DMA Form 1

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INT.-DUP. SEC., WASH., D.C. 98868

700 FILE COPY
SURNAME:

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

JUL 28 1952

Mr. James A. Coad
General Smelting & Refining Corp.
P. O. Box 1876
Raleigh, North Carolina

Re: Docket No. DMEA-2480 (Copper-zinc)
The Gold Hill Mine
Rowan County, North Carolina

Dear Mr. Coad:

Your letter of July 23, 1952, to Mr. Ernest Wm. Ellis, Chief of the Rare and Miscellaneous Metals Division, is acknowledged.

We are glad to learn that you have been successful in making a satisfactory arrangement to carry on the work of unwatering the mines and exploring the property by private financing.

In accordance with your request, we are closing the above-captioned application by withdrawal.

Sincerely yours,

(signed) FRANK E. JOHNSON

Acting Administrator

(B.J.N.) B.N. 7-28-52

GLAult/EWEllis/gla
7-25-52
cc to: Adm. Reading File
Docket
Messrs. CHJohnson-3621
Ned Nelson-4216 GSA
Ellis
Keller-2616
DMEA Field Team, Region VII (2)

7/24/52 gla

General Smelting & Refining Corporation

~~COMMUNICATION~~ Raleigh, N. Car
P.O.BOX 1876

Juky 23rd, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 24 1952

Ernest Wm.Ellis, Chief
Rare and Misc. Metals Division
Defense Minerals Exploation Administartion
Department of the Interior
Washington (25) D. C.

Dear Mr Ellis:

Re: Docket No.DMEA-2480 (Copper-Zinc)
The Gold Hill Mine
Rowan County, North Carolina

We have delayed complying fully with the final requests made by your office for Maps showing size and length of veins on the property of the Gold Hill mines - and also recent assays from those veing. Our delay in answer to your letter and request was not that we had lost interest- ~~are~~ were dalleying about sending in the desired information - But we were on a trade in the matter, which has progressed slowly.

Finally on July 15th we did complete a new arrangement in our corporate set up whereby we took into the Corporation 4 additional men who have agreed to put up whatever money is needed to unwater the mines and do a complete job of exploration thruout the property- they prefer to use their own money thru put this exploation work. They are financially able to do this - and if when the exploration work is complete and they do discover rich ore it is possible that they may want that we come back for a production loan

Therefore you may withdraw our loan application from the project as above named. Mr Simpson and I do very much appreciate your interest in our project and your courtesies to us while we were in Washington.

With kindest personal regards, I am

Cordially yours,

James E. Coad

C/z

FILE COPY
SURNAME:
700

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

MAY 29 1952

General Smelting and Refining Corp.
P. O. Box 1876
Raleigh, North Carolina

Re: Docket No. [illegible]-2180 (Copper-Inc)
The Cold Hill Mine
Rowan County, North Carolina

Gentlemen:

During the interview that we had with Mr. J. [illegible] Load on April [illegible], 1952, he informed us that you were doozer-stripping some vein outcrops of the property included in the subject application. We understood at that time that the trenches would be sampled and shortly thereafter we would be furnished the assay results of those samples.

As we would like to continue processing your application we would appreciate receiving as soon as possible, not only the assay results, but also any other data or information that you have recently acquired about the properties which would aid us in more accurately judging the merits of the proposed exploration project.

Sincerely yours,

SIGNED

Robert M. Ellis, Chief
Ferrous and Misc. Metals Division
Defense Mineral Exploration
Administration

HFKeller/jem
5/29/52
cc to: Adm. Reading File
Docket
Messrs. CHJohnson-3621
Ned Nelson-4216 GSA
Ellis Keller
Field Team, Region VII (2)

4/16/52 gla

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

April 15, 1952

Memorandum

To: Mr. E. W. Ellis

From: N. E. Nelson

Subject: DMEA-2480 - General Smelting and Refining Company, Raleigh, North Carolina

Conclusions

A field team report is indicated in order that we may know why the applicants, especially Munz and Hays, do not have some facts to support their claims since they unwatered the mine in 1938-39. Judging by the Union Mine drilling of the Bureau of Mines, zinc rather than copper may be the interesting metal.

Comment

Under date of April 11, I commented on this application. The maps and R. I. 4364 are now at hand.

The report on drilling at the Union Copper Mine supports the supposition of my earlier comment. Certainly the copper values found in the 8 drill holes at the Union Mine do not suggest it is a dormant copper mine. The Union Mine is not included in the application, but reference is made to the R. I. 4364 for support of the application which has to do with adjoining mines.

The results of the drilling as given in R. I. 4364 tend only to make a low grade zinc prospect of the Union Mine. Three holes Nos. 1, 4 and 5, have zinc values in them about which one could be curious, viz:

Hole No.	Footages	Adj. Average Cu.	Pb.	Zn.	Horizontal Width
1	517.3-532	.12	.23	2.81	10
4	260-271	.00	.98	4.78	7.0
5	121-134.2	low	low	3.70	7.6

The Union Mine is some distance,-1.2 miles-south of the Gold Hill mine, the subject of this application, and the data given above may not pertain. However, there is supposed to be a great similarity in the ore occurrences and lacking other engineering information unfavorable inferences have been drawn which a field team investigation may temper.

N. E. Nelson

N. E. Nelson
Geologist

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

April 15, 1952

Memorandum

To: Mr. E. W. Ellis

From: N. E. Nelson

Subject: DMEA-2480 - General Smelting and Refining Company, Raleigh, North Carolina

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N. E. Nelson

N. E. Nelson
Geologist

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

April 11, 1952

Memorandum

To: Mr. E. W. Ellis

From: Ned E. Nelson

Subject: IMEA-2480 - General Smelting and Refining Company, Raleigh, North Carolina.

Comment

More authentic data should be given in this application than is afforded. Two of the principals, Munz and Hays (a mining engineer) unwatered the old mines in 1938-39 and kept them unwatered for 6 months. But no mapping or sampling appears to have been done. Instead a flat statement as to ore reserves is given.

When operating, the mines must have depended largely on the gold, which is barely mentioned in the application. After concentration the copper amounted to but 3¼%, in which case, if the material was a concentrate, the original copper value must have been small, too small, perhaps, to make a copper project.

Bulletin 21 (North Carolina) supports the application to some extent, but a field team report is needed in order to decide whether a gold mine rehabilitation proposal is the real substance of the application.

N. E. Nelson

Ned E. Nelson
Geologist

4/14/52 gla

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

April 14, 1952

Memorandum

To: E. W. Ellis, DMEA

From: C. H. Johnson, Bureau of Mines

Subject: DMEA 2480 - General Smelting and Refining Corporation, Raleigh, North Carolina - Exploration Loan $45,727 for Gold Hill Mine, Gold Hill, Rowan County, N. C.

I have reviewed the subject application and accompanying maps and reports. It is essentially an unwatering and sampling project. The provision for diamond drilling is not in sufficient detail to determine whether or not the applicant has any specific drilling project in mind, but it seems unlikely. If he has not, then the project consists merely of opening for inspection and sampling, with some possibility of laying out a drilling program thereafter. If DMEA cannot assist in a simple rehabilitation and sampling project, I do not see how you can request a field examination of this application because to do so would imply that you favor it in principle.

Personally, as I have said before, I believe DMEA should support worthwhile projects of reopening and sampling. These old mines in North Carolina have a sufficient record of production that I believe the expense of opening some of them for examination and sampling might be justified. The possibility of recovering zinc from these ores which was not recoverable at the time the mines were open adds a little economic advantage in some cases.

Accordingly, if DMEA policy were such as to permit favorable consideration for this type of application, I should favor referral to the Field Team. First, however, it would be a good idea to ask the applicant to furnish the report by Mr. Hays referred to in Exhibit "C" accompanying form MF-100. Mr. Hays is said to have had the mine open for six months in 1939, and if so he should have obtained good maps and sampling records of the underground workings. If he has such maps he should have furnished them with the present application, but no harm would be done by asking. This and other questions such as the feasibility of the proposed shaft reopening and the estimated cost thereof

could of course be attended to by the Field Team when and if a field investigation is made. Experience indicates that jobs of this kind should be estimated very conservatively as they have a tendency to cost more than anyone cares to predict. I am sending the docket on to Mr. Nelson.

C. H. Johnson

C. H. Johnson

Copy to - Mr. Nelson, USGS (with docket)
Minerals Division
C. H. Johnson
Base Metals Branch
Files

4/14/52 gla

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

April 11, 1952

Memorandum

To: Mr. E. W. Ellis

From: Ned E. Nelson

Subject: DMEA-2480 - General Smelting and Refining Company, Raleigh, North Carolina.

Comment

More authentic data should be given in this application than is afforded. Two of the principals, Munz and Hays (a mining engineer) unwatered the old mines in 1938-39 and kept them unwatered for 6 months. But no mapping or sampling appears to have been done. Instead a flat statement as to ore reserves is given.

When operating, the mines must have depended largely on the gold, which is barely mentioned in the application. After concentration the copper amounted to but 3½%, in which case, if the material was a concentrate, the original copper value must have been small, too small, perhaps, to make a copper project.

Bulletin 21 (North Carolina) supports the application to some extent, but a field team report is needed in order to decide whether a gold mine rehabilitation proposal is the real substance of the application.

N. E. Nelson

Ned E. Nelson
Geologist

EXPLORATION

Subject: DMEA-2480
Re: Exploration Loan
Randolph, North and Barnhardt Mines
April 10, 1952

Mr. C. R. Hays, Secretary
General Smelting & Refining Corporation
Raleigh, North Carolina

My dear Mr. Hays:

This will acknowledge receipt of your application dated April 10, 1952 for a loan under the Defense Production Act of 1950.

Your application was assigned Docket Number DMEA-2480 and referred to the Rare and Miscellaneous Metals Division.

Kindly refer to DMEA-2480 in any future correspondence relating to your application.

Sincerely yours,

ROBERT E. ADAMS

Robert E. Adams
Administrative Officer

7862

GOLD HILL MINING PROPERTY

AS OF 1952

- LOCATION -

The Gold Hill Mines are located in the village of Gold Hill, in Rowan County, North Carolina, equally 15 miles distance from the towns of Salisbury and Albemarle.

Over paved roads within a few moments wholesale supply markets and machine shops can be reached, and from the spproximately 100,000 adjacent population, an ample supply of home owning labor can be had. This is all advantageous and affords an economical condition for any business, especially for a mine which is usually located long distances from any modern conveniences, resulting in the fact that large investments must be made to have such conveniences and facilities and thereafter the maintenance of same.

- PROPERTY -

The Gold Hill property comprises 800 acres of land and mineral rights thereof and 400 acres more of mineral rights alone, which, in North Carolina, is equivalent to surface ownership as far as mining is concerned, at the same time not subject to taxation.

On the property are paved roads, electric power, telephone, mail and bus lines and adjacent thereto is a railroad.

On the property is a large administration building and a few tenant houses.

Approximately 100 acres of land is in cultivation, the balance in timber far exceeding requirements of building and mining purposes. There are no mill buildings or equipment left on the property, like the waste ore dumps; all these have been removed to make way for modern buildings and equipment.

- HISTORY -

"North Carolina Geological Bulletin No. 21", comprising 137 pages and a bibliography of some 283 references, including American, English, and German publications directly and indirectly referring to the Gold Hill Mine and entitled "The Gold Hill Mining District", whose authors are Francis Baker Laney, Dean of Geology at Yale University, H. L. Harrison of the U. S. Geological Survey, and Joseph Hyde Pratt, Geologist for the State of North Carolina.

Because the Gold Hill veins do not out-crop at the surface are important geological indications that the major ore bodies have not yet been found. This is verified in the fact that both the very rich North and Meyers veins that do not out-crop at the surface were first intersected on the 800 foot level.

Published reports are to the fact that the Gold Hill Mine was at one time probably the largest gold mine in the world, that it was the first copper producer in America and that it was probably the largest mining center in the world at one time, the town of Gold Hill having a population of 3,000 - 4,000 people.

It is a recognized and accepted fact that there is no other similar size area in the world as North Carolina, where there is known to exist as many different kinds of minerals, which area prior to 1915 had had over 4,000 various kinds of mines, hence prior to 1860 probably the greatest mining center in the world, and certainly in America for many years where the copper and other minerals all had to come from; however, unfortunately a very small percentage of actual mining is being done within the state at the time, with such thereof being of recent origin.

The Gold Hill Mine is within approximately the center of this vast undeveloped mineral empire, offering such good opportunities for modern equipment and know-how to participate therein and profit therefrom.

At one time, North Carolina was the second largest iron producer in America; today it does not produce a ton, however, it does produce approximately 65% of the mica, 60% of feldspar-kaolin, 22% of illminite (titaninum), 26% of tungsten of the world, this latter being developed during the last few years, and has a 200,000,000 ton reserve of Olivine, from which many useful articles can be made, and likewise a large tonnage of nickel bearing ore.

The first record of copper being produced in America was the Gold Hill Mine which, altho' known as a gold mine, its greatest future wealth lies in its copper, sulphur, iron, etc., heretofore a waste, now a very valuable asset, which should put an entirely new life into the mine never heretofore realized.

Hereafter the above Bulletin will be referred to as B-21.

- RECORDS -

In the possession of Casper O. Manz of Gold Hill, N. C., are the original assay books showing hundreds of assayed values of the gold and copper ores which were being mined and milled during the last two years the mine operated (1914-15), and the tonnage of ore handled per day, which Geologist Pardee estimated to be approximately 7,200 tons for the 1914-15 period.

Mr. Manz also has the original books of record of the number of ounces of gold produced and shipped each day, and which totals thousands of ounces of gold during the 1914-15 period.

These original records are of vital importance, for the reason that they set forth each day's operational results from the ores taken from the mine, which were of the same ores later referred to in the Montgomery report, and being the same ores the mine was producing when it was closed down by court order, and represents the same ores that any future operation can begin activity thereon without further development.

- MONTGOMERY REPORT -

Charles F. Montgomery at the time the mine closed down in 1915 was mine superintendent; therefore, because of his knowledge of the then existing ores and the values thereof, should qualify him to report thereon, which he did in a very comprehensive report dated May 26, 1923, eight years after the mine had closed down and has passed from the Newman regine, hence unbiased.

The following are excerpts of this Montgomery Report:

> "On the North, Meyers, and Randolph Veins, from the 600 and 800 foot levels to the surface along a distance of 200 feet of each of these three veins, I estimate that there are 390,763 tons of ore ready to be removed, that will average $25.57 in gold and copper per ton of ore."

- LAST EXAMINATIONS -

Because of the possession of the original assay records and the bullion shipment records of the last operating company and the Charles F. Montgomery Report, and the complete geological, etc., data contained in B-21, Messers Casper O. Manz and C. R. Hays dewatered the Gold Hill in 1938-39, and during a period of approximately eight months of examinations, etc., it was determined that for all practical purposes, the ores (390,763 tons) as reported by Montgomery did and/or should exist, based upon Montgomery's method of estimation, which was in accordance to accepted practice, as of that and the present date.

During this long period of investigations much valuable information was obtained, on which to predicate any future operations of the mine. In addition to the 3 veins as referred to by Montgomery, a total of 14 were found from 3-15 feet wide, of which, 10 were virgin veins, i.e., because of their lower gold content than the North, Meyers, and Randolph, no appreciative amount of ore had been removed therefrom, in which event, from these 10 veins alone there should be a very large potential ore tonnage ready to be removed, and like the Montgomery and the ores as estimated by Hays and later referred to, without further development.

The mine was found to be in the best of condition, no repairs, and/or timbering, and/or preparation is necessary prior to actual mining, other than the installation of proper equipment.

The mine requires no timbering for safety purposes, no waste to be removed to provide working room for labor and equipment, and because of the widths of the veins only necessary to remove pay ore for

working room and because the mine produces a very small amount of water, it can be considered to be a dry mine, not only eliminating expensive water removal, but allowing labor, explosives and equipment to work to a better advantage, resulting in the fact that mining cost should be kept to a minimum.

Because of the solid rock formation, the shafts only require timbering near the surface, and below only guide timbers for the ore skip cars.

It was found that there were approximately 15,000,000 gallons of water in the mine and that it only produced an average of 90-100 gallons per minute.

- GEOLOGY -

B-21 provides complete physiography, geological, petrogical, and mineralogical information of both the mines and the district in which it is located; therefore, reference is made thereto for such information, hence making it not necessary to elaborate thereon herein.

On Page No. 101 of B-21 is a good picture of the average Gold Hill Mine ore at depth and on Page No. 94 are microphotographic pictures of the ore, showing the relationship of the gold, copper, etc., to one another in the ore structure.

All of the above technical information emanates from the Metallurgical Laboratories of the Yale University where such were made.

Quoting Arthur Keith of the U. S. Geological Survey:

> "The Gold Hill Mining District is located in the pre-Cambrian geological formulation."

B-21 states:

> "The Gold Hill sulpride ores are of igneous origin, ascending solutions from great depths below, therefore, primary ores, not sedimentary, have been subject to two separate mineral enrichments and are expected to extend to a great depth, and those high in gold are low in copper, and those high in copper are low in gold."

This was established by the 1938-39 investigations.

Quoting Ebenezer Emmons, former geologist for the state of North Carolina:

> "There are no demotions in the amount of gold, copper, and other minerals in the ore veins in depth (800 ft.) as compared to their richness in the upper levels, and that the rich ore shoots and/or veins downward is indicative of a union of them all at no great depth."

- MINES -

The Gold Hill Mine actually comprises three separate groups of mines, all three being on the same sixteen closely paralleling ore veins; however, they are not connected together underground, but could, and should be for economical reasons by normal mining operations.

