DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMEA ~~DMA~~ Docket No. 2326

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EXPLORATION PROJECT

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Routing Slip
(ONE COPY TO USGS & ONE TO USBM)

To: CODE 700 Rm. 4070-A Date 1-15-52

To: Operating Com. Date 2-27-52

To: _____ Date _____

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700
FILE COPY
SURNAME:

Schmidt
Ellis

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

SEP 30 1952

Hon. Howard H. Baker
313 Post Office Building
Knoxville, Tennessee

Re: Dockets DMEA-2311 and DMEA-2326
(Copper and sulphur)
T. J. McDonald
Monroe County, Tennessee

My dear Mr. Baker:

This acknowledges receipt of your letter of September 25 inquiring about the results of the exploration work of the Tennessee Copper Company in relation to the captioned applications. At the time our letter of denial was written to Mr. T. J. McDonald, it had been thought that the results of this drilling might be made available to us. Drilling was started last April, and we note from your letter that it is discontinued.

Since the Tennessee Copper Company is doing this work at their own expense it is unfortunate that we cannot depend on getting any of the results.

We do know that their drilling was done as a result of considerable geophysical and geological work made some years ago, with the drill holes scientifically directed on definitely located structures. There is also one consideration in their exploration work which is not applicable to other copper prospectors, namely the value of the mineral pyrrhotite associated with these ores, which is devoid of copper but is of value in making sulphuric acid in the Tennessee Company plant.

We regret that to date there is no new information since writing the letter of denial to Mr. McDonald on March 20, which would throw any more favorable light on these applications.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

FSSchmidt/gla 9-29-52
cc to: Adm. Reading File
Dockets
Messrs. C.H.Johnson, Rm. 3621
N.E.Nelson, Rm. 4216 GSA

Mr. Ellis

Mr. Schmidt
DMEA Field Team, Region VII (2)

9/29/52 jem

HOWARD H. BAKER
SECOND DIST., TENNESSEE

COMMITTEE:
PUBLIC WORKS

SUBCOMMITTEES:
FLOOD CONTROL
ROADS

Congress of the United States
House of Representatives
Washington, D. C.

September 25, 1952

313 Post Office Bldg.
Knoxville, Tennessee

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 29 1952

Mr. Frank E. Johnson
Acting Administrator
Defense Minerals Exploration Admn.
Department of the Interior
Washington 25, D. C.

Dear Mr. Johnson:

Re: Docket No. DMEA-2311 (Copper-Sulphur)
Docket No. DMEA-2326 (Copper-Sulphur)
T. J. McDonald
Monroe County, Tennessee

Referring further to your letter to me under date of July 23, 1952 relative to the above captioned matter. Mr. T. J. McDonald is in my office now. He informs me that as he understands it, this drilling program has now been completed, and if in keeping with your policies he would like to have the information obtained as a result of the drilling as suggested in your letter to Mr. McDonald under date of May 1, 1952.

I will appreciate being further advised as to the situation.

Sincerely,

Howard H. Baker

HHB:dl

DMEA 2311 copper McDonald
Fone with Laurence Knoxville Tenn 9/26/52

Letter from Congressman Baker caused me to fone Laurence to ascertain what he knew about Tennessee results

No information availablle concerning drilling of Tennessee who did much geophysical work for a long time to determine their structures.

This country is structurally controlled. McDonald has no target he wants to drill at random The goassans are lean. there is a caved pit that was supposed to have some copper ore but now caved and otherwise there is no copper showing in the country.

Tennessee Co can use pyrrhotite for sulphuric acid. prospectors cannot.

Bureau examined during war in 1943 not since, gossan is very low grade stuff

They started drilling April (Tennessee Co)

Laurence says no sense in just drilling a few holes in a large country without knowing what you are doing.

These projects were denied March 20 1952

Bob.

DMEA-2311 (Copper and Sulphur)

Application 12/27/51 by T.J.McDonald Amount $4,950.00

Notes by Schmidt

Letter from Laurence 3/7/52

States that Tennessee Copper Company has recently applied to Bureau of Land Management for prospecting permits on a block of National Forest land, adjoining and surrounding McDonalds tracts.

There has never been any application by Tennessee Copper to DMPA or DMEA for drilling project. Hence they are doing or planning to do this drilling on their own.

Letter from Laurence 3/10/52

Tennessee Copper will soon begin drilling specific anomalies located by magnetometer surveys made some years ago. This information may be of interest in considering the subject applications.

Note the post script - This information supplied confidentially by the company, and of course should not be revealed to the applicant-RAL.

March 17, 1952 - Acting Administrator Mittendorf to Mr. McDonald denial of application.

April 15, 1952 - Tennessee Copper moved a core drill rig on land adjoining (McDonald 4/18/52).

May 1, 1952 - Letter from Ellis to McDonald.

"The diamond drill program that has now been started by the Tennessee Copper Company in the Beaver Dam Bald area should add materially to our knowledge of the geology of that area. If the exploration program now initiated by that company results in the finding of copper ore deposits near or adjacent to your leases, that information should be of value not only to you but also to the Government in a re-

evaluation of your applications. If after the completion of the present drilling program of the Tennessee Copper Company you have reason to believe that ore was discovered near your property we shall be pleased to have you file a new application."

May 8, 1952 - Letter from Mr. Mittendorf to Mr. Kefauver quotes the foregoing and adds.

"We have taken this stand, in the belief that both the Government and the applicant will be benefited by the information obtained by the Tennessee Copper Company in diamond drilling this area."

July 23, 1952 - Letter from Acting Administrator to Congressman Baker quotes the foregoing.

Sept. 22, 1952- Letter from Congressman Baker to Frank Johnson asks "I should like to know what the Tennessee Copper Company found during their exploration.

CONCLUSION

It is only natural for Congressman Baker or Kefauver or McDonald to assume from the correspondence that the Government would know the results of the drilling of the Tennessee Company. Just how the information gained by Tennessee "should be of value to the Government" I do not see, unless this private Company doing this work at their own expense, wants to make the results available to the Government fore re-use. This would be unlikely if they wanted to acquire the surrounding area which their drilling proved to be valuable.

The whole idea underlying these letters is that the Government will know better how to evaluate this application as a result of Tennessee drilling and this idea has been impressed on McDonald etal so that their inquiry as to what these results have been in quite natural.

We are now placed in the position of having to tell them that we know nothing about the results of Tennessee drilling, and that they can probably find out more about it locally than we can.

Alternative - That before we answer this letter we inquire of Mr. Laurence whether he knows anything about these results that we could divulge.

These big companies drill these wild cat areas to buy them up themselves, and not to benefit local leasers, so I doubt whether Tennessee will divulge any results if they are indicative of values.

Recommend letter to the inquirers explaining that Tennessee is doing their work at their own expense that the results are not available to us at present, but that as soon as they are, we will be guided in a reappraisal of the merits of the application.

FILE COPY
700 SURNAME:

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

JUL 23 1952

Hon. Howard H. Baker
House of Representatives
Washington, D. C.

Re: Docket No. DMEA-2311 (Copper-Sulphur)
Docket No. DMEA-2326 (Copper-Sulphur)
T. J. McDonald
Monroe County, Tennessee

My dear Mr. Baker:

We have your inquiry of July 17, 1952, concerning the captioned applications of Mr. T. J. McDonald of the McDonald Drilling Co. of Middlesboro, Kentucky.

We advised Mr. McDonald in our letter of March 20, 1952, that his applications had been denied on the following basis: "The engineers who have studied the subject applications and others who have examined the geology and mineralization of the Beaverdam Bald and Little Bald areas are of the general opinion that although the area shows disseminated pyritic mineralization, the possibility of encountering favorable copper mineralization is rather limited, especially as there are no surface indications of such occurrences."

On April 18, 1952, Mr. McDonald wrote this agency requesting that his applications be reconsidered on the basis that the Tennessee Copper Company was starting a diamond drilling program in the Beaverdam Bald area, which is the district in which the Applicant's properties are located.

On May 1, 1952, we wrote Mr. McDonald the following: "The diamond drill program that has now been started, by the Tennessee Copper Company in the Beaverdam Bald area, should add materially to our knowledge of the geology of that area. If the exploration program now initiated by that company results in the finding of copper ore deposits near or adjacent to your leases, that information should be of value not only to you but also to the Government in a re-evaluation of your applications."

We have taken this stand, in the belief that both the Government and the Applicant will be benefited by the information obtained by the Tennessee Copper Company, in diamond drilling this area.

I trust this information will reveal to you the present status of these applications.

Sincerely yours,

(signed) FRANK E. JOHNSON

Acting Administrator (B.J.H.)

J.N. 7-23-52

EWEllis/gla
7-22-52

cc to: Adm. Reading File
Dockets
Mr. Ellis
DMEA Field Team, Region VII (2)

HOWARD H. BAKER
SECOND DIST., TENNESSEE

COMMITTEE:
PUBLIC WORKS
SUBCOMMITTEES:
FLOOD CONTROL
ROADS

Congress of the United States
House of Representatives
Washington, D. C.

July 17, 1952

Defense Minerals Administration
Department of the Interior
Washington 25, D. C.

Re Docket No. DEMA-2311(Copper-Sulphur)
Docket No. DMEA-2326
Monroe County, Tennessee

Gentlemen:

Mr. T. J. McDonald, Maryville, Tennessee, has the above applications now pending. I shall appreciate being advised the present status of these applications.

I understand that Mr. McDonald has one or two of his drill riggs at or near the prospects at this time and has had them there for some months as he would like to do the drilling before his present lease expires. For this reason I respectfully urge that the above applications be expedited.

