minimum of difficulty.

5. The Company plans to raise approximately \$6,000,000 to finance its operations. The proceeds will be applied according to the following schedule.

Construction and commissioning of mill	\$3,000,000
Mine development and infrastructure	500,000
Contract engineering & design	540,000
Start-up costs	840,000
Offering expenses & commissions	760,000
	<u>\$5,640,000</u>

6. The names, addresses, phone numbers, etc.

See Exhibit I

7. (a) The issuance and sale of bonds: As soon as possible.

(b) The commencement of construction: On or about November 1985.

(c) The completion of construction: On or about May 1986

8. (a) Appended: Haber financial statements and those of STM.

(b) Appended: Most recent financial statements.

(c) Appended: Last 3 years of 10K's on Haber, also prospectus.

(d) Appended: S&P on Haber.

9. Three year cash flow projection...business plan attached
10. Map of Tombstone... Attached
11. Copy of title report...Affidavit of claims attached
12. There are no zoning or building permits required.
13. Feasibility study...Business plan
14. Appraisals...letter from Dr. Fernando in business plan.
15. STM has applied for or is processing the various environmental forms leading to the requisite permits. The Company believes it is in compliance with these requirements.
16. Certificate of Application...form provided

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EXHIBIT I

BONDING APPLICATION: SILVER TECH MINES, INC.

- | 6. | <u>Name</u>                                   | <u>Address</u>  | <u>Phone No.</u>      |
|----|---|---|-----------------------|
|    | (b) Local Attorney:                           | To be decided   |                       |
|    | (c) Accountant:                               | Hoffman, Raich, Fine & Company<br>60 Cutter Mill Road<br>Great Neck, New York   | 516-466-8800<br>10121 |
|    | (f) Corporate Legal Counsel:                  | J. Michael Gottesman<br>c/o Gottesman, Hirschfeld & Wohl<br>3 East 54th Street<br>New York, New York  | 212-759-3700<br>10022 |
|    | (g) Individuals Responsible for this Project: | Silver Tech Mines, Inc.:<br>Robert W. McPherson, President<br>Ernest D. Chu, Treasurer<br>Haber, Inc.:<br>Robert W. McPherson, Executive Vice President,<br>Chief Operating Officer<br>Ernest D. Chu, Vice President, Finance,<br>Chief Financial Officer |                       |
|    | (h) Banker:                                   | Peoples National Bank of North Jersey<br>P. O. Box 97<br>Denville, New Jersey<br>Contact: Robert E. Farrell<br>Vice President   | 07834<br>201-625-1020 |
|    |   | The Arizona Bank, Tombstone, Arizona<br>P. O. Box 579<br>Tombstone, Arizona<br>Contact: Irene Hauser<br>Manager   | 85638<br>602-457-2213 |
|    | (i) Credit references:                        | Silver Tech Mines, Inc. - See attached sheet (Exh. I(a))<br>Haber, Inc. - See attached sheet (Exh. I(b))  |                       |

February 7, 1985

## BUSINESS CREDIT REFERENCES

### Executive Office:

470 Main Road  
Towaco, NJ 07082  
(201) 263-0990  
HABER, INC.

Abel Tool & Supply  
4055 East Speedway  
Tuscon, Arizona 85712 (602) 881-1550

Escon Builders, Inc.  
3121 East Kleindale Road  
Tuscon, Arizona 85716 (602) 323-6085

Foxworth-Killen  
PO Box 640  
Benson, Arizona 85602 (602) 586-2252

General Office:  
3050 South Post Oak Rd.  
Houston, Texas 77056  
(713) 621-1681  
HOUSTON MINING &  
RESOURCES, INC.

The Perkin-Elmer Corporation  
Citibank, Del.  
Box 7247-9000  
Philadelphia, PA 19170-9000 (203) 762-4811

Sun Country  
5750 S. Palo Verde  
Tuscon, Arizona 85706 (602) 294-1446

Mine Site:  
SILVER TECH MINE  
P.O. Box 654  
Tombstone, Arizona 85638

Tombstone Hardware  
720 E. Fremont  
Tombstone, Arizona 85638 (602) 457-3341

### BANKS

Peoples National Bank  
PO Box 97  
Denville, New Jersey 07834  
ACCT.# 119999662  
Telephone: (201) 625-1020 Contact: Bob Farrell

The Arizona Bank  
Tombstone Arizona  
PO Box 579  
Tombstone, Arizona 85638  
ACCT.# 01169485  
Telephone: (602) 457-2213 Contact: Irene Hauser-Manager

Only to be used when authorized by  
Silver Tech Mines, Inc. management.



470 Main Road, Towaco, NJ 07082/Telephone: 201/263-0990

February 7, 1985

## BUSINESS CREDIT REFERENCES

Arthur H. Thomas  
Vine at Third (Box 779)  
Philadelphia, PA 19105 (215) 574-4500

SGA Scientific, Inc.  
735 Broad Street  
Bloomfield, NJ 07003 (201) 748-6600

Ace Scientific Supply Co.  
Box 1018  
East Brunswick, NJ 08816 (201) 254-0400

Aldrich Chemical Co.  
Box 355  
Milwaukee, WI 53201 (414) 262-3052

Perkin-Elmer Corp.  
CitiBank, Del.  
Box 7247-9000  
Philadelphia, PA 19170-9000 (203) 762-4811

BANKS

Citizens First  
9 Main Road  
Montville, NJ 07045 (201) 334-0800

ACCT.# 27102408 Contact: Maxine Stafford,  
Branch Manager

United Jersey Bank  
7 Campus Drive  
Parsippany, NJ 07054 (201) 267-2011

ACCT.# 133005801 Contact: Robert Ashe

Only to be used when authorized by  
Haber, Inc. management.

ADDENDUM TO ITEM 5 OF SILVER TECH MINES INC.  
APPLICATION

ITEM #5 is amended as follows:

1. **TOTAL COSTS:** It is projected that the total costs of establishing the projected 450 ton per day area processing plant for manganiferous silver will aggregate approximately \$10.8 million of which \$4.8 million has either been invested as equity or will be contributed by either the joint venture partners or STM. The remaining \$6 million, most of which is plant and capital equipment, is proposed to be raised through the sale of industrial revenue bonds.
2. **EQUITY INVESTMENT:** The Equity Investment in the project by the joint venture partners or STM can be broken out as follows:
  - (a) Aquisition/Maintenance of Leases, Exploration, Drilling, Equipment, Construction of Mine Site (1979-81) by Houston Mining and Resources.....\$2,500,000
  - (b) Research and Development Costs/Process Scaleup and related work by Haber Inc. (1981-83). Process licensed to Silver Tech Mines by Haber Inc. (1983).....\$750,000
  - (c) Expenditures on Construction of a pilot plant, Equipment and Personnel to demonstrate process on a commercial scale Pilot plant capacity is approximately 1-5 tons. These expenditures totaled approximately \$700,000.
  - (d) Equity Capital to be provided by either Silver Tech or the joint venture partners for working capital....\$850,000.

The total equity contribution by the joint venture partners into the project will be approximately 44% of the total costs. The joint venture will receive any return on its equity contribution from the profits of the processing plant after the bond holders are paid. None of the proceeds of the proposed financing will go toward repaying either the joint venture partners nor STM for costs previously invested.

3. **SUMMARY OF USE OF PROCEEDS:** The application is to raise approximately \$6 million to be applied to the construction of physical plant and capital equipment on the site already purchased and commercially readied by Silver Tech Mines. The general categories of use are as follows:
  - (a) Building/Construction Costs as per estimates....\$2,000,000  
Processing Equipment for Recovery of  
Silver and Manganese.....\$1,500,000  
Contract Engineering Design..... 540,000  
Mine Development/Site Improvement..... 500,000

CONTINUED...

3. SUMMARY OF USE OF PROCEEDS (continued)

(a continued):

Offering Expenses/Underwriter Fees.....\$ 660,000  
Contingency for Additional Capital  
Cost Overrun/Backup Capital Equipment.....\$ 800,000

Final engineering proposal may suggest construction configurations which would show improved efficiencies for additional capital investment. This possibility is covered in the contingency category in this application, and would result in improved returns and enhanced coverages of the bonds. These funds represent approximately 56% of the total costs of the project.

ADDENDUM TO ITEM #3

Item 3 b should read as follows: The intended use of the proceeds from a bond offering will be to finalize the engineering and construct a mill employing the Alpha Process. Funds will be also used to improve the site around the plant. None of the funds will be utilized for working capital. The working capital required will be provided by the joint venture partners or Silver Tech Mines Inc. as set forth in item #5 as amended.

ADDENDUM TO ITEM #4

Attached is a letter of intent from Haber Inc.'s investment banker, First Affiliated Securities, as well as an expression of interest from Paine Webber. There is substantial additional interest both in Arizona and in other parts of the country. The Company is presently exploring structure with its investment banker, and has had discussions with regard to credit enhancements which would enhance marketability. Silver Tech as a joint venture which includes Haber is of substantial interest to the large number of groups which follow Haber in the financial community. Each of Haber's corporate financings or subsidiary financings has been substantially profitable for investors. Most recently, Haber offered \$5.5 million in convertible preferred stock and warrants at \$20 per unit (more than 50% sold in Arizona). These units are presently over \$30.



**First Affiliated Securities, Inc.**

February 12, 1985

Mr. Ernest D. Chu  
Vice President, Finance  
Haber Inc.  
470 Main Road  
Towaco, N.J. 07082

Dear Ernie:

Regarding our on-going discussion about floating a \$6,000,000 Industrial Revenue issue for Silver Tech Mines, Inc., please be advised that First Affiliated Securities, Inc. desires to place this financing subject, of course, to satisfactory delineation of final terms.

As you are aware, our 140 offices across these United States are regularly kept informed and many are seriously interested in various aspects of Haber and more specifically Silver Tech Mines, Inc. A significant portion of our brokers regularly place industrial revenue bonds with their clients. Moreover, our sister subsidiary of American First Corporation, Leo Oppenheim and Company, specializes in placing issues such as this, and may want to participate with us.

FAS is as anxious as you are to get Silver Tech funded, and in to production and we are prepared to proceed accordingly.

Kindest regards.

sincerely,

A handwritten signature in black ink, appearing to read 'J. Donald Hill', is written over the typed name and title.

J. Donald Hill  
Managing Director

PAINÉ  
WEBBER  
JACKSON  
& CURTIS  
INCORPORATED

Established 1879 Member New York Stock Exchange, Inc. and Other Principal Exchanges  
8 Main Street, P.O. Box 999, Flemington, N.J. (201) 788-4055 (800) 842-0519

February 12, 1985

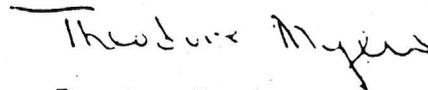
Robert McPherson, Ex. V.P.  
470 Main Road  
Towaco, N. J. 07082

Dear Mr. McPherson:

As per our previous telephone conversation, I have been advised by the Paine Webber Municipal Bond Underwriting Dept. that they would have an interest in underwriting a 6 million dollar Industrial Revenue bond for Haber Inc. if the issue can be backed by a guarantee of the State of Arizona or insured by one of the several agencies which provide such services.

I sincerely hope that Paine Webber can be of service to Haber Inc. in conjunction with your proposed offering.

Sincerely,



Theodore Myers

TM:mm

SILVER TECH MINES...PROFORMA INCOME STATEMENT...6 YEAR HORIZON.