On Page No. 97 of B-21 is a map showing the Gold Hill Mine proper, which includes the Randolph, Center, South, Line, and North Shafts, 830, 650, 170, 250, and 270 feet in depth respectively, from which approximately 8,000 feet of underground workings emanate therefrom, through which and on various levels the bottom of all of the shafts can be reached. This mine has been worked for gold, copper, silver, etc.

On Page No. 97 of B-21 is a map showing the Barnhardt-Miller-Mauney Mine, 465, 170, 170 feet in depth respectively. All three shafts are connected underground by the 170 foot level, and emanating therefrom is approximately 1,500 feet of underground workings. This mine has been worked principally for gold and copper.

On the same above page is a map of the Old Field Mine, comprising a shaft of that name and the Ladder shaft, each 170 feet in depth and connected together on that level, from whicn approximately 400 feet of underground workings emanate therefrom.

From these shafts and the large surface pits of this mine (Old Field), which is on two veins, no part of the 14 in the Gold Hill - Barnhardt has been worked for gold.

Because of the extensive underground development on the 16 veins of these three mines, mining could now start at a 100 or more locations within these three mines, producing upwards of 500 tons of ore per day if need be.

- ORE VEINS -

B-21 provides all necessary information as to the structure of the 14 plus the two at the Old Field Mine, making a total of 16 ore veins, the kinds of ores and their nature. Therefore, it is not necessary to elaborate thereon here, excerpting as such is of talcose-schistose nature between slate walls standing practically vertical and is of the fissure type; thence very economical to mine, because of their width and vertical positions.

Oscar Liebber, former geologist for North Carolina, states:

> "It is indicative that there will be a union of all of the Gold Hill veins at no great depth."

If so, then this one master vein should be upwards of 80-90 feet in width. Usually a 4 foot width vein makes an ideal mine.

B-21 states that the veins highest in gold are the lowest in copper and those the highest in copper are the lowest in gold, and that the 14 closely paralleling veins are transversed by a 800 foot length crosscut which is also mineralized. They are both auriferous (gold and chalcopyrite (copper). However, all veins carry coppey, sulphur, gold, iron, silver, and lesser amounts of gelena, zinc, etc.

On the 800 feet level as well as the above levels, only 8 of the 14 veins have been limitedly worked at various places and whose names are the Barnhardt-Miller four to fourteen feet, Keystone four feet, W.G.N. four to five feet, Meyers five to six feet, and the Randolph three to fifteen feet in widths. From examination by Hays the ten other veins range from four to six feet in width and it is assumed that the total of sixteen veins will average five to six feet in width including the two at the Old Field Mine, thus only pay ore has to be removed to provide working room.

At various places on the above eight worked veins, there are indications where there are swells several times their normal widths. For instance, the Randolph vein, the most extensively worked in the mine, is four feet wide at the mouth or the surface of the Randolph shaft and five feet at its 830 feet bottom entirely in the shaft all the way. However, the upper levels where ore has been removed, its width exceeds 15 feet in places.

At the Barnhardt shaft the vein of the same name is reported in B-21 to be four to fourteen feet in width, while little is known of the two veins worked at the Old Field and Ladder shafts other than their surface workings indicate they run from four to eight feet in width. However, these two veins, the Barnhardt-Miller and the "Big Vein", 25 to 30 feet wide, have not been worked in the Gold Hill Mine proper.

- IMMEDIATE ORE -

Because the hereinafter estimated ore can be had by normal mining operations requiring no further development, such is considered to be immediate available ore, as mining can begin at various places thereon at once.

Charles F. Montgomery, Mine Superintendent of the mine when it closed down in 1915, in his report dated May 26, 1923, eight years after the mine had closed down, stated that there were left on the Meyers, North, and Randolph Veins from the 800 to 600 levels to the surface an estimated 390,763 tons of ore.

J. J. Shepphard, General Manager of the Barnhardt Copper Mine, section of the Gold Hill Mine, when it closed down, in his report stated, "There were left in the Mine at one location alone 62,317 tons of copper ore which would average 3½% copper along with gold." C. R. Hays took samples off of this same Barnhardt vein in 1938-39 and found that the report of Shepphard to be as represented, as to copper.

C. R. Hays estimates that from the 800 foot level to the surface along a distance of 400 feet on the same above the Barnhardt vein, except in the Gold Hill Mine, there is 260,000 tons of copper ore ready to be removed.

The total of the above three estimates is 703,080 tons of enough to supply a 150 ton mill daily capacity plant for approximately 15 years, thus allowing ample time to create an additional ore reserve, thru normal mining operations, and at little or no added cost of developing.

In addition to the 703-080 tons of ore, C. R. Hays, estimates that there is on the 270 foot level 20,000 tons of ore already mined and stacked ready to be removed to the surface. This ore is low in gold value and high in copper.

There should be additional immediate available ores, in tonnage far exceeding the above 703,080 tons estimate, if mining was started on the 800 foot level and proceeded downward, as well as lengthwise on each of these four veins.

As to the total tonnage, the other ten veins which have not been worked, from the 800 foot level to the surface, nor along their length, or below the 800 foot level would produce, is only an opinion. However, it is reasonable to assume such should exceed 1,000,000 tons, from the 800 foot level to the surface alone, by the same token the ore on the 10 veins is ready to be mined without development.

All of the 16 ore veins carry copper, gold, sulphur, iron, silver, and lesser amounts of lead and zinc.

Hays, during 1938-39, took samples from off of all of the 14 veins, and from numerous places thereon, these were mixed together into one 200 lbs. composite sample, thus such should represent the average ore of the mine, which is now ready to be removed by regular mining operations and without further developments.

This 200 lb. sample was sent to the Mace Smelter Company, Denver, Colorado, for smelter testing, and the results were:

Copper - 3½%	@ 24¢ lb. -	$16.80
Sulphur - 12%	@ 2¢ lb. -	4.80
Iron - 15½% as metallic	@ 4¢ lb. -	9.15
Gold - 0.34¢ oz.		12.00
Silver - 0.56¢ oz.		44,

making a collective value of $43.19 per ton of ore. The reason for the low gold and silver content is because the majority of the ore samples were taken from veins lower in such, but higher in copper, sulphur, iron, etc.

- RECOVERABLE VALUES -

The value of ores are computed on the assay value thereof, fut for profits such is computed on the amount of such values reclaimed and/or recovered from the ores, therefore, recoverable values are those which have been taken from the ores, ready to be sold. This is done to compensate for either errors in assaying and percentage losses in plant operations and other losses. The recoverable value is based on 85% of the assay value. However, by the use of modern equipment and know-how such % averages 90-95%. For conservative reasons the 85% will be used, in which event, instead of the $43.19 assay value per ton (Mace) 85% thereof is $36.71 including the Gold, Copper, Silver, Sulphur and Iron. From the estimated 703,080 tons of ore the following weights and gross values should be realized on the basis of the recoverable values and/or 85%:

COPPER...	38,845,370 lbs.	@ 24¢ per lb.....	or	$9,322,888.00
SULPHUR..	143,428,320 lbs.	2¢ per lb.....	or	2,868,566.00
IRON.....	182,273,440 lbs.	4¢ per lb.....	or	7,290,396.00
GOLD.....	203,190 Ounces	35¢ per oz.....	or	7,111,650.00
SILVER...	334,766 Ounces	80¢ per oz.....	or	2,677,128.00
		Estimated total value.....		$29,270,628.00

With smelting facilities the copper value can be increased approximately 40%, likewise for the sulphur. The iron above is considered to be metallic, hence a smelter must be had to realize 4¢ per lb. Gold and Silver is the price of the Bullion ready to be shipped to the United States Mint.

The percentage of recovery by the Mace Smelter averages 98% of the values, instead of the above 85% recovery.

- COPPER - SULPHUR - IRON - ZINC -

Because Copper, Zinc, Sulphur, Iron and what lead may be recovered from the ores are strategic materials seriously needed, initial production thereof should be concentrated thereon, recovering the Gold and Silver Bullion as a by-product. The recoverable value of Copper, Sulphur, and Iron is equivalent to $30.75 per ton which should be very profitable, leaving the precious metals, clear, with the estimated gross value of the three substances being $19,481,850.00, a very favorable future for any business.

- BUSINESS -

It is recommended that initially the business should be that of producing from its own ores, and of ores from other sources, strategic materials, such as Copper, Lead, Tungsten, Iron, Sulphur, recovering the precious metals as a by-product. In this way a position could be maintained more as a producer and marketer of products rather than of a miner.

It should be the policy to assist others to produce the desired ores, which can be profitably handled, especially from the present inactive mines within economical trucking distance. If such mines had a ready market for their ores, upward of 500 tons per day could be handled in this manner, thus providing additional sources of raw products and the income therefrom.

After the desired substance has been recovered from the finely ground ore mass, which, heretofore, has been discarded as waste, and which usually represents 60 to 99% of the original ore weight and having traces of numerous minerals, convert such into a mineral supplement for human, animal, and agricultural consumption. This would wholesale for around $100.00 per ton, thus an additional income is provided from this waste.

There is enough custom plant business for 5 or 6 such plants in North Carolina alone, while there is not a single plant in the 6 Southern mineral producing states. The nearest plant to this Southern Mining District is Perth Amboy, New Jersey.

Additional business interest and activities are listed under the heading of CAPITAL INVESTMENT as additional investment must be made to provide the facilities to produce such business.

- CAPITAL INVESTMENT -

The herebelow includes labor, building and construction materials, labor, for its erection, and installation of mine and plant, machinery, and equipment.

The plant should be designed, the equipment installed, and operating personnel furnished by the manufacturers of the plant equipment, and should be a modern Flotation Concentrating plant, a complete unit capable of handling an average of 150 tons of ore per 24 hours.

By having the equipment manufacturers test the ores, recommend proper equipment, install such, put it into actual operation and then provide the operating personnel, costly mistakes should be avoided, resulting in an economical, efficiently operated plant.

Because of the fact that ores may be handled from various sources, and of various kinds, it would be desirable to have plant facilities installed as separate but complete units, say 150 tons capacity each, by so doing various units can be handling various ores and/or can be closed down when not needed.

If $350,000.00 initial capital were provided, then after deducting $210,000.00 for the initial investment as per schedule hereafter there would remain $140,000.00 for operating capital. However, if the high grade Gold ore were handled in addition to the Copper, Sulphur, Zinc and Iron, an immediate daily income could be provided, instead of having to wait for 60 days for returns from concentrates shipped during the previous month.

Returns from Gold and Silver shipments is usually 72 hours after being shipped to the United States Mint at Philadelphia, Pa.

When deemed necessary, smelting and refining facilities should be installed, and facilities to produce metallic machine, etc., parts from the iron, copper, etc., to produce and to make alloys, i.e., brass, bronze, etc., and they into parts, as an additional diversified and high profit sources of income, likewise acids and other by-products should be made from the sulphur.

Initially the concentrates so produced can be sold to eastern smelters until smelting facilities can be had, and by doing so, an average increased price of 30-40% can be had on copper, sulphur, etc.

It is estimated that total initial capital investment will be approximately $210,000.00, divided as follows:

MINE - Necessary surface and underground equipment and facilities ready for operation	$43,000.00
PLANT - Building and equipment installed ready for operation	130,000.00
ASSAYING & LABORATORY - Equipment installed	4,000.00
OFFICE EQUIPMENT & SUPPLIES, materials	5,000.00
MISCELLANEOUS - Surface equipment and facilities - repair shop, transportation, etc.	15,000.00
CONTINGENCIES	10,000.00
Estimated total initial investment	$210,000.00

- MINING COSTS -

Because of many unusual economic conditions, including the soft ores, no expensive water removal, no timbering for safety purposes, large ore veins where only pay ore had to be removed for working room, their vertical positions allowing labor and equipment to work to better advantage, mining costs can be held to a minimum. Therefore, it is estimated that at the average rate of 150 tons per day, the ore can be mined and delivered to the mill for $3.75 per ton.

The annual milling operation costs are:

$3.75 x 45,000 tons covering 300 days = $168,750.

- PLANT OPERATION COSTS -

By use of modern equipment, handling an average of 150 tons of ore per day, recovering each desired substance therefrom, making each into a high grade flotation concentrate of its kind and the Precious metals into Bullion. It is estimated that the ore can be handled at an

average cost of $3.25 per ton. Like mining, the cost is high because of the small capacity.

The annual plant operation costs are:

$3.25 x 45,000 tons covering 300 days = $146,250.

- NON PRODUCTIVE COSTS -

This applies to all costs and expenses, not directly chargeable to mining and plant operations, such as office, surface operations, transportation, assaying, laboratory, general overhead, local taxes, labor and property insurance.

The annual non-productive costs are:

$2.25 x 45,000 tons covering 300 days = $101,200.

- TOTAL COSTS -

Therefore, it is estimated the costs to handle a ton of ore will average $9.25, however, executive salaries, federal profit tax, amortization, royalties, contingencies, corporate tax, and other payments have not been included.

As ore handling capacity increases, the total costs decrease, for example other than for additional mine labor, power and supplies, it does not cost any more to handle 300 tons with the same organization than to handle 150 tons.

- ANNUAL COSTS -

It is estimated that it will cost approximately $9.25 per ton to mine, mill and take care of non-productive costs as above stated, all of which makes a total of $416,250.00

- INCOME AND PROFIT -

Although income and/or profit has not yet taken place, it is only reasonable to assume that there shall be, therefore, both are predicated on the following per annum:

150 tons of ore per day x 300 days per year or 45,000 tons	
45,000 tons x $30.75, Copper, Sulphur, Iron	$1,383,750.00
Less operating costs of $9.25 per ton x 45,000 tons.	416,624.00
Estimated gross profit	$ 967,126.00

Only the strategic substances of Copper, Sulphur, and Iron ore used - Gold and Silver being additional. Federal profit, taxes, executive salaries, sales, Royalties or similar charges have not been included, but assume that such will absorb 75% of the gross profit, if so, then the possible net profit should be approximately $241,781.00 which is more than the original initial capital investment of $210,000.00

It is assumed that ores exceeding $12.00 per ton in collective values should be profitable.

- ASSETS -

PROPERTY - (Purchase Price when acquired).....	$175,000.00
BUILDINGS,improvements, etc. now on property ...	15,000.00
MINE SHAFTS - 3,135 ft. at $28.00 per foot.....	87,720.00
MINE - Underground workings 9,000 ft.@ $12.00 ft	108,000.00
Preliminary Money Expended	10,000.00
Investment & Working Capital	350,000.00
Anticipated Gross Profits from the Estimated 703,080 tons of ore above listed at $43.00 per ton or $30,229,000.00 ½ of which is.....	15,114,500.00
Estimated possible assets.....	$15,860,220.00

- ORE DEVELOPMENT -

At the rate of 150 tons per day, there is approximately a 15 year supply of immediately available ore, requiring no further development other than that done in the normal course of actual mining.

Creating an ore reserve and maintaining such is the most important part of any mine's existence and the life of the operating company and should be carried on as follows:

First -- On the 270 foot level which is approximately 1,500 feet in length along the Randolph Vein which is the dividing and/or the center paralleling of the 14 veins and which vein has produced millions of dollars in gold and copper, core drill to the east in a horizontal direction for at least 500 feet, every 300 feet apart in order to intersect the ore bodies and/or veins on east side of the Randolph veins, including the Barnhardt.

Then on the same level do likewise towards the west in order to intersect the Meyers, North, and the Big vein some 25 feet in width, by these two procedures the ore volume and values within this 16 vein area should be fairly well known, and when known cross cuts should be made so that the ores thereon may be mined.

Second -- Start on the 800 foot length crosscut on the 800 foot level of the Gold Hill Mine, as this much of the depth has already been reached and is known, beginning on the east end of this crosscut by core drilling a horizontal hole 600 feet to the east and at right angles to the vein strike; then on the 800 foot level floor at this point drill one, 1,200 foot vertical hole downward; then near its entrance drill a 1,400 foot hole at 45% bottoming towards the east, and a like hole bottoming towards the west, north and south, making five holes; then come 400 feet west and drill five like holes near the Randolph shaft; then at the west end of the crosscut, drill six holes like was done at the east end of this crosscut. This would determine an area of approximately 2,000 feet wide and 2,000 feet in depth, properly assaying the cores so the values will be known.

Third -- On the 2,500 x 5,000 feet surface mineralized area, begin by properly surveying by several methods, in order to determine drill hole locations, so that after having been sufficiently core-drilled to 2,000 feet, this area becomes well known as to its ore potentialities and the values thereof, using the Randolph shaft as to the surface datum point. This area is only about 280 acres of the total of 1,200 acres. At various points on the surface a series of angle holes should be drilled using the above crosscut pattern, for the reason that since the veins stand practically vertical, some of such may not be intersected if all were vertical holes, where with angle holes new ore bodies and/or fissures, and/or lenses and/or veins may be intersected. However, before any surface holes are drilled the underground formations should be studied in order to avoid as many blank holes as possible. Of course, proper siesmagraph and/or magnometer surveys will prevent such errors to a certain extent.

Fourth -- Along the vein strike, several core holes should be drilled to 5,000 feet and/or to a greater depth in order to establish the depth and/or the continuation of the mineralization, whose enrichment ascended from the magmus many miles below.

Fifth -- Development work should always be carried on ahead of normal mining operations, so that an ample supply of ore is at hand. This can be done in several ways such as removing pay ore along the veins at various levels and locations, and also by crosscutting from veins to veins, and the sinking of the Barnhardt, North, and Randolph shaft, deeper, starting with the Barnhardt, then the North shaft, sinking these two to 800 feet, working towards the Randolph shaft, thus connecting these three shafts together creating a vast underground ore supply to where all of the ore and water could be carried to the surface through the centralized Randolph shaft, adjacent to which the mill should be advantageously located for economical reasons.

Of all the development methods, the above "Fifth" is the most practical, safest, surest, and most dependable and also the cheapest, for the reason that practically all of it can be done in pay ore, which goes to the mill as regular mined ore.