Yours very truly,

Howard H. Baker

HHB:JG

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 21 1952

700 FILE COPY
SURNAME:

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

Sol

MAY 1 1952

Mr. T. J. McDonald
Box 640
Middlesboro, Kentucky

Re: Docket No. DMEA-2311 (Copper-Sulphur)
Docket No. DMEA-2326 (Copper-Sulphur)
Monroe County, Tennessee

Dear Mr. McDonald:

We have your letter of April 18, 1952, concerning the captioned applications and have noted the additional information that you have furnished us in regard to them.

The diamond drill program that has now been started by the Tennessee Copper Company in the Beaver Dam Bald area, should add materially to our knowledge of the geology of that area. If the exploration program now initiated by that company results in the finding of copper ore deposits near or adjacent to your leases, that information should be of value not only to you but also to the Government in a re-evaluation of your applications.

If after the completion of the present drilling program of the Tennessee Copper Company, you have reason to believe that ore was discovered near your property, we shall be pleased to have you file a new application.

Sincerely yours,

Signed

E.H.
5-1-52

Ernest M. Ellis, Chief
Rare and Miscellaneous Metals Div.
Defense Minerals Exploration
Administration

HFKeller/jam
5/1/52
cc to: Adm. Reading File
Docket DMEA-2311
Docket DMEA-2326
Messrs. CHJohnson, Rm. 3621
Ned Nelson, Rm. 4216 GS
Ellis Keller
Field Team, Reg. VII (2)

Sol

4/21/52 gla

McDONALD DRILLING COMPANY
INCORPORATED

Diamond Core Drilling

MIDDLESBORO, KY.

Department of the Interior
Defense Minerals Administration
RECEIVED
APR 22 1952

P. O. 573
Maryville, Tennessee.
April 18, 1952

United States Dept. of Interior
Defense Minerals Administration
Washington 25, D. C.

Re: Docket No.DM E-2311(Copper-Sulphur)
Docket No. DMEA-2326 (Copper-Sulphur)
Monroe County, Tenn.

Gentlemen:

I have your letter of March 20, 1952, relative to my application for a loan for prospecting for sulphur and copper on Beaver Dam Bald and Rough Ridge in Monroe County, Tenn. I have just returned to Maryville after spending several days on these lands. I made a magnetic needle survey on the different tracts in more detail than I had formerly. I think you have the map showing the location of the different tracts which was made by D. B. Burns, Engineer in 1928. However, if you do not have this map in your files, I will be glad to mail you another copy. The dip needle readings on Tracts 4 and 5 just off from the top of Beaver Dam Bald along Grassy Ridge at the headwaters of Bald River register 40°. The readings on tract No. 3, on the headwaters of Rough Ridge Creek register 33 and 34° over a large area. The background dip for this section outside of the mineralized zone is 30°. There is a shaft on Grassy Ridge which shows considerable Pyrites (Copper). There is more mineralization showing up along the top of Rough Ridge than any other section in this territory. There is a out-crop of Gossan running from Looking Glass Knob on the South side of Rough Ridge to the North East corner of Tract No. 3.

Several years ago I had a assay made of copper uncovered on Grassy Ridge by a Bulldozer. This assay showed about 2% copper.

On April 15th, the Tennessee Copper Company moved their core drill rig on land adjoining Tract No. 4, and set up close to Jenks Knob. They are planning on doing considerable drilling around Beaver Dam Bald, on lands of the U. S. Government which they have recently leased.

If you will have one of your geologists examine Rough Ridge and the territory adjacent to Beaver Dam Bald, I believe he will see enough mineralization to justify the drilling of these different tracts.

McDONALD DRILLING COMPANY
INCORPORATED
Diamond Core Drilling
MIDDLESBORO, KY.

If there is any further information which I can give you, please advise. Trusting that you will give my application favorable consideration, I am

Yours very truly,

T. J. McDonald

T. J. McDonald

TJM:ng

700

FILE COPY

SURNAME:

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

MAR 20 1952

AIR MAIL

SD

Mr. T. J. McDonald
Box 640
Middlebore, Kentucky

Re: Docket No. DMEA-2311 (Copper-Sulphur)
Docket No. DMEA-2326 (" ")
Monroe County, Tennessee

Dear Mr. McDonald:

After a careful study of the data you furnished in your applications and subsequent correspondence, and the additional data available to this agency, we regret to advise you that your applications have been denied.

The engineers who have studied the subject applications and others who have examined the geology and mineralization of the Benverdom Bald and Little Bald areas are of the general opinion that although the area shows disseminated pyritic mineralization, the possibility of encountering favorable copper mineralization is rather limited, especially as there are no surface indications of such occurrences.

If at any time in the future you obtain additional information that might alter our decision we would be pleased to have you submit it to this agency.

Sincerely yours,

C. O. Mittendorf (fw) cc 3/20

Acting Administrator
Defense Minerals Exploration
Administration

APPROVED:

For Bureau of Mines

For Geologic Survey

HFKeller/gla 3-17-52
cc to: Adm. Reading File
Dockets DMEA-2311 and DMEA-2326
Messrs. C.H.Johnson, Rm. 3621
Ned Nelson, Rm. 4216 GSA
Ellis
Keller
Region VI (2)

C
O
P
Y

March 7, 1952

Memorandum

TO: Frank E. Johnson, Chairman, Operating Committee, DMEA

From: Field Team, Region VII

Subject: DMEA-2311, 2326 (copper). T. J. McDonald

In reply to your letter of February 29.

Mr. McDonald's proposal to drill two holes in an area where sulphides and gossan occur, without supporting geological or geophysical evidence, is wildcatting, in an area where there may be some promise of possible sulphide ores. If DMEA policy includes assistance of this type, this would be one of the better wildcatting localities, but two holes under these conditions will neither prove nor disprove the possibilities.

It may be worth noting that Tennessee Copper Company has recently applied to the Bureau of Land Management for prospecting permits on a block of National Forest land adjoining and surrounding Mr. McDonald's tracts. We believe the statement that the district has been rather thoroughly prospected by Tennessee Copper Company is incorrect, as we have no information that much work has been done in this particular area.

In May 1943, G. H. Espenshade of the Geological Survey, and H. B. Ewoldt and C. J. Cohen of the Bureau of Mines, examined these prospects. The following is quoted from a memorandum submitted by Mr. Espenshade after that examination:

" Conclusions: The slabby blocks of gossan on Beaverdam Bald and Little Bald are thought to have formed from the weathering of disseminations and thin seams of iron sulphides in black slates. These two knobs at elevations of 4276 and 4,000 feet are remnants of an old erosion surface, and it is believed that gossan would be far more abundant if the source had been a body of massive sulphide minerals.

Reviewed by
DMEA OPERATING COMMITTEE

3-10-52
(date) (JWB)

" The reported dip needle anomalies were perhaps due to the pyrrhotite disseminations in the slate. Mineralization in the region appears to have been dissipated throughout the country rocks, instead of being localized. There are no signs of copper among the weathered material or the fresh sulphides.

Recommendations: Additional work on these prospects by the Geological Survey or the Bureau of Mines is not recommended."

We believe the applicant is capable of doing the drilling as set up in the proposal, but he is neither a geologist nor a mining engineer. He has previously drilled deposits in similar terrain for private clients, apparently satisfactorily. His recent unfortunate experience on DMEA-1665X (mica) was due to attempting to drill NX holes with inadequate equipment, and unfamiliarity with drilling pegmatites. We believe he could successfully complete AX holes in the subject area at the proposed cost. It should be noted, however, that his schedule for rental of his own drill rig is far above the usual depreciation allowance.

If it is decided that wildcatting will be approved, we believe a field examination might result in improvement of the drill hole locations, or at least in approval of the proposed locations.

The applications are returned herewith.

/s/ Robert A. Laurence

Robert A. Laurence
Executive Officer, DMEA Field Team
Region VII

/s/ Wm. A. Beck

Wm. A. Beck, for V. J. Lynch
U. S. Bureau of Mines

FEB 29 1952 AIR MAIL

Mr. Robert A. Laurence
Executive Officer, Region VII
DMEA Field Team
Room 13
Post Office Building
Knoxville, 01, Tennessee

Re: Docket DMEA-2311 (Copper)
Docket DMEA-2326 (Copper)
A. J. McDonald
Monroe County, Tennessee

Dear Mr. Laurence:

We are enclosing one copy each of the subject applications and the supporting evidence.

From correspondence with the applicant it is quite evident that he would be unable to furnish the technical data that we would need to be able to decide on the merits of either application. We believe that one of your field engineers may have definite information concerning not only the area that the applicant proposes to prospect but also the applicant himself, which might influence our decision on the applications. We do not believe that a field team examination is warranted.

From the information at our disposal it appears that the applicant has no definite objective, other than to drill a formation containing disseminated iron sulphides in a district which has been rather thoroughly prospected by the Tennessee Copper Company.

We do not believe that either of these applications should be approved but before informing the applicant of our decision we wish to obtain any additional information that is pertinent to the subject which you might have at your disposal.

Sincerely yours,

(signed) FRANK E. JOHNSON

Chairman, Operating Committee
Defense Minerals Exploration Administration

APPROVED:
W. H. Hedges
Member, Bureau of Mines

L. P. Shaner
Member, Geological Survey

HFKeller/jem 2/15/52
cc to: Adm. Reading File
Docket
Messrs. Johnson, CH Rm. 3621
Nelson, Ned Rm. 4216 GS
Ellis
Keller

Field Team, Region VII

700

FILE COPY
SURNAME:

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

FEB 2 1952

AIR MAIL

Mr. Robert A. Laurence
Executive Officer, Region VII
DMEA Field Team
Room 13
Post Office Building
Knoxville, 01, Tennessee

Re: Docket DMEA-2311 (Copper)
Docket DMEA-2326 (Copper)
T. J. McDonald
Monroe County, Tennessee

Dear Mr. Laurence:

We are enclosing one copy each of the subject applications and the supporting evidence.

