DMA Form 1

5251
43rd

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMEA ~~DMA~~ Docket No. 2545

DO NOT DETACH THIS SLIP

Action on this document is recorded and controlled in Reports and Records Branch. Any movement of this document between divisions or offices of DMA or movement outside DMA must be reported to the Reports and Records Branch. Actions taken that affect status of the case must also be reported.

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EXPLORATION PROJECT

Any action taken to change the type of request for assistance must be promptly reported to the Reports and Records Branch. Use DMA Form 2 for submitting these reports.

Routing Slip
Copies to USBM, USGS, and Region VII.

To:	Code 600, Rm. 4637	Date	5-22-52
To:	Mine Laboratory	Date	
To:	Op. Com.	Date	6-9-52
To:	OP Com	Date	7-16-52
To:	Open Com	Date	2-2-53
To:		Date	
To:		Date	
To:		Date	
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DO NOT DETACH

CONTROLLED DOCUMENT

FILE COPY
SURNAME:

Robertson
Houk
Norton
Irving

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

FEB 2 1953

Mr. Joseph R. Perry
Vice-President
American Talc Company
77 River Street
Hoboken, New Jersey

Subject: Docket No. DMEA-2544 - Talc
Docket No. DMEA-2545 - Talc
Cherokee County, North Carolina

Dear Mr. Perry:

Your applications for exploration assistance at the Barton, Moore, and Cornwall properties (application DMEA-2544) and at the Hogal Mine (Application DMEA-2545) in Cherokee County, North Carolina, have been reviewed by the Defense Minerals Exploration Administration.

The use of Government funds in an exploration project is considered justified only if evidence is available to show that a project has a reasonably good chance of resulting in the discovery or development of strategic minerals in sufficient quantities to significantly increase the mineral supply for National Defense.

The evidence that you have submitted, and other available information, does not show that the probability of making a significant discovery of strategic block talc is sufficiently encouraging to justify Government participation in the work proposed in the two applications. Your applications for assistance in these two cases are, therefore, denied.

Your interest in the Defense Minerals Exploration Administration's program to aid the mineral supply for National Defense is appreciated.

Sincerely yours,

C. O. Mittendorf (for)
Administrator

S.H.
2-2-53

JTRobertson:gad 1/30/53
Copy to: Admin. File
Docket File
Operating Committee
Mr. Muhlman, 3530
Mr. Norton, G-232 GSA Bldg.
Mr. Houk

Field Team, Region VII

FILE COPY
SURNAME:

Robertson
Horn
Barton
Irving
Selfridge

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

Memorandum January 30, 1953

To: Chairman, Operating Committee

From: J. R. Robertson, Nonmetallic Minerals Division

Subject: Dockets Nos. DMEA-2544 and DMEA-2545 (Talc)
Regal Mine and Moore, Burton and Cornwall Mines
American Talc Company
Cherokee County, North Carolina

Re: Recommendation of Denial of the subject applications.

The two applications were received May 4th, 1952, and both were referred to the Field Team, Region V. Examination reports were received in June, 1952 but further processing was deferred until the results of the diamond drilling by the Hitchcock Corporation in the same Murphy Marble Belt could be appraised. It was felt that, if the results of the Hitchcock Corporation drilling were negative, then there would be little hope of proceeding with American Talc Company's proposed projects. The Murphy Marble Belt is the single talc producing area in North Carolina. Talc is produced in commercial amounts both crayon talc and powdered talc, but no production of talc of high quality suitable for tube spacer such as is desired for stock-piling.

On October 24, 1951, the Hitchcock Corporation obtained an exploration assistance contract, Idm-3194, calling for a program of 10,000 feet of diamond drilling; the depth of holes ranging from 150 ft. to 450 ft. The work proceeded all through the first 10 months of 1952 but was ordered stopped after some 22 holes or about 65% of the total footage had been drilled.

Insofar as stockpile quality talc is concerned, the results of the Hitchcock Corporation drilling was negative. Commercial talc was encountered in seven of the holes drilled but none was disclosed suitable for radio tube spacers.

Four of the Hitchcock core samples were tested by the G.S.A., Federal Bureau of Supply. The results of the tests as reported by Mr. H. M. Neals, Assistant Chief, Inspection Branch, were as the following. (Quoted from letter 12/24/52.)