Sixth -- The Old Field Mine should be rehabilitated so that investigations may be made in this area of the mineralized zone some 1,000 feet southwest along the vein strike from the Randolph shaft. At least one horizontal ore drill hole some 800-1,000 feet in length towards the west and across the known 16 veins paralleling should be made, one 200-400 feet to the east and one or more from the bottom of the shaft downward to 1,000 feet below the surface.

- ECONOMIC CONDITIONS -

The Gold Hill Mine has the most favorable economic conditions, probably not available to any other similar mine in the world.

1st - Because of prior operations the mine has developed to the extent where no further expensive development is necessary to start actual mining of ore in large tonnage. Such development could not be done today for less than $200,000.00 and several years time.

2nd - In the mine there is an estimated 703,080 tons of high grade ores from which millions of dollars has been produced from the same kinds of ores, hence no expensive gamble in hunting for ores now available to operate a 150 ton daily capacity plant for about 15 years, which exceeds the total life of the majority of mines, while this is only a imor part of the ore which may be had from the mine. A most advantageous situation for any mine operator.

3rd - The majority of the world's mines have only one, two or three veins - Gold Hill has 16, of which three have been worked and that only in a limited way.

4th - Because of the width of the ore veins, only pay ore need be removed to provide working room for labor and equipment, hence a larger tonnage can be produced with the same effort.

5th - The veins stand vertical for all practical purposes, therefore, labor can work in a standing position to a better and easier advantage than on inclined veins.

6th - No safety timbering is needed, because of the favorable geological formation, thus not like most mines where it is necessary to timber to hold up the earth, thus eliminating a dangerous and expensive situation and saving of much time.

7th - The ores are primary ores therefore should extend to depths man has never reached today in any mine in the world, hence a very long life mine.

8th - The ores are soft in texture and nature as compared to other ores, therefore, they can be drilled, blasted, crushed and finely ground at less cost per ton.

9th - The mine produces an exceptionally small amount of water for its size, thus eliminating an expensive water removal, as experienced in other mines.

10th - On the property and now at the mine shafts are electric power, hence no power plants to erect and maintain.

11th - Because of the thickly populated surrounding area it is not necessary to build and maintain housing for employees.

12th - On the property and by the mine shafts a few feet are paved roads, telephones, mail and motor transportation lines, with a railroad adjacent thereto, hence no investments therein.

13th - Due to climatic conditions no expensive heating facilities for plant or employees are necessary.

14th - Wholesale supply markets, machine shops, etc. can be reached within a few minutes over paved roads, a most advantageous can economical condition.

15th - However, the most important of all is the fact that there is absolutely no problem of recovering each desired substance from the ores by modern equipment and technique, which has already been done in tests on the ores, both having been developed many years since the Gold Hill Mine was last in operation.

Because of the above important economic conditions and conveniences, a ton of ore should be mined and have the desired substances removed therefrom at the same rate of capacity, of like kind of ore, from like size vein, for 50% - 70% less per ton than can be done in Canada and/or any other mining area in the United States, except at the Gold Hill Mine, therefore, because of the large ore potentialities at Gold Hill, this mine should become one of major importance in time to come, because of the low cost of handling a ton of ore.

- SUMMARY -

Because of the present gradual depletion of, and the lowering in values in the western mining fields, and the success of the Canadian mining industry in the pre-Cambrian geological formation, the same in which Gold Hill is located, minerals have to be had from some source for the continuation of human development, therefore, instead of developing mineral fields in various parts of the world, why not those of North Carolina, especially at Gold Hill, which offers possibilities, probably greater than many of the new mineral exploration projects throughout the world now under way, where millions of American dollars are being spent to help others, why not a few for Gold Hill?

As already stated, North Carolina has more known minerals, many of economic importance, than any other similar area in the world, and if the Gold Hill District was elsewhere, money could not purchase it.

Form MF-103
(Revised June 1951)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.1.

MF-103 Should Be Filed With General Technical Data Form MF-100

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

c/o / Mr. J. E. Coad, Director /

Not To Be Filled in by Applicant

Docket No. DMEA-2480
Metal or Mineral
Date Received 4-9-52
Amount $
Participation (Government %)

Name and address of applicant

GENERAL SMELTING & REFINING CORPORATION
P.O.BOX 1876
RALEIGH, NORTH CAROLINA

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 9 1952

Date APRIL 8th, 1952

If you have already filed MF-100, give date filed filing sam etoday, type of assistance requested Exporation loan for Unwatering mine

DMA Docket Number (if available)

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four copies each, of the signed application form, General Technical Data Form MF-100, and answers to questions as specified, to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive office thereof, with your name and address on each sheet of the application and all accompanying papers. If you have previously filed MF-100, it is not necessary to file it again. However, you should indicate in space provided above the type of assistance previously applied for (loans, procurement contracts, etc.) and DMA Docket Number, if available. *When a question is inapplicable it should be so stated in the form.* Additional sheets should be attached in answering any questions or in supplying additional information. IF YOU CANNOT ANSWER A QUESTION, SO STATE.

1. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property. Attaching same hereto

   (*b*) If you are not the owner of the property, submit a copy of the lease, purchase option, or other agreements under which you are authorized to operate the property with each copy of your application. Attaching same

   (*c*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted. Attaching same

   NOTE: (1) If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*c*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

   (2) If applicant is not the owner of the property or if there are any liens or encumbrances against the property, copy of agreements of claimants, lienors, encumbrances, and lessors subordinating their interests in the property to the interest of the Government under the Exploration Project Contract will be required for attachment to the Contract.

2. (*a*) What metals or minerals do you expect to find? COPPER, ZINC, SULPHUR-See Bulletin # 21 attached

   (*b*) Furnish statement of the geologic features of your property, giving type of ore deposit and reasons for expecting to find commercial ore bodies. Illustrate with maps or sketches. If you have a geologic or engineering report, or assay maps showing width and grade, please send them with application, stating whether or not you wish to have them returned.

16—64067-2

See Belletin # 21 also - Bureau of Mines report of investigation made October 1948 - and numbered R.I. 4364 Copy of same attached hereto as made on Union copper (An adjoininh mine)

The information requested in questions 3, 4, 5, 6, 7, 8, and 9 below should be answered specifically and in detail, as this information will be attached to and incorporated as part of the Exploration Project Contract, if such contract is entered into with you by the Government.

ANSWER EACH QUESTION ON SEPARATE SHEETS OF PAPER AND SUBMIT A COPY OF EACH ANSWER FOR EACH COPY OF YOUR APPLICATION.

3. (*a*) Describe fully the proposed work and give the total cost of the project.

   (*b*) State the time required to start the project and to complete it.

4. Submit a map or sketch of the property involved showing a plan (and cross section, if needed) of the present mine workings and the *location of the proposed exploration work* as related to geologic features, such as contacts, veins, ore-bearing beds, etc.

5. Furnish an itemized list of existing facilities, buildings, installations, and fixtures with a statement of the cost of any necessary rehabilitation or repairs to put into useful and operable condition.

6. Furnish a detailed list of additional facilities, buildings, and fixtures to be purchased, installed, or erected by you, with the estimated cost of each item.

7. Furnish a detailed list of operating equipment, separated into items to be—

   (*a*) Rented

   (*b*) Purchased

   (*c*) Furnished by you

   with the rental, purchase price, or depreciation of each item, as the case may be, to be charged as a cost of the project.

8. Furnish an itemized schedule of labor, by numbers and classes (miners, muckers, etc.) and of supervisors by numbers and positions, with the maximum wages or salaries to be paid to each.

9. Furnish a detailed list with estimated cost of each item for materials, supplies, engineering, assaying, accounting, power, water, utilities, and any other items not provided for above.

10. (*a*) How much are you prepared to invest in the proposed project?

    (*b*) Is this amount sufficient to pay your part of the cost of the project, in accordance with the regulations on Government participation (Sec. 9 of MO–5)?

11. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

GENERAL SMELTING & REFINING CORPORATION
(Name of company)

By C R Hayes
(Signature of authorized official)

APRIL 8th, 1952
(Date)

SECRETARY
(Title)

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

U. S. GOVERNMENT PRINTING OFFICE 16—64067-2

(a) The proposed work is the Unwatering of three old mines. One of 830 foot depth. (The Randolph) which is connected thru drifts with the North Shaft mine - 270 feet deep. The North Shaft mine is stopped up at the top, with timbers and fallen dirt. It will have to be cleaned out down to the water, however, when the water is taken out of the Randolph it will also go out of the North. This mine is shown on page 97 of the Bulletin # 21 furnished herewith. The Barnhardt mine is choked at the top down for probably 50 or 100 feet, and then is flooded for the balance of the way down. The Barnhardt is 585 ft deep. and is described on page 103 of the Bulletin 21. As is shown in bulletin 21- The 3 mines covered in this application are pictured and in those pictures is shown the shafts and drifts. The main problem is Unwatering and clearing out the shafts. The drifts are in tact as stated by the men who unwatered the mines in 1939. The walls of the drifts are all uprigt and the shafts run between solid walls of granite and slate and offer no touble or necessity of expensive cleaning out. Once these shafts are unwatered and the choked condition cleared out a full exploration can be made of the underground workings an examination of the veins and samples taken for assaying to determine the value and % of Copper, Zinc, Sulphur. All available history and reports on these deposits and veins give evidence to the fact that there may be some very valuable ore therein.

(b) Time required - It will take about 30 days to get ready to start once we get the approval for the loan plan. It will take about 90 to unwater the mines and to unchoke them and get the necessary samples and have them assayed. That way obtain the knowledge of the strategic metals and or minerals therein

(a) Supliment covering cost of Project by item.

Work	cost
1-Equipment to be rented	$9,270.
2-Equipment to be purchased	6,807.
3-Other costs(as on item 9)	3,710.
4-Labor and personnel costs	15,470.
5-Diamond drilling & extra assaying .	10,470.
Total cost of project ...	$45,727.00

We are submitting maps of the mines showing their locations as relates to the balance of the property and are also a copy of Bulletin # 21 that fully describes these mines in full. On pages of this bulletin 97 - is shown a cross cut sections of the Randolph and North mines we have indicated thereon the location of the shafts that are choked and also need unwatering. On page 103 is shown the Barnhardt mine, the same conditions exist there.

5. Existing facilities

Consist of a Building that is in excellet condition with the exception of some minor repairs which will cost not more than $500. This building if new would cost not less than $15,000. it is in size 42 X 90 two stories , (Frame) to be used as office, storage, and housing facilities for some of the labor. The office of this building will cost about $320 for the needed facilities fpr operation.(This item has been listed under # 7 (b) purchases

The mines have no salvage value in the framing or shaft material s the matter of putting those shafts in repair is also covered in # 7 under (b)

6 -

This question of addition facilities - (added) We do not think applies to our case - as there are no needed facilities except in the case of repairing the shafts and placing the necessary timbers there in to permit the cleaning out of same and the Unwatering of same. The cost of this project in that connection is also covered in # 7 under (b)

7

(a) Equipment tobe rented

2 Water Pumps (Operating 24 hours per day) rental price $1. pr hr each or $48 per day for an estimated period of 90 days .....$4320.
3 Hoists @ $15. pr day or $45.pr da for (3) for 90 days ..... 4050.
1 Truck @ $10. per da for 90 days..... 900.
Total $9,270.

(b) Purchase -

Needed tools and working Equipment(Hand)	$280.	
Electric Starter	270.	
Hoist Cable for three mines	435.	
Sheaves wheels, shafts, bearings, ...	225.	
Electric Motors for hoist	500.	
Hand hoist for pump skip	165.	
Electric Power wiring, switches etc	400.	
Hand hoist cable for 3 mines	550.	
Pipe and fittins for 3 mines	920.	
Fire hose fittings for pumps	180.	
Miners lamps and tools, with sacks, lights etc.	220.	
Office supplies, equipment, ...	320.	
Material for mine skips	800.	
Nails, spikes,cement,bolts etc	150.	
Electric Power poles	90.	
Electric Power cables from transmitters to mine s	[illegible]	
Minc. Materials for above as unexpected expende	540.	
Total	$6807.	$ 6,807.

Total ..... $16,077.

(c) Nothing available to furnish except on purchase

(b) Supliment for Diamond drilling.

Cost of drilling equipment .....$3500.
Costs of Bits ..... 2400.
Bill for power & Repairs ..... 750.
Driller $2. pr hr helper $1.50pr hr or $3.50 pr hour 8 hour da-$28 pr day-90 days .... 2520.
Assaying 300 samples @ $3.50 transportation on same $250. ..... 1300.
Total ... $10,470.

6.

Schedule of Labor

1.	Accountant	at	$100	pr wk	for	13	weeks	.....$1300.
1.	Engineer	"	100	" "	"	13	"	.... 1300.
3.	Foremen		180	" "	"	13	"	..... 2340.
3.	Hoist operators		180	" "	"	13	"	..... 2340.
3.	Mechanics		180	" "		13	"	..... 2340.
3.	Asst Mechanics		150	" "	"	13	"	.. 1950 .
6.	Helpers		300	" "	"	13	"	.... 3900 .
						Total labor		$ 15,470.

Repairs to General office Building	$565.
Assaying for 300 samples @ $3.50	1050.
Shipping expense on samples	275.
Electric Power for all uses at 9mills per KW	940.
Grading around shafts, collars and to roads	150.
Workman's Compensation insurance	550.
Trucking and transportation at $2. per day 90 days	180.
Total	$ 3,710.

N.B.- In the case of Accounting and Engineering - same has been listed un personnel or labor on number 8.(Page)

Accounting is listed at $100 pr wk for 13 wks ...$1300.

Engineering " " " 100 " " " 13 " ,.. 1300.

Or for both ..... $2,600.

10. -

(a) We are prepared to Invest $25,000 in this Unwatering Exploring project or our ½ Of The total estimate showing herewith and are prepared to begin work on 10 days notice.

(b) The above amount is sufficient to cover our ½ of the project of Exploration.

Form MF-100
(May 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

GENERAL TECHNICAL DATA FOR USE UNDER THE DEFENSE PRODUCTION ACT OF 1950

NOT TO BE FILLED IN BY APPLICANT

Docket No. DMEA-2480

Date received 4-9-52

GENERAL SMELTING AND REFINING CORPORATION
P.O.BOX 1876
RALEIGH, NORTH CAROLINA

Name and address of applicant

Date APRIL 8th,1952

INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, (4) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (5) other forms of Government assistance that might arise under the Act. Submit four (4) signed copies of the form and accompanying papers. Name and address should be stamped or typed on each sheet of this form and all accompanying papers. *When a question is inapplicable it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. (IF YOU CANNOT ANSWER A QUESTION, SO STATE.) If a question is answered elsewhere indicate where answered. It is not necessary to answer it again.

GENERAL TECHNICAL DATA

Supply the following information on separate sheets, arranged, numbered, and lettered as indicated:

1. Materials produced:
   (*a*) What are the chief mine, mill, or smelter products?
   (*b*) What are the byproducts, if any?
2. Name(s) and type(s) of mine(s), mill(s), smelter(s), refinery(ies), pit(s), quarry (ies), drilling operation(s). Include old names of property, if any. Show extent of workings, including the following:
   (*a*) Linear feet of shafts.
   (*b*) Linear feet of drifts and crosscuts.
   (*c*) Linear feet of tunnels or adits.
   (*d*) Linear feet of other mine openings (explain briefly).

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.
4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated.
   (*b*) Are you operating this property as:
   - ☐ Owner.
   - ☐ Lessee.
   - ☐ Contractor.
5. Number of years in production _____

   If not in production or operation, estimated date when production will begin _____
6. Experience of operators:
   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project.
7. History:
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation.
   (*b*) State briefly the known history and production of adjoining and neighboring properties.
   (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

8. Names and addresses of Officers, Directors, or Partners, and in addition thereto, the five largest stockholders if applicant is a corporation.

Name and Address (a)	Official Title (If officer is also director indicate by "D") (b)	Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year (c)	Estimated Net Worth Outside of Interest in Applicant (d)	Number of Shares Held in Applicant Corporation: Common (e)	Number of Shares Held in Applicant Corporation: Preferred (f)	Life Insurance Carried for Benefit of Applicant: Amount (g)	Life Insurance Carried for Benefit of Applicant: Net Cash Surrender Value After Loans (h)
Cooper O. Kirs	Treas President (D)	None	$100,000	700-		None	None
Frank R. Simpson	V. Pres -(D)	None	$150,000	700		None	None
C. R. Kays (Engineer)	Secretary(D)	None	$25,000	700		None	None
J. E. Cond	Director	None	$25,000	700		None	None
N. C. Walke	Attorney (D)	None	$250,000	700		None	None
	Total		x x x x x	35,000		x x x x x	x x x x x

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

Item	Authorized (a)	Outstanding (b)	Par Value (c)	Number of Shares Outstanding (d)	Dividend Rate Last Paid* (e)
Common stock	$100,000	$35,000	$10.	3500	none
Preferred stock None	$	$	$		New Corporation

*Indicate period covered.

10. Production:

Item	Kind of Product (a)	1948 Total (b)	1949 Total (c)	1950 Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.)	Mines not in production as yet				
2. Quantity of product processed (specify unit of measure and type of process)					
3. Quantity and grade of product sold or shipped (specify units of measure)	Mines not in production as yet				

11. Do you contemplate a change in the present average monthly rate of production? If so, state estimated maximum monthly production and basis of change.

12. Ore or Mineral Reserves:

(a) Describe the ore or mineral deposit briefly. Accompany the application by any available report on the geology and ore reserves.

The following is to accompany application of GENERAL SMELTING & REFINING CORPORATION OF RALEIGH, NORTH CAROLINA

GENERAL TECHNICAL DATA

1. (a) COPPER , ZINC ... (b) PYRITE, SILVER, GOLD.