Line Items	1	2	3	4	5	6
PRICES: Silver, \$/oz	5.00	8.00	12.00	12.00	12.00	12.00
MnCO3, \$/cwt	45.00	45.00	50.00	50.00	50.00	50.00
ASBMs: Silver, oz./ton	14	10	10	8	8	8
Mn. cont metal	15	15	13	13	13	13
PRODUCTION: tons/day	450	450	600	750	750	750
*****						
REVENUES: Silver, \$M	9355.50	10692.00	21384.00	21384.00	21384.00	21384.00
MnCO3, \$M	20047.50	20047.50	25740.00	32175.00	32175.00	32175.00
TOTAL, \$M	29403.00	30739.50	47124.00	53559.00	53559.00	53559.00
-----						
OPRTG COST: Direct, \$M	6240.46	6240.46	7855.39	9390.65	9390.65	9390.65
Depreciation, \$M	533.03	533.03	533.03	533.03	533.03	533.03
TOTAL, \$M	6773.49	6773.49	8388.42	9923.68	9923.68	9923.68
-----						
CONTRIBUTION: \$M	22629.51	23966.01	38735.58	43635.32	43635.32	43635.32
-----						
OVERHEAD: Gen&Adm, \$M	312.02	312.02	392.77	469.53	469.53	469.53
Exploration, \$M	189.70	189.70	189.70	189.70	189.70	189.70
Depletion, \$M	5813.76	6014.25	8870.40	10286.10	10286.10	10286.10
-----						
NET BEFORE TAXES: \$M	16314.01	17450.04	29282.71	32689.99	32689.99	32689.99
Taxes, \$M	7504.45	8027.02	13470.05	15037.39	15037.39	15037.39
-----						
NET AFTER TAXES: \$M	8809.57	9423.02	15812.67	17652.59	17652.59	17652.59
CUM NET AFTER TAX: \$M	8809.57	18232.59	34045.25	51697.85	69350.44	87003.03
-----						
NON-CASH COSTS: \$M	6346.81	6547.26	9403.43	10819.13	10819.13	10819.13
-----						
NET FROM OPERATIONS: \$M	15156.37	15970.30	25216.10	28471.72	28471.72	28471.72
CUM NET FROM OPER: \$M	15156.37	31126.67	56342.77	84814.49	113286.22	141757.94
=====						

RESOLUTION NO. 85-5

RESOLUTION OF THE BOARD OF DIRECTORS OF THE INDUSTRIAL DEVELOPMENT AUTHORITY OF THE COUNTY OF COCHISE PROVIDING PRELIMINARY APPROVAL FOR THE ACQUISITION, DEVELOPMENT AND CONSTRUCTION OF A MILL AND RELATED MINING FACILITIES TO BE OWNED BY SILVER TECH MINES, INC., AND LOCATED WITHIN THE BOUNDARIES OF THE COUNTY OF COCHISE, ARIZONA, PROVIDING FOR THE FINANCING OF ALL OR A PORTION OF THE COST OF ISSUANCE OF ONE OR MORE SERIES OR ISSUES OF THE AUTHORITY'S REVENUE BONDS.

ARIZONA DEPT. OF MINES & MINERAL RESOURCES  
STATE OFFICE BUILDING  
416 W. CONGRESS, ROOM 161  
TUCSON, ARIZONA 85701

WHEREAS, the Industrial Development Authority of the County of Cochise (the "Authority"), a non-profit corporation designated as a political subdivision under the laws of the State of Arizona, is authorized by Title 9, Chapter 11 of the Arizona Revised Statutes, as amended and supplemented (the "Act"), to issue its Revenue Bonds to finance the cost of any "Project" as defined in the Act, including, without limiting the generality of the foregoing, a commercial enterprise for the storing, warehousing, distributing or selling of mining products, or of processes related thereto; and

WHEREAS, Silver Tech Mines, Inc., a foreign corporation, qualified to do business in Arizona, (the "Applicant"), has submitted an application requesting that the Authority consider financing the cost of acquisition, construction and development of a mill and related mining facilities to be located on a parcel of land approximately 2.2 miles southwest of the City of Tombstone, Cochise County; and

WHEREAS, the Applicant has estimated that the cost of the project will not exceed Six Million Dollars (\$6,000,000); and

WHEREAS, Arizona law has defined "Project" as meaning any land, any building or other improvement, and all real and personal properties, including but not limited to machinery and equipment suitable for any enterprise for the manufacturing, processing, or assembling of any agricultural or manufactured products or suitable for any commercial enterprise for the storing, warehousing, distributing or selling of products of agriculture, mining or industry, or of processes related thereto, and including research and development therefore; and

WHEREAS, the Applicant has further advised the Authority that a determination by the Authority to issue its Industrial Revenue Bonds under the Act will constitute a substantial inducement to the Applicant to proceed with the acquisition, construction and developing of the Project; and

WHEREAS, the Authority has considered the provisions of the Memorandum of Agreement defining the relationship between the parties.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE INDUSTRIAL DEVELOPMENT AUTHORITY OF THE COUNTY OF COCHISE, AS FOLLOWS:

Section 1. The Authority's standard Memorandum of Agreement by and between the Applicant and the Authority (the "Agreement"), with such revisions, additions and amendments shall be approved by the Officers executing and delivering the same (such approval to be conclusively evidenced by their execution thereof).

Section 2. The Authority finds and determines that:

A. The utilization of such property in the creation and location of the Project and the issuance by the Authority of its Revenue Bonds under the Act to provide the financing for the Project will serve the purposes provided in the Act and are in the public interest.

B. All formal actions of this Board concerning and relating to the adoption of this Resolution were adopted in an open meeting of this Board, and all deliberations of this Board resulting in such formal action were in meetings open to the public, in compliance with all requirements of the laws of the State of Arizona.

Section 3. There is hereby authorized to be issued, and this Authority hereby determines to issue pursuant to the Act and subject to the terms of the Memorandum of Agreement, one or more issues or series of Revenue Bonds (the "Bonds") in an aggregate principal amount agreed to by the Authority and the Applicant not to exceed Six Million Dollars (\$6,000,000) and not exceeding the cost of the Project or any phase thereof and the financing thereof, as estimated at the time of issuance of any such issue, for a mill and related mining facilities, and to expend the Bond proceeds to finance all or a portion of the cost of the Project, such bonds to be secured by and payable from revenues or other payments to be derived by the Authority under the terms of a loan agreement to be entered into between the Authority and the Applicant; provided, however, that none of the Bond proceeds shall be used for operating capital.

Section 4. The Bonds shall bear such dates, mature at such time or times, bear interest at such rate or rates and contain such other terms or provisions as shall be determined by subsequent action of the Authority and approved by the Applicant.

Section 5. The Authority and the Applicant shall enter into a loan agreement, the terms of which shall be agreeable to the Applicant and the Authority, and which shall provide that the Applicant will be obligated to make payments sufficient to pay the principal of and interest and redemption premium, if any, on the Bonds, as and when the same shall become due and payable.

Section 6. The President and Secretary of the Authority, or any two other Officers in their absence, be and they are hereby authorized and directed to do or cause to be done all such acts or things and to make, execute, deliver, or cause to be made, executed and delivered, all such agreements, documents, instruments, certificates and notices in the name and on behalf of the Authority as they deem necessary, advisable or appropriate to execute or carry out the purpose and intent of the Act and this Resolution.

Section 7. This Resolution, together with the Agreement, shall constitute "some other similar official action" toward the issuance of the Bonds within the meaning of Section 1.103-8(a)(5) of the Treasury Regulations promulgated under Section 103 of the Internal Revenue Code of 1954, as amended.

Section 8. No Bonds shall be issued until a public hearing has been held in compliance with the terms of Section 103(k) of the Internal Revenue Code of 1954 and the Cochise County Board of Supervisors have approved the Authority's Bond proceedings.

Section 9. Any Corporate Officer is hereby authorized and directed, at the request of the Applicant, to publish notice of a public hearing on the proposed plan of financing the Project and the issuance of the Bonds pursuant to said plan in the manner contemplated by Section 103(k) of the Internal Revenue Code of 1954, as amended, and the corporate President or any other corporate Officer in his absence, shall conduct the hearing and report the results.

Section 10. This Resolution shall become effective immediately and shall remain in effect until 5 P.M. September 1, 1985, or such longer term as shall be requested by the Applicant and acceptable to the Authority.

DATED this 14th day of February, 1985.

THE INDUSTRIAL DEVELOPMENT AUTHORITY  
OF THE COUNTY OF COCHISE

By: \_\_\_\_\_  
President

ATTEST:

\_\_\_\_\_  
Secretary

January 19, 1945

Mr. John F. Ross  
Box 547  
Bisbee, Arizona

Dear Mr. Ross:

Enclosed you will find my report together with plan and long section of your mine workings, these in triplicate.

I suggest that you write a letter to Senator Hayden enclosing blue print of the maps and copy of report. Of course you know what you would consider proper to discuss with the Senator in order to obtain his assistance in getting a favorable outcome of your application for an additional loan.

The application plans are herewith enclosed. Please have your stenographer fill in the body of the original and copy, following closely the pencil application form which I made out, and you will sign said applications and mail them to the office of the R.F.C., Heard Building, Phoenix, Arizona.

I discussed your application with one of the engineers, Razor, who has been on your property, and he thinks it will be advisable for you to do considerable drifting and crosscutting at extensions of the east heading of your Side Wheel drift. He was not inclined to consider of much value the proposed crosscut from the upraise to connect into the incline stope due to the fact that that upraise is 90 feet away from the ore body.

I will be glad to render your application such further assistance as I personally can.

Yours very truly,

Andrew Macfarlane  
Field Engineer

AM:LP  
Enc.

I. B. TOMLINSON  
LAW RESEARCH CLERK

BETTY KAUPKE  
SECRETARY

JOHN F. ROSS  
COUNTY ATTORNEY

NORMAN HERRING  
DOUGLAS, ARIZONA  
CHIEF DEPUTY

Cochise  County

BISBEE, ARIZONA

December 28, 1943



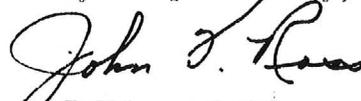
Dept. of Mineral Resources,  
Phoenix, Arizona.

Attention: Mr. J. S. Coupal,  
Director.

Dear Mr. Coupal:

I received your letter of December 24th and I want to thank you for your assurance that our application had been handled to your office, and I trust that we will get a favorable report from Washington.

Very respectfully,

  
JOHN F. ROSS

JFR:bjk

I. B. TOMLINSON  
LAW RESEARCH CLERK

BETTY KAUPKE  
SECRETARY

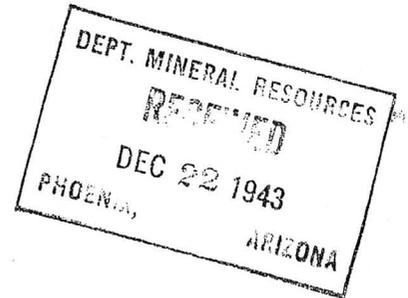
JOHN F. ROSS  
COUNTY ATTORNEY

NORMAN HERRING  
DOUGLAS, ARIZONA  
CHIEF DEPUTY

Cochise  County

BISBEE, ARIZONA

December 17, 1943



Dept. of Mineral Resources,  
413 Home Builders Building,  
Phoenix, Arizona.

Gentlemen:

At the suggestion of Mr. A. McFarlane, Field Engineer, in connection with your office, I am writing you to advise you that myself and Mr. W. E. Holt are making an application for a mining loan on certain properties located in the Tombstone Mining District, near Tombstone, Arizona, and Mr. McFarlane suggested that I write you saying that we had made such application. We will certainly be glad for any cooperation that you might give us in line with the work you have with the government in getting through this loan.

We are very firm in the belief that we have a very promising property, and we base that belief upon the work that we have done amounting to several hundred feet, which is shown by the maps and papers in connection with the application. We not only are confident that this property will produce considerable lead, but it will have other values that will insure that we can pay the money borrowed from the government in accordance with the obligation that we make with it.

I can assure you that we will appreciate any assistance that you may give us in seeing that the matter is rushed through, and also that we will very gladly answer any further questions, or make out any papers you deem necessary to complete our application.

Very respectfully,

  
JOHN F. ROSS

JFR:bjk

December 24, 1943

✓  
Mr. John F. Ross  
County Attorney  
Bisbee, Arizona

Dear Mr. Ross:

Thank you for your letter of December 17 and your application for a loan on the Sidewheel, together with Mr. Holt, has been received by the Department for review. Whereas it is not customary to do so, I can tell you that your application was favorably reviewed and recommendation made by this Department that the loan be granted.

We are in close touch with the R.F.C. office here in Phoenix and I know that your application will be forwarded with their recommendations at a very early date.

With best wishes, and hoping that our recommendation is approved by the R.F.C. office, both here in Phoenix and in Washington, I am

Very truly yours,

J. S. Coupal, Director

JSC:LP

2 of 2

*Sidewheel*

MEMORANDUM

December 15, 1943

To: A. Macfarlane

From: J. S. Coupal

Subject: William Holt Mine Examination

Your letter of November 24 was just called to my attention particularly the note about the William Holt Mine in Tombstone. From the schedule it appears you are in Tombstone on Thursday and in Douglas on Friday. If you can work in time to examine the Holt Mine and give what assistance is necessary for a mine application, I hope you will do so.

J. S. Coupal

J J  
S: E  
C S

October 13, 1943

Mr. W. E. Holt  
P. O. Box 644  
Tombstone, Arizona

Dear Mr. Holt:

We are enclosing an affidavit to be submitted in obtaining a zero quota on the Side Wheel Group.

You will note that this application must be notarized.