> "In accordance with your request, we have made a baking test on four core samples from the Hitchcock Corporation project, labeled 1198-7,8,9, and 10. As is to be expected of stratified talc of this type, the samples cracked along the lines of stratification, making the material unsatisfactory for production of tube spacers."

Using the results of the Hitchcock Corporation project as a basis for judging the potential strategic steatite possibilities of the Murphy Marble Belt as a whole, it would seem, that the entire belt, which is similar in geologic structure, offer slight chance for finding high quality steatite. Furthermore, despite the past considerable production of crayon talc and powdered talc, the area has not contributed tube-spacer talc to the stockpile, now, or in the past.

The Nonmetallic Minerals Division is, therefore, of the opinion that the two applications of the American Talc Company under discussion, DMLA-2544 and DMLA-2545, should both be denied exploration assistance.

A letter of denial is prepared for the Administrator's signature and attached hereto.

J. T. Robertson
Nonmetallic Minerals Division

Note: The Final Field Team Report, Final Operator's Report and Final Audit have not yet been made on the Hitchcock Corporation operation. However, the drilling has been discontinued under the contract and Region VII is preparing the Final reports.

Because of the discovery of commercial talc, it is our intention, when Final reports are all in, to make a Certificate of Discovery on the Hitchcock Corporation project.

JTRobertson:gad 1/30/53

Copy to: Admr. A. File
Docket File
Mr. Houk

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C. 600

January 30, 1953

Memorandum

To: Mr. C. O. Mittendorf, Administrator

From: J. T. Robertson, Nonmetallic Minerals Division

Subject: Docket No. DMEA-2545 -(Block Steatite Talc)
Regal Mine, Cherokee County, North Carolina

Applicant: American Talc Company
77 River Street
Hoboken, New Jersey

Correspondent: Joseph R. Ferry, Vice-President

A Closing Review of Docket: A Denial

5/22/52 Received application for exploration assistance in the amount of $40,000.00.

5/26/52 Received memo from J. J. Norton, USGS, recommending a field examination.

6/5/52 Received memo from E. Robt. Ruhlman, USBM, recommending a field examination.

6/9/52 Applicant notified that application was referred to Robert A. Laurence, Region VII, for field examination.

6/10/52 Operating Committee requests field examination from Robert A. Laurence, Executive Officer, Region VII.

6/27/52 Received Field Team Examination Report. Report prepared jointly by W. A. Beck, Mining Engineer, USBM, and Robert A. Laurence, Geologist, USGS. Report recommends a diamond drilling project totaling $30,150.

7/7/52 Memorandum from P. L. Weiss, USGS questions presence of strategic steatite talc.

7/17/52 Acting Administrator sent letter to Mr. Joseph R. Ferry, Vice-President of Company stating that processing of application will be held up for at least 90 days pending receipt of results of Hitchcock Corporation's drilling which was then testing a portion of the Murphy Marble Belt.

_____ Memorandum - J. T. Robertson, Nonmetallic Minerals Division to Operating Committee. This memo explains in some detail the negative results obtained from the 22 holes drilled by the Hitchcock Corporation and recommends that exploration assistance be denied.

_____ Administrator's letter to applicant advising that the application for an exploration assistance project is denied.

J. T. Robertson

J. T. Robertson
Nonmetallic Minerals Division

FILE COPY
SURNAME:

Robertson
Hewitt
Norton
Selfridge

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C. 600

January 30, 1953

Memorandum

To: Mr. C. C. Mittendorf, Administrator

From: J. T. Robertson, Nonmetallic Minerals Division

Subject: Docket No. DMA-2545 -(Block steatite Talc)
Regal Mine, Cherokee County, North Carolina

Applicant: American Talc Company
77 River Street
Hoboken, New Jersey

Correspondent: Joseph R. Ferry, Vice-President

A Closing Review of Docket: A. Denial

5/22/52 Received application for exploration assistance in the amount of $40,000.00.

5/26/52 Received memo from A. J. Norton, [illegible], recommending a field examination.

6/5/52 Received memo from [illegible], [illegible], recommending a field examination.

6/9/52 Applicant notified that application was referred to Robert A. Laurence, Region VII, for field examination.

6/10/52 Operating Committee requested field examination from Robert A. Laurence, Executive Officer, Region VII.