2. RANDOLPH, NORTH AND BARNHARDT MINES - SHAFTS AND DRIFTS- SOME DRILLING AND ASSAYINGS
(a) RANDOLPH 830ft shaft-North 270ft- Shaft. BARNHARDT 465 ft Shaft-1500ft drifts (b) Mines are flooded (estimated 15,000,000) gal of water-no unusual problems with good pumps- have pumps in mind that will remove 350 per min- incoming water at rate 800al p minute When unwatered expect to produce from 50 to 500 tons per day

3. (a) Southern Railroad 5 Blocks south- Gold Hill, N. Car
(b) Gold Hill (c) The Gold hill Mining District comprises the Eastern portion of Rowan County, and part of the Northeastern portion of Cabarrus County and a narrow strip of the Northwestern part of Stanley County, North Carolina (This all set out in meets and bounds of the Property description)

4. (a) Property not new in operation - Has not been worked since 1915 (b) Lessee

5. Operation to begin 120 days after Exploration Lease has been granted

6. (a) Pres Moss (15 yrs research in and ownership of mining properties-25 years General manager of three multi-million Dollar properties)
V.Pres Simpson - (12 years mine owner and operator of three other mines- Pres of Simpson Company largest Architects and Builders of Pubic Schools in N. Car.
Secy - Hays - Mining Engineer-Graduate M.I.T. 20 years experience in active mine operations. Including work with several of largest mining interests of country Three years on Bolivia Tin, The Discoverer of the N. Car Tungsten.
Weltz - Attorney -Former owner of N. Carolina Prefalite mines - Pres of three Textile Mills, 2 Block Plants, Very large Live Stock Business, Large Dutch Bulb Importing Business and a $100,000 annual law practice.
Cead - Director - Industrial Engineer- Fiscal Agent-
C.R.Hays- Mining Engineer will manage the project- His wide experience in that field assures the fullest cooperation - and know how.

7. (a) Attached is a copy or(EXHIBIT A) on HISTORY of this property along with maps and a copy of "BULLETIN 21" of the "GOLD HILL MINING DISTRICT OF NORTH CAROLINA Attached to this bulletin is a reference page referring to certain articles on these 3 mines
(b) and (c) are covered by the above also.

11. Yes expect to put into production as soon as exploration work is completed with an average of at least 150 tons per day

12. Attached is"EXHIBIT B MINERAL OR ORE RESERVES"(according to available reports at the closing of the mines in 1915 and at the time of Examination in 1939.
(b) - 1 and 2 are covered by Exhibit B'

13. Paved Highway right bye Mines (100 yrs) ½ miles to Southern Railroad spur Population 100,000 within 25 miles good roads in every direction-farm & mineralsher

14. All seasen Springs and he avy flow 500 yds- heavy year around supply water on property

15. Abundant power vailable, Heavy power lines cross property within 200 yds mines rate offered 7 to 9 mills - less amt if volume is stepped up

16. None employed now- Expect employ 8 to 10 during exploration time-150 when into production

17. No equipment owned at this time by the Corporation - One main administration building on property now. Which will answer for that purpose as well as tool and supply storage. Building in fair condition - a minor amount of repairs will put in 1st class shape.

18. See attached reports, estimations, maps, Bulletins etc which will cover the subject most completely.

(*b*) If deposit is other than placer:

(1) Submit assay plans and/or sections showing location and size of proved (measured) and probable (indicated) ore or mineral reserve.

(2) State the tonnage (indicate type of ton) and grade of each class of ore reserve, as above, and show how computed. Tabulated total ore reserve as follows:

TOTAL ORE OR MINERAL RESERVES

Ore or Mineral Reserve	Estimated Tons (a)	Metal or Mineral Content Per Ton (Grade) (b)	Gross Value Per Ton (c)	Recoverable Unit Value Per Ton (d)	Estimated Cost of Production Per Ton (e)
Measured (proved)					
Indicated (probable)					

(*c*) If placer:

(1) Give estimated total yardage and average marketable mineral content of each deposit.

(2) Submit map showing location of placer deposit and surrounding area, with all test holes or pits. Submit logs of each hole and test pit with depth and average value of each.

(3) Describe gravel, stating whether fine, medium or coarse; loose, tight, cemented, or frozen, and whether it contains stumps or boulders more than 1 foot in diameter; if so, how large, and in what proportion.

(4) Describe bedrock, giving type (granite, sandstone, shale, etc.) and state whether it is hard or soft, smooth, uneven or rough.

(5) Describe overburden, stating whether loose, tight, or cemented; fine or coarse textured; furnish estimate of average thickness and total amount.

(6) Tabulate the reserves using the form outlined above for ore or mineral reserves.

13. Access Roads:

Give road distances to shipping, supply and residence points, stating kind and condition of roads.

14. Water Supply:

State source and quantity of water available for operations and whether sufficient for all seasons of year.

15. Power:

State amount of power used, rate per hour, and source thereof.

16. Labor:

State number and classes (miners, muckers, millmen, etc.) of men employed during a recent representative payroll period.

17. Equipment and Facilities:

Describe present equipment on the property, including buildings. (State condition.) List major pieces of equipment now owned or controlled and in serviceable condition available for this operation.

18. Are there any particular conditions or circumstances affecting your operations that are not described above? If so, explain.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

GENERAL SMELTING & REFINING CORPORATION
(Name of company)

By C. R. Hays
(Signature of authorized official)

APRIL 9th, 1952
(Date)

Secretary
(Title)

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

U. S. GOVERNMENT PRINTING OFFICE 16—63792-1

REPORT OF ASSAYS LEFT IN OLD RECORDS OF GOLD HILL PROPERTIES

COVERING THE CLOSING YEAR OF OPERATIONS OF THE MINES.

THE ASSAYS WERE REPORTED AS COMING FROM THE RANDOLPH, NORTH

W.G.N. AND BARNHARDT MINES. THIS IS WHAT LEADS US TO BELIEVE
THERE MAY BE FOUND A VERY SUBSTANTIAL AMOUNT OF COPPER THEREIN

- - - - - - - - - - - -

ASSAYS WITH DATES TAKEN		Copper per Ton Concentr
May 6th- 1915	- Taken from North (Main shoot 2' vein)	4.30%
May 15 1915	Taken from W.G.N. Vein	4.30%
	On same date- From Hanging Wall same vein	2.40%
	N. End same vein 400 lbs ore	4.17%
	North End North-Floor Raise	14.73%
	South Iron Dike Randolph	4.43%
	Raise south of Iron dike	3.65%
May 30th	South Randolph Shaft	3.60%
	Big Sulphur Shoot Randolph	2.10%
June 5	Barnhardt	4.20%
	Meyer Vein 800 ft level	5.30%
	W.G.N. 600 foot level	4.70%

- - - - - - - - - -

THE FOLLOWING ALSO FROM OLD RECORDS OF THE MINES FOR 1914-15

Date	Tons of Concentrates	Copper
1914- Feb 1-12	25	2.15%
Feb 20-Marl	25	5.50%
March 17 Mar125		2.80%
April 1-10	25	1.90
April 15-27	25	2.10%
May 19- 28	25	2.15%
Junel- 22	25	2.70%
July 14-23	25	2.90%
Aug 1-11	25	3.20%
To Aug 25	25	3.70%
To Sep 10	25	4.30%
To Sep 30	25	4.90%

1915 - Date	Tons	Copper
Feb 1-24	25.	2.60%
Mar 2-12	25	3.10%
To Apr 12	25	4.40%
" 14	25	4.40%
" 15	25	4.60%
" 24	25	3.40%
" 27	25	2.60%
June 11	25	3.80%
" 26	25	3.10%
July 10	25	4.90%

THE ABOVE AVERAGE IS WELL ABOVE 3½% -if true)

THE OLD RECORDS FURTHER SHOW THAT THE LAST 18 CARS SHIPPED FROM THE MINES IN MAY OF 1915 AND JULY OF 1915 HAD THE FOLLOWING % OF COPPER TAKEN FROM THE ASSAYS: ALONG WITH THE METALS AS SHOWN BELOW- THIS IS GIVEN AS AVERAGE. PER TON IN EACH CASE

COPPER	SILVER	IRON	SULPHUR	GOLD	ZINC
3.35%	2.4 oz	18.17	28.00	21.00	2.78%

The old assay books are now in the hands of CASPER O. MANZ of Gold Hill, N. C.

If the above facts were true then, and no mining has been done since 1915 there must be a very substantial amount of Copper ore in that Deposit

EXHIBIT A (HISTORY)

(A) The Gold Hill Mine opened in 1842 and operated until 1858 when it closed down for the war and economic depression following. It opened again in 1881 by German miners who shipped the ore to Germany. Around 1885 the mine was sold to England who operated it until 1888 when it was sold to Walter George Newman, J. Pierpont Morgan and Whitney. They in turn operated it until 1915. There is no positive record as to the amount of gold and copper produced during the last operations. The closest estimate places the gold production at about twenty million dollars and the copper production at less than half that amount. (The operators were seeking gold primarily.)

The superintendent of the mines from 1900 to 1915 was Charles F. Montgomery who gave an estimation in 1915 at the closing of the mine that there was still in the North and Randolph veins alone an estimated 390,764 tons of ore ready to be removed, the value in copper and gold in excess of $24.00 per ton of concentrates. J. J. Shepherd, General Manager of the Barnhardt Copper Mine, which is near the Randolph, said at the time of closing down in 1915 "There were left in the mine, at one location alone, 76,317 tons of copper ore that would average better than 3½% copper. This ore is laying in the drift waiting for removal". In addition to this Shepherd estimated that there was an additional 260,000 tons of ore along a 400 foot strip running north of the Barnhardt Mine.

EXHIBIT B (ADJOINING MINES WITH ORE RESERVES)

Attached to this statement is a copy of the Bureau of Mines Report No. R.I. 4364 dated Oct. 1948 which gives a very comprehensive report of the Diamond Drilling at Union Copper (which is on the same vein and adjoining the Gold Hill properties). This report reveals an extremely heavy vein of zinc that will run percentage from 2½ - 19% with an estimated tonnage approximating 250,000 tons. This is in addition to the copper ore in the adjoining mines.

There is also enclosed with this application, a copy of Bulletin No. 21 - a 137 page volume devoted exclusively to the Gold Hill Mining district of North Carolina. There is attached to the front of this bulletin a list of references referring particularly to the Randolph, North and Barnhardt Mines.

EXHIBIT C

In 1938-39 Mining Engineer C. R. Hays and Casper O. Munz decided that they would personally unwater the Randolph and North Mines. They did so at a rather expense and maintained the dewatering for a period of six months for investigation. Their report confirmed previous estimates as to value of available ore. It fully confirmed statements made by both Montgomery and Shepherd as to what might be expected in the way of an ore supply. At that time they were expecting to operate the mines but the war came on and prevented their proceeding. (It is interesting to note that these mines had previously been closed down because of conditions brought about by war.) First in 1858 the Civil War, second in 1915 the First World War and then again in 1940 with the Second World War.

The reason for the shut down of operation in 1915 was due to a court order issued by the District Court because the then operator would not pay his labor. This is a matter of record in Rowan County, N. C. It is also a matter of record that during the last year of operation of these mines in 1915 the gross production was $292,500.00 during which time they worked only 25 men and handled approximately 30 tons of ore per day.

- THE PROPERTY -

The Gold Hill property comprises 800 acres of land in Fee Simple along with mineral rights and 400 acres additional with just the mineral rights. On this property are paved roads, electric lights, telephones, daily mail service, bus lines, bhurches, schools and adjacent thereto is a railroad.

Approximately 100 acres of this land is in cultivation. The balance is in timber which far exceeds the requirements for the necessary timber of the mines.

The bulletins, maps, charts, and Geological reports attached herewith clearly exhibits the scope and value of this property with the potentialities therein.

Form MF-103
(Revised June 1951)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.1.

MF-103 Should Be Filed With General Technical Data Form MF-100

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

c/o (Mr. J.E. Coad, Director)

Not To Be Filled in by Applicant

Docket No. DMEA-2450
Metal or Mineral
Date Received 4-9-52
Amount $
Participation (Government %)

Name and address of applicant

GENERAL SMELTING & REFINING CORPORATION
P.O.BOX 1876
RALEIGH, NORTH CAROLINA

Department of the Interior
Defense Minerals Administration
RECEIVED
APR 9 1952

Date April 8th, 1952

If you have already filed MF-100, give date filed FILEING SAME TODAY, type of assistance requested Exploration loan for unwatering mine

DMA Docket Number (if available)

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four copies each, of the signed application form, General Technical Data Form MF-100, and answers to questions as specified, to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive office thereof, with your name and address on each sheet of the application and all accompanying papers. If you have previously filed MF-100, it is not necessary to file it again. However, you should indicate in space provided above the type of assistance previously applied for (loans, procurement contracts, etc.) and DMA Docket Number, if available. *When a question is inapplicable it should be so stated in the form.* Additional sheets should be attached in answering any questions or in supplying additional information. IF YOU CANNOT ANSWER A QUESTION, SO STATE.

1. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property. Attaching same hereto

   (*b*) If you are not the owner of the property, submit a copy of the lease, purchase option, or other agreements under which you are authorized to operate the property with each copy of your application. Attaching same

   (*c*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

   NOTE: (1) If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*c*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

   (2) If applicant is not the owner of the property or if there are any liens or encumbrances against the property, copy of agreements of claimants, lienors, encumbrances, and lessors subordinating their interests in the property to the interest of the Government under the Exploration Project Contract will be required for attachment to the Contract.

2. (*a*) What metals or minerals do you expect to find? Copper, Zinc, Sulphur-See Bulletin 21 attached

   (*b*) Furnish statement of the geologic features of your property, giving type of ore deposit and reasons for expecting to find commercial ore bodies. Illustrate with maps or sketches. If you have a geologic or engineering report, or assay maps showing width and grade, please send them with application, stating whether or not you wish to have them returned.

16—64067-2

See Bulletin 21 also- Bureau of Mines Report of Investigation made October 1948 and numbered R.I. 4364- Copy of same attached - was made on Adjoining mine (Union Copper)

The information requested in questions 3, 4, 5, 6, 7, 8, and 9 below should be answered specifically and in detail, as this information will be attached to and incorporated as part of the Exploration Project Contract, if such contract is entered into with you by the Government.

ANSWER EACH QUESTION ON SEPARATE SHEETS OF PAPER AND SUBMIT A COPY OF EACH ANSWER FOR EACH COPY OF YOUR APPLICATION.

3. (*a*) Describe fully the proposed work and give the total cost of the project.

   (*b*) State the time required to start the project and to complete it.

4. Submit a map or sketch of the property involved showing a plan (and cross section, if needed) of the present mine workings and the *location of the proposed exploration work* as related to geologic features, such as contacts, veins, ore-bearing beds, etc.

5. Furnish an itemized list of existing facilities, buildings, installations, and fixtures with a statement of the cost of any necessary rehabilitation or repairs to put into useful and operable condition.

6. Furnish a detailed list of additional facilities, buildings, and fixtures to be purchased, installed, or erected by you, with the estimated cost of each item.

7. Furnish a detailed list of operating equipment, separated into items to be—

   (*a*) Rented

   (*b*) Purchased

   (*c*) Furnished by you

   with the rental, purchase price, or depreciation of each item, as the case may be, to be charged as a cost of the project.

8. Furnish an itemized schedule of labor, by numbers and classes (miners, muckers, etc.) and of supervisors by numbers and positions, with the maximum wages or salaries to be paid to each.

9. Furnish a detailed list with estimated cost of each item for materials, supplies, engineering, assaying, accounting, power, water, utilities, and any other items not provided for above.

10. (*a*) How much are you prepared to invest in the proposed project?

    (*b*) Is this amount sufficient to pay your part of the cost of the project, in accordance with the regulations on Government participation (Sec. 9 of MO–5)?

11. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

GENERAL SMELTING & REFINING CORPORATION
(Name of company)

By O R Hayes
(Signature of authorized official)

APRIL 8th, 1952
(Date)

SECRETARY
(Title)

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

U. S. GOVERNMENT PRINTING OFFICE 16—64067-2

3

(a) The proposed work is the Unwatering of three old mines. One of 830 foot depth. (The Randolph) which is connected thru drifts with the North Shaft mine - 270 feet deep. The North Shaft mine is stopped up at the top, with timbers and fallen dirt. It will have to be cleaned out down to the water, however, when the water is taken out of the Randolph it will also go out of the North. This mine is shown on page 97 of the Bulletin # 21 furnished herewith. The Barnhardt mine is choked at the top down for probably 50 or 100 feet, and then is flooded for the balance of the way down. The Barnhardt is 585 ft deep. and is described on page 103 of the Bulletin 21. As is shown in bulletin 21- The 3 mines covered in this application are pictured and in those pictures is shown the shafts and drifts. The main problem is Unwatering and clearing out the shafts. The drifts are in tact as stated by the men who unwatered the mines in 1939. The walls of the drifts are all uprigt and the shafts run between solid walls of granite and slate and offer no touble or necessity of expensive cleaning out. Once these shafts are unwatered and the choked condition cleared out a full exploration can be made of the underground workings an examination of the veins and samples taken for assaying to determine the value and % of Copper, Zinc, Sulphur. All available history and reports on these deposits and veins give evidence to the fact that there may be some very valuable ore therein.

(b) Time required - It will take about 30 days to get ready to start once we get the approval for the loan plan. It will take about 90 to unwater the mines and to unchoke them and get the necessary samples and have them assayed. That way obtain the knowledge of the strategic metals and ot minerals therein

(a) Supliment covering cost of Project by item.