Yours very truly,

George A. Ballam  
Assistant to the Director

GAB:JES

April 13, 1943

MEMORANDUM

TO: George A. Ballam

FROM: Earl F. Hastings

Attached is a review on the Sidewheel manganese property, Tombstone, Arizona.

You will note that we could not recommend the loan inasmuch as the proposed work appeared to be exploratory rather than development.

I suggest that you visit this property the next time you happen to be in the area and if you believe it has merit, then you can advise the applicant to reapply along development or production lines which qualify under RFC regulations.

This report is naturally confidential and for your information only.

# SIDE WHEEL MINE

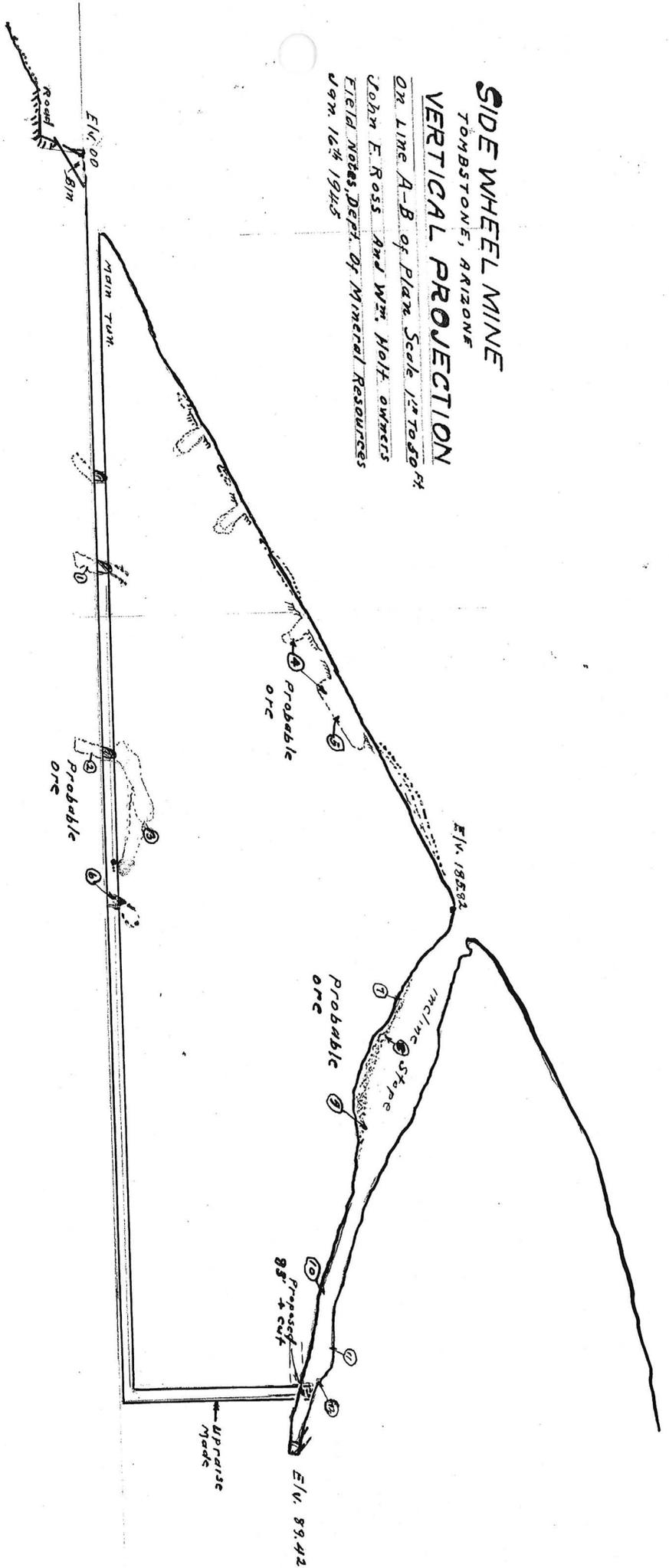
TOMBSTONE, ARIZONA

## VERTICAL PROJECTION

OR. LINE A-B of Plan Scale 1/2" TO 80' H

John E. Ross And Wm. Holt owners

Field Notes, Dept. of Mineral Resources  
Jan. 16<sup>th</sup> 1945



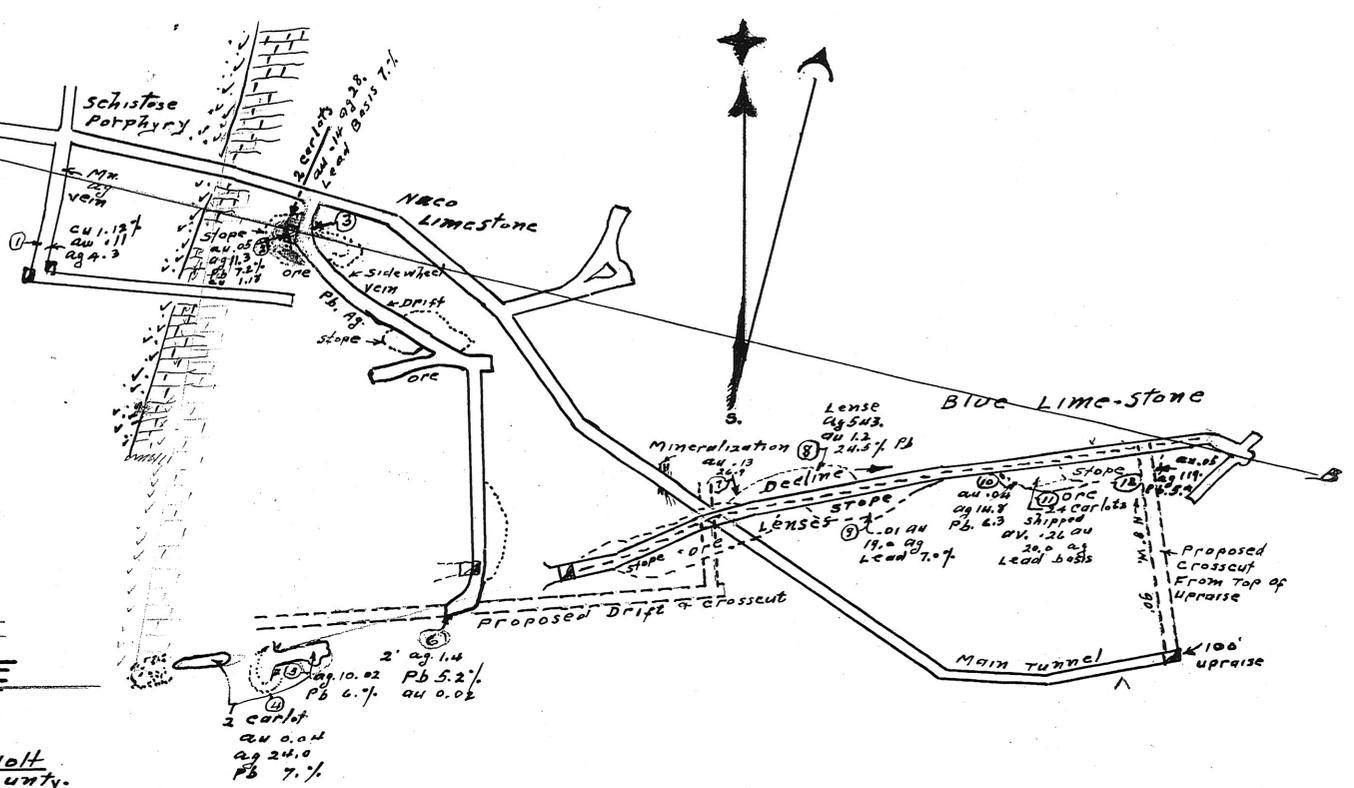


**Assays of  
Partial List of Samples  
SIDE WHEEL & FORTUNA MINE**

No.	AU.	Ag.	Pb.	Cu	Place Sampled
1	0.11	4.3		1.12	Monopase-Silver vein
2	0.05	11.3	7.2	1.18	Side Wheel Slope
	14	28.0	7.0		" " Gv. of 2 Carlots from Fortuna Mine
4	0.04	24.0	7.0		2 Carlots Shipped, open cuts
5	0.02	10.0	6.0		open cut vein
6	0.02	1.4	5.2		Drift face 2 Side Wheel
7	0.13	26.9	11/4		Incline Slope
8	7.20	543.	243		" Lense
9	0.01	19.	7.		" Slope
10	0.04	14.8	6.3		" "
11	0.24	20.0	8.0		" average 24 cars
12	0.05	119.	5.4		"

**PLAN MAP  
SIDE WHEEL MINE  
TOMBSTONE DISTRICT**

Scale 1"=50' Jan. 16<sup>th</sup> 1945  
 owners JOHN F. ROSS AND WM. HOLT  
 Tombstone, Arizona. Pima County.  
 Notes of the Dept. of Mineral Resources  
 304 Home Builders Bldg. Phoenix, Arizona  
 Survey made by C.S. BENSON  
 Aug 22nd 1944



ASSAYS OF  
PARTIAL LIST OF SAMPLES  
SIDE WHEEL & FORTUNA MINE

N <sup>o</sup>	AU.	AG.	Pb.	Cu	Place Sampled
1	0.11	4.3		1.12	Manganese-Silver vein
2	0.05	11.3	7.2	1.18	Side Wheel Slope
	.14	28.0	7.0		" " Gx. of 2 Carlots from Former Map.
4	0.04	24.0	7.0		2 carlots Shipped, open cuts
5	0.02	10.0	6.0		open cut vein
6	0.02	1.4	5.2		Drift face 2' Side Wheel
7	0.13	24.9	n/a		Incline Slope
8	1.20	543.	24.5		" " Lense
9	0.01	19.	7.		" " Slope
10	0.04	14.8	6.3		" " " average 2 1/2 Cars
11	0.24	20.0	8.0		" " " "
12	0.05	119.	5.4		" " " "

PLAN MAP

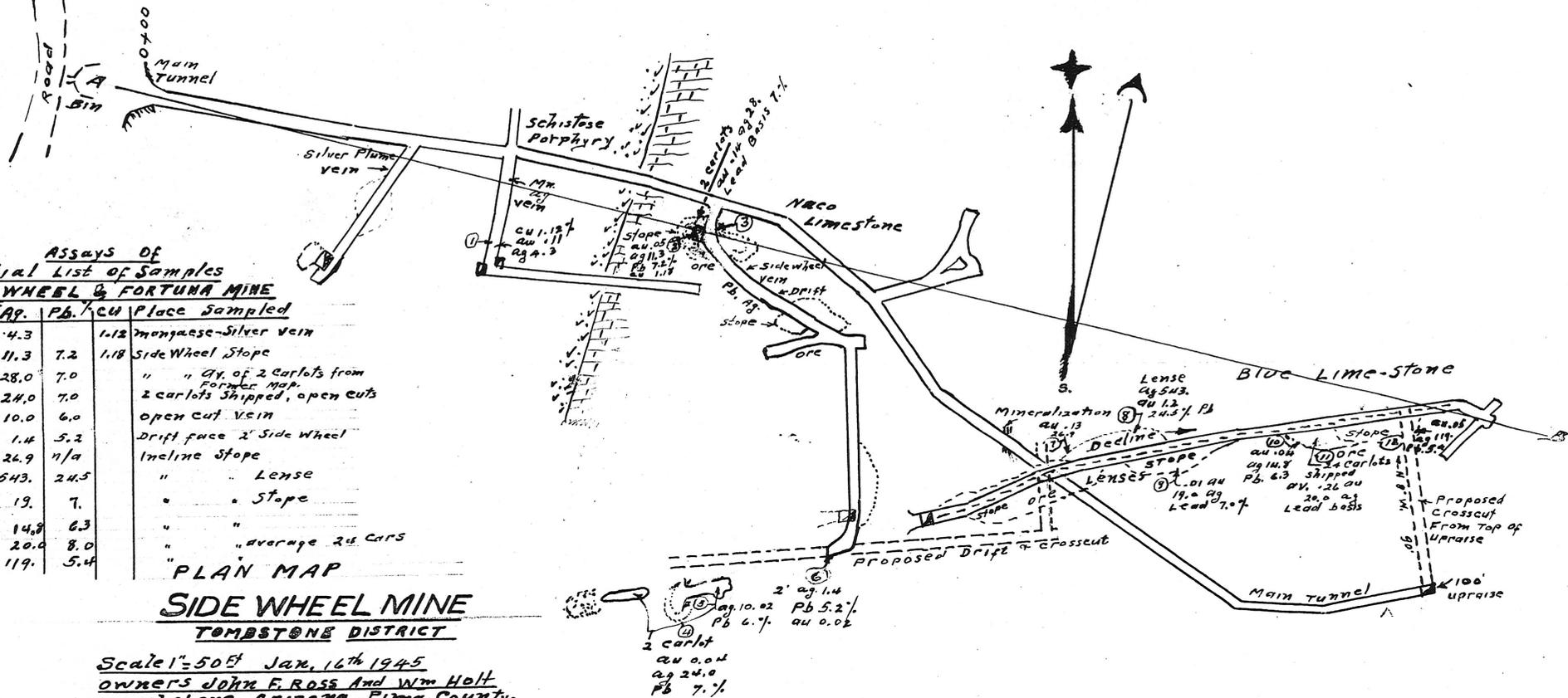
**SIDE WHEEL MINE**  
TOMBSTONE DISTRICT

Scale 1" = 50' JAN. 16<sup>th</sup> 1945

OWNERS JOHN F. ROSS AND WM HOLT  
TOMBSTONE, ARIZONA. PIMA COUNTY.