6/27/52 Received field examination report. Report prepared jointly by [illegible], Mining Engineer, DMEA, and Robert A. Laurence, Geologist, [illegible]. Report recommends a diamond drilling project totalling $30,150.

7/7/52 Memorandum from [illegible], [illegible] questions presence of strategic steatite talc.

7/17/52 Acting Administrator sent letter to Mr. Joseph R. Ferry, Vice-President of Company stating that processing of application will be held up for at least 90 days pending receipt of results of Hitchcock Corporation's drilling which was then testing a portion of the Murphy Marble Belt.

Memorandum - J. T. Robertson, Nonmetallic Minerals Division to Operating Committee. This memo explains in some detail the negative results obtained from the 22 holes drilled by the Hitchcock Corporation and recommends that exploration assistance be denied.

_____ Administrator's letter to applicant advising that the application for an exploration assistance project is denied.

J. T. Robertson
Nonmetallic Minerals Division

JTRobertson:gad 1/30/53

Copy to: Admr. R. File
Docket File
Mr. Houk

FILE COPY
surname:

Robertson
Houk
Hedges
Thayer
Selfridge
FEJohnson

600

Mr. Joseph N. Ferry
Vice- resident
American Talc Company
77 River Street
Hoboken, New Jersey

Subject: Dockets No. DMEA-2544 - 2545
Block Talc
Cherokee County, North Carolina

Dear Mr. Ferry:

Please be advised that this office has recently received field examination reports from Mr. Hobert A. Laurence, Executive Officer, DMEA Field Team, Region VII, with respect to the exploration applications referred to above.

Normally, applications are processed and passed upon very shortly after receipt of such field examination reports. However, in the case of these two applications, we have decided to suspend action on them until we have a better understanding of the block steatite possibilities in the Murphy Marble Belt. We hope that the present drilling by the Hitchcock Corporation on the same belt, some six to eight miles farther east, will shed some light on the subject.

The wisdom of drilling for block talc, when there is so little evidence of the presence of block talc, has become very debatable. This office will therefore, defer the processing of both DMEA-2544 and DMEA-2545 for probably ninety days. Thereafter, you will be informed of our later decisions on both applications.

Sincerely yours,

(signed) FRANK E. JOHNSON

Acting Administrator
Defense Minerals Exploration
Administration

JTRobertson:mp 7/14/52
cc: Docket File
Adm. Reading File
Mr. Ruhlman, 3071A
Mr. Norton, G-232, GSA Bldg.
Field Team, Region VII
Mr. Houk
Operating Committee

IN REPLY REFER TO:

CNM

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

July 7, 1952

Memorandum

REVIEW OF FIELD TEAM REPORT ON APPLICATION DMEA-2545 (Talc)

To: L. G. Houk, Defense Minerals Exploration Administration
From: P. L. Weis, U. S. Geological Survey
Applicant: American Talc Company.
Name of property: Regal Mine.
Location of property: Cherokee County, North Carolina.
Date of field team report: June 18, 1952.
Authorship of field team report: W. A. Beck and R. A. Laurence.
Field team's recommendation: Approval of a drilling program, to include approximately 40 holes and a total of 12,000 feet. Cost not to exceed $33,500.
Comments: This may be a good project, but you cannot explore every worthwhile project in this talc belt unless some indication of block talc becomes evident. Somewhere you must draw a line.
ACTION SUGGESTED: Field team's recommendation should be followed so far as geology is concerned, but you may want to deny it on the grounds that there is evidence for the presence of steatite but that little evidence exists indicating the presence of block talc.

Paul L. Weis
Paul L. Weis

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 8 - 1952

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

Room 13, Post Office Building
Knoxville 2, Tennessee

June 24, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 27 1951

Memorandum

To: Operating Committee, DMEA

From: Field Team, Region VII

Subject: Field Examination Report-Regal Mine tract, (Steatite) DMEA-2545, American Talc Co.

Enclosed herewith are 4 copies of Field Examination Report on the subject application. This application and DMEA-2544 were considered together, and we recommend that approval be given to DMEA-2545.

Robert A. Laurence

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

W A Beck

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

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM, REGION VII

DMEA-2545, (Steatite) AMERICAN TALC COMPANY

REGAL MINE AREA,
Cherokee County, North Carolina

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 27 1951

By

William A. Beck, Mining Engineer
U. S. Bureau of Mines

Robert A. Laurence, Geologist
U. S. Geological Survey

June 18, 1952

Reviewed by
DMEA OPERATING COMMITTEE
7-2-52.
(date)

FIELD EXAMINATION REPORT

IMEA-2545, AMERICAN TALC COMPANY(steatite)

Regal Mine area, Cherokee County, N. C.