From correspondence with the applicant it is quite evident that he would be unable to furnish the technical data that we would need to be able to decide on the merits of either application. We believe that one of your field engineers may have definite information concerning not only the area that the applicant proposes to prospect but also the applicant himself, which might influence our decision on the applications. We do not believe that a Field Team examination is warranted.

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We do not believe that either of these applications should be approved but before informing the applicant of our decision we wish to obtain any additional information that is pertinent to the subject which you might have at your disposal.

Sincerely yours,

ce 2/29

(signed) FRANK E. JOHNSON

Chairman, Operating Committee
Defense Minerals Exploration
Administration

Enclosures-2

APPROVED:
J. H. Hedges
Member, Bureau of Mines

L P Shayer
Member, Geological Survey

HFKeller/jem 2/15/52
cc to: Adm. Reading File
Docket 2326
Messrs. Johnson, CH Rm. 3621
Nelson, Ned Rm. 4216 GS
Ellis
Keller
Field Team, Region VII

FILE COPY
SURNAME:

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

Mr. T. J. McDonald
Box 640
Middlesboro, Kentucky

Dear Mr. McDonald:

Re: Docket DMEA-2311 (Copper)
Docket DMEA-2326 (Copper)
Monroe County, Tennessee

Reference is made to your applications for assistance in exploring the properties located in Monroe County, Tennessee, Docket Nos. DMEA-2311 and DMEA-2326.

We have requested further information concerning your applications from Mr. Robert A. Laurence, Executive Officer, DMEA Field Team, Region VII, Room 13, Post Office Building, Knoxville, Ol, Tennessee. On receipt of this information we will advise you of our decisions with respect to your two applications.

Sincerely yours,

C. O. Mittenderf cc 2/29

Acting Administrator

FEJohnson/hb

Copy to: Adm. Reading File
✓Docket (Dmea 2326)
C. H. Johnson, Rm. 3621
Ned Nelson, Rm. 4216 GSA
Mr. Ellis
Mr. Keller
Field Team, Region VII
DMEA Operating Committee

FILE COPY
SURNAME:

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS ADMINISTRATION

Defense Production Staff

Frank E. Johnson, Chm.
DMEA Operating Committee
Room 4604

1420137 Salaries and Expe WASHINGTON 25, D.C. Production Activities, Interior, 1952
January 2, 1952

A.E. Weissenborn, Exec. Officer, DMEA Field Team, Reg. II, Spokane, Washington

DMEA-2236, FUNNEL AND MAIN MINING COMPANY, LEMHI, IDAHO.

Please furnish maps to go with Field Team report on subject application.

(signed) FRANK E. JOHNSON

Frank E. Johnson
Chairman, Operating Committee
Defense Minerals Exploration Administration

FEJohnson/hb
Copy to: Adm. Reading File
✓DMEA Mails and Files
DMEA Operating Comm. File
J. H. Hedges, Rm. 4604
T. P. Thayer, Rm. 5216 GSA
Mr. Moulds

IN REPLY REFER TO:

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

January 17, 1952

Memorandum

To: Mr. E. Wm. Ellis

From: Mr. N. E. Nelson

Subject: DMEA-2326. T. J. McDonald, Copper and Sulfur, Monroe County, Tennessee

Although the proposed outlay has been cut from $4,950 to $3,300, this new application has no more to recommend it than the old DMEA-2311. Until the applicant supplies more definite information, the conclusions given in my memo of January 7 hold.

N. E. Nelson

Ned E. Nelson
Geologist

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

January 17, 1952

Memorandum

To: Mr. E. Wm. Ellis

From: Mr. N. E. Nelson

Subject: DMEA-2326. T. J. McDonald, Copper and Sulfur, Monroe County, Tennessee

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N. E. Nelson

Ned E. Nelson
Geologist

EXPLORATION

Subject: DMEA-2326
Re: Exploration Loan

Mr. T. J. McDonald
Box 640
Middlesboro, Kentucky

My dear Mr. McDonald

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

Your application was assigned Docket Number DMEA-2326 and referred to the Rare & Miscellaneous Metals Division.

Kindly refer to DMEA-2326 in any future correspondence relating to your application.

Sincerely yours,

ROBERT E. ADAMS

Robert E. Adams
Acting Administrative Officer

7862

Base Metals

FILE COPY
SURNAME:

Moulds

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

Acting Administrator,

Defense Minerals Exploration Administration
1/20137 Salaries & Expenses

Production Activities, Interior 1952

not stripped in R-R.

December 29, 1951

MR. D. MAJER
726 WEST THIRD
SPOKANE, WASH.

RE YOUR WIRE DOCKET 2236. APPLICATION BEING REVIEWED TO DETERMINE IF YOUR PROJECT QUALIFIES FOR EXPLORATION ASSISTANCE.

D. E. MOULDS, ACTING CHIEF
BASE METALS DIVISION
DEFENSE MINERALS EXPLORATION
ADMINISTRATION

DEMoulds/hmj
12-29-51
cc to: Mails and Files Br.
Mr. Mittendorf
Mr. Moulds
Docket

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

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

DO NOT FILL IN THIS BLOCK

Docket No. DMEA-2326

Date received 1-14-52

Participation

T. J. McDonald
Box 640
Middlesboro, Kentucky

DEPT. OF THE INTERIOR RECEIVED JAN 14 1952 PETROLEUM ADMIN. FOR DEFENSE

Name and address of applicant

Date January 10, 1952

FILL IN THIS BLOCK

DEFENSE MINERALS ADMINISTRATION WASHINGTON, D.C. JAN 14 3 34 PM '52

Date of application January 10, 1952

Estimated cost $3300.00

Mineral or metal Copper & Sulphur

Percentage of Government participation 50%

Location of mine Head of Tellico River
Monroe County, Tennessee

Date of filing MF-100

DMA Docket Number, if available DMEA-2311

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract in form MF-200 for your signature.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 10 1952

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation?
*2. If a partnership, state names and addresses of partners.
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.
*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property?
6. If owner, state what claims, liens, or encumbrances, if any, are against the property.
7. If lessee, attach a copy of the lease and state if it is in good standing.

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement.
9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)?

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

10. (*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.

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

NOTE.—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 (*b*) 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.

*11. State the present and former names of the property, if any.

*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.

*13. State source and quantity of water available for operations and its sufficiency at all seasons.
State amount of power to be used, rate per hour or other cost, and source.

*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.

15. State in detail how the ore could be shipped and how and where milled.

*16. History:

(*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.

(*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.

*17. Production:

(*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.)

(*a*) Describe the ore or mineral deposits briefly.

(*b*) Submit available maps and assay data.

(*c*) Give estimated tonnage and grade of each class of ore reserves.

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

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted?

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.

NOTE.—The Government will not participate in a project that will require more than 2 years to complete.

22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:

(*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.

(*b*) Supervisors, by numbers and positions, with salaries of each.

(*c*) Cost of necessary repairs to existing facilities, structures, and buildings.

(*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.

(*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.

(*f*) Cost of rental for equipment which the operator proposes to rent.

(*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.

(*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.

(*i*) Cost of power, water, utilities, and any other items not provided for above.

24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

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.

T. J. McDonald
(Name of company)

By T. J. McDonald
(Signature of authorized official)

Jan 10 - 52
(Date)

(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.

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

Questions: Form MF-103 U.S. DEPT OF INTERIOR, Defense Minerals Adm.
Re: T. J. McDonald, Box 640, Middlesboro, Kentucky

1. Individual

2. Not applicable

3. Not applicable

4. (a) I have been doing contract core drilling for the past 15 years in many different sections of the south. Have been doing prospecting work, surface exploration, such as tunnelling, cross-cutting etc., since 1930 mostly in the southern Applachains. In the early 20's I did considerable prospecting in South America, San Juan River in Columbia, as well as Panama.

5. Lessee

6. None

7. See attached lease. The lease is in good standing.

8. Financial Statement of T. J. McDonald

Jan. 1st 1952	Cash on hand and in Banks	$4,000.00
	Drilling Equipment, Including tools, etc.	10,000.00
	Real Estate	750.00
	Liabilities	None

9. Will use my own drilling equipment which will cover my share of cost. Will be my own driller.

10. (a) See enclosed description and maps
(b) See enclosed description and maps

11. Cherokee National Forest, upper Tellico River

12. 25 miles east of Tellico Plains, Tennessee

13. Sufficient water within 1,000 feet of drilling site. Gasoline engines used on drills and pumps.

14. None

15. Plant would have to be erected on site to concentrate material. Concentrates to be trucked to Ducktown, Tennessee, approximately 60 miles.

16. (a) There has been more or less surface prospecting on this Fontana Lead between Beaver Dam Bald and Grassy Top for the past 25 years. Magnetometer surveys have been made

of this section many times by different geologists and engineers. These surveys indicate favorable conditions for deposits of copper. The Civilian Conservation Corps built a road from Tellico River to Beaver Dam Bald using Bull-dozer equipment. This operation uncovered more or less copper in the slate wherever the road crossed the Fontana Lead. It also uncovered some Gossan in many places. There was a pit or shaft sunk close to Beaver Dam Bald many years ago showing a deposit of Pyrite. There was a shaft sunk on tract #1 (see map) several years ago. This shaft was 50 feet deep. Grey copper and Pyrite were found in this shaft.

(b) No development near this section.

(c) Have no private reports on this particular section.

17. No production.

18. No operation.

19. Covered by above statements.

20. Copper and Iron Sulphites (Ducktown Type Ore Body)

21. 2 AX diamond drill holes to a depth of 300 feet each, a total of 600 feet.
It is estimated that this work can be completed within three months. This length of time may be necessary due to the rugged terrian, altitude, and probably bad winter weather.