Notes of the Dept. of Mineral Resources  
304 Home Builders Bldg, Phoenix, Arizona

Survey Made By C.S. BENSON  
7299 32<sup>nd</sup> 1944



2' ag 1.4  
ag 10.02 Pb 5.2%  
Pb 6.7% au 0.02  
2 carlot  
au 0.04  
ag 24.0  
Pb 7.1%

# APPLICATION FOR A MINING LOAN

This application should be prepared and executed *in duplicate*, excepting as to maps, assay reports, and other documents of which it is difficult to furnish more than one copy. Both copies should be delivered or mailed to the nearest RFC Loan Agency, or Mining Section Field Office, or they may be mailed to Reconstruction Finance Corporation, 811 Vermont Avenue, Washington, D. C. For identification, name of applicant should appear on each sheet of application and accompanying papers.

NAME OF APPLICANT \_\_\_\_\_

ADDRESS: \_\_\_\_\_  
Number, Street or Building, etc. City State

NAME OF CORRESPONDENT: \_\_\_\_\_

ADDRESS: \_\_\_\_\_  
Number, Street or Building, etc. City State

Location of mine: County \_\_\_\_\_ State \_\_\_\_\_ Nearest railroad station, \_\_\_\_\_,

is \_\_\_\_\_ miles from the mine. Mineral or metal produced: \_\_\_\_\_

Applicant hereby applies to RFC for a loan of \$\_\_\_\_\_ for the purposes herein stated.

Applicant is not at the time of making this application indebted to RFC in any amount, and neither the applicant nor anyone on applicant's behalf has applied to RFC heretofore for a loan, except as follows: (Insert "No exceptions" if none)

If a loan is approved, applicant requests that the proceeds of the loan be disbursed to and deposited in

\_\_\_\_\_, at \_\_\_\_\_, \_\_\_\_\_  
Name of Bank City State

or a bank selected by RFC, for the use of applicant for the purposes of the loan, under the supervision of RFC.

(No fees or commissions shall be paid by applicant for the purpose of procuring a loan, but reasonable compensation may be paid for proper services actually and necessarily rendered to applicant. Applicant agrees that all such compensation shall be subject to the approval of the Corporation.)

All fees, commissions, salaries, charges, compensation, and things of value paid or delivered or agreed to be paid or delivered, or contemplated to be hereafter paid or delivered by or on behalf of applicant in connection with the application and/or any loan granted, are as follows:

(If none, so state)

Applicant warrants the representations in the application and exhibits to be true and complete, and authorizes Federal, State, Municipal, and other authorities to permit representatives of RFC to have full access to and to furnish RFC with any and all information, records, reports, returns, and files pertaining to or filed by or on behalf of applicant.

Dated: \_\_\_\_\_, 194\_\_\_\_ Signed: \_\_\_\_\_

(Corporate application to be executed by the President and Secretary with corporate seal affixed; partnership application to be executed by a general partner. If any signature is under a power of attorney or trust agreement, attach a copy of such document.)

See Exhibits attached for information and papers to be attached hereto.

*original document in file*

## APPLICATION FOR A MINING LOAN

## EXHIBIT A

Supply the following information on separate sheets, and attach the following documents, arranged, numbered and lettered to correspond herewith. *This is required as a part of all applications.*

1. IF APPLICANT IS A CORPORATION, SUPPLY THE FOLLOWING:
  - (a) Principal office and place of business.
  - (b) When organized, and under laws of what state.
  - (c) Other states in which qualified to do business.
  - (d) Names and addresses of all officers and directors.
  - (e) Amount and kind of capital stock or corporate securities issued and outstanding.
  - (f) Copy of Articles of Incorporation, By-Laws, and certificates of authority to do business, with all amendments to date.
2. IF APPLICANT IS AN INDIVIDUAL OR A PARTNERSHIP, SUPPLY THE FOLLOWING:
  - (a) Names and addresses of all partners; indicating if any are limited or special partners.
  - (b) Copies of all partnership affidavits and agreements.
  - (c) Statement of marital status of the individual or all partners, and the names of husbands and of wives.
3. FINANCIAL STATUS; LITIGATION:
  - (a) Submit current financial statement (following page), and state terms of notes payable, mortgages, debts, etc., giving maturity dates, rate of interest, etc.; and describe any other liens. Give a complete list of creditors, including taxes, assessments, fees, etc.
  - (b) If applicant or the mining property is or has been recently involved in receivership, bankruptcy, or reorganization, or in any title dispute or litigation, or if applicant has made an assignment for or compromised with creditors, explain fully.
4. EXPERIENCE: Give in full the mining and general business experience of the applicant and of the person who will manage the project.
5. APPLICANT'S INTEREST:
  - (a) Attach copy of the deeds, leases, or other documents conveying to applicant the present interest of applicant in the mining property.
  - (b) If applicant has assignment of a lease or other document, attach also the copy of such lease or other document. If any such documents are executed under a power of attorney or a trust agreement, attach copy of such power or agreement.
  - (c) Include all recording data if available.
6. LEGAL DESCRIPTION. SUPPLY THE FOLLOWING:
  - (a) Mining district in which property is situated, section, township, and range.
  - (b) Names and survey numbers of patented claims, and a map.
  - (c) Names, dates of location, place and date of recording, book and page record of all unpatented locations, and a sketch map.
7. TYPE AND WORKINGS: State type of mine, whether open pit, shaft, tunnel, and whether dry or wet.
8. HISTORY AND PRESENT CONDITION: Give a full statement of previous development, operation, and production of the mining property, with reasons for suspensions, and include all information with regard to the mineral deposit.
  - (a) Attach maps and sections of the mine workings, or if these are not available, pencil sketches, drawn to scale, or with dimensions otherwise shown. Show in detail the existing workings, noting caved areas and those areas proposed to be made accessible, developed or mined.
  - (b) Give all available assays of samples. State clearly how samples were taken and show on the map the *location, width, and assay* of each sample, with numbers corresponding to those used in assay reports and certificates. Attach certificates, when available.
  - (c) List present equipment on the property and describe its condition.
  - (d) Give character and state of repair of road to the mining property.
  - (e) Furnish any reports available that apply to this application, including results from any metallurgical investigations.
9. WATER SUPPLY: State whether water supply for all proposed operations is sufficient during all seasons of year. State amount in gallons per minute, miners' inches, or second-feet. If available, state the maximum, minimum, and average flow. Describe the source of the water supply, its dependability, water rights, etc.

10. PROPOSED WORK:

- (a) Describe in detail the proposed work, such as unwatering, retrimbering, cleaning out, stripping, extending shafts, tunnels, proposed construction, etc.
- (b) Show on sketch map of existing workings, the extent of ore which it is proposed to make accessible, to mine, or to further develop.
- (c) If mine is wet, give estimated gallons per minute to be pumped to keep water down and estimated cost of such pumping.
- (d) State the source and kind of power to be used and its cost.
- (e) Estimate amount of loan funds required for first 90 days of operation.

11. PURPOSES OF LOAN: Specific purposes for which applicant proposes to expend proceeds of loan applied for. (Detailed information should be given.)

Nature of Expenditure	Amount
	\$ _____
	_____
	_____
	_____
	_____

(If additional space is required, use separate sheet numbered as above)

12. Give Current Financial Statement as of \_\_\_\_\_ Date

*Assets*

CURRENT ASSETS:

- 1. Cash \_\_\_\_\_ \$ \_\_\_\_\_
- 2. Notes Receivable \_\_\_\_\_
- 3. Accounts receivable \_\_\_\_\_
- 4. Inventories, materials on hand, etc. \_\_\_\_\_
- TOTAL CURRENT ASSETS \_\_\_\_\_

FIXED AND OTHER ASSETS:

- 5. Plant, lands, and buildings used in business \_\_\_\_\_
- 6. Machinery \_\_\_\_\_
- 7. Equipment, furniture, fixtures, etc. \_\_\_\_\_
- TOTAL ASSETS \_\_\_\_\_

*Liabilities*

CURRENT LIABILITIES:

- 8. Notes Payable \_\_\_\_\_
- 9. Accounts Payable \_\_\_\_\_
- 10. Other current liabilities \_\_\_\_\_
- 11. Liabilities accrued but not yet payable (interest, rent, taxes, wages, payments due on account of leases, options, or other contracts, etc.) \_\_\_\_\_
- TOTAL CURRENT LIABILITIES \_\_\_\_\_

FIXED AND OTHER LIABILITIES:

- 12. Mortgage debt, etc. \_\_\_\_\_
- 13. Contracts for lease, royalty, or purchase which constitute charges: \_\_\_\_\_
- 14. Other liabilities (describe) \_\_\_\_\_
- TOTAL LIABILITIES \_\_\_\_\_
- 15. Contingent liabilities (describe) \_\_\_\_\_

**INSTRUCTIONS.**—In addition to the foregoing statement, attach a copy of latest balance sheet.

**For Loans Over \$5,000:** If a loan of more than \$5,000 is being applied for, supply also the information and documents required by Exhibit B, on following sheet.

## APPLICATION FOR A MINING LOAN

## EXHIBIT B

If a loan of more than \$5,000 is being applied for, supply the following information on separate sheets and attach the following documents, arranged, and numbered and lettered to correspond herewith.

1. On maps and drawings, show location and extent of proposed development. If mine contains blocked-out ore, show also the location, tonnage, and grade of ore blocks.
2. State recent daily, monthly, and annual production (if any) and proposed production.
3. Explain fully whether the product produced is or is to be milled on the property, shipped to custom mill or smelter, or shipped direct to the mint, or otherwise marketed. In any case, supply all cost data with regard to marketing, including cost of smelting or custom milling.
4. Estimate cost of mining and milling, past and proposed:
  - (a) Detailed mining cost, per ton (or other unit) of product, and per foot of development work.
  - (b) Detailed milling cost.
5. POWER:
  - (a) Give detailed estimate of total power requirements.
  - (b) Give distance to nearest electric power line.
  - (c) Give cost of electric power at nearest point available for purchase and cost of extending line.
  - (d) Give cost of electric power used on nearby properties.
  - (e) State kind and cost of any other power to be used.
6. LABOR:
  - (a) Are experienced workmen, such as miners, millmen, etc., available in district?
  - (b) State number of additional men who will receive employment because of loan.
  - (c) Make brief statement as to current wage scales.
  - (d) What facilities does applicant have for housing workmen?
7. If a claim has been filed under the War Minerals Relief Act involving the property or the applicant, explain in detail, stating amount of claim filed and amount recovered, if any. If no such claim has been filed, so state.
8. If a loan is approved, evidence of applicant's title to the mining property, with title opinion by applicant's attorney, usually will be required.

**For Loans Over \$30,000:** If a loan of more than \$30,000 is being applied for, supply also the information and documents required by Exhibit C, on following sheet.

## APPLICATION FOR A MINING LOAN

## EXHIBIT C

If a loan of more than \$30,000 is being applied for, supply the following information on separate sheets and attach the following documents, arranged, numbered and lettered to correspond herewith.