Examination of the area known as the Regal Mine property was made on June 18, 1952, by the writers, accompanied by M. Woodard Glenn and Newman R. Davis of the American Talc Company. Examination of IMEA-2544 was made at the same time.

There is little that could be seen on the property, as the old mine workings are inaccessible and there are few exposures because of the heavy cover of residuum and brush. It was necessary to rely principally on Bulletin 56, North Carolina Division of Mineral Resources (parts of which accompany the application) for geologic information. This bulletin suggests (p.46) that previous work has been located too far to the northwest to intercept commercial talc in good quantity. It appears probable that core drilling on this tract will locate commercial talc. The possibility of presence of strategic block talc is, of course, far less certain, but as in the case of the Hitchcock Corporation property (IMEA-1198X), it is considered a fair possibility. There is no apparent reason to expect that the Hitchcock tract is a more probable location for strategic block talc than the Regal tract, or for that matter, any other unexplored portion of the Murphy Marble belt.

For this reason, we recommend that some core drilling be done on the Regal tract. The limiting factor should be the amount of money which IMEA thinks can reasonably be spent in exploration for strategic talc in this district. The 40 holes requested by the applicant would cost approximately $33,500, or about $1,000 more than the amount of the Hitchcock contract. This could provide for 4 AX holes on each of 8 cross-cutting ranges about 300 feet apart, with 8 BX holes to check favorable talc zones found in the AX holes. If this is considered too much money, then every other range, or every third range could be drilled and the total cost reduced accordingly. Average depth of holes would be about 300 feet, the total amount for 40 holes being approximately 12,000 feet.

It may be of interest to note that, on IMEA-1198, 15 holes have been completed through May 1952, and 4 have intersected good talc. Whether any of this is steatite has not yet been determined.

Accessibility of the Regal tract is good, as it is bounded by U. S. Highway 19, and the Southern Railway, and is crossed by a secondary road. A nearby small creek and the abandoned Regal Blue marble quarry a short distance to the southwest, should provide an ample supply of water for drilling.

The Applicants are competent and responsible operators of talc mines, and have done considerable exploration for talc in North Carolina and Georgia. Their drilling supervisor, Mr. Davis is familiar with the geology of the Murphy Marble belt, though he does not have the detailed knowledge of the geology that Mr. Van Horn of the Hitchcock Corp., does.

It may also be worth noting that the only place in the Murphy Marble belt from which ceramic talc is known to have been found is at the old Hewitt Mines at the northeast end of the district. If contracts for both Hitchcock and American Talc Company are approved, it would be difficult to deny a request for exploration on the Hewitt tract, should one be submitted.

DESCRIPTION OF THE WORK

The work on this project will consist of diamond drilling about 40 holes averaging around 300 feet in depth and totaling approximately 12,000 feet. Four AX holes will be drilled on each of eight ranges and 8 BX holes will be drilled to check and sample favorable talc zones. The approximate locations of the ranges and holes are shown on the attached map, but may be changed by mutual agreement of the Government and the Operator as information develops. The estimated cost of the above work is $33,500, averaging about $2.80 per foot. Should the number of ranges and holes be decreased the cost per foot would be slightly higher because item 3, Operating Material and Supplies would decrease but very little. The other items would decrease in proportion to the amount of work allowed. The short form contract was discussed with Mr. Glenn and he stated that he would prefer that form of contract. Should a contract be let, work could start within one month of the date of the contract and be completed within twenty-four months. Operator may use one or two drills as he sees fit.