Work	cost
1-Equipment to be rented	$9,270.
2-Equipment to be purchased	6,807.
3-Other costs(as on item 9)	3,710.
4-Labor and personnel costs	15,470.
5-Diamond drilling & extra assaying .	10,470.
Total cost of project ...	$45,727.00

4.

We are submitting maps of the mines showing their locations as relates to the balance of the property and are also a copy of Bulletin # 21 that fully describes these mines in full. On page of this bulletin 97 - is shown a cross cut sections of the Randolph and North mines we have indicated thereon the location of the shafts that are choked and also need unwatering. On page 103 is shown the Barnhardt mine, the same conditions exist there.

5. Existing facilities

Consist of a Building that is in excellet condition with the exception of some minor repairs which will cost not more than $500. This building if new would cost not less than $15,000. it is in sixe 42 X 90 two stories , (Frame) to be used as office, storage, and housing facilities for some of the labor. The office of this building will cost about $320 for the needed facilities for operation.(This item has been listed under # 7 (b) purchases

The mines have no salvage value in the framing or shaft material s the matter of putting those shafts in repair is also covered in # 7 under (b)

This question of addition facilities - (added) We do not think applies to our case - as there are no needed facilities except in the case of repairing the shafts and placing the necessary timbers there in to permit the cleaning out of same and the Unwatering of same. The cost of this project in that connection is also covered in # 7 under (b)

7

(a) Equipment tobe rented

2 Water Pumps (Operating 24 hours per day) rental price $1. pr hr each or $48 per day for an estimated period of 90 days	$4320.
3 Hoists @ $15. pr day or $45.pr da for (3) for 90 days	4050.
1 Truck @ $10. per da for 90 days.....	900.
Total	$9,270.

(b) Purchase -

Needed tools and working Equipment(Hand)	$280.	
Electric Starter	270.	
Hoist Cable for three mines	435.	
Sheaves wheels, shafts, bearings, ...	225.	
Electric Motors for hoists	500.	
Hand hoist for pump skip	165.	
Electric Power wiring, switches etc	400.	
Hand hoist cable for 3 mines	550.	
Pipe and fittins for 3 mines	920.	
Fire hose fittings for pumps	180.	
Miners lamps and tools, with sacks, lights etc.	220.	
Office supplies, equipment, ...	320.	
Material for mine skips	800.	
Nails, spikes,cement,bolts etc	150.	
Electric Power poles	90.	
Electric Power cables from transmitters to mine s	762.	
Minc. Materials for above as unexpected expende	540.	
Total	$6807.	$ 6,807.
Total		$16,077.

(c) Nothing available to furnish except on purchase

(b) Supliment for Diamond drilling.

Cost of drilling equipment	$3500.
Costs of Bits	2400.
Bill for power & Repairs	750.
Driller $2. pr hr helper $1.50pr hr or $3.50 pr hpur 8 hour da-$28 pr day-90 days	2520.
Assaying 300 samples @ $3.50 transportation on same $250.	1300.
Total ...	$10,470.

8.

Schedule of Labor

1.	Accountant	at $100	pr	wk	for	13	weeks	.....$1300.
1.	Engineer	" 100	"	"	"	13	"	.... 1300.
3.	Foremen	180	"	"	"	13	"	..... 2340.
3.	Hoist operators	180	"	"	"	13	"	..... 2340.
3.	Mechanics	180	"	"		13	"	.... 2340.
3.	Asst Mechanics	150	"	"	"	13	"	.. 1950.
6.	Helpers	300	"	"	"	13	"	.... 3900.

Total labor $ 15,470.

Repairs to General office Building	$565.
Assaying for 300 samples @ $3.50	1050.
Shipping expense on samples	275.
Electric Power for all uses at 9mills per KW	940.
Grading around shafts, collars and to roads	150.
Workman's Compensation insurance	550.
Trucking and transportation at $2. per day 90 days	180.
Total	$ 3,710.

N.B.- In the case of Accounting and Engineering - same has been listed un personnel or labor on number 8.(Page)

Accounting is listed at $100 pr wk for 13 wks ...$1300.

Engineering " " " 100 " " " 13 " ,.. 1300.

Or for both ..... $2,600.

10. -

(a) We are prepared to Invest $25,000 in this Unwatering Exploring project or our ½ Of The total estimate showing herewith and are prepared to begin work on 10 days notice.

(b) The above amount is sufficient to cover our ½ pf the project of Exporation.

Form MF-100
(May 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

GENERAL TECHNICAL DATA
FOR USE UNDER THE
DEFENSE PRODUCTION ACT OF 1950

NOT TO BE FILLED IN BY APPLICANT

Docket No. DMEA-2480

Date received 4-9-52

GENERAL SMELTING & REFINING CORPORATION

P.O.BOX 1876

RALEIGH, NORTH CAROLINA

Name and address of applicant

Date APRIL 8th, 1952

INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, (4) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (5) other forms of Government assistance that might arise under the Act. Submit four (4) signed copies of the form and accompanying papers. Name and address should be stamped or typed on each sheet of this form and all accompanying papers. *When a question is inapplicable it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. (IF YOU CANNOT ANSWER A QUESTION, SO STATE.) If a question is answered elsewhere indicate where answered. It is not necessary to answer it again.

GENERAL TECHNICAL DATA

Supply the following information on separate sheets, arranged, numbered, and lettered as indicated:

1. Materials produced:
   (*a*) What are the chief mine, mill, or smelter products?
   (*b*) What are the byproducts, if any?
2. Name(s) and type(s) of mine(s), mill(s), smelter(s), refinery(ies), pit(s), quarry (ies), drilling operation(s). Include old names of property, if any. Show extent of workings, including the following:
   (*a*) Linear feet of shafts.
   (*b*) Linear feet of drifts and crosscuts.
   (*c*) Linear feet of tunnels or adits.
   (*d*) Linear feet of other mine openings (explain briefly).

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.
4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated.
   (*b*) Are you operating this property as:
   - ☐ Owner.
   - ☐ Lessee.
   - ☐ Contractor.
5. Number of years in production _____

   If not in production or operation, estimated date when production will begin _____
6. Experience of operators:
   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project.
7. History:
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation.
   (*b*) State briefly the known history and production of adjoining and neighboring properties.
   (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

8. Names and addresses of Officers, Directors, or Partners, and in addition thereto, the five largest stockholders if applicant is a corporation.

Name and Address (a)	Official Title (If officer is also director indicate by "D") (b)	Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year (c)	Estimated Net Worth Outside of Interest in Applicant (d)	Number of Shares Held in Applicant Corporation: Common (e)	Number of Shares Held in Applicant Corporation: Preferred (f)	Life Insurance Carried for Benefit of Applicant: Amount (g)	Life Insurance Carried for Benefit of Applicant: Net Cash Surrender Value After Loans (h)
Casper O. Nunn	Treas President (D)	None	$100,000	700-		None	None
Frank B. Simpson	V. Pres -(D)	None	$150,000	700		None	None
O. R. Hays (Engineer)	Secretary(D)	None	$25,000	700		None	None
J. E. Cosé	Director	None	$35,000	700		None	None
H. O. Wolts	Attorney (D)	None	$250,000	700		None	None
	Total		x x x x x	35,000		x x x x x	x x x x x

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

Item	Authorized (a)	Outstanding (b)	Par Value (c)	Number of Shares Outstanding (d)	Dividend Rate Last Paid* (e)
Common stock	100,000	35,000	$ 10.	3500	none
Preferred stock None	$	$	$		New Corporation

*Indicate period covered.

10. Production:

Item	Kind of Product (a)	1948 Total (b)	1949 Total (c)	1950 Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.)	Mines not in production as yet				
2. Quantity of product processed (specify unit of measure and type of process)					
3. Quantity and grade of product sold or shipped (specify units of measure)	Mines not in production as yet				

11. Do you contemplate a change in the present average monthly rate of production? If so, state estimated maximum monthly production and basis of change.

12. Ore or Mineral Reserves:

(a) Describe the ore or mineral deposit briefly. Accompany the application by any available report on the geology and ore reserves.

The following is to acompany application of GENERAL SMELTING & REFINING CORPORATION OF RALEIGH, NORTH CAROLINA

GENERAL TECHNICAL DATS

1. (a) COPPER , ZINC ... (b) PYRITE, SILVER, GOLD.

2. RANDOLPH, NORTH AND BARNHARDT MINES - SHAFTS AND DRIFTS- SOME DRILLING AND ASSAYINGS
(a) RANDOLPH 830ft shaft-North 270ft- Shaft. BARNHARDT 465 ft Shaft-1500ft drifts (b) Mines are fleeded (estimated 15,000,000) gal of water-no unusual problems with good pumps- have pumps in mind that will remove 350 per min- incoming water at rate 800Gal per minute When unwatered expect to produce from 50 to 500 tons per day

3. (a) Southern Railroad 5 Blocks south- Gold Hill, N. Car
(b) Gold Hill (c) The Gold hill Mining District comprises the Eastern portion of Rowan County, and part of the Northeastern portion of Cabarrus County and a narrow strip of the Northwestern part of Stanley County, North Carolina (This all set out in meets and bounds of the Property descriptuon)

4. (a) Property not now in operation - Has not been worked since 1915 (b) Lessee

5. Operation to begin 120 days after Exploration Loan has been granted

6. (a) Pres Mann (15 yrs research in and ownersip of mining properties-25 years General manager of three multi-million Dollar properties)
V.Pres Simpson - (12 years mine owner and operator of three other mines- Pres of Simpson Company largest Architects and Builders of Pubic Schools in N. Car.
Secy - Hays - Mining Engineer-Graduate M.I.T. 20 years experience in active mine operations. Including work with several of largest mining interests of country Three years on Bolivia Tin, The Discoverer of the N. Car Tungsten.
Woltz - Attorney -Former owner of N. Carolina Profalite mines - Pres of three Textile Mills, 2 Block Plants, Very large Live Stock Business, Large Dutch Bulb Importing Business and a $100,000 annual law practice.
Coad - Director - Industrial Engineer- Fiscal Agent-
C.R.Hays- Mining Engineer will manage the project- His wide experience in that field assures the fullest cooperation - and know how.

7. (a) Attached is a copy or(EXHIBIT A) on HISTORY of this property along with maps and a copy of "BULLETIN 21" of the "GOLD HILL MINING DISTRICT OF NORTH CAROLINA Attached to this bulletin is a reference page referring to certain articles on these 3 mines
(b) and (c) are covered by the above also.

11. Yes expect to put into production as soon as exporation work is completed with an average of at least 150 tons per day

12. Attached is"EXHIBIT B MINERAL OR ORE RESERVES"(according to available reports at the closing of the mines in 1915 and at the time of Examination in 1939.
(b) - 1 and 2 are covered by Exhibit B'

13. Paved Highway right bye Mines (100 yrs) ½ miles to Southern Railroad spur Population 100,000 within 25 miles good roads in every direction-farm & minelaber

14. All season Springs and he avy flow 500 yds- heavy year around supply water on property

15. Abundant power vailable, Heavy power lines cross property within 200 yds mines rate offered 7 to 9 mills - less amt if volume is stepped up

16. None employed now- Expect employ 8 to 10 during exporation time-150 when into production

17. No equipment owned at this time by the Corporation - One main administration building on property now. Which will answer for that purpose as well as tool and supply storage. Building in fair condition - a minor amount of repairs will put in 1st class shape.

18. See attached reports, estimations, maps, Bulletins etc which will cover the subject most completely.

(*b*) If deposit is other than [illegible]er:

(1) Submit assay plans and/or sections showing location and size of proved (measured) and probable (indicated) ore or mineral reserve.

(2) State the tonnage (indicate type of ton) and grade of each class of ore reserve, as above, and show how computed. Tabulated total ore reserve as follows:

TOTAL ORE OR MINERAL RESERVES

Ore or Mineral Reserve	Estimated Tons (a)	Metal or Mineral Content Per Ton (Grade) (b)	Gross Value Per Ton (c)	Recoverable Unit Value Per Ton (d)	Estimated Cost of Production Per Ton (e)
Measured (proved)					
Indicated (probable)					

(*c*) If placer:

(1) Give estimated total yardage and average marketable mineral content of each deposit.

(2) Submit map showing location of placer deposit and surrounding area, with all test holes or pits. Submit logs of each hole and test pit with depth and average value of each.

(3) Describe gravel, stating whether fine, medium or coarse; loose, tight, cemented, or frozen, and whether it contains stumps or boulders more than 1 foot in diameter; if so, how large, and in what proportion.

(4) Describe bedrock, giving type (granite, sandstone, shale, etc.) and state whether it is hard or soft, smooth, uneven or rough.

(5) Describe overburden, stating whether loose, tight, or cemented; fine or coarse textured; furnish estimate of average thickness and total amount.

(6) Tabulate the reserves using the form outlined above for ore or mineral reserves.

13. Access Roads:

Give road distances to shipping, supply and residence points, stating kind and condition of roads.

14. Water Supply:

State source and quantity of water available for operations and whether sufficient for all seasons of year.

15. Power:

State amount of power used, rate per hour, and source thereof.

16. Labor:

State number and classes (miners, muckers, millmen, etc.) of men employed during a recent representative payroll period.

17. Equipment and Facilities:

Describe present equipment on the property, including buildings. (State condition.) List major pieces of equipment now owned or controlled and in serviceable condition available for this operation.

18. Are there any particular conditions or circumstances affecting your operations that are not described above? If so, explain.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

GENERAL SMELTING & REFINING CORRORATION
(Name of company)

By C. R. Hoyo
(Signature of authorized official)

APRIL 8th, 1952
(Date)

SECRETARY
(Title)

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

U. S. GOVERNMENT PRINTING OFFICE 16—63792-1

REPORT OF ASSAYS LEFT IN OLD RECORDS OF GOLD HILL PROPERTIES

COVERING THE CLOSING YEAR OF OPERATIONS OF THE MINES.

THE ASSAYS WERE REPORTED AS COMING FROM THE RANDOLPH, NORTH

W.G.N. AND BARNHARDT MINES. THIS IS WHAT LEADS US TO BELIEVE THERE MAY BE FOUND A VERY SUBSTANTIAL AMOUNT OF COPPER THEREIN

- - - - - - - - - - - -

ASSAYS WITH DATES TAKEN		Copper pr Ton Concentr
May 6th- 1915	- Taken from North (Main shoot 2' vein)	4.30%
May 15 1915	Taken from W.G.N. Vein	4.30%
	On same date- From Hanging Wall same vein	2.40%
	N. End same vein 400 lbs ore	4.17%
	North End North-Foor Raise a.....	14.73%
	South Iron Dike Randolph	4.43%
	Raise south of Iron dike	3.65%
May 30th	South Randolph Shaft	3.60%
	Big Sulphur Stoot Randolph	2.10%
June 5	Barnhardt	4.20%
	Meyer Vein 800 ft level	5.30%
	W.G.N. 600 feet level	4.70%

- - - - - - - - - -

THE FOLLOWING ALSO FROM OLD RECORDS OF THE MINES FOR 1914-15

Date	Tons of Concentrates	Copper	1915 - Date	Tons	Copper
1914- Feb 1-12	25	2.15%	Feb 1-24	25	2.60%
Feb 20-Marl	25	5.50%	Maf 2-12	25	3.10%
March 17 Marl	25	2.80%	To Apr 12	25	4.40%
April 1-10	25	1.90	" 14	25	4.40%
April 15-27	25	2.10%	" 15	25	4.60%
May 19- 28	25	2.15%	# 24	25	3.40%
Junal- 22	25	2.70%	" 27	25	2.60%
July 14-23	25	2.90%	June 11	25	3.80%
Aug 1-13	25	3.20%	" 26	25	3.10%
To Aug 25	25	3.70%	July 10	25	4.90%
To Sep 10	25	4.30%			
To Sep 30	25	4.90%			

THE ABOVE AVERAGE IS WELL ABOVE 3½% -if true)

THE OLD RECORDS FURTHER SHOW THAT THE LAST 18 CARS SHIPPED FROM THE MINES IN MAY OF 1915 AND JULY OF 1915 HAD THE FOLLOING % OF COPPER TAKEN FROM THE ASSAYS: ALONG WITH THE METALS AS SHOWN BELOW- THIS IS GIVEN AS AVERAGE. PER TON IN EACH CASE

COPPER	SILVER	IRON	SULPHUR	GOLD	ZINC
3.35%	1.[illegible] oz	18.17	28.00	21.00	2.78%

The old assay books are now in the hands of CASPER O. MANZ of Gold Hill, N. C.

If the above facts were tru them, and no mining has been done since 1915 there must be a very substantial amount of Copper ore in that Deporit

EXHIBIT A (HISTORY)

(A) The Gold Hill Mine opened in 1842 and operated until 1858 when it closed down for the war and economic depression following. It opened again in 1881 by German miners who shipped the ore to Germany. Around 1885 the mine was sold to England who operated it until 1888 when it was sold to Walter George Newman, J. Pierpont Morgan and Whitney. They in turn operated it until 1915. There is no positive record as to the amount of gold and copper produced during the last operations. The closest estimate places the gold production at about twenty million dollars and the copper production at less than half that amount. (The operators were seeking gold primarily.)

The superintendent of the mines from 1900 to 1915 was Charles F. Montgomery who gave an estimation in 1915 at the closing of the mine that there was still in the North and Randolph veins alone an estimated 390,764 tons of ore ready to be removed, the value in copper and gold in excess of $24.00 per ton of concentrates. J. J. Shepherd, General Manager of the Barnhardt Copper Mine, which is near the Randolph, said at the time of closing down in 1915 "There were left in the mine, at one location alone, 76,317 tons of copper ore that would average better than 3½% copper. This ore is laying in the drift waiting for removal". In addition to this Shepherd estimated that there was an additional 260,000 tons of ore along a 400 foot strip running north of the Barnhardt Mine.