22. See map Murphy Quadrangle, also Murphy folio. Some of the slate veins have been traced on the enclosed map from the Murphy Folio. Magnetometer surveys indicate that this is the most favorable section for locating copper between Ducktown and Fontana, North Carolina. I have made a survey personally of this Lead or vein all the way from Ducktown to Fontana.

23.

(a) 1 drill helper @ $10.00 per day 40 days	$400.00
(b) 1 supervisor who will do the drilling	640.00
(c) (~~applicant~~)@ $16.00 per day	
(c) None	
(d) 1 Tool House	200.00
(e) None	
(f) None	
(g) Diamond drill & 2 pumps @ 25.00 per day for 60 days	1000.00
(h) Drill bits, core boxes, drilling, accessories, etc.	560.00
(i) Drill transportation, gas & oil, analyses	200.00
(1) Road building	200.00
(2) Depreciation	100.00
total	$3300.00

24. Drilling can be started within 2 weeks after contract is approved and it is estimated that 300 feet of drilling can be done per month unless delayed by inclement weather during the winter months.

RE: T. J. McDonald, Box 640, Middlesboro, Kentucky

DESCRIPTION OF TRACTS #1 and #4

Located on the Head Waters of Tellico River
in Monroe County, Tennessee

Block #1

Beginning at a dry chestnut in old Sherman Clayton's hacking in cove 300 ft. behind old house and running N. 49 1/2 E 2951.61 ft. to a stake on side of Looking Glass Knob; thence S 40 1/2 E. 2951.61 ft. to a hemlock near bank of Rough Ridge Creek; thence S. 49 1/2 W. 1046 ft. to a stake in State line; thence S. 67 W. 850 ft. to a dry hemlock; thence S. 26 W. 111 ft. to a holly on State Line; thence crossing Middle River S. 30 W. 300 ft. to a stake; thence N. 51 W. 2808 ft. to the beginning; containing 176.1 acres.

Block #4

Beginning at a dry chestnut on State Line Ridge and running N. 41 W. 1900 ft. to a red oak and pointers 500 ft. N. W. of Grassy Ridge; thence N. 49 E. 2951.61 ft. to a stake, thence S. 41 E. about 1960 feet to an intersection of State Line thence with the State Line to the beginning, containing 165 acres more or less. The South one-half of this tract - 82½ acres.

Total Acreage - 282½ acres.

For a complete description reference is made to a deed from Tellico River Lumber Company to Dana B. Burns and Mrs. H. M. Boyd dated May 1, 1928 and recorded in the office of the Register of Deeds in Monroe County, Tennessee in Deed Book 39 on page 457.

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

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

DO NOT FILL IN THIS BLOCK

Docket No. DMEA-2326

Date received 1-14-52

Participation

T. J. McDonald
Box 640
Middlesboro, Kentucky

DEPT. OF THE INTERIOR RECEIVED JAN 14 1952 PETROLEUM ADMIN. FOR DEFENSE

DEFENSE MINERALS ADMINISTRATION WASHINGTON, D. C. JAN 14 3 33 PM '52

Name and address of applicant

Date January 10, 1952

FILL IN THIS BLOCK

Date of application January 10, 1952

Estimated cost $3300.00

Mineral or metal Copper & Sulphur

Percentage of Government participation 50%

Location of mine Head of Tellico River
Monroe County, Tennessee

Date of filing MF-100

DMA Docket Number, if available DMEA-2311

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation?
*2. If a partnership, state names and addresses of partners.
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.
*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property?
6. If owner, state what claims, liens, or encumbrances, if any, are against the property.
7. If lessee, attach a copy of the lease and state if it is in good standing.

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement.
9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)?

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

10. (*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.
    (*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

    NOTE.—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 (*b*) 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.

*11. State the present and former names of the property, if any.
*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.
*13. State source and quantity of water available for operations and its sufficiency at all seasons.
State amount of power to be used, rate per hour or other cost, and source.
*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.
15. State in detail how the ore could be shipped and how and where milled.
*16. History:
    (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.
    (*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.
*17. Production:
    (*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.)
    (*a*) Describe the ore or mineral deposits briefly.
    (*b*) Submit available maps and assay data.
    (*c*) Give estimated tonnage and grade of each class of ore reserves.
19. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted?
21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.

    NOTE.—The Government will not participate in a project that will require more than 2 years to complete.
22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:
    (*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.
    (*b*) Supervisors, by numbers and positions, with salaries of each.
    (*c*) Cost of necessary repairs to existing facilities, structures, and buildings.
    (*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.
    (*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.
    (*f*) Cost of rental for equipment which the operator proposes to rent.
    (*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.
    (*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.
    (*i*) Cost of power, water, utilities, and any other items not provided for above.
24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

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.

T. J. McDonald
(Name of company)

By T. J. McDonald
(Signature of authorized official)

Jan. 10, 1982
(Date)

(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.

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

Questions: Form MP-103 U.S. DEPT OF INTERIOR, Defense Minerals Adm.
Re: T. J. McDonald, Box 640, Middlesboro, Kentucky

1. Individual

2. Not applicable

3. Not applicable

4. (a) I have been doing contract core drilling for the past 15 years in many different sections of the south. Have been doing prospecting work, surface exploration, such as tunnelling, cross-cutting etc., since 1930 mostly in the southern Applachains. In the early 20's I did considerable prospecting in South America, San Juan River in Columbia, as well as Panama.

5. Leases

6. None

7. See attached lease. The lease is in good standing.

8. Financial Statement of T. J. McDonald

Jan. 1st 1952	Cash on hand and in Banks	$4,000.00
	Drilling Equipment, Includin g tools, etc.	10,000.00
	Real Estate	750.00
	Liabilities	None

9. Will use my own drilling equipment which will cover my share of cost. Will be my own driller.

10. (a) See enclosed description and maps
(b) See enclosed description and maps

11. Cherokee National Forest, upper Tellico River

12. 25 miles east of Tellico Plains, Tennessee

13. Sufficient water within 1,000 feet of drilling site. Gasoline engines used on drills and pumps.

14. None

15. Plant would have to be erected on site to concentrate material. Concentrates to be trucked to Ducktown, Tennessee, approximately 60 miles.

16. (a) There has been more or less surface prospecting on this Fontana Lead between Beaver Dam Bald and Grassy Top for the past 25 years. Magnetometer surveys have been made

RE: T. S. Lo[illegible]d, Box 640, Middlesboro, [illegible]ntucky

of this section many times by different geologists and engineers. These surveys indicate favorable conditions for deposits of copper. The Civilian Conservation Corps built a road from Tallico River to Beaver Dam Bald using bull-dozer equipment. This operation uncovered more or less copper in the slate wherever the road crossed the Fontana Lead. It also uncovered some Goosan in many places. There was a pit or shaft sunk close to Beaver Dam Bald many years ago showing a deposit of Pyrite. There was a shaft sunk on tract #1 (see map) several years ago. This shaft was 50 feet deep. Grey copper and Pyrite were found in this shaft.

(b) No development near this section.

(c) Have no private reports on this particular section.

17. No production.

18. No operation.

19. Covered by above statements.

20. Copper and Iron Sulphites (Buckeye Type Ore Body)

21. 2 AX diamond drill holes to a depth of 300 feet each, a total of 600 feet.
It is estimated that this work can be completed within three months. This length of time may be necessary due to the rugged terrian, altitude, and probably bad winter weather.

22. See map Murphy Quadrangle, also Murphy folio. Some of the slate veins have been traced on the enclosed map from the Murphy folio. Magnetometer surveys indicate that this is the most favorable section for locating copper between Ducktown and Fontana, North Carolina. I have made a survey personally of this lead or vein all the way from Ducktown to Fontana.

23. (a) 1 drill holder @ $10.00 per day 40 days — [illegible]00.00
(b) 1 supervisor who will do some drilling — [illegible]0.00
(c) (applicant) @ $16.00 per day
(d) Tools
(e) 1 Tool House — 200.00
(f) Camp
(g) Tent
(h) Diamond drill 1-2 pumps - 25.00 per day for 60 days — 1[illegible]0.00
(i) Drill bits, core boxes, drilling, accessories, etc. — [illegible]0.00
(j) Drill transportation, gas & oil, analyses — [illegible]0.00
(2) Road building — [illegible]0.00
(2) Depreciation — 100.00
total — [illegible]

24. Drilling can be started within 2 weeks after contract is approved and it is estimated that 300 feet of drilling can be done per month unless delayed by inclement weather during the winter months.

RE: S. J. McDo[redacted]d, Box 640, Middlesboro, [redacted]ntucky

DESCRIPTION OF TRACTS #1 and #4

Located on the Head Waters of Tellico River
in Monroe County, Tennessee

Block #1

Beginning at a dry chestnut in old Sherman Clayton's hunting in cove 300 ft. behind old house and running N. 49 1/2 E 2951.61 ft. to a stake on side of Looking Glass Knob; thence S 40 1/2 E. 2951.61 ft. to a hemlock near bank of Rough Ridge Creek; thence S. 49 1/2 W. 1046 ft. to a stake in State line; thence S. 67 W. 850 ft. to a dry hemlock; thence S. 23 W. 111 ft. to a holly on State Line; thence crossing Middle River S. 30 W. 300 ft. to a stake; thence N. 51 W. 2308 ft. to the beginning: containing 176.1 acres.

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Beginning at a dry chestnut on State Line Ridge and running N. 41 W. 1900 ft. to a red oak and pointers 500 ft. N. W. of Grassy Ridge; thence N. 49 E. 2951.61 ft. to a stake, thence S. 41 E. about 1950 feet to an intersection of State Line thence with the State Line to the beginning, containing 165 acres more or less. The South one-half of this tract - 82½ acres.