1. Outline briefly any trade agreement and/or close affiliation through stock ownership, interlocking directorates, mutuality of management, or otherwise, with any other concerns.
2. Give the names and addresses of former owners, so far as known.
3. State in detail expenditures made by applicant since acquisition of mining property, also amount expended by applicant's predecessor if there is any common interest between such predecessor and applicant.
4. (a) If the property is in operation, how many men are employed?  
(b) If the loan is made, what will be capacity of operation, and how many men will be employed?
5. ORE OR MINERAL RESERVES:
  - (a) Submit maps showing location of each ore body or mineral deposit in the mine. If mine has more than one working level, submit a composite map and a map of each level separately.
  - (b) Show on the level plans the location, width represented, and analysis of each sample taken. Number each sample to correspond with certificate of analysis.
  - (c) Submit section along plane of ore body or mineral deposit showing blocked out reserves, probable reserves, stoped areas, and any old workings; designate inaccessible areas.
  - (d) Show on section maps the location, width represented, and analysis of each sample taken from raises, shafts, drifts, stopes, and winzes. Number each sample to correspond with certificate of analysis.
  - (e) Give detailed estimates of developed tonnage and method and analyses used in estimating same. If more than one ore body or mineral deposit, list each separately.
  - (f) Give detailed estimates of probable reserves and supporting data.
  - (g) Explain method of taking samples in detail, whether channel, drill hole, etc.
6. State any known production of neighboring properties with dates and names, and references to source of information.
7. Describe in detail mining method to be used.
8. MILLING:
  - (a) If product is treated in applicant's mill or a leased mill:
    - (1) State capacity, percentage of extraction, ratio of concentration, and submit flow sheet of mill.
    - (2) Describe mill building, condition of same, etc.
    - (3) Give inventory of equipment in mill building. State whether in good working condition.
    - (4) State rental cost if leased mill.
    - (5) State whether there is ample room for disposal of tailings.
    - (6) State whether tailings pollute any streams, lakes, or other sources of water supply.
    - (7) Submit tables showing complete total tonnage treated, tonnage of concentrates made, and analyses of heads, concentrates, and tailings, for the last year of operation.
  - (b) If product is sold to a custom mill:
    - (1) Submit table showing complete total tonnage shipped, including settlement sheets for last year of operation. Give name and location of mill purchasing product.
    - (2) Submit copies of all contracts with the mill covering purchase of ores or minerals.

APPLICATION FOR A MINING LOAN

8. MILLING (Continued)

(c) If applicant proposes to build a mill:

- (1) Describe proposed milling operation.
- (2) Submit a flow sheet of the proposed mill, and state capacity.
- (3) Submit copies of all metallurgical or other tests.
- (4) Describe mill site showing location of mill with respect to mine.
- (5) State whether there is ample room for disposal of tailings.
- (6) State whether tailings may pollute any streams, lakes, or other sources of water supply.
- (7) Submit detailed cost of proposed mill.
- (8) Submit, if available, plans and specifications of proposed mill.

9. SMELTING:

(a) If concentrates or ore are sold to a custom smelter:

- (1) Submit tables showing tonnage of ore or concentrates shipped to smelter, including settlement sheets, for last year of operation. Give name and location of smelter purchasing same.
- (2) Submit copies of all contracts with the smelter covering purchase of ores or concentrates.

(b) If applicant proposes to build a smelter, describe in detail.

10. Give complete information concerning method and cost of transportation.

11. If mine has been in operation, give operating costs by years for each year during the last five years.

12. State sources of funds, and proposed schedule of repayment of the loan.

13. Fill in the following, or use separate sheets if necessary:

*Collateral Offered as Security for Loan*

Ore or mineral reserves	Estimated tons	Gross value per ton	Recoverable value per ton	Estimated cost of Production	Estimated profit per ton	Total Estimated profit
Developed reserves:		\$	\$	\$	\$	\$
Probable reserves:		\$	\$	\$	\$	\$

SIDEWHELL MINE

COCHISE COUNTY

RRB WR 8/21/87: Jack Pursley inquired about the Emerald Isle near Tombstone. I found an Emerald claim in the Sidewheel file which is a Haber property. He thought that might be the one asking Asarco for acid rates and availability.

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GI/WR - Visited the Sidewheel Mine. 2/24/78 a.p.

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MG WR 1/16/84: Two 500 ft. drill holes on Rattling Boy property (Cochise Co). Drilling to begin Jun 13, 1981.

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CJH WR 6/8/84: Harry R. Benninghof, Haber Inc (card) and Mike Foley (card) Silver Tech (c). These men are involved with setting up a pilot plant utilizing the Haber process. The proposed pilot plant is to be located 3 miles from Tombstone on the patented Rattling Boy claim owned by Wayne Winters. They will custom treat local silver ores in +-500 lb. lots grinding to an average of +80 mesh. Mill capacity will be 1-3 tpd. Construction will start 3-4 weeks from date and be in production during the 4th quarters of 1984. Furnished them with our circular Pertinent Data and other information.

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MG WR 9/21/84: Mr. Mike Foley of Silver Tech Mines Division, Haber, Inc. (c) called to inform me that the pilot plant located on the Rattling Boy patented claim (Cochise Co) Tombstone District, is almost complete. Silver Tech has recently had its first equipment run, testing 200 pounds of ore. Mr. Harry Bennighoff is staying in a trailer on site. Please note plant site telephone: 432-5019.

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MG WR 11/16/84: Visited the Haber facility located on the Rattling Boy patented claim (Cochise County) owned by Mr. Wayne Winters (c). The facility is housed in a large, well constructed metal building on a concrete pad (50 x 100 ft). Electricity is provided by diesel generation. A water line taps the Huachuca Mountains aqueduct that supplies water to Tombstone. Equipment in the building includes several large fiberglass tanks and a filterpress. Mr. Benninghof reports that additional funds are being raised through a stock sale. Total estimated cost of the facility to date is \$100,000.

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NJN WR 5/17/85: Jack Brantl of Watersaver Co. Inc. reported that Don Hawksworth of Haber Inc. (c) is trying to get the pilot mill off the ground. Steve Henderson son of C. T. Henderson (c) is getting involved. The mill is at the Rattling Boy (Sidewheel - file) site in Cochise County.

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Wayne Winters continues working on his Sidewheel mine. Ladders have been put in the shaft from the site of the recent connection. A headframe and small hoist installed. He plans to drift south along the vein from a point about 20' above the bottom of the shaft. GWI QR 3-1969

Mr. Wayne Winters continues working on his Sidewheel mine which adjoins the Emerald claim and mine. A drift has been started off of the bottom of the shaft. A small hoist has been installed. The work is a part-time job for Mr. Winters. GWI QR 2-27-70

Wayne Winters continued drifting off of his shaft at the Sidewheel mine next to Emerald in Tombstone. GWI QR 4-1-70

Occasional work continued at Mr. Winters' Sidewheel mine next to old Emerald. GWI QR 6-30-70

Mr. Winters continues working at his Sidewheel mine near Tombstone. The amount of work would be a few shifts a month. GWI QR 10-1-70

Mr. Winters has done some work on his Sidewheel mine. Recent geophysical work on the property has outlined a possible target. GWI QR 4-1-71

Mr. Wayne Winters continues work at his Sidewheel mine near the Emerald in Tombstone. GWI QR 6-30-71

Mr. Winters is still doing some work at his Side Wheel mine. GWI QR 9/71

Mr. Winters continues some work at the Sidewheel Mine. GWI QR Oct-Dec '71

An additional ten del Sol (Wayne Wint) NOTE-MR. WINTERS HAS BEEN DOING SOME WORK AT THE NICKOLAS AND SIDE WHEEL PROPERTIES OF THE PIEDRA DEL SOL MINING CO. *GW 9/14/72* by Piedras

Mine visit to Sidewheel mine. Mr. Winters not around. Saw small steel headframe. Mr. Winters is now spending more time getting the Nicholas ~~mine~~ ready for operation. GI WR 3-28-74

Wayne Winters did some work at the Rattling Boy and Nicholas mines during the year. More in the nature of plant construction and reopening for inspection. GWI AR 73-74

Reference:

IC 7990 p. 30

Arizona Mineral Resources Inc (file)

SIDEWHEEL MINE

COCHISE COUNTY

Visited Sidewheel mine - Mr. Winters has started a crosscut from the surface. GWI WR 3-4-67

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Visited Wauban and Sidewheel claims where Mr. Winters is crosscutting to a silver vein. (Adjoins the Emerald) GWI WR 9-3-67

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Piedras del Sol Mining Company is actively performing discovery and assessment work on several unpatented claims in the district as well as stockpiling ore removed in the course of continued development work on the Sidewheel group of patented mines on Military Hill. Tombstone Epitaph 9-28-67

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Piedras del Sol Mining Company has completed a crosscut to a silver-bearing vein on its Sidewheel patented property high up on Military Hill two miles from downtown Tombstone and is now drifting on the vein, preparatory to pulling ore. Mining and Natural Resources Record - 12-7-67

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Piedras del Sol Mining Co. is moving additional equipment onto its Sidewheel mine (an old silver and gold producer) and will be back pulling ore within 15 days. This property was well along in development prior to a 90-day delay brought about by a sale proposal that aborted when the would-be purchaser failed to come up with the cash. Denver Miner 6-1968

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Workers at Piedras del Sol are putting in several shifts per week on the company's Sidewheel patented property, taking out ore and stockpiling it, preparatory to shipping. This was one of several mines optioned to an eastern concern three months ago but the deal fell through when the concern failed to produce the price agreed upon. Arizona Republic 7-26-68

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Piedras del Sol continues development work on its Sidewheel mine stockpiling silver and gold and manganese-bearing rock from its operation. Mining record Dec. 4, 1968

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Mr. Wayne Winters continues working at his Sidewheel mine that adjoins the old Emerald mine near Tombstone. He finished the crosscut to an old 90' shaft and is planning to drift along the vein from a point below the just completed intersection. GWI QR 12-1968

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Sidewheel mine of Piedras del Sol Mining Co. - made trip underground with Mr. Winters. Field interview. GWI WR 1-11-69

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Mine visit to Sidewheel mine with Mr. Winters - looked at new underground workings. GWI WR 3-8-69

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Sena



STATE MINE INSPECTOR

AUG 03 1984

SIDEWHEEL MINE (A)  
RDS

# Office of State Mine Inspector

705 West Wing, Capitol Building  
Phoenix, Arizona 85007  
602-255-5971

## NOTICE TO ARIZONA STATE MINE INSPECTOR

In compliance with Arizona Revised Statute Section 27-303, we are submitting this written notice to the Arizona State Mine Inspector, 705 West Wing, Capitol Building, Phoenix, Arizona 85007 of our intent to X start or      stop a mining operation.

COMPANY NAME SILVER TECH MINES, INC. (ADD LOCAL ADDRESS TO THIS CARD)

CHIEF OFFICER ROBERT McPHERSON (PRESIDENT)

COMPANY ADDRESS P.O. BOX 2930 SIERRA VISTA, AZ 85636

COMPANY TELEPHONE NUMBER (602) 457-3188

MINE OR PLANT NAME SILVER TECH MINES

MINE OR PLANT LOCATION (including county and nearest town, as well as directions for locating by vehicle)