EXHIBIT B (ADJOINING MINES WITH ORE RESERVES)

Attached to this statement is a copy of the Bureau of Mines Report No. R.I. 4364 dated Oct. 1948 which gives a very comprehensive report of the Diamond Drilling at Union Copper (which is on the same vein and adjoining the Gold Hill properties). This report reveals an extremely heavy vein of zinc that will run percentage from 2½ - 19% with an estimated tonnage approximating 250,000 tons. This is in addition to the copper ore in the adjoining mines.

There is also enclosed with this application, a copy of Bulletin No. 21 - a 137 page volume devoted exclusively to the Gold Hill Mining district of North Carolina. There is attached to the front of this bulletin a list of references referring particularly to the Randolph, North and Barnhardt Mines.

EXHIBIT C

In 1938-39 Mining Engineer C. R. Hays and Casper O. Munz decided that they would personally unwater the Randolph and North Mines. They did so at a rather expense and maintained the dewatering for a period of six months for investigation. Their report confirmed previous estimates as to value of available ore. It fully confirmed statements made by both Montgomery and Shepherd as to what might be expected in the way of an ore supply. At that time they were expecting to operate the mines but the war came on and prevented their proceeding. (It is interesting to note that these mines had previously been closed down because of conditions brought about by war.) First in 1858 the Civil War, second in 1915 the First World War and then again in 1940 with the Second World War.

The reason for the shut down of operation in 1915 was due to a court order issued by the District Court because the then operator would not pay his labor. This is a matter of record in Rowan County, N. C. It is also a matter of record that during the last year of operation of these mines in 1915 the gross production was $292,500.00 during which time they worked only 25 men and handled approximately 30 tons of ore per day.

- THE PROPERTY -

The Gold Hill property comprises 800 acres of land in Fee Simple along with mineral rights and 400 acres additional with just the mineral rights. On this property are paved roads, electric lights, telephones, daily mail service, bus lines, bhurches, schools and adjacent thereto is a railroad.

Approximately 100 acres of this land is in cultivation. The balance is in timber which far exceeds the requirements for the necessary timber of the mines.

The bulletins, maps, charts, and Geological reports attached herewith clearly exhibits the scope and value of this property with the potentialities therein.

F-103
(June 1951)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.1.

MF-103 Should Be Filed With General Technical Data Form MF-100

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

Not To Be Filled in by Applicant

Docket No. DMEA-248D
Metal or Mineral
Date Received 4-9-52
Amount $
Participation (Government %)

(c/o Mr. J. E. Reed, Director)

GENERAL SMELTING & REFINING CORPORATION
P.O. BOX 1876
RALEIGH, NORTH CAROLINA

Name and address of applicant

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 9 1952

Date April 8th, 1952

If you have already filed MF-100, give date filed Filing same today, type of assistance requested Exploration loan for Unwatering mine,

DMA Docket Number (if available)

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four copies each, of the signed application form, General Technical Data Form MF-100, and answers to questions as specified, to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive office thereof, with your name and address on each sheet of the application and all accompanying papers. If you have previously filed MF-100, it is not necessary to file it again. However, you should indicate in space provided above the type of assistance previously applied for (loans, procurement contracts, etc.) and DMA Docket Number, if available. *When a question is inapplicable it should be so stated in the form.* Additional sheets should be attached in answering any questions or in supplying additional information. IF YOU CANNOT ANSWER A QUESTION, SO STATE.

1. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property. Attaching same hereto

   (*b*) If you are not the owner of the property, submit a copy of the lease, purchase option, or other agreements under which you are authorized to operate the property with each copy of your application. Attaching same

   (*c*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted. Attaching same

   NOTE: (1) If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*c*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

   (2) If applicant is not the owner of the property or if there are any liens or encumbrances against the property, copy of agreements of claimants, lienors, encumbrances, and lessors subordinating their interests in the property to the interest of the Government under the Exploration Project Contract will be required for attachment to the Contract.

2. (*a*) What metals or minerals do you expect to find? COPPER, ZINC, SULPHUR

   (*b*) Furnish statement of the geologic features of your property, giving type of ore deposit and reasons for expecting to find commercial ore bodies. Illustrate with maps or sketches. If you have a geologic or engineering report, or assay maps showing width and grade, please send them with application, stating whether or not you wish to have them returned.

   SEE BULLETIN # 21- attached- also Bureau of Minesreport of Investigation made Oct 1948- and numbered R.I. 4364- copy of same attached hereto as made on Union Copper (An adjoining mine)

The information requested in questions 3, 4, 5, 6, 7, 8, and 9 below should be answered specifically and in detail, and information will be attached to and incorporated as part of the Exploration Project Contract, if such contract is entered into with you by the Government.

ANSWER EACH QUESTION ON SEPARATE SHEETS OF PAPER AND SUBMIT A COPY OF EACH ANSWER FOR EACH COPY OF YOUR APPLICATION.

3. (*a*) Describe fully the proposed work and give the total cost of the project.

   (*b*) State the time required to start the project and to complete it.

4. Submit a map or sketch of the property involved showing a plan (and cross section, if needed) of the present mine workings and the *location of the proposed exploration work* as related to geologic features, such as contacts, veins, ore-bearing beds, etc.

5. Furnish an itemized list of existing facilities, buildings, installations, and fixtures with a statement of the cost of any necessary rehabilitation or repairs to put into useful and operable condition.

6. Furnish a detailed list of additional facilities, buildings, and fixtures to be purchased, installed, or erected by you, with the estimated cost of each item.

7. Furnish a detailed list of operating equipment, separated into items to be—

   (*a*) Rented

   (*b*) Purchased

   (*c*) Furnished by you

   with the rental, purchase price, or depreciation of each item, as the case may be, to be charged as a cost of the project.

8. Furnish an itemized schedule of labor, by numbers and classes (miners, muckers, etc.) and of supervisors by numbers and positions, with the maximum wages or salaries to be paid to each.

9. Furnish a detailed list with estimated cost of each item for materials, supplies, engineering, assaying, accounting, power, water, utilities, and any other items not provided for above.

10. (*a*) How much are you prepared to invest in the proposed project?

    (*b*) Is this amount sufficient to pay your part of the cost of the project, in accordance with the regulations on Government participation (Sec. 9 of MO–5)?

11. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

GENERAL SMELTING & REFINING CORPORATION
(Name of company)

By C R Hayes
(Signature of authorized official)

APRIL 8th, 1952
(Date)

SECRETARY
(Title)

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

U. S. GOVERNMENT PRINTING OFFICE 16—64067-2

(a) The proposed work is the Unwatering of three old mines. One of 830 foot depth. (The Randolph) which is connected thru drifts with the North Shaft mine - 270 feet deep. The North Shaft mine is stopped up at the top, with timbers and fallen dirt. It will have to be cleaned out down to the water, however, when the water is taken out of the Randolph it will also go out of the North. This mine is shown on page 97 of the Bulletin # 21 furnished herewith. The Barnhardt mine is choked at the top down for probably 50 or 100 feet, and then is flooded for the balance of the way down. The Barnhardt is 565 ft deep. and is described on page 103 of the Bulletin 21. As is shown in bulletin 21- The 3 mines covered in this application are pictured and in those pictures is shown the shafts and drifts. The main problem is Unwatering and clearing out the shafts. The drifts are in tact as stated by the men who unwatered the mines in 1939. The walls of the drifts are all uprigt and the shafts run between solid walls of granite and slate and offer no touble or necessity of expensive cleaning out. Once these shafts are unwatered and the choked condition cleared out a full exploration can be made of the underground workings an examination of the veins and samples taken for assaying to determine the value and % of Copper, Zinc, Sulphur. All available history and reports on these deposits and veins give evidence to the fact that there may be some very valuable ore therein.

(b) Time required - It will take about 30 days to get ready to start once we get the approval for the loan plan. It will take about 90 to unwater the mines and to unchoke them and get the necessary samples and have them assayed. That way obtain the knowledge of the strategic metals and of minerals therein

(a) Supliment covering cost of Project by item.

Work	cost
1-Equipment to be rented	$9,270.
2-Equipment to be purchased	6,807.
3-Other costs(as on item 9)	3,710.
4-Labor and personnel costs	15,470.
5-Diamond drilling & extra assaying .	10,470.
Total cost of project ...	$45,727.00

We are submitting maps of the mines showing their locations as relates to the balance of the property and are also a copy of Bulletin # 21 that fully describes these mines in full. On page of this bulletin 97 - is shown a cross cut sections of the Randolph and North mines we have indicated thereon the location of the shafts that are choked and also need unwatering. On page 103 is shown the Barnhardt mine, the same conditions exist there.

5. Existing facilities

Consist of a Building that is in excellet condition with the exception of some minor repairs which will cost not more than $500. This building if new would cost not less than $15,000. it is in sixe 42 X 90 two stories , (Frame) to be used as office, storage, and housing facilities for some of the labor. The office of this building will cost about $320 for the needed facilities fpr operation.(This item has been listed under # 7 (b) purchases

The mines have no salvage value in the framing or shaft material s the matter of putting those shafts in repair is also covered in # 7 under (b)

This question of addition facilities - (added) We do not think applies to our case - as there are no needed facilities except in the case of repairing the shafts and placing the necessary timbers there in to permit the cleaning out of same and the Unwatering of same. The cost of this project in that connection is also covered in # 7 under (b)

(a) Equipment tobe rented

2 Water Pumps (Operating 24 hours per day) rental price $1. pr hr each or $48 per day for an estimated period of 90 days	$4320.
3 Hoists @ $15. pr day or $45.pr da for (3) for 90 days	4050.
1 Truck @ $10. per da for 90 days.....	900.
Total	$9,270.

(b) Purchase -

Needed tools and working Equipment(Hand)	$280.	
Electric Starter	270.	
Hoist Cable for three mines	435.	
Sheaves wheels, shafts, bearings, ...	225.	
Electric Motors for hoist	500.	
Hand hoist for pump skip	165.	
Electric Power wiring, switches etc	400.	
Hand hoist cable for 3 mines	550.	
Pipe and fittins for 3 mines	920.	
Fire hose fittings for pumps	180.	
Miners lamps and tools, with sacks, lights etc.	220.	
Office supplies, equipment, ...	320.	
Material for mine skips	800.	
Nails, spikes,cement,bolts etc	150.	
Electric Power poles	90.	
Electric Power cables from transmitters to mine	762.	
Minc. Materials for above as unexpected expende	540.	
Total	$6807.	$ 6,807.
Total		$16,077.

(c) Nothing available to furnish except on purchase

(b) Supliment for Diamond drilling.

Cost of drilling equipment	$3500.
Costs of Bits	2400.
Bill for power & Repairs	750.
Driller $2. pr hr helper $1.50pr hr or $3.50 pr hpur 8 hour da-$28 pr day-90 days	2520.
Assaying 300 samples @ $3.50 transportation on same $250.	1300.
Total ...	$10,470.

8.

Schedule of Labor

1.	Accountant	at	$100	pr wk	for	13	weeks	.....$1300.
1.	Engineer	"	100	" "	"	13	"	.... 1300.
3.	Foremen		180	" "	"	13	"	..... 2340.
3.	Hoist operators		180	" "	"	13	"	..... 2340.
3.	Mechanics		180	" "		13	"	..... 2340.
3.	Asst Mechanics		150	" "	"	13	"	.. 1950.
6.	Helpers		300	" "	"	13	"	.... 3900.

Total labor $ 15,470.

Repairs to General office Building	$565.
Assaying for 300 samples @ $3.50	1050.
Shipping expense on samples	275.
Electric Power for all uses at 9mills per KW	940.
Grading around shafts, collars and to roads	150.
Workman's Compensation insurance	550.
Trucking and transportation at $2. per day 90 days	180.
Total	$ 3,710.

N.B.- In the case of Accounting and Engineering - same has been listed un personnel or labor on number 8.(Page)

Accounting is listed at $100 pr wk for 13 wks ...$1300.

Engineering " " " 100 " " " 13 " ,.. 1300.

Or for both ..... $2,600.

10. -

(a) We are prepared to Invest $25,000 in this Unwatering Exploring project or our ½ Of The total estimate showing herewith and are prepared to begin work on 10 days notice.

(b) The above amount is sufficient to cover our ½ of the project of Exporation.

Form MF-100
(May 1951)

U.S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

GENERAL TECHNICAL DATA
FOR USE UNDER THE
DEFENSE PRODUCTION ACT OF 1950

NOT TO BE FILLED IN BY APPLICANT

Docket No. DMEA-2480

Date received 4-9-52

GENERAL SMELTING & REFINING CORPORATION
P.O.BOX 1876
RALEIGH, NORTH CAROLINA

Name and address of applicant

Date APRIL 8TH, 1952

INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, (4) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (5) other forms of Government assistance that might arise under the Act. Submit four (4) signed copies of the form and accompanying papers. Name and address should be stamped or typed on each sheet of this form and all accompanying papers. *When a question is inapplicable it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. (IF YOU CANNOT ANSWER A QUESTION, SO STATE.) If a question is answered elsewhere indicate where answered. It is not necessary to answer it again.

GENERAL TECHNICAL DATA

Supply the following information on separate sheets, arranged, numbered, and lettered as indicated:

1. Materials produced:
   (*a*) What are the chief mine, mill, or smelter products?
   (*b*) What are the byproducts, if any?
2. Name(s) and type(s) of mine(s), mill(s), smelter(s), refinery(ies), pit(s), quarry (ies), drilling operation(s). Include old names of property, if any. Show extent of workings, including the following:
   (*a*) Linear feet of shafts.
   (*b*) Linear feet of drifts and crosscuts.
   (*c*) Linear feet of tunnels or adits.
   (*d*) Linear feet of other mine openings (explain briefly).

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.
4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated.
   (*b*) Are you operating this property as:
   - ☐ Owner.
   - ☐ Lessee.
   - ☐ Contractor.
5. Number of years in production _____

   If not in production or operation, estimated date when production will begin _____
6. Experience of operators:
   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project.
7. History:
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation.
   (*b*) State briefly the known history and production of adjoining and neighboring properties.
   (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

8. Names and addresses of Officers, Directors, or Partners, and in addition thereto, the five largest stockholders if applicant is a corporation.

Name and Address (a)	Official Title (If officer is also director indicate by "D") (b)	Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year (c)	Estimated Net Worth Outside of Interest in Applicant (d)	Number of Shares Held in Applicant Corporation: Common (e)	Number of Shares Held in Applicant Corporation: Preferred (f)	Life Insurance Carried for Benefit of Applicant: Amount (g)	Life Insurance Carried for Benefit of Applicant: Net Cash Surrender Value After Loans (h)
Gunger O. Munn	Treas President (D)	None	$100,000	700-		None	None
Frank B. Simpson	V. Pres -(D)	None	$150,000	700		None	None
C. R. Hays (Engineer)	Secretary(D)	None	$25,000	700		None	None
J. E. Cook	Director	None	$25,000	700		None	None
N. O. Wolts	Attorney (D)	None	$250,000	700		None	None
	Total		x x x x x	35,000		x x x x x	x x x x x

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

Item	Authorized (a)	Outstanding (b)	Par Value (c)	Number of Shares Outstanding (d)	Dividend Rate Last Paid* (e)
Common stock	$100,000	$35,000	$10.	3500	None
Preferred stock None	$	$	$		New Corporation

*Indicate period covered.

10. Production:

Item	Kind of Product (a)	1948 Total (b)	1949 Total (c)	1950 Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.)	Mines not in production as yet				
2. Quantity of product processed (specify unit of measure and type of process)					
3. Quantity and grade of product sold or shipped (specify units of measure)	Mines not in production as yet				

11. Do you contemplate a change in the present average monthly rate of production? If so, state estimated maximum monthly production and basis of change.

12. Ore or Mineral Reserves:

(a) Describe the ore or mineral deposit briefly. Accompany the application by any available report on the geology and ore reserves.

The following is to acompany application of GENERAL SMELTING & REFINING CORPORATION OF RALEIGH, NORTH CAROLINA

GENERAL TECHNICAL DATS

1. (a) COPPER , ZINC ... (b) PYRITE, SILVER, GOLD.

2. RANDOLPH, NORTH AND BARNHARDT MINES - SHAFTS AND DRIFTS- SOME DRILLING AND ASSAYINGS (a) RANDOLPH 830ft shaft-North 270ft- Shaft. BARNHARDT 465 ft Shaft-1500ft drifts (b) Mines are flooded (estimated 15,000,000) gal of water-no unusual problems with good pumps- have pumps in mind that will remove 350 per min- incoming water at rate 80Gal per minute When unwatered expect to produce from 50 to 500 tons per day

3. (a) Southern Railroad 5 Blocks south- Gold Hill, N. Car
(b) Gold Hill (c) The Gold hill Mining District comprises the Eastern portion of Rowan County, and part of the Northeastern portion of Cabarrus County and a narrpw strip of the Northwestern part of Stanley County, North Carolina (This all set out in meets and bounds of the Property descriptuon)

4. (a) Property not now in operation - Has not been worked since 1915 (b) Lessee

5. Operation to begin 120 days after Exporation Loan has been granted

6. (a) Pres Manz (15 yrs research in and ownersip of mining properties-25 years General manager of three multi-million Dollar properties)
V.Pres Simpson - (12 years mine owner and operator of three other mines- Pres of Simpson Company largest Architects and Builders of Pubic Schools in N. Car.
Secy - Hays - Mining Engineer-Graduate M.I.T. 20 years experience in active mine operations. Including work with several of largest mining interests of country Three years on Bolivia Tin, The Dicoverer of the N. Car Tungsten.
Woltz - Attorney -Former owner of N. Carolina Profalite mines - Pres of three Textile Mills, 2 Block Plants, Very large Live Stock Business, Large Dutch Bulb Importing Business and a $100,000 annual law practice.
Coad - Director - Industrial Engineer- Fiscal Agent-
C.R.Hays- Mining Engineer will manage the project- His wide experience in that field assures the fullest cooperation - and know how.