Total Acreage - 282½ acres.

For a complete description reference is made to a deed from Tellico River Lumber Company to Dana B. Burns and Mrs. E. H. Boyd dated May 1, 1928 and recorded in the office of the Register of Deeds in Monroe County, Tennessee in Deed Book 39 on page 457.

Form MF-103
(April 1951)

DEFENSE MINERALS ADMINISTRATION
WASHINGTON, D.C.

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

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

JAN 14 3 34 PM '52

DO NOT FILL IN THIS BLOCK

Docket No. DMEA-2326

Date received 1-14-52

Participation

DEPT. OF THE INTERIOR
RECEIVED
JAN 14 1952
PETROLEUM ADMIN. FOR DEFENSE

T. J. McDonald
Box 640
Middlesboro, Kentucky

Name and address of applicant

Date January 10, 1952

FILL IN THIS BLOCK

Date of application January 10, 1952

Estimated cost $3300.00

Mineral or metal Copper & Sulphur

Percentage of Government participation 50%

Location of mine Head of Tellico River
Monroe County, Tennessee

Date of filing MF-100

DMA Docket Number, if available DMEA-2311

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation?
*2. If a partnership, state names and addresses of partners.
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.
*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property?
6. If owner, state what claims, liens, or encumbrances, if any, are against the property.
7. If lessee, attach a copy of the lease and state if it is in good standing.

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement.
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16—64067-1

THE PROPERTY

10. (*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.

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*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.

*13. State source and quantity of water available for operations and its sufficiency at all seasons.
State amount of power to be used, rate per hour or other cost, and source.

*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.

15. State in detail how the ore could be shipped and how and where milled.

*16. History:

(*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.

(*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.

*17. Production:

(*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.)

(*a*) Describe the ore or mineral deposits briefly.

(*b*) Submit available maps and assay data.

(*c*) Give estimated tonnage and grade of each class of ore reserves.

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20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted?

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22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

THE REQUIREMENTS AND COSTS

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(*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.

(*b*) Supervisors, by numbers and positions, with salaries of each.

(*c*) Cost of necessary repairs to existing facilities, structures, and buildings.

(*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.

(*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.

(*f*) Cost of rental for equipment which the operator proposes to rent.

(*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.

(*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.

(*i*) Cost of power, water, utilities, and any other items not provided for above.

24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

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.

T. J. McDonald
(Name of company)

By T. J. McDonald
(Signature of authorized official)

January 10-1952
(Date)

(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.

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

Questions: Form M[illegible]03 U.S. DEPT OF INTERIOR, [illegible]efense Minerals Adm.
Re: T. J. McDonald, Box 640, Middlesboro, Kentucky

1. Individual

2. Not applicable

3. Not applicable

4. (a) I have been doing contract core drilling for the past 15 years in many different sections of the south. Have been doing prospecting work, surface exploration, such as tunnelling, cross-cutting etc., since 1930 mostly in the southern Applachains. In the early 20's I did considerable prospecting in South America, San Juan River in Columbia, as well as Panama.

5. Lessee

6. None

7. See attached lease. The lease is in good standing.

8. Financial Statement of T. J. McDonald

Jan. 1st 1952	Cash on hand and in Banks	$4,000.00
	Drilling Equipment, Includin g tools, etc.	10,000.00
	Real Estate	750.00
	Liabilities	None

9. Will use my own drilling equipment which will cover my share of cost. Will be my own driller.

10. (a) See enclosed description and maps
(b) See enclosed description and maps

11. Cherokee National Forest, upper Tellico River

12. 25 miles east of Tellico Plains, Tennessee

13. Sufficient water within 1,000 feet of drilling site. Gasoline engines used on drills and pumps.

14. None

15. Plant would have to be erected on site to concentrate material. Concentrates to be trucked to Ducktown, Tennessee, approximately 60 miles.

16. (a) There has been more or less surface prospecting on this Fontana Lead between Beaver Dam Bald and Grassy Top for the past 25 years. Magnetometer surveys have been made

of this section many times by different geologists and engineers. These surveys indicate favorable conditions for deposits of copper. The Civilian Conservation Corps built a road from Tellico River to Beaver Dam Bald using Bull-dozer equipment. This operation uncovered more or less copper in the slate wherever the road crossed the Fontana Lead. It also uncovered some Gossan in many places. There was a pit or shaft sunk close to Beaver Dam Bald many years ago showing a deposit of Pyrite. There was a shaft sunk on tract #1 (see map) several years ago. This shaft was 50 feet deep. Grey copper and Pyrite were found in this shaft.

(b) No development near this section.

(c) Have no private reports on this particular section.

17. No production.

18. No operation.

19. Covered by above statements.

20. Copper and Iron Sulphites (Ducktown Type Ore Body)

21. 2 AX diamond drill holes to a depth of 300 feet each, a total of 600 feet.
It is estimated that this work can be completed within three months. This length of time may be necessary due to the rugged terrian, altitude, and probably bad winter weather.

22. See map Murphy Quadrangle, also Murphy folio. Some of the slate veins have been traced on the enclosed map from the Murphy Folio. Magnetometer surveys indicate that this is the most favorable section for locating copper between Ducktown and Fontana, North Carolina. I have made a survey personally of this Lead or vein all the way from Ducktown to Fontana.

23.

(a) 1 drill helper @ $10.00 per day 40 days	$400.00
(b) 1 supervisor who will do the drilling	640.00
(c) (applicant)@ $16.00 per day	
(c) None	
(d) 1 Tool House	200.00
(e) None	
(f) None	
(g) Diamond drill & 2 pumps @ 25.00 per day for 60 days	1000.00
(h) Drill bits, core boxes, drilling, accessories, etc.	500.00
(i) Drill transportation, gas & oil, analyses	200.00
(1) Road building	200.00
(2) Depreciation	100.00
total	$3300.00

24. Drilling can be started within 2 weeks after contract is approved and it is estimated that 300 feet of drilling can be done per month unless delayed by inclement weather during the winter months.

RE: T. J. McDonald, Box 640, Middlesboro, Kentucky

DESCRIPTION OF TRACTS #1 and #4

Located on the Head Waters of Tellico River
in Monroe County, Tennessee

Block #1

Beginning at a dry chestnut in old Sherman Clayton's hacking in cove 300 ft. behind old house and running N. 49 1/2 E 2951.61 ft. to a stake on side of Looking Glass Knob; thence S 40 1/2 E. 2951.61 ft. to a hemlock near bank of Rough Ridge Creek; thence S. 49 1/2 W. 1046 ft. to a stake in State line; thence S. 67 W. 850 ft. to a dry hemlock; thence S. 26 W. 111 ft. to a holly on State Line; thence crossing Middle River S. 30 W. 300 ft. to a stake; thence N. 51 W. 2808 ft. to the beginning; containing 176.1 acres.

Block #4

Beginning at a dry chestnut on State Line Ridge and running N. 41 W. 1900 ft. to a red oak and pointers 500 ft. N. W. of Grassy Ridge; thence N. 49 E. 2951.61 ft. to a stake, thence S. 41 E. about 1960 feet to an intersection of State Line thence with the State Line to the beginning, containing 165 acres more or less. The South one-half of this tract - 82½ acres.

Total Acreage - 282½ acres.

For a complete description reference is made to a deed from Tellico River Lumber Company to Dana B. Burns and Mrs. H. M. Boyd dated May 1, 1928 and recorded in the office of the Register of Deeds in Monroe County, Tennessee in Deed Book 39 on page 457.

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

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

DO NOT FILL IN THIS BLOCK

Docket No. DMEA-2326

Date received 1-14-52

Participation

T. J. McDonald
Box 640
Middlesboro, Kentucky

DEPT. OF THE INTERIOR RECEIVED JAN 14 1952 PETROLEUM ADMIN. FOR DEFENSE

Name and address of applicant

Date January 10, 1952

FILL IN THIS BLOCK

Date of application January 10, 1952

Estimated cost $3300.00

Mineral or metal Copper & Sulphur

Percentage of Government participation 50%

Location of mine Head of Tellico River
Monroe County, Tennessee

DEFENSE MINERALS ADMINISTRATION WASHINGTON, D.C. JAN 14 3 PM '52

Date of filing MF-100

DMA Docket Number, if available DMEA-2311

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation?
*2. If a partnership, state names and addresses of partners.
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.
*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property?
6. If owner, state what claims, liens, or encumbrances, if any, are against the property.
7. If lessee, attach a copy of the lease and state if it is in good standing.

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement.
9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)?

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

10. (*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.
    (*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

    NOTE.—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 (*b*) 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.

*11. State the present and former names of the property, if any.

*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.

*13. State source and quantity of water available for operations and its sufficiency at all seasons.
State amount of power to be used, rate per hour or other cost, and source.

*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.

15. State in detail how the ore could be shipped and how and where milled.

*16. History:
    (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.
    (*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.

*17. Production:
    (*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.)
    (*a*) Describe the ore or mineral deposits briefly.
    (*b*) Submit available maps and assay data.
    (*c*) Give estimated tonnage and grade of each class of ore reserves.

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

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted?

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.

    NOTE.—The Government will not participate in a project that will require more than 2 years to complete.

22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:
    (*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.
    (*b*) Supervisors, by numbers and positions, with salaries of each.
    (*c*) Cost of necessary repairs to existing facilities, structures, and buildings.
    (*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.
    (*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.
    (*f*) Cost of rental for equipment which the operator proposes to rent.
    (*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.
    (*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.
    (*i*) Cost of power, water, utilities, and any other items not provided for above.

24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

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.

T. J. McDonald
(Name of company)

By T. J. McDonald
(Signature of authorized official)

Jan 10 - 1952
(Date)

(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.