ESTIMATED COST OF THE WORK

1. Independent Contracts

None

2. Labor, Supervision, Consultants

1 - Driller, 96 weeks, @ $50.00/wk.	$4800.00
1 - Drill helper, 96 weeks @ $50/wk.	4800.00
1 - Supervisor-Working Foreman, 96 weeks, @ $125.00 per week	12000.00
	$21,600.00

3. Operating Materials and Supplies

Gas, Oil, Drilling Supplies, Pipe, bits, Rods, etc.,	$6,000.00	
		$6,000.00

4. Operating Equipment

To be rented
None

To be Purchased
None

Furnished by Operator

1 - Diamond Drill outfit, equipped with initial drilling accessories and pump. Estimated value $5,000. Depreciation @ 1/60 per month for 22 months @ $83.33	$1833.26	
1 - 1/2 ton pickup truck valued at $1700., depreciation @ 1/60 for 22 months @ $28.33 per month	623.26	
		$2,456.52

5. Rehabilitation and Repairs
None

6. New Buildings, Improvements, Installations.
None

7. Miscellaneous

Repairs to equipment	$ 500.00	
Bookkeeper, $25/mo. for 24 months	600.00	
Taxes, etc.	2,000.00	
		$3,100.00

8. Contingencies 343.48 — 343.48

Total estimated cost of project..... $33,500.00

Government's participation @ 90% $30,150.00

June 18, 1952,

Wm. A. Beck, USBM

E. A. Laurence, USGS

FILE COPY
SURNAME:

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C. 600

Mr. Robert A. Laurance
Executive Officer
DMEA Field Team, Region VII
Room 13, Post Office Building
Knoxville 2, Tennessee

Subject: Dockets No. DMEA-2544 - 2545
Steatite Talc
Cherokee County, North Carolina
(American Talc Company)

Dear Mr. Laurence:

The exploration applications referred to above are to be reviewed, and an examination made of the two properties by the Field Team. Memoranda from the Geological Survey, and the Bureau of Mines, are enclosed for your information.

The present drilling operation in your Region by the Hitchcock Corporation (DMA-1198X) is somewhat similar to the proposed drilling by the American Talc Company and their monthly operating reports may be helpful to the Field Teams in making the estimates of drilling costs for these two projects.

The properties to be examined are close together and may be examined and reported on at the same time.

Sincerely yours,

-S- 6/10/52
Chairman, Operating Committee
Defense Minerals Exploration
Administration

Enclosures - 2
Approved:

J. H. Hedges /s/
Member, Bureau of Mines

D. M. Lemmon /s/
Member, Geological Survey

JTRobertson:mp 6/6/52
cc: Docket File
Operating Committee (2)
Adm. Reading File
Mr. Ruhlman, 3071A
Mr. Norton, G-232, GSA Bldg.
Mr. Houk

FILE COPY
SURNAME:

Robertson
Houk

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

600

Mr. Joseph L. Ferry
Vice-President
American Talc Company
77 River Street
Hoboken, New Jersey

Subject: Dockets No. DMEA-2544 - 2545
Steatite Talc
Cherokee County, North Carolina

Dear Mr. Ferry:

Your applications are being referred to Mr. Robert A. Laurence, Executive Officer, DMEA Field Team, Region VII, Room 13, Post Office Building, Knoxville 2, Tennessee, for further information.

Sincerely yours,

-S- 6/10

Acting Administrator
Defense Minerals Exploration
Administration

JTRobertson:mp 6/9/52
cc: Docket File
Adm. Reading File
Field Team, Region VII (2)
Mr. Ruhlman, 3071A
Mr. Norton, C-232, GSA Bldg.
Mr. Houk

IN REPLY REFER TO:

G-MD-JJN

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

May 26, 1952

Memorandum

REVIEW OF APPLICATION DMEA-2545 (Block talc)

DEPARTMENT OF THE INTERIOR
Bureau of Mines
RECEIVED
MAY 31 1952

To: L. G. Houk, Non-Metallic Minerals Division, DMEA
From: J. J. Norton, U. S. Geological Survey
Applicant: American Talc Company.
Name of property: Regal.
Location of property: Cherokee County, North Carolina.
Estimated cost of project: $40,000.
Summary of applicant's proposal:
12,000 feet of diamond drilling.

Comments:

1. This application should be processed with DMEA-2544, which is for nearby properties.

2. This new application adds emphasis to a statement in my May 23rd memorandum concerning DMEA-2544, when I said that discretion should be exercised to avoid doing more work in this area than is warranted. Excessive expenditures of money exploring this area for block talc should be avoided, and I suggest that you give consideration to the question of when the limit is reached.

3. Your oral statement that the applicant has drill hole data, which have not been sent to you, indicates that complete consideration of this project is not possible at the present time. These data should be provided before a field examination is warranted.