7. (a) Attached is a copy or(EXHIBIT A) on HISTORY of this property along with maps and a copy of "BULLETIN 21" of the "GOLD HILL MINING DISTRICT OF NORTH CAROLINA Attached to thie bulletin is a reference page refering to certain articles on these 3 mines
(b) and (c) are covered by the above also.

11. Yes expect to put into production as soon as exporation work is completed with an average of at least 150 tons per day

12. Attached is"EXHIBIT B MINERAL OR ORE RESERVES"(according to available reports at the closing of the mines in 1915 and at the time of Examination in 1939.
(b) - 1 and 2 are covered by Exhibit B.

13. Paved Highway right bye Mines (100 yrs) ½ miles to Southern Railroad spur Population 100,000 within 25 miles good roads in every direction-farm & minelabor

14. All season Springs and he avy flow 500 yds- heavy year around supply water on property

15. Abundant power vailable, Heavy power lines cross property within 200 yds mines rate offered 7 to 9 mills - less amt if volume is stepped up

16. None employed now- Expect employ 8 to 10 during exporation time-150 when into productio

17. No equipment owned at this time by the Corporation - One main administration building on property now. Which will answer for that purpose as well as tool and supply storage. Building in fair condition - a minor amount of repairs will put in 1st class shape.

18. See attached reports, estimations, maps, Bulletins etc which will cover the subject most completely.

(*b*) If deposit is other than pl[illegible]:

(1) Submit assay plans and/or sections showing location and size of proved (measured) and probable (indicated) ore or mineral reserve.

(2) State the tonnage (indicate type of ton) and grade of each class of ore reserve, as above, and show how computed. Tabulated total ore reserve as follows:

TOTAL ORE OR MINERAL RESERVES

Ore or Mineral Reserve	Estimated Tons (a)	Metal or Mineral Content Per Ton (Grade) (b)	Gross Value Per Ton (c)	Recoverable Unit Value Per Ton (d)	Estimated Cost of Production Per Ton (e)
Measured (proved)					
Indicated (probable)					

(*c*) If placer:

(1) Give estimated total yardage and average marketable mineral content of each deposit.

(2) Submit map showing location of placer deposit and surrounding area, with all test holes or pits. Submit logs of each hole and test pit with depth and average value of each.

(3) Describe gravel, stating whether fine, medium or coarse; loose, tight, cemented, or frozen, and whether it contains stumps or boulders more than 1 foot in diameter; if so, how large, and in what proportion.

(4) Describe bedrock, giving type (granite, sandstone, shale, etc.) and state whether it is hard or soft, smooth, uneven or rough.

(5) Describe overburden, stating whether loose, tight, or cemented; fine or coarse textured; furnish estimate of average thickness and total amount.

(6) Tabulate the reserves using the form outlined above for ore or mineral reserves.

13. Access Roads:

Give road distances to shipping, supply and residence points, stating kind and condition of roads.

14. Water Supply:

State source and quantity of water available for operations and whether sufficient for all seasons of year.

15. Power:

State amount of power used, rate per hour, and source thereof.

16. Labor:

State number and classes (miners, muckers, millmen, etc.) of men employed during a recent representative payroll period.

17. Equipment and Facilities:

Describe present equipment on the property, including buildings. (State condition.) List major pieces of equipment now owned or controlled and in serviceable condition available for this operation.

18. Are there any particular conditions or circumstances affecting your operations that are not described above? If so, explain.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

GENERAL SMELTING & REFINING CORPORATION
(Name of company)

By C R Hoyo
(Signature of authorized official)

APRIL 8th, 1952
(Date)

SECRETARY
(Title)

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

U. S. GOVERNMENT PRINTING OFFICE 16—63792-1

Copy of Lease on Gold Hill Property

THIS INDENTURE, made the 6th day of May, one thousand nine hundred and fifty-two, between BARNEY IMPROVEMENT CORPORATION, party of the first part, Lessor, and CASPAR O. PANZ, residing at Gold Hill, North Carolina, Lessee, WITNESSETH:

That the Lessor, for and in consideration of the rents, covenants and agreements hereinafter expressed, to be paid, kept and performed by the Lessee, has leased, let and demised and by these presents does lease, let and demise unto the lessee the following described mining premises, located at Gold Hill, State of North Carolina, more particularly described in the schedule hereto annexed, marked Exhibit "A", together with the office building, TO HAVE AND TO HOLD the same, for the purpose of mining, said Lessee to have the right to mine all ore underlying the premises herein leased and described in Schedule "A", for the term of fifteen (15) years from the 6th day of May, 1952.

AND the lessee, for and in consideration of leasing of said premises, has covenanted and agreed, and by these presents does covenant and agree with said Lessor, to commence work on said premises within two years from date hereof, and thereafter to work the same continuously in a thorough and workmanlike manner, and to keep the mines securely timbered, drained and cleared of loose rock and rubbish, and to do all things necessary which promote the usefulness of said mining property as a workable mine, and to develop the same and do no act thereon during the term of this lease which would impede mining operations or impair the operating condition of said mine, and generally to so conduct operations as to conform to the Laws of the United States and the State of

North Carolina, and any subdivision of said State, and all local rules and regulations pertaining to mining in said mining district, and to do no act and suffer no default which might in any manner involve the said Lessor or its ownership in said mining property, in any liability of any kind or character.

To allow said Lessor and its duly authorized agents to enter upon all parts of said mine, and said premises, at any reasonable time, for the purpose of inspection, and to use all facilities necessary or convenient to enable said Lessor, or its duly authorized agent, to properly inspect said mines.

The Lessee may, during the term of this lease, put in machinery and do such other things on said premises as may be necessary, or usual, to carry out such mining operations and all such machinery and improvements so put up and erected, and material found on the land shall form part of the realty and shall not be removed from said premises at any time thereafter, but shall become the absolute property of the Lessor upon the termination of this lease, whether by limitations or otherwise. Said Lessee, however, shall have the privilege of selling such machinery or improvements now on said premises, or which may be hereafter placed thereon, as may become obsolete, the purchase money received from the same to be applied on the cost of replacing machinery or improvements. In the event, however, that the Defense Plant Corporation, or any other agency of the Government, shall install any equipment or plant on the premises, title to such equipment or the plant remaining in such Defense Plant Corp., or other agency of the Government, the same may be removed by such Defense Plant Corp. or other agency of the Government, notwithstanding the above provisions, and the lessor agrees to execute any contract or document that may be necessary to give authority to

Defense Plant Corp. or any other agency of the Government to install and remove such equipment on the above terms. Said premises shall be open and worked by the Lessee in such manner only as is usual and customary in the skillful and proper mining operations of similar character when conducted by the proprietors themselves, and so as not to do, cause or permit any unnecessary or unusual permanent injury to the same or inconvenience or hindrance in the subsequent operation of said mines, and at the termination of this agreement, whether by acts of the parties or either of them or by limitations or otherwise, said premises, including mines, and buildings shall be left in as good order and condition as found, reasonable wear and tear excepted, and in the working of said mines the Lessee shall deposit all earth or rubbish or rock in such places and in such manner as will not obstruct or embarrass the future operations of said mines, and said Lessee shall not remove or impair any supports, timbers, frameworks or shafts necessary or proper for the use and maintenance of such mines or the approaches thereto, except said Lessee shall have the right to abandon portions of the mines where the seams have been entirely worked out; nor shall any improvements of a permanent nature made by the Lessee be impaired, removed or destroyed by said Lessee at the termination of this lease.

The Lessee agrees to pay all taxes, general or special, upon the land so demised which may be assessed or become due either against said lands or the improvements thereon, or the products thereof, or any personal property at said mine since May 6th, 1952, and during the continuance of this lease, and agrees to furnish to the Lessor within ninety days from the date such taxes or levies become due or payable properly

executed receipts for the same duly signed by the officer lawfully authorized to collect and receipt for such taxes or levies; and at the termination of this lease agrees quietly and peacefully to surrender possession of said lands and premises to the Lessor. The Lessor agrees to forward immediately to the Lessee any tax bills which come into its possession for any and all taxes which the Lessee herein covenant to pay.

The Lessee shall, during the term of this lease, keep the buildings erected on said premises insured, provided such insurance can be obtained for the benefit of the Lessor in such companies as the Lessor may approve from time to time in a sum satisfactory to the Lessor, against the loss or damage by fire, including loss by lightning, and policies shall be delivered to the Lessor and all premiums shall be paid by the Lessee. The Lessee shall take good care of the demised premises and the buildings and improvements thereon, and suffer no waste, and shall and will make all repairs at their own cost and expense and will save the Lessor harmless from all machanics liens and all other liens and encumbrances by reason of any repairs or improvements to the said demised premises.

The Lessee agrees that when this lease shall for any cause terminate, said Lessee will enter or cause to be entered a certificate of that fact upon the proper book of record in the county or counties wherein said premises are situated, provided this lease shall have been recorded there, and will execute or cause to be executed such releases or assignments, including the recording of the same, as may be necessary to clear the record and divest the said Lessee of all rights or title given or acquired under this lease.

The present lease is granted under the express conditions that if the rent hereby reserved or any part thereof, or said taxes or said insurance premiums shall be and remain unpaid after the days and times when by the preceding covenants the same should be paid, and if the same remain in default for more than ninety (90) days, or in the event of the termination of the foregoing lease and demise as hereinbefore provided, or in case the Lessee shall fail to keep or perform any of the covenants herein expressed to be kept or performed on his part, then and from thenceforth, and in either of those events it shall be lawful for the Lessor, at its option, to give to the Lessee notice in writing by registered mail, mailed to the Lessee at Gold Hill, North Carolina, notice of such default in the terms of said lease, and requiring the Lessee to remedy and correct such default or defaults within thirty (30) days, and in the event that said defaults are not so remedied and corrected within said period of thirty days, it shall be lawful for said Lessor, at its option, to enter into and upon said demised premises, with or without process, re-enter the same and to have and possess again as in the first and former state, and the Lessee, or persons claiming under said lessee wholly to exclude therefrom. The Lessor shall have the right for itself, its officers and agents at any time to enter upon said premises or any part of parts thereof, to inspect and survey the same and measure the quantity of ore that may be therein or thereon, or that shall have been mined or removed therefrom not necessarily or unreasonably hindering or interrupting the works or operation of the lessee.

The Lessee agrees to pay rent as follows: A minimum rent or royalty for first one (1) year of said Lease of One thousand two hundred ($1200.00) dollars per annum, payable in equal monthly installments of One hundred ($100.00) dollars on the first day of each month of said term in advance, and for the second year of the term of said lease One thousand eight hundred ($1800.00) dollars per annum, payable in equal monthly installments of One hundred fifty ($150.00) dollars on the first day of each month of said term in advance; and for the remaining thirteen (13) years of said lease minimum rent or royalty of Three thousand ($3000.00) dollars per year, payable in equal monthly installments of two hundred and fifty ($250.00) dollars on the first day of each and every month in advance. In addition to the annual minimum rent or royalty herein provided, the Lessee agrees to pay to the Lessor an annual rent or royalty equal to the amount by which ten percent of the net earnings of said mine will exceed the minimum rent or royalty herein provided to be paid, such net earnings to be determined by deducting from gross earnings the operation and administration expenses, all real estate taxes, and all taxes properly chargeable as operating expenses, including taxes on production, excise taxes, social security and unemployment insurance taxes, and other similar taxes forming a part of the cost of general operation and administration expenses, specifically excluding franchise taxes and all Federal, State, and other income taxes. An accounting of such net earnings shall be submitted by the Lessee to the Lessor quater-annually, beginning Aug. 6th, 1952, and all gold, silver, copper, ore and other metals dug from said mine by said Lessee, his employees, agents or servants, or successors in interest, after the termination of this lease, whether the same be terminated by lapse of time or otherwise, shall be property

of said Lessor, and said Lessee shall have no interest in any part thereof.

Said Lessee further agrees that if actual mining operations shall cease for a period in excess of thirty (30) days at any time subsequent to May 6th, 1953, not due to fire, flood, breakdown in machinery, strikes or other things beyond the control of the Lessee, or should default be made by the said Lessee in the payment of minimum royalties above set forth, or in accounting to the Lessor, as hereinbefore provided, and in any such event, at the option of the Lessor this lease shall immediately terminate, and all rights of the Lessee in said premises, and in any and all machinery, tools, and other equipment and buildings that may have been placed upon said premises by the Lessee, shall immediately become the property of the Lessor.

The Lessee shall have the right of ingress and egress from said premises, and also the right to build tramways, waterways, sluiceways, and wagon roads. Said Lessee shall also have control of all water on the premises that is needed for mining purposes, and shall have the right to use any timbers that are on the property for mine props or other necessary timbers to be used about the mine.

If the Lessee is in possession of the premises hereby leased upon the expiration of the term of this lease, and is not in default under any of the terms or conditions of this lease, and provided further that the payments received by the Lessor, either from royalty on net profits, from surplus or from other Lessee sources for the last five years of this lease shall have been at least twenty-five thousand dollars ($25,000.00), then the Lessee, shall have, and the Lessor hereby gives to the Lessee, the option of a renewal of this lease for a further period of fifteen (15) years on the same

terms and conditions as is set forth in this lease, except that said renewal term shall not contain the privilege of a further renewal, and the annual minimum rental for the entire term shall be $3,000.00.

The Lessor hereby gives to the Lessee an option at any time prior to May 6th, 1957, provided all minimum rental and other rental as herein provided has been paid up to the time of the exercise of said option, to purchase the premises which are covered by this lease for the sum of One Hundred and Seventy-five Thousand Dollars ($175,000.00), payable, Fifty-eight Thousand and Three hundred thirty-three and 33/100 Dollars ($58,333.33) in cash on the settlement under said option, and the balance of One Hundred Sixteen Thousand Six hundred sixty-six and 66/100 Dollars ($116, 666.66) by notes of the Lessee or his assigns, secured by a purchase money mortgage on the premises covered by this lease, which notes and mortgage shall bear interest at the rate of four and one-half percent (4½%) per annum, payable semi-annually, and the principal of which shall be payable Fifty-eight Thousand Three hundred thirty-three and 33/100 Dollars ($58,333.33) on year from the date of such notes and purchase money mortgage, and the balance two years from the date of such notes and purchase money mortgage, which said purchase is to include all ore and other minerals in the ground, of whatever nature and character, and all mining and water rights appertaining thereto, including all the rights, title and interest of the Lessor in the mining rights of premises described in Schedule "A", in which said Lessor has no title in the fee but only mining rights, and said Lessor shall execute and deliver a proper deed in fee for the said realty owned by the said Lessor, and a deed of the

mining rights of that portion of the property in which said Lessor has mining rights only. The said Lessor shall also give a proper bill of sale for the personal property included in the sale aforesaid. It being understood and agreed that the purchase price of such property is included in the purchase price of One hundred and seventy-five Thousand Dollars ($175,000.00) above mentioned.

The Lessor hereby warrants to the Lessee that it is the owner in fee of the premises described in Schedule "A" as being owned in fee, clear and unincumbered, and that it has sub-soil mining rights in the other premises described in Schedule A.

It is understood that this lease in due course may be turned over by the Lessee to a syndicate and in turn to a corporation, the latter to be formed to undertake mining operations on the premises herein described, located at Gold Hill, North Carolina, whereupon the said respective assignees shall succeed to all rights and duties under this lease, inclusive of the purchase option, with the same effect as if the said respective assignees had been the original lessees in this lease.

The Lessor herein represents and warrants that it has corporate authority to enter into this lease.

This agreement shall be binding upon the legal representatives, successors, and assigns of the respective parties hereto.

IN WITNESS WHEREOF, the Lessor has caused its corporate seal to be hereunto affixes and these presents

to be signed by its proper officers, and the Lessee has hereunto set his hand and seal the day and year above written.

BARNEY IMPROVEMENT CORPORATION

BY_____
President

_____
Secretary

_____
Caspar O. Manz.

State of _____)
County of _____) SS:

THIS IS TO CERTIFY that on the _____ day of _____ A. D. 1952, before me personally came _____ President of BARNEY IMPROVEMENT CORPORATION, with whom I am personally well acquainted, who, being by me duly sworn, says that _____ is the President and _____ _____ is Secretary, of BARNEY IMPROVEMENT CORPORATION, the Corporation described in and which executed the foregoing instrument; that he knows the common seal of said Corporation; that the seal affixed to the foregoing instrument is said common seal; and the name of the corporation was subscribed thereto by the said President, and that said president and secretary subscribed their names thereto, and said common seal was affixed, all by order of the Board of Directors of said Corporation, and that the said instrument is the act and deed of said corporation.

WITNESS my hand and notarial seal this _____ day of _____ 1952.

_____
Notary Public - My commission expires:

STATE OF _____)
COUNTY OF _____) SS:

BE IT REMEMBERED that on this the _____ day of _____1952 before me the undersigned, a Notary Public of said District, personally appeared CASPAR O. MANZ, the lessee named in the foregoing lease, and acknowledged the execution thereof by him as his act and deed. THEREFORE, let such lease together with this certificate, be registered.

WITNESS my hand and Notarial seal, the day above written.

_____
NOTARY PUBLIC - My comm. exp.

REPORT OF ASSAYS LEFT IN OLD RECORDS OF GOLD HILL PROPERTIES

COVERING THE CLOSING YEAR OF OPERATIONS OF THE MINES.