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

Questions: Form M[illegible]103 U.S. DEPT OF INTERIOR, [illegible]efense Minerals Adm.
Re: T. J. McDonald, Box 640, Middlesboro, Kentucky

1. Individual

2. Not applicable

3. Not applicable

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6. None

7. See attached lease. The lease is in good standing.

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Jan. 1st 1952	Cash on hand and in Banks	$4,000.00
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	Real Estate	750.00
	Liabilities	None

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10. (a) See enclosed description and maps
(b) See enclosed description and maps

11. Cherokee National Forest, upper Tellico River

12. 25 miles east of Tellico Plains, Tennessee

13. Sufficient water within 1,000 feet of drilling site. Gasoline engines used on drills and pumps.

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of this section many times by different geologists and engineers. These surveys indicate favorable conditions for deposits of copper. The Civilian Conservation Corps built a road from Tellico River to Beaver Dam Bald using Bull-dozer equipment. This operation uncovered more or less copper in the slate wherever the road crossed the Fontana Lead. It also uncovered some Gossan in many places. There was a pit or shaft sunk close to Beaver Dam Bald many years ago showing a deposit of Pyrite. There was a shaft sunk on tract #1 (see map) several years ago. This shaft was 50 feet deep. Grey copper and Pyrite were found in this shaft.

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(a) 1 drill helper @ $10.00 per day 40 days	$400.00
(b) 1 supervisor who will do the drilling	640.00
(c) (~~applicant~~)@ $16.00 per day	
(c) None	
(d) 1 Tool House	200.00
(e) None	
(f) None	
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(2) Depreciation	100.00
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in Monroe County, Tennessee

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Beginning at a dry chestnut on State Line Ridge and running N. 41 W. 1900 ft. to a red oak and pointers 500 ft. N. W. of Grassy Ridge; thence N. 49 E. 2951.61 ft. to a stake, thence S. 41 E. about 1960 feet to an intersection of State Line thence with the State Line to the beginning, containing 165 acres more or less. The South one-half of this tract - 82½ acres.

Total Acreage - 282½ acres.

For a complete description reference is made to a deed from Tellico River Lumber Company to Dana B. Burns and Mrs. H. M. Boyd dated May 1, 1928 and recorded in the office of the Register of Deeds in Monroe County, Tennessee in Deed Book 39 on page 457.

DEPT. OF THE INTERIOR
RECEIVED
JAN 14 1952
PETROLEUM ADMIN. FOR DEFENSE

LANDLORD'S SUBORDINATION AGREEMENT

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, the undersigned are the owners of those mineral interests in the county of Monroe, State of Tennessee, more particularly described in a certain lease from the undersigned to T. J. McDonald, dated the 10th day of January, 1952; and

WHEREAS, Lessee proposes to enter into an Exploration Project with the United States of America to enable him to prospect said property described in said lease.

NOW, THEREFORE, the undersigned as Lessors of said property under lease dated the 10th day of January, 1952, do by these presents subordinate all of their right, title, and interest under the provisions of said lease to the right, title, and interest of the United States of America, under the provisions of Section 15 of said Exploration Project Contract, and also subject to the right of the United States of America to enforce its claims against said T. J. McDonald out of any structures or improvements placed upon said property, and agrees that the lien and claim of the United States of America, under the provisions of said contract as above set forth, shall be prior to the undersigned's rights to rentals or royalties under the terms of said lease and to any further rights of this character acquired by execution of such Exploration Project Contract contemplated.

The undersigned further agrees that if said leasehold interest should be surrendered or if said lease should terminate at any time prior to the expiration of the rights of the United States of America under said Exploration Project Contract, the

undersigned shall assume and does hereby assume all of the obligations of the Lessee under Section 15 of said Exploration Project Contract to make repayment to the United States of America according to the terms of said contract; and

The undersigned agrees to commit no act, nor assert any claim under judicial process or otherwise that may contravene or conflict with the prior lien and claim of the United States of America under the provisions of said Exploration Project Contract.

This undertaking and covenant shall be binding upon the heirs, successors, and assigns of the undersigned.

Dated this 10th day of January, 1952.

Marion H. Carson

Lucas B. Hereford

Francis H. Manley

CONTRACT OF LEASE

This Contract of Lease, made and entered into this the 10th day of January, 1952, by and between Marion H. Carson and Sara B. Herford, of McMinn County, Tennessee, and Frances H. Stanley, of Knox County, Tennessee, heirs at law and devisees of C. F. Herford, late of Monroe County, Tennessee, hereinafter called "Lessors" and T. J. McDonald of Monroe County, Tennessee, hereinafter called "Lessee,"

W I T N E S S E T H

The Lessors for and in consideration of the sum of One Dollar ($1.00) and other valuable considerations, do hereby lease, demise and let to Lessee all of their mining rights and privileges in those two pieces or parcels of land located in the 19th Civil District of Monroe County, Tennessee, and on the waters of Tellico River, being Lot #1, and one-half of Lot #4, deeded to C. F. Herford by the Tellico River Lumber Company by deed dated the 4th day of December, 1907, and recorded in the Register's Office of Monroe County, Tennessee, in Deed Book 12, Page 103, and more particularly described as follows:

> Block No. 1 as surveyed by G. M. Burns in February 1907 and more particularly described as follows: Situated in the 19th and 20th Civil District of Monroe County, Tennessee, to-wit:
>
> BEGINNING at a dry chestnut in old Sherman Clayton, shacking in cove 300 ft. behind old house and running N. 49½ E 2951.61 ft. to a stake on side of Looking Glass Knob; thence S 40½ E. 2951.61 ft. to a hemlock near bank of Rough Ridge Creek; thence S 49½ W. 1046 ft. to a stake in state line; thence S 67 W. 850 ft., to a dry hemlock; thence S 26 W. 111 ft., to a holly on State Line; thence crossing Middle River S 30 W. 300 ft., to a stake; thence N 51 W. 2818 ft. to the beginning, containing 176.1 acres.

Also that tract lying in the 19th Civil District of Monroe County, Tennessee, and being approximately 1/2 of Block No. 4 as surveyed by G. M. Burns in February 1907, and being more particularly described as follows:

BEGINNING at a dry chestnut on State Line Ridge and running N 41 W. 950 ft., to a stake; thence N 49 E. 2951.61 ft. to a stake; thence S 41 E. about 1010 ft. to an intersection of the State Line; thence with the State Line to the beginning containing about 90 acres, more or less.

together with all the rights and privileges appertaining to said mineral rights as conveyed to said C. F. Herford in said deed from the Tellico River Lumber Company.

This deed is made for the sole purpose of permitting the Lessee to enter upon said lands for the purpose of prospecting for copper ore and other minerals associated therewith, and to exercise any and all privileges with respect thereto granted to the said C. F. Herford by the Tellico River Lumber Company, including the right to mine, store, refine, process, carrying away and mill any deposits of any such ores which are found upon said properties.

The term of this lease shall be for the specific term of three years, on condition that within eighteen months of the date of this instrument, active exploration work be commenced on said properties to ascertain by drilling or otherwise the presence of minerals in commercial quantities thereon, and prospected to an extent reasonably to determine this fact. This condition shall be fulfilled, however, if such active exploratory work is done on either of the above described tracts within said period and the presence of such ores discovered.

This lease shall continue so long as active operations are carried on on said properties for the production of minerals, subject to the royalties herein reserved, it being understood and agreed that at cessation of such work for a period of one continuous calendar year after production has commenced will be deemed to be an abandonment by the Lessee of this lease, unless the Lessee, for causes beyond his control, cannot with ample capital and management operate the property at a profit.

The Lessee agrees to pay to the Lessors as their interest may appear, a sum equal to five per centum of the value of all ores at the pit mouth after having been brought to the surface of the lands by mining operations. The Lessee agrees to make monthly reports showing quantities of ores so removed, the estimated value thereof, and the percentage of merchantable minerals therein, and to pay for the same on or before twenty days from the expiration of the month in which said minerals were mined and brought to the surface.

The Lessee agrees in his mining operations on these properties to keep accurate accounts of all ores mined and to carry on his mining operations in a skillful, judicious and workmanlike manner to the end that as much of the ore content of said properties as practicable may be removed.

Lessee further agrees to keep accurate maps of all underground work carried on on said premises and to furnish a copy of such map annually to the Lessors, showing all of the under-ground workings up to that time.

Subject to any claim in the United States of America growing out of losses or advancements to the Lessee, the Lessee agrees that there shall exist a lien against all machinery,

equipment, rails and improvements or other installations placed upon said lands to secure the payment of the royalties reserved herein to the Lessor.

It is further agreed that beginning with the third year of this lease, the Lessee shall pay as fixed rental, monthly, the sum of $25.00 against which shall be credited, however, any sums which may have been paid for minerals actually mined from the property during that period.

It is distinctly understood and agreed that the failure on the part of the Lessee to pay said royalties and rents as herein agreed, or his failure to pay to the Government of the United States all sums of money which would be superior to the claim for rents and royalties by Lessors under Lessors' standby agreement with the Government of the United States for a period of 60 days, shall confer upon the Lessors the option to declare this lease forfeited and to retake said properties and to declare this instrument null and void.

Lessee agrees to furnish promptly a map showing location of prospect holes or other exploration work and to furnish them full information respecting the depth, location and mineral content of the property disclosed by such prospecting.

Lessors covenant with the Lessee that they are the sole owners of the mineral interests and rights described and conveyed to C. F. Herford by the Tellico River Lumber Company, above referred to, and that they have full right, power and

authority to make this lease, that said rights are unencumbered and that they will defend the title to said rights against the claims of all persons whomsoever.

Lessee further agrees that he will pay all taxes levied against the leased properties during the term of this lease, which term shall be deemed to exist unless sooner terminated by Lessors until a duly executed instrument of abandonment is executed by Lessee and delivered to Lessors.