RECOMMENDATION:

Two courses of action seem possible for these two applications, DMEA-2544 and 2545:

1. Denial on the grounds that the limit of justifiable DMEA expenditures in this district has already been reached.

Or

2. Refer to field team.

DEPARTMENT OF THE INTERIOR
Bureau of Mines Administration
RECEIVED
MAY 28 1952

J. J. Norton

C O P Y

June 5, 1952

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: E. Robert Ruhlman, Commodity Specialist
Ceramic and Fertilizer Materials Branch

Subject: DMEA-2544 - 45, Block steatite talc, American Talc Company

This area is known to have a good grade of talc and indications are favorable as to finding block steatite talc.

A field team investigation is recommended to determine the feasibility of an exploration program.

/s/ E. Robert Ruhlman

C O P Y

DMEA-2545

AMERICAN TALC COMPANY

MINERS AND MANUFACTURERS

CHATSWORTH, GEORGIA

QUALITY TALC FOR ALL PURPOSES

May 22, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 23 1952

Defense Minerals Production Authority
Washington 25, D. C.

Gentlemen:

Attached is a request for a government exploration loan to core drill in North Carolina for block steatite talc of strategic quality.

Data requested on government forms MF-100 and MF-103 is attached.

Briefly request is made for $36,000. to be used in sinking 40 core drills on the Regal Talc Property located in the Murphy Marble Belt in North Carolina.

It is requested that favorable consideration be given to this application and although year round operations are possible in the area, as much advantage as possible would like to be taken of the good summer months on this work.

This letter also authorizes Miss A. J. Gitter to discuss this application with any federal agency concerned.

Thank you for your consideration.

Very truly yours,

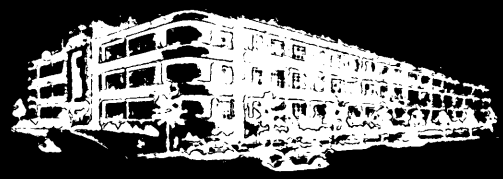
AMERICAN TALC COMPANY

Joseph R Ferry

Joseph Ferry, Vice Pres.

JR/ea

ALSIMAG



AMERICAN LAVA CORPORATION

CERAMICS FOR ELECTRICAL AND OTHER TECHNICAL USES STEATITE TITANIA ALUMINA

CHATTANOOGA 5 TENNESSEE

[illegible], 19[illegible]

Mr. M. Woodson Olson,
[illegible],
[illegible],
Chatsworth, Georgia.

Dear Mr. Olson:

Thanks for the sample of [illegible] Hewitt Wing, Huntsville, [illegible]. [illegible] old timers in the [illegible] ... "This is not the quality which we used to get. [illegible] but we used to get a more [illegible] firing. This sample will split.

I fired the sample through our kiln, and I am not sending you the fired piece just to show you what happens right. [illegible] lets not [illegible].

Best regards,

Sincerely yours,

AMERICAN LAVA CORPORATION

Hans Thurnauer
Vice Pres. - Dir. of Research

HT/gm
enc.

Form MF-103
(Revised June 1951)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.1.

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

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

Not To Be Filled in by Applicant

Docket No. DMEA-2545
Metal or Mineral
Date Received 5-22-52
Amount $
Participation (Government %)

American Talc Company
77 River Street
Hoboken, New Jersey

Name and address of applicant

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 22 1952

Date May 5, 1952

If you have already filed MF-100, give date filed attached, type of assistance requested exploration in North Carolina,

DMA Docket Number (if available)

Regal Mine

INSTRUCTIONS

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

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

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

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

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

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

2. (*a*) What metals or minerals do you expect to find? Block Steatite Talc

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

Reference Bulletin No. 56 "Talc Deposits of the Murphy Marble Belt" by E. C. Van Horn - abstracted comments

16—64067-2

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

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

3. (*a*) Describe fully the proposed work and give the total cost of the project. $40,000 - see attachment #

   (*b*) State the time required to start the project and to complete it. start immediately - completed 2 year

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

5. Furnish an itemized list of existing facilities, buildings, installations, and fixtures with a statement of the cost of any necessary rehabilitation or repairs to put into useful and operable condition. no existing facilities - will use Moore, Barton and Cornwall office facilities

6. Furnish a detailed list of additional facilities, buildings, and fixtures to be purchased, installed, or erected by you, with the estimated cost of each item. none

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

   (*a*) Rented none

   (*b*) Purchased see attachment #

   (*c*) Furnished by you none

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

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

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

10. (*a*) How much are you prepared to invest in the proposed project? $4,000.