SILVER RIDGE; COCHISE COUNTY.  
TOMBSTONE, AZ. 2 1/2 MILES SOUTH EAST OF  
TOMBSTONE

TYPE OF OPERATION PILOT PLANT / CUSTOM MILL PRINCIPAL PRODUCT SILVER / MANGANESE

STARTING DATE AUG. 1984 CLOSING DATE UNKNOWN

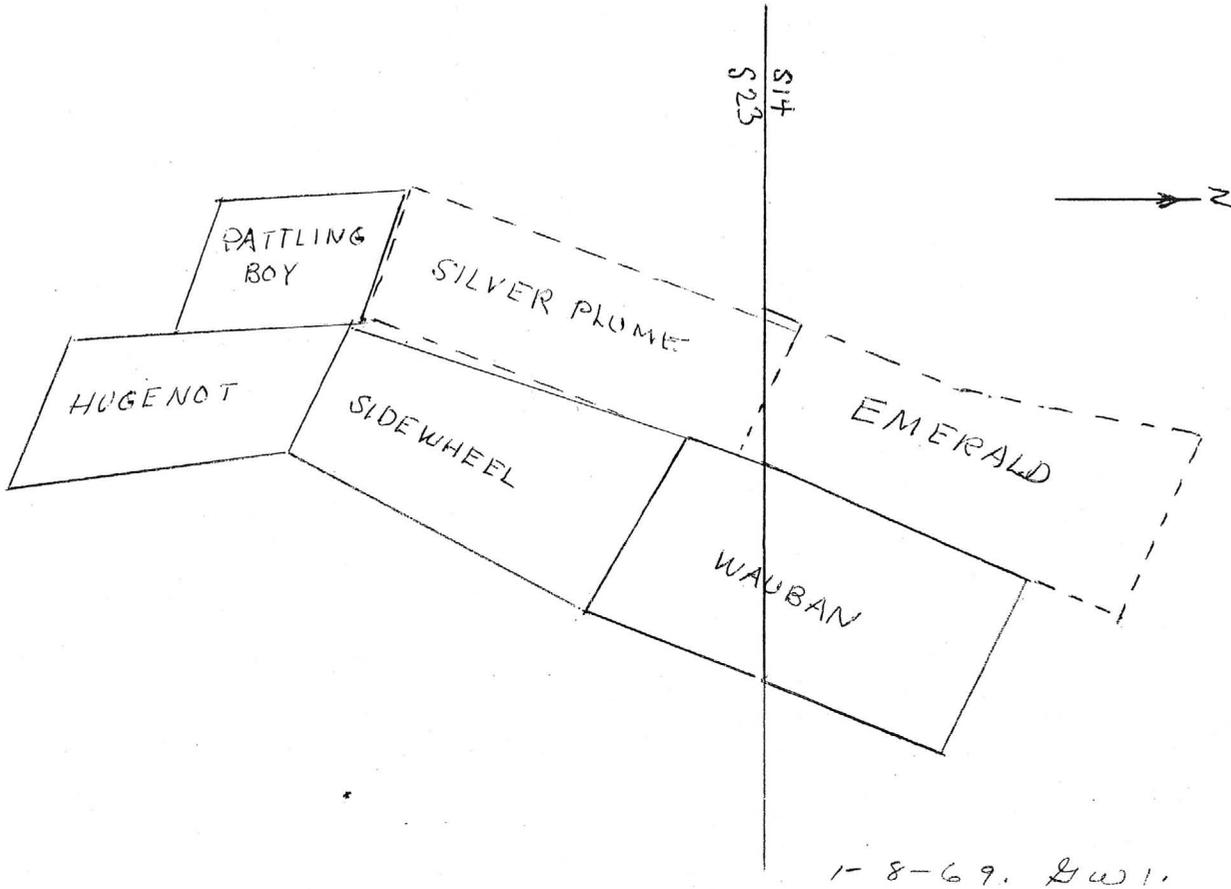
DURATION OF OPERATION N/A

PERSON SENDING THIS NOTICE MICHAEL FOLEY

TITLE OF PERSON SENDING THIS NOTICE PLANT MANAGER

DATE NOTICE SENT TO STATE MINE INSPECTOR 8-2-84

PLEASE NOTE: Any operation found operating, without having sent this notice to the Arizona State Mine Inspector, will be charged with a petty offense.



SIGNED \_\_\_\_\_

REPLY

DATE 4-30-69 19

5 Blue tops adjoining Sultana a Pat Claim in the Tombstone Dist  
 Sultana #2 adjoins Sultana - Above belong to W. Winters & Associates of  
 Tombstone, Golden Rule is Dragoon area mine Pedras De Sal Mining Co.

FOLD

RECEIVED  
 MAY 2 1969  
 DEPT. MINERAL RESOURCES  
 PHOENIX

Mo Kay?

SIGNED *[Signature]*

2

GRAND PORTAGE  
432 PAT.

BLUE TOP  
428 PAT.

BLACK TOP  
431 PAT.

GAMBASINOS  
DREAM 4809

NICHOLAS MINE  
886 PAT.

CROWN POINT  
425 PAT.

SHOOFLY  
3227 PAT.

ANTELOPE  
3227 PAT.

BASSETT LEDGE  
424 PAT.

AJAX  
294

EMERALD SOUTH  
MINE 5719

VERDE PAT.  
848

MEXICAN PAT.  
602

HIDDEN TREASURE  
875 PAT.

SILVER PLUME  
GEN. 211 & 239

EMERALD PAT.  
608

MAUBUN  
637 PAT.

RATTLING  
PAT. 639

SIDE WHEEL  
643 PAT.

CORONADO  
647

HONEYCOMB  
480 U.S.M.M.  
6

IRON KING  
HIDDEN TREASURE  
4041 873

MUGENO  
638 PAT.

LITTLE PEDRO  
GEN. 293

BIG PEDRO  
GEN. 291

ACCIDENT  
476 PAT.

MINERS DREAM MINE  
1016 PAT.  
MINERS DREAM  
3224 PAT.  
BIG COMIT MINE  
1017 & 3224 PAT.

Sec. 23

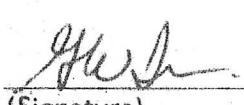
Sec. 26

M.D.S. SHEET 778.  
T201, R22E SE 44

ARIZONA DEPARTMENT OF MINER RESOURCES  
Mineral Building, Fairgrounds  
Phoenix, Arizona

1. Information from: WAYNE WINTERS  
Address: BOX 608 TOMBSTONE ARIZONA 85638
2. Mine: SIDEWHEEL 3. No. of Claims - Patented 4  
Unpatented 1
4. Location: 1.6 miles south of the Tombstone Courthouse
5. Sec 14-23 Tp 20S Range 22E 6. Mining District Tombstone
7. Owner: Wayne Winters. (*Feeders del Sal Mining Co.*)
8. Address: as above
9. Operating Co.: Same.
10. Address: \_\_\_\_\_
11. President: \_\_\_\_\_ 12. Gen. Mgr.: \_\_\_\_\_
13. Principal Metals: \_\_\_\_\_ 14. No. Employed: 1
15. Mill, Type & Capacity: \_\_\_\_\_
16. Present Operations: (a) Down  (b) Assessment work  (c) Exploration   
(d) Production  (e) Rate \_\_\_\_\_ tpd.
17. New Work Planned: To drop down the incline 75 degree shaft about 60' and  
do a little drifting on the vein.
18. Misc. Notes: A 50' crosscut to the vein then a 20' drift to the shaft  
110' deep. Intersects shaft about 25' below collar.  
Considerable other work on Huguenot and Rattling Boy Claims.  
Small hoist, compressor, tool shed on property. Plan a headframe over  
shaft.  
visited by engineer # 1-8-69 with Mr. Winters.

Date: 1-8-69

  
(Signature)

(Field Engineer)

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

FIELD ENGINEERS REPORT

Not for Publication

Mine Side Wheel Mine

Date June 13, 1958

District Tombstone District, Cochise County

Engineer Axel L. Johnson

Subject: Field Engineer's Report. (incomplete) Information from Alejo Antunez and Gene Romeroz.

References: Report of Arizona Materials and Service Company mill under date of Sept. 7, 1955, under "Ore Values" and "Ore in Sight and Probable."

Location: 3 miles S of Tombstone.

Lessees and Operators: ✓ Alejo Antunez, Box 593, Tombstone, Arizona  
✓ Juan M. Antunez, " " "  
✓ Cecil Romeroz  
✓ Gene Romeroz  
✓ George Smith

Principal Minerals: Manganese ores.

Present Mining Activities: Driving an adit in from the sidehill into the ore body. 5 men working.

Ore Values: One carload shipped to the Mohave Mining and Milling Company at Wickenburg, is reported to have averaged 30.5%.

Milling and Marketing Facilities: Operators plan to haul their ore to the Walker-Hughes mill 2 miles east of Tombstone, as soon as this mill is completed. The distance of haul would be about 5 miles. Operators report that they have shipped 2 cars to the Mohave Mining and Milling Company, Wickenburg, Arizona. One car averaged 30.5%, and no returns have been received as yet on the second carload.

Proposed Plans: To mill the ore at the Walker-Hughes mill, and then ship the concentrates on the Government Carlot Program.

General Remarks: This report is incomplete as the field engineer has been unable as yet to visit the mine. A more complete report to follow.

Mine idle 9-26-58 - ALJ Report - Tombstone Mine & Walker-Hughes Mill

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

FIELD ENGINEERS REPORT

Mine SIDE WHEEL MINE

Date April 11, 1958

District Tombstone District, Cochise Co.

Engineer Axel L. Johnson

Subject: Field Engineer's Report - Information from Alejo Antunez. No visit.

Location About 3 miles SW of Tombstone.

Number of Claims 4 patented claims.

Owner John F. Ross, Tombstone, Arizona.

Lessees & Operators Alejo Antunez, Box 593, Tombstone, Arizona, Juan M. Antunez, and 3 others. This is a 3 year lease with 10% royalty.

Principal Minerals Manganese ore.

Present Mining Activity Mining manganese ore. Part time operation only. As operators are employed on other jobs, work at the mine is carried on on Saturdays, Sundays, and after work hours.

Geology & Mineralization Mr. Antunez reports a 3 to 4 ft. wide vein of manganese, dipping 30 to 45 degrees. Country rock is limestone and shale.

Ore Values 1 carload of manganese ore shipped to the Mohave Mining & Milling Co., Wickenburg, which averaged 30.5% manganese.

Milling & Marketing Facilities Ore is shipped to the Mohave Mining & Milling Co., Wickenburg. Operators were paid \$28.00 per long ton for 30.5% manganese ore.

Past History & Production

- (1) Patented in 1885. (See report of A. MacFarlane - 1/18/45.)
- (2) Old production statistics prior to 1939 not available.
- (3) 4 carloads of lead-silver ore and 1 carload of 46% manganese ore shipped by owners in 1939. (See report of A. MacFarlane - 1/18/45)
- (4) Operated for manganese in 1955 by the Arizona Material & Service Co., Box 667, Bisbee, Arizona, the Tombstone mill being used for milling the ore. Open pit operations were attempted without too much success on account of dilution of the manganese found in the narrow vein, with a lot of waste and overburden from the stripping operations. (See my report of Sept. 7, 1955.)

Present Mining Operations Present lessees and operators started working at the property about 6 to 7 months ago, on a part time basis. A considerable amount of work was required to uncover the vein, which had been covered up by the past operations of the Arizona Materials and Service Co. Only 1 carload of manganese, running 30.5%, has been shipped to date to the Mohave Mining & Milling Co., for which operators received \$28.00 per long ton.

General Remarks Will visit this property on my next trip into the Tombstone area.

DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
FIELD ENGINEERS REPORT

Mine Side Wheel Mine

Date Sept. 7, 1955

District Turquoise District, Cochise Co.

Engineer Axel L. Johnson

Subject: Mine Report. Personal Visit, and Information from W. S. (Red) Lynch, foreman.

Location About 3 miles south-west of Tombstone, and about 2 miles south-west of the Tombstone mill, where the ore is being milled.

Owner ✓ Judge John Ross, Tombstone, Ariz.

Lessees and Operators ✓ Arizona Material and Service Co., Box 667, Bisbee, Ariz.

Officers ✓ R. C. Craig, President  
✓ W. S. (Red) Lynch, Mine Foreman.

Principal Minerals ✓ Manganese ore. This mine formerly (a number of years ago) was operated as a silver mine.

Number of Men Employed 10 to 11 men (one shift).

Production Rate Variable and intermittent, due to the fact that stripping operations are carried on at the same time in a very ~~small~~ small area, and due to the small capacity of the crushing and screening equipment at the mill. Mr. Lynch, the mine foreman, stated that he did not keep track of the amount of ore produced at the mine.

Geology ~~Striping~~ Stripping Operations has exposed a small ore body of manganese ore, which is barely large enough for a bull dozer to work to push the ore away from the bank to a place, where it can be loaded into trucks. Ore bank appears to be 8 to 12 ft. wide. Length and depth of the ore body is evidently unknown, as the mine foreman stated that no drilling or other exploratory work has been done.

Ore Values The ore appears to be quite low in grade, and, in mining the ore, a lot of waste and overburden gets mixed in with the ore. I would judge that the ore would not run much over 2 %.

Ore in Sight and Probable. No ore in sight. Probable ore indeterminate.

Milling and Marketing Facilities Ore is milled at the Tombstone mill, 2 miles north-east of the mine.

Present Mine Workings 1 open cut, about 16 ft. wide x about 100 ft. long, where the ore is being mined.

Stripping operations, being carried on simultaneously with the ore mining, in a small area just above and adjacent to the open cut.

1 old tunnel, going into the mountain, the side of this tunnel being exposed by the open pit operations. This tunnel was apparently used a number of years ago in silver mining operations.

Present Operations (1) Moving the ore out from the working face by means of a bulldozer, and then loading the ~~ex~~ ore into trucks with a car loader, for hauling to the mill.

(2) Stripping operations being carried on simultaneously just above and adjacent to the ore mining.

Equipment used 1--HD11 Allis Chalmers Bull dozer, 1--D8 Caterpillar Bull dozer, 1 Michigan Car loader, 4 of 5 --10 yard trucks. All new equipment.