IN WITNESS WHEREOF, the parties hereto have subscribed their names and affixed their seals on the day and year first above written.

Mamie N. Carson

Susan B. Hesser

Frances H. Stanley

Lessors

T. J. McDonald

Lessee

STATE OF TENNESSEE)
ss
COUNTY OF KNOX)

Personally appeared before me, D. A. Christenberry a Notary Public in and for said County, the within named bargainors, Frances H. Stanley and T. J. McDonald, with whom I am personally acquainted, and who acknowledged that they executed the within instrument for the purposes therein contained.

Witness my hand and official seal at office, this the 11 day of January, 1952.

D. A. Christenberry
Notary Public
My Comm. Expires July 7, 1954

STATE OF TENNESSEE)
ss
COUNTY OF McMINN)

Personally appeared before me, Edith M. Hayes a Notary Public in and for said County, the within named bargainors, Sara B. Herford and Marion H. Carson, with whom I am personally acquainted, and who acknowledged that they executed the within instrument for the purposes therein contained.

Witness my hand and official seal at office, this the 11th day of January, 1952.

Edith M. Hayes
Notary Public
My Comm. exp. Apr 7. 1953

LAW OFFICES OF

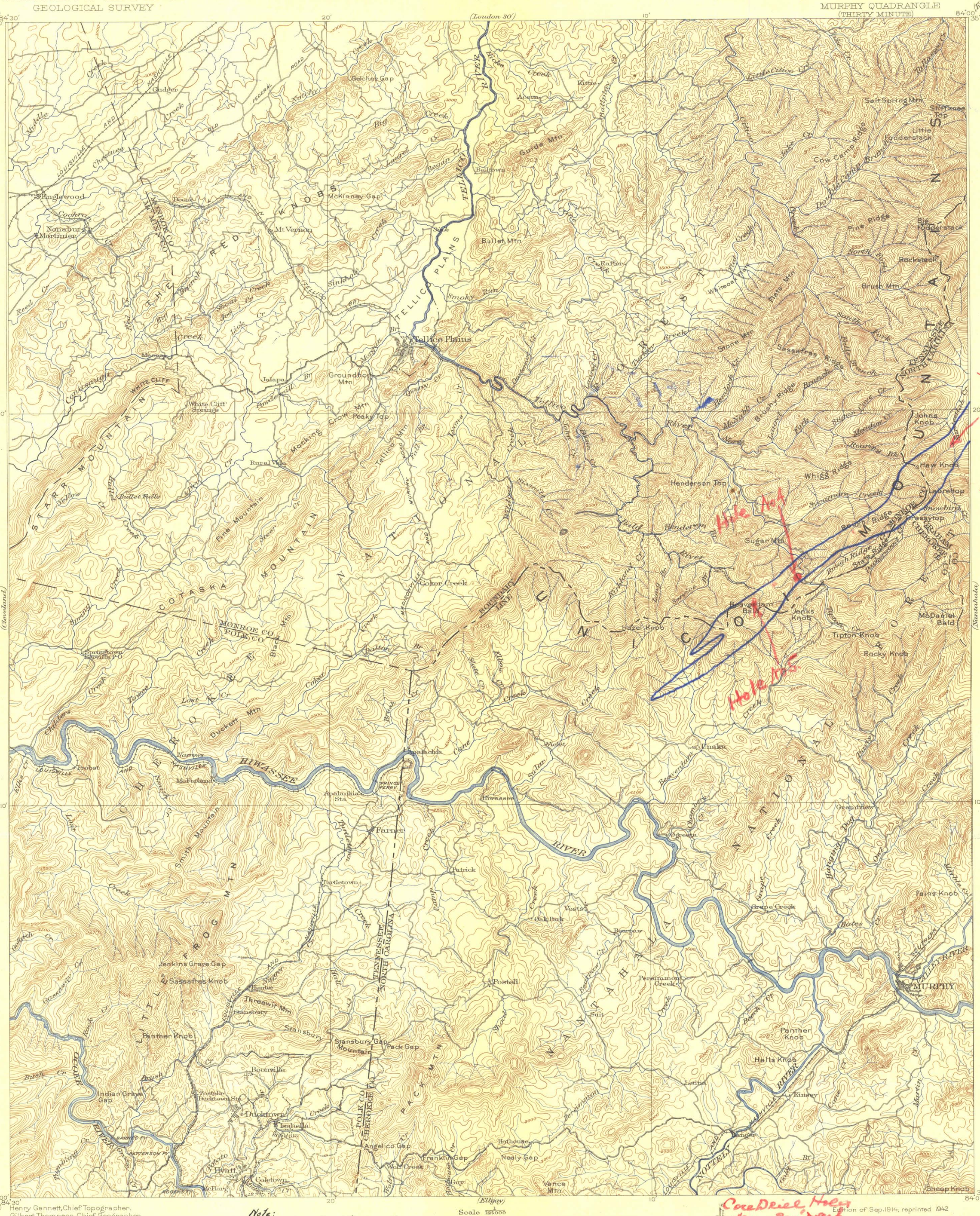
ANDREWS, CHRISTENBERRY & MANN

EMPIRE BUILDING

KNOXVILLE, TENNESSEE

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

TENNESSEE – NORTH CAROLINA
MURPHY QUADRANGLE
(THIRTY MINUTE)



Henry Gannett, Chief Topographer.
Gilbert Thompson, Chief Geographer.
Triangulation by S.S.Gannett.
Topography by F.M.Pearson, Chas.M.Yeates and Chas.E.Cooke.
Surveyed in 1884-1885 and 1892.
Partial revision in 1911-1912 by J.I.Gayetty.

Note:
Area shown in Blue
Taken From Murphy-Tenn.
Quadrangle Geological Map.
Compiled by P.B. King.
8-28-51

H. F. Crutcher
Civil & Mining Engr.

Scale $\frac{1}{125000}$
1 ½ 0 1 2 3 4 5 Miles
1 ½ 0 1 2 3 4 5 Kilometers

Contour interval 100 feet.
Datum is mean sea level.

Maps from later and more detailed surveys are available of the east half, Haw Knob and Fowler Bend quadrangles, scale 1:62,500, contour interval 50 feet, and the Ducktown Mining District, scale 1:36,000, contour interval 20 feet.

TRUE NORTH
MAGNETIC NORTH
APPROXIMATE MEAN DECLINATION 1914.

Core Drill Holes
#4 – 300' deep
#5 – 300' "

Edition of Sep. 1914; reprinted 1942
Polyconic projection.
Surveyed by reconnaissance methods

MURPHY, TENN.-N.C.
(THIRTY MINUTE)

DMEA-2326 T.J. McDONALD

THE TOPOGRAPHIC MAPS OF THE UNITED STATES

The United States Geological Survey is making a series of standard topographic maps to cover the United States. This work has been in progress since 1882, and the published maps cover more than 47 percent of the country, exclusive of outlying possessions.

The maps are published on sheets that measure about 16½ by 20 inches. Under the general plan adopted the country is divided into quadrangles bounded by parallels of latitude and meridians of longitude. These quadrangles are mapped on different scales, the scale selected for each map being that which is best adapted to general use in the development of the country, and consequently, though the standard maps are of nearly uniform size, the areas that they represent are of different sizes. On the lower margin of each map are printed graphic scales showing distances in feet, meters, miles, and kilometers. In addition, the scale of the map is shown by a fraction expressing a fixed ratio between linear measurements on the map and corresponding distances on the ground. For example, the scale $\frac{1}{62,500}$ means that 1 unit on the map (such as 1 inch, 1 foot, or 1 meter) represents 62,500 of the same units on the earth's surface.

Although some areas are surveyed and some maps are compiled and published on special scales for special purposes, the standard topographic surveys and the resulting maps have for many years been of three types, differentiated as follows:

1. Surveys of areas in which there are problems of great public importance—relating, for example, to mineral development, irrigation, or reclamation of swamp areas—are made with sufficient detail to be used in the publication of maps on a scale of $\frac{1}{31,680}$ (1 inch = one-half mile) or $\frac{1}{24,000}$ (1 inch = 2,000 feet), with a contour interval of 1 to 100 feet, according to the relief of the particular area mapped.

2. Surveys of areas in which there are problems of average public importance, such as most of the basin of the Mississippi and its tributaries, are made with sufficient detail to be used in the publication of maps on a scale of $\frac{1}{62,500}$ (1 inch = nearly 1 mile), with a contour interval of 10 to 100 feet.

3. Surveys of areas in which the problems are of minor public importance, such as much of the mountain or desert region of Arizona or New Mexico, and the high mountain area of the northwest, are made with sufficient detail to be used in the publication of maps on a scale of $\frac{1}{125,000}$ (1 inch = nearly 2 miles) or $\frac{1}{250,000}$ (1 inch = nearly 4 miles), with a contour interval of 20 to 250 feet.

The aerial camera is now being used in mapping. From the information recorded on the photographs, planimetric maps, which show only drainage and culture, have been made for some areas in the United States. By the use of stereoscopic plotting apparatus, aerial photographs are utilized also in the making of the regular topographic maps, which show relief as well as drainage and culture.

A topographic survey of Alaska has been in progress since 1898, and nearly 44 percent of its area has now been mapped. About 15 percent of the Territory has been covered by maps on a scale of $\frac{1}{500,000}$ (1 inch = nearly 8 miles). For most of the remainder of the area surveyed the maps published are on a scale of $\frac{1}{250,000}$ (1 inch = nearly 4 miles). For some areas of particular economic importance, covering about 4,300 square miles, the maps published are on a scale of $\frac{1}{62,500}$ (1 inch = nearly 1 mile) or larger. In addition to the area covered by topographic maps, about 11,300 square miles of southeastern Alaska has been covered by planimetric maps on scales of $\frac{1}{125,000}$ and $\frac{1}{250,000}$.