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

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

CERTIFICATION

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

American Talc Company
(Name of company)

By Joseph R Ferry
(Signature of authorized official)
Joseph Ferry

May 16 - 195 -
(Date)

Vice President & Treasurer
(Title)

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

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

(a) Give a description of the real property.

Reference: Bulletin #56 "Talc Deposits of the Murphy Marble Belt" by E. C. Van Horn - page 46 - Location 17 and 18

"The Regal Talc mines are situated about 2,500 feet northeast of Regal Station and 4,700 feet southwest of Tomotla School. Lovat Frazer is in charge of the property. Probably as many as 25 pits, shafts, and adits have been opened within several hundred feet of the present main shaft, although significant production has not been realized so far as is known. The main shaft is reported to be about 80 feet deep, with short drifts branching out at two levels. None of the openings have encountered hard rock but masses of badly stained talc were found. From the meager information obtainable, and in view of the known position of the marble in good quantity, and that most, if not all, of the talc intercepted thus far has been transported from a few feet to possibly a hundred feet or more."

Thereis an 80 foot shaft.

Drifts and cross cuts unknown.

Tunnels and adits unknown.

Probably 25 adits, pits have been dug on property.

Mine now flooded.

Core drills recently made indicate extensive body of stained white talc around shaft indicating vein of good talc under surface as distinguished from surface transported talc.

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

Owned completely including all mineral rights by applicant - American Talc Company. Recorded in County Office, Murphy, N. C.

1. (c) Give the legal description:

BEGINNING at a point in the center of the Southern Railway track, a corner of a lot formerly conveyed to S. E. Leatherwood, and runs with the Southern Railroad, the course between terminals being as follows: N 65 E 265 feet; N 21.30 E 645 feet; N 42 E 248 feet; about 20 feet of trestle spanning Marble Creek; then continuing with said Railroad N 56.30 E 1184 feet to a point at road crossing; then N 55 E 410 feet to a point on said Railroad in the South boundary line of S.S. No. 25 and the North boundary line of S. S. No. 24; then with said line S 86 E 1100 feet to a White Oak stump; then S. 63 W 573 feet to a stone on top of ridge; then S 31.45 W 1118 feet to a 6" x 8" marble slab set flush with ground; then S 52 E 589 feet to a stake at 8" pine; then S 34 E 157 feet to a stake on the South East bank of N. C. Highway No. 10, U. S. Highway No. 19; then with said highway as it meanders, the course between terminals being as follows: S 61 W 318 feet; S 65.30 W 664 feet; S 56 W 358 feet; S 51.30 W 387 feet; S 42 W 898 feet to center of bridge spanning Marble Creek; then with the meanders of said creek upstream, N 45.30 W 100 feet; N 2 E 142 feet to a stake in said creek; a corner of S. E. Leatherwood lot; then with the lines of said lot N 59 E 220 feet to a stake on top of a ridge; then N 29 E 72 feet to a 4" Pine; then N 33.30 E 104 feet; then N 31 E 162 feet; then N 44 E 100 feet; then N 38 E 198 feet to three pines; then N 36.30 E 190 feet to a 5" Black Oak on top of said ridge; then N 64 W 915 feet to the Beginning, containing 92.70 acres more or less.

(b) Furnish statement of the geologic features of your property.

Reference: Bulletin No. 56 "Talc Deposits of the Murphy Marble Belt" by E. C. Van Horn

abstracted comments.

Gray banded marble is exposed along a small stream, immediately west of Regal Station, by pits which were made in search of dimension marble. The famous Regal marble quarry, 400 feet southeast of Regal Station, is now filled with water, but it has been described in bulletins of the North Carolina Geological Survey.

Waste blocks, piled around the quarry, show many of these accessory minerals. The Regal quarry is situated near the stratigraphic base of the overturned formation and southeast of where the talc-bearing zone normally would be exposed.

Between Regal and Marble the formation can be traced by means of talc prospects and the positions of adjacent formations.

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

Core drilling Regal Property for block steatite talc.

40 holes to be put down at a depth of 250 to 300 feet (Note: largest talc deposit located to date in Murphy Marble belt was below 250 feet)

40 holes x 300 feet = 12,000 total feet to be core drilled.