THE ASSAYS WERE REPORTED AS COMING FROM THE RANDOLPH, NORTH

W.G.N. AND BARNHARDT MINES. THIS IS WHAT LEADS US TO BELIEVE THERE MAY BE FOUND A VERY SUBSTANTIAL AMOUNT OF COPPER THEREIN

- - - - - - - - - - - -

ASSAYS WITH DATES TAKEN		Copper pr Ton Concentr
May 6th- 1915	- Taken from North (Main shoot 2' vein)	4.30%
May 15 1915	Taken from W.G.N. Vein	4.30%
	On same date- From Hanging Wall same vein	2.40%
	N. End same vein 400 lbs ore	4.17%
	North End North-Foor Raise	14.73%
	South Iron Dike Randolph	4.43%
	Raise south of Iron dike	3.65%
May 30th	South Randolph Shaft	3.60%
	Big Sulphur Stoot Randolph	2.10%
June 5	Barnhardt	4.20%
	Meyer Vein 800 ft level	5.30%
	W.G.N. 600 foot level	4.70%

- - - - - - - - - -

THE FOLLOWING ALSO FROM OLD RECORDS OF THE MINES FOR 1914-15

Date	Tons of Concentrates	Copper
1914- Feb 1-12	25	2.15%
Feb 20-Marl	25	5.50%
March 17 Marl	25	2.80%
April 1-10	25	1.90
April 15-27	25	2.10%
May 19- 28	25	2.15%
Junel- 22	25	2.70%
July 14-23	25	2.90%
Aug 1-13	25	3.20%
To Aug 25	25	3.70%
To Sep 10	25	4.30%
To Sep 30	25	4.90%

1915 - Date	Tons	Copper
Feb 1-24	25.	2.60%
Mar 2-12	25	3.10%
To Apr 12	25	4.40%
" 14	25	4.40%
" 15	25	4.60%
# 24	25	3.40%
" 27	25	2.60%
June 11	25	3.80%
" 26	25	3.10%
July 10	25	4.90%

THE ABOVE AVERAGE IS WELL ABOVE 3½% -(if true)

THE OLD RECORDS FURTHER SHOW THAT THE LAST 18 CARS SHIPPED FROM THE MINES IN MAY OF 1915 AND JULY OF 1915 HAD THE FOLLOING % OF COPPER TAKEN FROM THE ASSAYS: ALONG WITH THE METALS AS SHOWN BELOW- THIS IS GIVEN AS AVERAGE. PER TON IN EACH CASE

COPPER	SILVER	IRON	SULPHUR	GOLD	ZINC
3.35%	1.7 oz	18.17	28.00	21.00	2.78%

The old assay books are now in the hands of CASPER O. MANZ of Gold Hill, N. C.

If the above facts were tru them, and no mining has been done since 1915 there must be a very substantial amount of Copper ore in that Deporit

EXHIBIT A (HISTORY)

(A) The Gold Hill Mine opened in 1842 and operated until 1858 when it closed down for the war and economic depression following. It opened again in 1881 by German miners who shipped the ore to Germany. Around 1885 the mine was sold to England who operated it until 1888 when it was sold to Walter George Newman, J. Pierpont Morgan and Whitney. They in turn operated it until 1915. There is no positive record as to the amount of gold and copper produced during the last operations. The closest estimate places the gold production at about twenty million dollars and the copper production at less than half that amount. (The operators were seeking gold primarily.)

The superintendent of the mines from 1900 to 1915 was Charles F. Montgomery who gave an estimation in 1915 at the closing of the mine that there was still in the North and Randolph veins alone an estimated 390,764 tons of ore ready to be removed, the value in copper and gold in excess of $24.00 per ton of concentrates. J. J. Shepherd, General Manager of the Barnhardt Copper Mine, which is near the Randolph, said at the time of closing down in 1915 "There were left in the mine, at one location alone, 76,317 tons of copper ore that would average better than 3½% copper. This ore is laying in the drift waiting for removal". In addition to this Shepherd estimated that there was an additional 260,000 tons of ore along a 400 foot strip running north of the Barnhardt Mine.

EXHIBIT B (ADJOINING MINES WITH ORE RESERVES)

Attached to this statement is a copy of the Bureau of Mines Report No. R.I. 4364 dated Oct. 1948 which gives a very comprehensive report of the Diamond Drilling at Union Copper (which is on the same vein and adjoining the Gold Hill properties). This report reveals an extremely heavy vein of zinc that will run percentage from $2\frac{1}{2}$ - 19% with an estimated tonnage approximating 250,000 tons. This is in addition to the copper ore in the adjoining mines.

There is also enclosed with this application, a copy of Bulletin No. 21 - a 137 page volume devoted exclusively to the Gold Hill Mining district of North Carolina. There is attached to the front of this bulletin a list of references referring particularly to the Randolph, North and Barnhardt Mines.

EXHIBIT C

In 1938-39 Mining Engineer C. R. Hays and Casper O. Munz decided that they would personally unwater the Randolph and North Mines. They did so at a rather expense and maintained the dewatering for a period of six months for investigation. Their report confirmed previous estimates as to value of available ore. It fully confirmed statements made by both Montgomery and Shepherd as to what might be expected in the way of an ore supply. At that time they were expecting to operate the mines but the war came on and prevented their proceeding. (It is interesting to note that these mines had previously been closed down because of conditions brought about by war.) First in 1858 the Civil War, second in 1915 the First World War and then again in 1940 with the Second World War.

The reason for the shut down of operation in 1915 was due to a court order issued by the District Court because the then operator would not pay his labor. This is a matter of record in Rowan County, N. C. It is also a matter of record that during the last year of operation of these mines in 1915 the gross production was $292,500.00 during which time they worked only 25 men and handled approximately 30 tons of ore per day.

- THE PROPERTY -

The Gold Hill property comprises 800 acres of land in Fee Simple along with mineral rights and 400 acres additional with just the mineral rights. On this property are paved roads, electric lights, telephones, daily mail service, bus lines, bhurches, schools and adjacent thereto is a railroad.

Approximately 100 acres of this land is in cultivation. The balance is in timber which far exceeds the requirements for the necessary timber of the mines.

The bulletins, maps, charts, and Geological reports attached herewith clearly exhibits the scope and value of this property with the potentialities therein.

Property covered by Lease

Note - Both are same - This Lease covers - all the property - involved

EXHIBIT "A"

ALL that certain lot, piece or parcel of land, situate, lying and being in the County of Rowan, State of North Carolina, and bounded as follows, to wit:

PARCEL 1: That certain tract, piece and parcel of land, known as the "Hellig Gold Mining Tract", containing one-hundred (100) acres, more or less and being the same tract that was conveyed to The Gold Hill Mines, Limited, by Moses L. Holmes and others, by deed, dated June 21, 1881 and registered in Book of Deeds Vol. 64, page 554, in the office of the Register of Deeds of Rowan County, North Carolina and for more particular description thereof by courses and distances and by metes and bounds reference is hereby made to said deed, excepting however thereout and therefrom the surface soil to the depth of fifteen feet on two lots being parcels thereof - one of said lots containing by estimates three (3) acres which was conveyed to Ephraim Mauney by Moses L. Homes and Reuben J. Holmes by deed registered in Book of Deeds Vol. 59 at page 267 of the Registry of said Rowan County - and one other said lot containing by estimation one (1) acre, more or less, conveyed to F.H. Mauney by deed registered in Book of Deeds Vol. 59 at page 264 of the Registry of said Rowan County.

PARCEL 2: All that tract, piece and parcel of land known as the "Earnhardt Gold Mining Tract", containing by estimation ninety (90) acres and being the same tract of land that was conveyed by Moses L. Holmes and others to The Gold Hill Mines, Limited, by deed, dated June 21, 1881, and registered in Book of Deeds Vol. 64, page 554, in the office of the Register of Deeds for Rowan County, North Carolina, to which deed reference is hereby made for fuller and more particular description by metes and bounds and by courses and distances, excepting, however, thereout and therefrom a lot containing by estimation one-eighth of an acre conveyed in fee by Phillip Earnhardt to George Vogler, late in the occupation of Benjamin Martin and well known by the description on the "Vogler Lot", the boundaries of which lot appear in a deed from Phillip Earnhardt to George Vogler, dated the 7th day of February, 1848 and registered in Book of Deeds No. 38 at page 237 in the office of the Register of Deeds of said Rowan County and also excepting the surface soil for building purposes in lots conveyed by Phillip Earnhardt to various persons prior to the 9th. day of July, 1855, as by reference to his deeds recorded on the Registry of said Rowan County will more fully appear; and also excepting the surface soil in a lot conveyed by Moses L. Holmes and Reuben J. Holmes and Ephrain Mauney to James A. Gill by deed registered in said Registry of said Rowan County and containing by estimation two (2) acres.

PARCEL 3: All that tract, piece and parcel of land known as the "Old Field Lot", containing by estimation twenty five (25) acres, being the same tract that was conveyed by Moses L. Holmes and others to The Gold Hill Mines, Limited, by deed, dated June 21, 1881 and registered in Bood of Deeds Vol. 64 at page 554 in the office of the Register of Deeds of Rowan County, North Carolina, to which deed reference is hereby made for fuller and more particular description by metes and bounds and by courses and distances; excepting however, therefrom, the surface soil for building purposes, on a lot conveyed by John Beautman to Dr. Hugh Kelly by deed dated the ____ day of _____ in which the boundaries are particularly described.

PARCEL 3: Continued-
Further excepting, however, the surface soil rights in about thirty-one (31) acres which were conveyed to H. Frank Small by deed registered in Book of Deeds of said Rowan County Vol133 page 127, said thirty-one acres being a portion of each of the above described three tracts, said three tracts being adjacent to each other.

PARCEL 4: All that tract, piece and parcel of land adjoining the first above described "PARCEL No. 1" tract above designated as the "Heilig Gold Mining Tract" and known as the "PAUL BEAVER TR TRACT" and containing by estimation One Hundred Forty Five (145) acres; and being the same tract that was conveyed by Moses L. Homes and others to The Gold Hill Mines, Limited, by deed dated June 21, 1881, and registered in Book of Deeds Vol. 64, page 554 in the office of the Register of Deeds of said Rowan County, to which deed reference is hereby made for fuller and more particular description by metes and bounds and by courses and distances.

PARCEL 5: All that tract, piece and parcel of land, described and known as the "MOSES BEAVER TRACT" and containing by estimation seventy-two (72) acres, and being the same tract of land that was conveyed by Moses L. Homes, and others to The Gold Hill Mines, Limited, by deed dated the 21st. day of June, 1881, and registered in Book of Deeds Vol. 64 page 554 in the office of the Registry of Deeds of Rowan County, North Carolina, to which deed reference made for more particular description by metes and bounds and by courses and distances.

PARCEL 6: All that tract, piece and parcel of land lying on Ryal's Creek, known as the "Henry Peeler Tract" and containing by estimation eighty-eight (88) acres; and being the same tract of land that was conveyed by Moses L. Holmes and others to The Gold Hill Mines, Limited, by deed dated June 21, 1881, and registered in Book of Deeds Vol.64 page 554 in the office of the Register of Deeds for Rowan County, North Carolina, to which deed reference is hereby made for greater certainty and more particular description by metes and bounds and by courses and distances; excepting thereout and therefrom the surface soil rights of two small lots, containing five or six acres, heretofore conveyed by Henry Peeler ot Charles and Jacob Earnhardt as will appear by reference to said deed therefor recorded in the Registry of said Rowan County.

PARCEL 7: All that tract, piece and parcel of land known and designated as "THE TAVERN LOT" in the Town of Gold Hill, containing by estimation Fifteen (15) acres and being the same land that was conveyed by Moses L. Holmes and others to The Gold Hill Mines, Limited, by deed dated June 21, 1881, and registered in Book of Deeds Vol.64 page 554 in the office of the Register of Deeds for said Rowan County, to which deed reference is hereby made for fuller and more particular description by metes and bounds and by courses and distances; excepting thereout and therefrom the surface soils of the following lots conveyed by Edward B. Rice to William B. Rowe, T.Witson Nash, Moses L. Homes and T. W. Scott, Richard Umstead, Charles Hess and Henry Kingsbury, respectively, as will appear by reference to their respective deeds, to which deeds for description thereof, respectively, reference is hereby made.

PARCEL 8: All that tract, piece and parcel of land known as the "GEORGE POPE LOT" being the same lot that was conveyed by Moses L. Holmes and others to The Gold Hill Mines, Limited by deed dated June 21, 1881, and registered in Book of Deeds vol. 64, page 554 in the office of the Register of Deeds for said Rowan County, to which deed reference is hereby made for more particular description by metes and bounds and by courses and distances; excepting thereout and therefrom one-seventh (1/7) part of the toll of all minerals and metals found in said George Pope Lot.

PARCEL 9: Also all the mineral interest and metals below fifteen feet from the surface on the lot known as "THE TEN ACRE LOT" in the Town of Gold Hill, containing by estimation ten(10) acres; same being the tract that was conveyed by Moses L. Homes and others to The Gold Hill Mines, Limited, by deed dated June 21, 1881, and registered in Book of Deeds Vol. 64 page 554 in the office of the Register of Deeds in said Rowan County, to which deed reference is hereby made for more particluar and fuller description by metes and bounds and by courses and distances.

The foregoing ning tracts or parcels of land being known as "The Gold Hill Mining Property" and being more particluarly described in the above mentioned deed, which is registered in Book of Deeds Vol. 64 page 553 in the office of the Register of Deeds in said Rowan County, North Carolina.

PARCEL 10: Also all that tract or parcel of land lying on the Waters of the Hurricane Branch of Ryal's Creek, containing by estimation one-hundred and twenty-seven (127) acres and which is more particularly and more fully described in an indenture dated the _____ day of October, 1881, and made by A. K. Miller and wife Clotilda Miller to The Gold Hill Mines, Limited, and which is registered in Book of Deeds Vol. 64 page 553, in the office of the Register of Deeds for Rowan County, North Carolina.

PARCEL 11: Also all the mineral rights in that tract of land situate in Stanly County, North Carolina, lying on the Waters of Ryal's Creek, containing by estimation two-hundred and sixty-five (265) acres and which is more particluarly described in an indenture, dated the 29th, day of Octiber, 1881 and made by Atlas Kirk to The Gold Hill Mines, Limited, and which is registered in the Book of Deeds Vol. 13 page 104 in the office of the Register of Deeds of said Stanly County, North Carolina, to which deed reference is hereby made for fuller description.

PARCEL 12: Also all that tract of land situate in Gold Hill Township Rowan County, North Carolina, containing by estimation One-hundred and twenty-one (121) acres and which is more particularly described by metes and bounds and by courses and destances in a deed, dated October, 28th., 1882 and made by Daniel Brady to The Gold Hill Mines, Limited, and which is registered in Book of Deeds Vol.64 page 63 in the office of the Register of Deeds for said Rowan County, North Carolina, to which deed reference is hereby made; excepting, however, all the surface soil rights in said tract.

PARCEL 13: All that certain parcel of land lying in Gold Hill Township, Rowan County, North Carolina, and described as Follows: Beginning at a stake in the easterly side of the Concord Road (which runs to Salisbury) at a point where the premises are joined by the Mauney Tract and running thence southerly along said road about one-thousand feet to the Company's livery stables; thence easterly, almost at right angles with said road, one-thousand feet to a stake; thence northerly parallel with the road one-thousand feet to a stake; thence westerly along the "Mauney Tract" about one-thousand feet to a stake in the Concord Road, the place of the beginning, including all mineral rights of all description, being part of the premises conveyed by The Hampton Gold Hill Mines, Limited, to Walter George Newman, by deed dated the 2nd. day of February, 1900 and registered in Book of Deeds Vol. 88 page 185 in the office of the Register of Deeds in said Rowan County.

All the above thirteen parcels or tracts of land being the same that were conveyed by William H. Geraghty and Frank M. VanWagoner to the Gold Hill Consolidated Company by deed, registered in Book of Deeds Vol. 121 Page 15 in the office of the Register of Deeds for said Rowan County, North Carolina.

PARCEL 14: Also all the surface soil rights in the following described tract of land situate, lying and being in Gold Hill Township in Rowan County and State of North Carolina, bounded as follows: lying on Little Buffalo Creek and about one-fourth of a mile West of the Town of Gold Hill, adjoining the lands of M. N. Hedrick and others and bounded as follows: Beginning at an iron pipe on the north side of the Beatiess Ferry Road, Rowan Gold Mines Company's corner; thence South 10 West crossing the public road 5.25 chains to an iron pipe in the Old Union Copper Company's line; thence with said line North 85½ West 20.18 chains to a sweet gum on the west side of Buffalo Creek, Hedrick's corner; thence with his line North 5 east 17.26 chains to a stone; thence south 4.15 chains to an iron pipe in Buffalo Creek, Misenheimer's corner; thence south 42½ East 19.17 chains to the beginning, containing twenty-five acres, more or less.

PARCEL 15: Also that certain piece, tract or parcel of land, known as the Stockton Gold Mine Tract" situate in Gold Hill Township, Rowan County, North Carolina, containing thirty-three (33) acres, more or less and being the same tract which is described in the deed from T. H. Vanderford and registered in Book of Deeds Vol. 181 Page 460 in the office of the Register of Deeds for Rowan County, North Carolina, to which deed reference is hereby made for fuller description by metes and bounds and by courses and distances of said tract.

PARCEL 16: Also that certain parcel or piece of land, containing one (1) acre and known as the "POND ADDITION TRACT" and being the same tract that was conveyed to New Gold Hill Mining Company by T. H. Vanderford by deed registered in Book of Deeds of said Rowan County Vol. 181, page 460, and being situate in Gold Hill Township in Rowan County, North Carolina, and adjoining the pond of said Rowan Gold Mines Company. For back title to said one acre pond additional tract, see deed from J. W. Hill and wife to T. H. Vanderford, dated January 12, 1926 and registered in Book of Deeds of Rowan County, Vol. 189 page 59.

BARNEY IMPROVEMENT CORPORATION

BY_____

_____
Caspar O. Manz