- a. Maps included.
  - b. Assays included.
  - c. Present equipment - 700 ft. of track, 800 feet of air line compressor and drill equipment, small mine tools, 1 mining car, good condition.
  - d. Road in fair condition.
  - e. Report included.
9. Water supply available for all seasons of the year. The source of supply is the Huachuca Water Company, a public water service company, whose line runs within 3 or 4 hundred feet within one of the claims and is not more than 1/4 mile from the main working and shaft, and is on the proposed mill sight. Water would be purchased from the Huachuca Water Company at the going price for mining.
10. a. Proposed work would consist of:
- 1st - Driving crosscut from top of the new upraise to connect with the lower end of the Incline stope.
  - 2nd - To clean out and repair essential workings of the Side Wheel drift, laying track therein and drift along the course of the Incline stope vein here intersected at the east heading of the Side Wheel drift.
- b. See attached maps, a mineralization of about 600' along the course of the Incline stope lode to be opened.
  - c. Mine is dry.
  - d. Gasoline and crude oil for power fuel.
  - e. Estimated for first 90 days required for mine development and materials
 

Required to retire first loan	\$2,500.00 <u>4,850.00</u> \$7,350.00
-------------------------------	---
11. To further develop the mine as outlined in report and initiate shipments of lead-silver ores.

10 a. Proposed work would consist of, 1<sup>st</sup> driving cross-cut from top of the new upraise, to connect with the lower end of the Incline slope.

2<sup>nd</sup> To Clean out & repair essential workings of the "side wheel" drift, laying track therein and drift along the course of the Incline Slope vein here intersected at the east heading of the Side wheel drift.

b See attached maps. a mineralization of about 600' along the course of the Incline Slope Lode to be opened.

c mine is dry

d Gasoline & Crude oil for power fuel.

e Estimated for 1<sup>st</sup> 90 days required for mine development & materials \$2,500.00

Requires to return 1<sup>st</sup> man 4.850.00

---

\$7350.00

11 To further develop the mine as outlined in report and initiate shipments of lead silver ores.

Confidential until Houston Times exp expires  
or 1984

PROPOSED EXPLORATORY DRILLING  
ON THE  
SIDE WHEEL AND RATTLING BOY CLAIMS,  
TOMBSTONE DISTRICT,  
COCHISE COUNTY, ARIZONA

by

Albert F. Trites  
Consulting Geologist

for

Houston Mining & Resources, Inc.

November 9, 1979

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## INTRODUCTION

A program of exploratory drilling is planned by Houston Mining & Resources, Inc. for the discovery of reserves of silver and manganese on the Side Wheel and the Rattling Boy patented claims in the Tombstone Mining District, Cochise County, Arizona (Plates I and II). These properties are believed to contain excellent targets for such deposits which extend into the Huguenot patented claim and the Ore Boy and the Top Hat unpatented claims to the south.

### Location

The Side Wheel and Rattling Boy claims are in the southern part of the district about two miles by road from the town of Tombstone. The claims are in the Northwest  $\frac{1}{4}$  of Section 23, Township 20 South and Range 23 East of the Gila and Salt River Meridian. The position of these claims relative to the adjoining properties is shown on Plates I and II.

The elevation ranges from a low of about 4,950 feet at the northwestern corner of the Side Wheel to a high of slightly over 5,250 feet on the west slope of Military Hill along the southeastern edge of the Side Wheel.

Both the Side Wheel and the Rattling Boy claims are easily accessible by a mine road, suitable for two-wheel drive pickup, from Tombstone.

## History and Production

The Tombstone district was discovered in 1877<sup>(1)</sup> and had virtually exploded into major production by 1880<sup>(2)</sup>. Production records were not well kept until 1908, but from its discovery until 1886 the production had an estimated value of \$19 million and between 1886 and 1936 another \$18 million was reportedly taken from the district with production continuing<sup>(2)</sup>.

Water problems began to develop in the deeper workings during 1881 when there were as many as 650 men working in the mines. The removal of water below 1,000 feet, coupled with depressed silver prices, proved too great a burden for the district in 1909, the last year of major production. Most of the mines were then turned over to lessees who reworked the old dumps and upper-level stopes. Butler, Wilson, and Rasor<sup>(2)</sup> reported "bullion, lead concentrates, a little wulfenite concentrates, chemical manganese, and silver-manganese tails" from nearly 40,000 tons of ore milled during 1916 and 1917. From early 1934 to May, 1937, the U. S. Smelting, Refining, and Mining Company completed considerable underground work in the northeastern part of the district, shipping some ore<sup>(2)</sup>.

Most recent activity in the district has been an attempt to recover the silver and gold values from a large heap leaching operation on dump material from various mines and a highly successful pad leaching of the dumps from the State of

Maine Mine by Charles and Louis Escapule which is currently in operation<sup>(3)</sup>.

Most of the production has centered in the past on the properties in the northern part of the district, closer to the town of Tombstone. Noteworthy exceptions to this were the Emerald Mine which was closed in 1892 because of low silver prices, the Comet Mine which received a premium for its manganese ore, the Side Wheel (production unrecorded), the Rattling Boy (production unrecorded), the Nicholas Mine (production unrecorded), the property now known as the Gambasino's Dream claim (production unrecorded), and a few additional mines with production not recorded.

Mining on the Rattling Boy claim apparently was begun in the Spring of 1889, as reported in the June 22, 1889 issue of the TOMBSTONE DAILY PROSPECTOR:

"Work on this claim which is located near the Silver Plume started up last week and will be pushed with more rapidity just as soon as the new whim arrives from St. Louis. This claim as are several others in the vicinity is owned by wealthy Chicago capitalists who are determined to prospect their property thoroughly before letting up."

The August 22, 1890 issue of the same local paper contained the following note on the development of the property:

"Some very rich ore is being produced at the

Rattling Boy. The shaft was washed full of debris during the recent flood and work was started in another place with the result of finding a rich pocket." Work on the mine was continuing in November of the same year, as recorded in the November 23 issue:

"The ore vein is being followed by an upraise, and most favorable indications are found as work progresses. Over 500 feet of prospecting work has already been done on the mine."

No specifics have been found on the termination of the work on the Rattling Boy or on any on the history of the Side Wheel.

#### Mine Workings

The mine workings on the Side Wheel claim consist of more than 1,000 feet of crosscuts and drifts extending south-eastwardly from an adit whose portal is on the Silver Plume claim; a 70-foot adit near the northwestern corner of the claim, the portal of which is also on the Silver Plume; a shaft at the end of this 70-foot adit; two inclined adits (inaccessible) on the hillside above the main workings; and several prospect pits.

The Rattling Boy workings include a 200-foot inclined shaft with more than 200 feet of drifts and stopes near the center of the claim; a second shaft approximately 75 feet in depth with an estimated 100 feet of workings completely off

the vein structure near the southern edge of the claim; and one additional prospect pit (Plate II).

#### Operating Conditions and Facilities

The climate is suitable for a year-around operation, nearly ideal from an operational standpoint. The nearest source of power is a line less than 2½ miles northwest of the properties.

Water for mining operations can probably be obtained from the town of Tombstone or possibly from some of the deeper mines in the district.

#### Field Work

Field work on the Side Wheel claim, the Rattling Boy claim, and the surrounding area was conducted by the writer and Robert Lunceford, assisted by Tim Trites, at various times during August-October, 1979. A Brunton compass-tape traverse was made of the roads for survey control and the various surface workings were located either by triangulation or by Brunton compass and tape measurements. Detailed mapping was completed on the northern adit workings of the Side Wheel and nearly all of the main underground workings of this claim. A reconnaissance examination was made of the two shafts on the Rattling Boy and detailed mapping will be undertaken on the main inclined shaft and underground workings on this claim before the proposed exploratory drilling is commenced.

The 7½-minute topographic map of the Tombstone quadrangle has been enlarged from its scale of 1 inch equals 2000 feet to

the scale of 1 inch equals 200 feet for the geologic map (Plate II). A brief field study was made of the geologic formations and rock types occurring within the area to determine possible relationship of the lithology to the ore bodies.

Samples have been collected from all of the veins exposed in the near-surface and the underground workings. These samples have been analyzed by Skyline Labs., Inc., Tucson, Arizona for their silver and gold content by fire assay and some for their lead, copper, manganese content by quantitative methods.

## GEOLOGIC ASPECTS

The rocks of the immediate Side Wheel-Ratting Boy area consist chiefly of limestones ranging in age from Cambrian to Mississippian (Plate II). These beds include the Abrigo limestone of Cambrian age, the Martin limestone of Devonian age, and the Escabrosa limestone of Mississippian age. The underlying Bolsa quartzite of Cambrian age is in contact with the Abrigo limestone a few hundred feet east of the claim area.

These sedimentary rocks strike generally N. 5-15°E. and dip 34-57° southeasterly. The three limestone units are cut by an arcuate-shaped dike of altered rhyolite porphyry, extending in a southerly direction for more than 1,500 feet from beyond the Silver Plume shaft to beyond the southern end line of the Side Wheel claim. This dike has an average width of approximately 30 feet where it crops out on the surface. It is exposed in the workings of the northern adit of the Side Wheel but has not been observed in the main underground workings of this claim because of a thrust fault which appears to have displaced it to a position above these workings. The numerous crosscuts from this main adit beneath the projected position of this dike are believed by the writer to represent a futile effort to locate it. An ore-bearing vein along its eastern edge appears to have contained the principal ore deposits of the Side Wheel claim as well as those mined from the shaft of the Silver Plume.

In their discussion of the favorable rocks of the district, Butler et al (2) included the Lower Paleozoic beds (which include the three limestones of the Side Wheel-Rattling Boy area) and the dikes. Where pre-dike faulting has resulted in a zone of permeable brecciated rock for the entrance of ore-bearing solutions many large, rich ore bodies were said to have been found and certain of the large ore shoots were found to occur where northeasterly-trending fissures intersected these dike fissures.

The writer recognizes three different types of ore deposits within the Side Wheel-Rattling Boy area: (1) fissure fillings along the eastern contact of the rhyolite porphyry dike, (2) northeasterly-trending fissure fillings dipping 40-70° northwesterly, and (3) bedding fissures that strike northeasterly and dip southeasterly with the bedding. Replacement of the limestone may have occurred with each of these types and fissure intersections may be demonstrated to have been most significant in the emplacement of some of the largest ore bodies.

These ore-bearing fissures range in width from less than one foot to as much as 7 feet where observed. The ore-bearing zone along the eastern edge of the porphyry dike on the Side Wheel is from 1 to 2 feet in width across the southern half of the claim, widening to slightly over 2 feet near the adit and shaft at the northwestern corner of the claim. The northeasterly-trending and northwesterly-dipping fissures range from less than a foot to more than 7 feet in width and appear to be the

largest of the veins. The fissures or veins parallel with the bedding appear to be the most irregular and are less than 3 feet in width where observed.

These fissure fillings or veins with some limestone replacement commonly contain conspicuous amounts of black manganese oxides (psilomelane, hydrous manganese manganate; with lesser manganite, hydrous manganese oxide, and pyrolusite, manganese oxide) and varying amounts of brown limonite (hydrous iron oxide) and calcite. Pyrite (iron sulfide), galena (lead sulfide) and sphalerite (zinc sulfide) are visible in some of the less oxidized vein material. The silver minerals have not been observed by the writer in these ores but probably include argentite (silver sulfide) and embolite (silver bromide and chloride), the latter having been observed in the Nicholas vein less than a half mile to the west. Gold has been observed but its presence has been indicated by assays of some of the vein material.

## GRADE AND RESERVES

Although considerable tonnage of silver and manganese reserves at today's prices are believed by the writer to be present on the Side Wheel and the Rattling Boy claims, such reserves can only be determined by exploration. Samples collected from the north adit of the Side Wheel and from the workings extending from the bottom of the inclined shaft are believed to provide the most reliable information for estimating the average grade of the veins to be explored by this drilling.

The results of analysis of samples from the north Side Wheel adit and the underground workings on the Rattling Boy are shown on Tables 1 and 2, respectively. The weighted average of the three samples chipped across the vein alongside the rhyolite porphyry exposed in the north adit of the Side Wheel (Sample Nos. TOMB-28 thru 30) is 12.1 ounces of silver per ton and 8.4 percent manganese. On this basis, an estimated 12.0 ounces of silver per ton and 8.5 percent manganese will be used for the average grade of the ore body along the porphyry contact across the length of the Side Wheel claim.

The arithmetic average of the eight samples collected from the underground workings of the Rattling Boy is 12.59 ounces of silver per ton and 10.0 percent manganese. These samples carried more gold than those of the Side Wheel, averaging 0.09 ounce per ton. The average copper content was only 0.13 percent. The values seem somewhat higher than those on the Side Wheel and an

average grade of 12.5 ounces of silver per ton and 10.0 percent manganese is used in the projections to follow in this report. Both the gold and the copper will be disregarded, although the gold may prove to be of significant value if such an average can be realized.