The Hawaiian Islands have been surveyed, and the resulting maps are published on a scale of $\frac{1}{62,500}$.

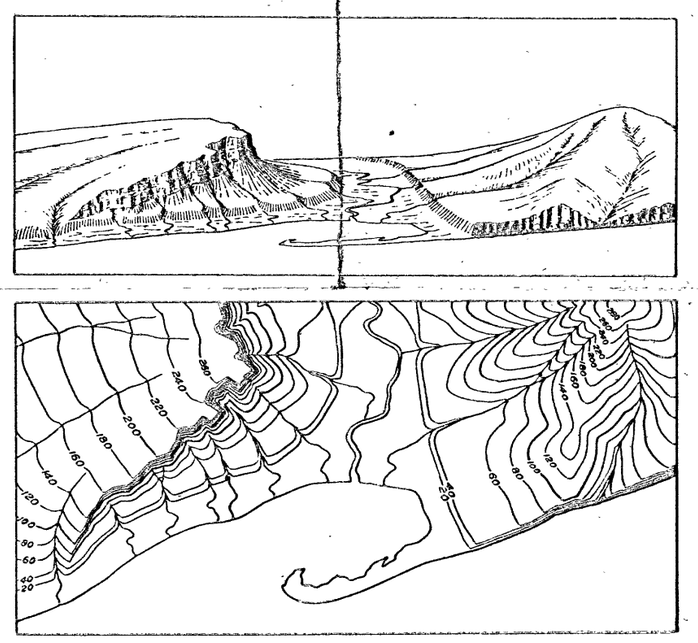
A survey of Puerto Rico is now in progress. The scale of the published maps is $\frac{1}{30,000}$.

The features shown on topographic maps may be arranged in three groups—(1) water, including seas, lakes, rivers, canals, swamps, and other bodies of water; (2) relief, including mountains, hills, valleys, and other features of the land surface; (3) culture (works of man), such as towns, cities, roads, railroads, and boundaries. The symbols used to represent these features are shown and explained below. Variations appear on some earlier maps, and additional features are represented on some special maps.

All the water features are represented in blue, the smaller streams and canals by single blue lines and the larger streams by double lines. The larger streams, lakes, and the sea are accentuated by blue water lining or blue tint. Intermittent streams—those whose beds are dry for a large part of the year—are shown by lines of blue dots and dashes.

Relief is shown by contour lines in brown, which on a few maps are supplemented by shading showing the effect of light thrown from the northwest across the area represented, for the purpose of giving the appearance of relief and thus aiding in the interpretation of the contour lines. A contour line represents an imaginary line on the ground (a contour) every part of which is at the same altitude above sea level. Such a line could be drawn at any altitude, but in practice only the contours at certain regular intervals of altitude are shown. The datum or zero of altitude of the Geological Survey maps is mean sea level. The 20-foot contour would be the shore line if the sea should rise 20 feet above mean sea level. Contour lines show the shape of the hills, mountains, and valleys, as well as their altitude. Successive contour lines that are far apart on the map indicate a gentle slope, lines that are close together indicate a steep slope, and lines that run together indicate a cliff.

The manner in which contour lines express altitude, form, and grade is shown in the figure below.



The sketch represents a river valley that lies between two hills. In the foreground is the sea, with a bay that is partly enclosed by a hooked sand bar. On each side of the valley is a terrace into which small streams have cut narrow gullies. The hill on the right has a rounded summit and gently sloping spurs separated by ravines. The spurs are truncated at their lower ends by a sea cliff. The hill at the left terminates abruptly at the valley in a steep scarp, from which it slopes gradually away and forms an inclined tableland that is traversed by a few shallow gullies. On the map each of these features is represented, directly beneath its position in the sketch, by contour lines.

The contour interval, or the vertical distance in feet between one contour and the next, is stated at the bottom of each map. This interval differs according to the topography of the area mapped: in a flat country it may be as small as 1 foot; in a mountainous region it may be as great as 250 feet. In order that the contours may be read more easily certain contour lines, every fourth or fifth, are made heavier than the others and are accompanied by figures showing altitude. The heights of many points—such as road intersections, summits, surfaces of lakes, and benchmarks—are also given on the map in figures, which show altitudes to the nearest foot only. More precise figures for the altitudes of benchmarks are given in the Geological Survey's bulletins on spirit leveling. The geodetic coordinates of triangulation and transit-traverse stations are also published in bulletins.

Lettering and the works of man are shown in black. Boundaries, such as those of a State, county, city, land grant, township, or reservation, are shown by continuous or broken lines of different kinds and weights. Public roads suitable for motor travel the greater part of the year are shown by solid double lines; poor public roads and private roads by dashed double lines; trails by dashed single lines. Additional public road classification if available is shown by red overprint.

Each quadrangle is designated by the name of a city, town, or prominent natural feature within it, and on the margins of the map are printed the names of adjoining quadrangles of which maps have been published. More than 4,100 quadrangles in the United States have been surveyed, and maps of them similar to the one on the other side of this sheet have been published.

Geologic maps of some of the areas shown on the topographic maps have been published in the form of folios. Each folio includes maps showing the topography, geology, underground structure, and mineral deposits of the area mapped, and several pages of descriptive text. The text explains the maps and describes the topographic and geologic features of the country and its mineral products. Two hundred twenty-five folios have been published.

Index maps of each State and of Alaska and Hawaii showing the areas covered by topographic maps and geologic folios published by the United States Geological Survey may be obtained free. Copies of the standard topographic maps may be obtained for 10 cents each; some special maps are sold at different prices. A discount of 40 percent is allowed on an order amounting to $5 or more at the retail price. The discount is allowed on an order for maps alone, either of one kind or in any assortment, or for maps together with geologic folios. The geologic folios are sold for 25 cents or more each, the price depending on the size of the folio. A circular describing the folios will be sent on request.

Applications for maps or folios should be accompanied by cash, draft, or money order (not postage stamps) and should be addressed to

THE DIRECTOR,
United States Geological Survey,
Washington, D. C.

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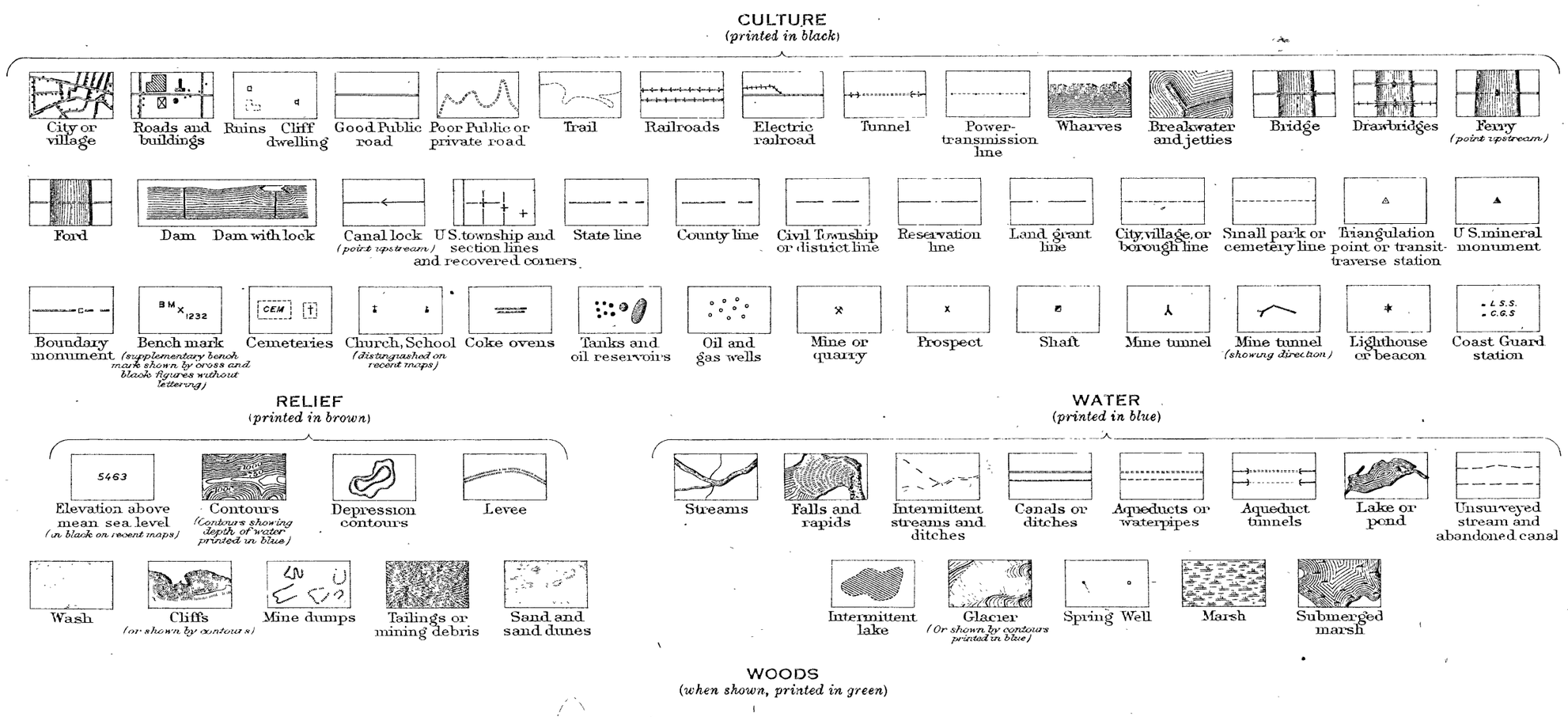
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