TABLE 1.  
RESULTS OF ANALYSIS OF SAMPLES FROM THE SID

SAMPLE NO.	LOCATION	DESCRIPTION	OZ. PER TON	
			GOLD	SIL
TOMB - 28	East Adit - shaft at adit level	1.0-foot chip sample of manganese-rich zone on footwall	<.005	16
TOMB - 29	East Adit - shaft at adit level	1.75-foot chip sample of altered rhyolite porphyry with ¼-inch manganese streaks	<.005	3
TOMB - 30	East adit. vein at drift	2-foot chip sample across footwall of vein	0.005	17
TOMB - 31	"	2-foot chip sample hanging wall of vein	<0.005	0
TOMB - 81	Prospect near south edge of claim	Selected, stockpile	0.005	1

TABLE 1.

## ANALYSIS OF SAMPLES FROM THE SIDE WHEEL CLAIM

	OZ. PER TON		COPPER	PERCENT	
	GOLD	SILVER		LEAD	MANGANESE
sample of zone on	<.005	16.14			16.8
sample of olite porphyry manganese	<.005	3.62			1.4
sample across vein	0.005	17.42			10.4
sample hanging	<0.005	0.14			2.1
rockpile	0.005	1.40	0.04	0.85	22.4

TABLE 2.

## RESULTS OF ANALYSIS OF SAMPLES FROM THE RA

SAMPLE NO.	LOCATION	DESCRIPTION	OZ. GOLD
TOMB - 1	Drift, S. Wall, junction	14" chip across soft black and brown mineralization	0.030
TOMB - 2	3' south of TOMB - 1	Grab sample, hard black mineralization	0.110
TOMB - 3	continuation from TOMB - 2	Grab sample, 0.5' thick zone	0.080
TOMB - 4	N. side of drift	3' vertical chip across black gouge, north side of drift	0.050
TOMB - 5	E. of TOMB - 3 6' high	Chip across 1' thick zone of black and brown	0.100
TOMB - 6	W. wall, 3' above flow	Grab sample, 1' zone	0.340
TOMB - 7	Back, 3' from TOMB - 7	1.0' chip of hard black mineralization	0.010
TOMB - 8	4' above floor on East wall below TOMB - 7	2.5' vertical chip across mineralized zone	0.010

TABLE 2.

ANALYSIS OF SAMPLES FROM THE RATTLING BOY CLAIM

LOCATION	OZ. PER TON		PERCENT	
	GOLD	SILVER	COPPER	MANGANESE
Soft black and oxidation	0.030	11.67	0.06	11.9
Hard black	0.110	21.23	0.26	15.5
.5' thick zone	0.080	6.08	0.04	24.3
Chip across black side of drift	0.050	6.25	0.14	3.5
thick zone of hard	0.100	2.72	0.01	4.4
' zone	0.340	38.16	0.29	11.5
Hard black	0.010	4.97	0.01	5.2
Chip across zone	0.010	9.65	0.20	4.0

## PROPOSED EXPLORATORY DRILLING

An exploratory program of a total of 7 diamond drill holes is recommended by the writer on the Side Wheel and the Rattling Boy claims. Four of these holes will be drilled on the Side Wheel to evaluate nearly 1,000 feet of strike length of the vein alongside the rhyolite porphyry dike to a depth of from 300 to 370 feet (Plates II and III). Two of these holes will also test for the extensions of a second northeast-trending vein for a horizontal distance of approximately 300 feet and a depth of as much as 150 feet in the southern part of the Side Wheel claim. The 4 holes on the Side Wheel, totaling 1,505 feet, range in length from an estimated 325 feet to 410 feet, as follows:

<u>HOLE NO.</u>	<u>ESTIMATED LENGTH (feet)</u>	<u>INCLINATION</u>	<u>DEPTH OF PENETRATION ALONG DIP OF VEIN (feet)</u>
D. H. No. 1	405	-42°	370
D. H. No. 2	410	-38°	300
D. H. No. 3	325	-52°	300
D. H. No. 4	365	-50°	300
Total	1,505		

The three drill holes on the Rattling Boy have been laid to penetrate two intersecting northeasterly-trending veins for a strike length of about 650 feet to a depth of 300 feet (Plates II and IV). These holes, totaling 800 feet, range in length from 210 to 800 feet, as follows:

<u>HOLE NO.</u>	<u>ESTIMATED LENGTH (feet)</u>	<u>INCLINATION</u>	<u>DEPTH OF PENETRATION ALONG DIP OF VEIN (feet)</u>
D. H. No. 5	210	-44°	300
D. H. No. 6	300	-49°	300
D. H. No. 7	290	-40°	300
Total	<hr/> 800		

EXPLORATION POTENTIAL

The reserves which the writer believes can be determined by the proposed drilling program on the Side Wheel, as shown on Table 3, are as follows:

Indicated Reserves

Vein along dike .....	58,234 tons
NW. dipping vein.....	<u>8,730 "</u>
Total	66,964 tons

Inferred Reserves

Vein along dike .....	79,266 tons
NW. dipping vein.....	<u>55,250 "</u>
Total	134,510 tons

Similarly, the reserves possible through the proposed drilling on the Rattling Boy claim (Table 4) are the following:

Indicated Reserves

50° vein.....	55,500 tons
70° vein.....	<u>27,985 "</u>
Total	83,485 tons (minus the ore mined)

Inferred Reserves

50° vein.....	74,250 tons
70° vein.....	<u>37,153 "</u>
Total	81,403 tons

TABLE 3.  
POSSIBLE INDICATED AND INFERRED RESERVES BY DRILL

ORE BLOCK	INDICATED ORE		THICKNESS (feet)	TONNAGE <sup>(1)</sup>	L (
	LENGTH (feet)	DEPTH (Down Dip) (feet)			
<u>Vein Along Dike</u>					
D.H. No. 4 to N. edge of claim	150	300	2.0	7,500	
D.H. No. 3 to D.H. No. 4	300	300	2.0	15,000	
D.H. No. 1 to D.H. No. 3	300	335 av.	2.0	16,750	
D.H. No. 2 to D.H. No. 1	290	335 av.	2.0	16,192	
50 feet South of D.H. No. 2	50	335 av.	2.0	2,792	
300 feet South of D.H. No. 2					
			Total	58,234	
<u>NW - Dipping Vein</u>					
50 feet North of D.H. No. 1	50	150	2.0	1,250	
150 feet North of D.H. No. 3					
D.H. No. 1 to D.H. No. 2	280	136 av.	2.0	6,347	
50 feet South of D.H. No. 2	50	136 av.	2.0	1,133	
300 feet south of D.H. No. 2					
			Total	8,730	

(1) Based on 12 cubic feet per ton

TABLE 3.

AND INFERRED RESERVES BY DRILLING SIDE WHEEL CLAIM

THICKNESS (feet)	TONNAGE <sup>(1)</sup>	INFERRED ORE		THICKNESS (feet)	TONNAGE <sup>(1)</sup>
		LENGTH (feet)	DEPTH (Down Dip) (feet)		
2.0	7,500	150	300	2.0	7,500
2.0	15,000	300	300	2.0	15,000
2.0	16,750	300	335 av.	2.0	16,750
2.0	16,192	290	265	2.0	12,808
2.0	2,792	50	265	2.0	2,208
		250	600	2.0	25,000
Total	<u>58,234</u>				<u>79,266</u>
2.0	1,250	50	300	2.0	2,500
		150	450	2.0	11,250
2.0	6,347	280	300	2.0	14,000
2.0	1,133	50	300	2.0	2,500
		250	600	2.0	25,000
Total	<u>8,730</u>				<u>55,250</u>

feet per ton

TABLE 4.  
POSSIBLE INDICATED AND INFERRED RESERVES BY DRILL

ORE BLOCK	INDICATED ORE		THICKNESS (feet)	TONNAGE <sup>(1)</sup>
	LENGTH (feet)	DEPTH (Down Dip) (feet)		
<u>50° Vein</u>				
50 feet North of D.H. No. 5	50	300	3.0	3,750
D.H. No. 5 to D.H. No. 6	340	300	3.0	25,500
D.H. No. 6 to D.H. No. 7	300	300	3.0	22,500
50 feet South of D.H. No. 7	50	300	3.0	3,750
300 feet South of D.H. No. 7				
			Total	55,500 <sup>(2)</sup>
<u>70° Vein</u>				
50 feet North of D.H. No. 5	50	220	2.0	1,833
D.H. No. 5 to D.H. No. 6	340	228 av.	2.0	12,920
D.H. No. 6 to D.H. No. 7	300	228 av.	2.0	11,400
50 feet South of D.H. No. 7	50	220	2.0	1,833
300 feet South of D.H. No. 7				
			Total	27,986 <sup>(2)</sup>

(1) Based on 12 cubic feet per ton

(2) Minus ore previously mined

TABLE 4.

AND INFERRED RESERVES BY DRILLING RATTLING BOY CLAIM

Dip)			INFERRED ORE			
	THICKNESS (feet)	TONNAGE <sup>(1)</sup>	LENGTH (feet)	DEPTH (Down Dip) (feet)	THICKNESS (feet)	TONNAGE
	3.0	3,750	50	300	3.0	3,750
	3.0	25,500	340	300	3.0	25,500
	3.0	22,500	300	300	3.0	22,500
	3.0	3,750	50	300	3.0	3,750
			250	300	3.0	18,750
Total		55,500 <sup>(2)</sup>				74,250
	2.0	1,833	50	220	2.0	1,833
av.	2.0	12,920	340	228 av.	2.0	12,920
av.	2.0	11,400	300	228 av.	2.0	11,400
	2.0	1,833	50	220	2.0	1,833
			250	220	2.0	9,167
Total		27,986 <sup>(2)</sup>				37,153

feet per ton  
usually mined

The block of ground on the Side Wheel immediately above the main adit workings has not been considered in these estimates because of its faulted position. Additional detailed mapping in the course of this program will undoubtedly determine the possibility of estimating the reserves of the faulted area, especially after the drilling has been completed.

The total reserves possible through this exploration of the Side Wheel and the Rattling Boy are as follows:

Indicated Reserves

Side Wheel.....	66,964 tons
Rattling Boy.....	83,485 "
	<hr/>
Total	150,449 tons

Inferred Reserves

Side Wheel.....	134,510 tons
Rattling Boy.....	81,403 "
	<hr/>
Total	215,913 tons

On the basis of 12 ounces of silver per ton and 8.5 percent manganese, the 66,964 tons of indicated ore on the Side Wheel would contain 803,568 ounces of silver and 11,383,880 pounds of manganese. The 134,510 tons of inferred ore would contain 1,614,120 ounces of silver and 22,866,700 pounds of manganese.

On the slightly higher basis of 12.5 ounces of silver per ton and 10.0 percent manganese, the 83,485 tons of indicated ore on the Rattling Boy would contain 1,043,562.5 ounces of

silver and 16,697,000 pounds of manganese. The inferred ore, totaling 81,403 tons, would contain 1,017,537.5 ounces of silver and 16,280,600 pounds of manganese.

At the approximate current price of \$17.00 per ounce of silver and \$0.62 per pound of manganese, the gross value of the reserves possible on the Side Wheel is as follows:

Indicated Reserves

Silver.....	\$13,660,656
Manganese.....	<u>7,058,006</u>
Total	\$20,718,662

Inferred Reserves

Silver.....	\$27,440,040
Manganese.....	<u>14,177,354</u>
Total	\$41,617,394

The average value per ton of the total of 201,474 tons of indicated and inferred ore possible on the Side Wheel would thereby be \$309.40, not including possible values of the gold, lead, and copper.

At the same current price of \$17.00 per ounce of silver and \$0.62 per pound of manganese, the gross value of the reserves possible on the Rattling Boy is as follows:

Indicated Reserves

Silver .....	\$17,740,562
Manganese.....	<u>10,352,140</u>
Total	\$28,092,702

Inferred Reserves

Silver.....	\$17,298,137
Manganese.....	<u>10,093,972</u>
Total	\$27,392,109

The total tonnage of indicated and inferred ore possible on the Rattling Boy would be 164,888 tons. The average value of the indicated and inferred reserves would thereby be \$336.50 per ton.

Assuming that these values can be approached by the exploration program and that suitable recover of the silver and manganese can be realized, this project has an excellent projection and is recommended by the writer.

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Albert F. Trites  
Consulting Geologist  
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