Estimate 2.5 feet per working hour of 3 man crew based on past experiences at Barton-Moore Mine.

12,000 feet ÷ 2 1/2 feet = 4,800 hours of drilling for 3 man crew

4,800 hours ÷ 50 hour work week = 96 weeks work.

96 work weeks approximates 2 years.

This allows 20 holes to be placed per year or 1 2/3 holes per month at a depth of 300 feet.

Total Costs -

Equipment	$10,000	
Labor & Sup.	24,000	
Rentals, Gasoline, electricity, etc.	6,000	($250. per month)
	$40,000.	

Estimated cost per foot = $3.33

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

(b) Purchased

Portable Compressor	$2,200.00
Motor and switches etc.	2,000.00
Drill - Outside Joy with accessories	5,300.00
Miscellaneous bits, etc.	500.00
	10,000.00

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

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

LABOR

	Monthly	Yearly	Total
Analytical & Testing	50.00	600.00	1,200.00
*Accounting & Records	25.00	300.00	600.00
*Supervisor	100.00	1,200.00	2,400.00
*Consultant	50.00	600.00	1,200.00
*Foreman	75.00	900.00	1,800.00
3 man crew	600.00	7,200.00	14,400.00
miscellaneous labor	100.00	1,200.00	2,400.00
TOTAL	1,000.00	12,000.00	24,000.00

* Estimated on basis of shared cost with Barton-Moore Project

There is reason to believe that high quality block steatite talc would be available in the Murphy Marble Belt area. The published geological surveys show the presence of talc in this section.

An exploration loan has been granted for another project located within this same area as it was established that there is the possibility of securing the strategic type of block steatite. Evidence also exists to confirm this in that the American Lava Company, of Chattanooga, Tennessee, formerly obtained steatite quality talc. Further indication of the presence of a massive type of material is shown by the availability of ore of a quality suitable for cutting crayons. Even though the ore for cutting crayons is not satisfactory for firing, its presence indicates a massive type of formation in the Murphy Marble Belt which, in spots, very likely could be dense enough for satisfactory firing.

Reference should also be made to the fact that the printed geological surveys only go to depths of approximately 75-100 feet. However, core drilling since the days of the most recent publication have disclosed the largest deposits of talc yet located in North Carolina to be at depths of 250-300 feet. Hence, it is deemed desirable to core drill to this depth.

Form MF-100
(May 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

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

NOT TO BE FILLED IN BY APPLICANT

Docket No. DMEA-2545

Date received 5-22-52

American Talc Company
77 River Street
Hoboken, N. J.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 22 1952

Name and address of applicant

Date May 5, 1952

INSTRUCTIONS

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

GENERAL TECHNICAL DATA

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

1. Materials produced: exploration for block steatite talc
   (*a*) What are the chief mine, mill, or smelter products?
   (*b*) What are the byproducts, if any?
2. Name(s) and type(s) of mine(s), mill(s), smelter(s), refinery(ies), pit(s), quarry (ies), drilling operation(s). Include old names of property, if any. Show extent of workings, including the following: see form MF-103
   (*a*) Linear feet of shafts.
   (*b*) Linear feet of drifts and crosscuts.
   (*c*) Linear feet of tunnels or adits.
   (*d*) Linear feet of other mine openings (explain briefly).

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following: see attachment #1
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.
4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated. see attachment #1
   (*b*) Are you operating this property as:
   - ☐ Owner.
   - ☐ Lessee.
   - ☐ Contractor.
5. Number of years in production see attachment #1

   If not in production or operation, estimated date when production will begin _____
6. Experience of operators:

   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project.
7. History: see form MF-103
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation.
   (*b*) State briefly the known history and production of adjoining and neighboring properties.
   (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

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

Name and Address (a)	Official Title (If officer is also director indicate by "D") (b)	Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year (c)	Estimated Net Worth Outside of Interest in Applicant (d)	Number of Shares Held in Applicant Corporation		Life Insurance Carried for Benefit of Applicant	
				Common (e)	Preferred (f)	Amount (g)	Net Cash Surrender Value After Loans (h)
M. Woodward Glenn	President						
Joseph Ferry	Vice Pres. Treasurer						
	Total		x x x x x			x x x x x	x x x x x

If more lines are needed continue on separate sheet.

9. Capital Stock Issues: none

For Corporate Applicants

Item	Authorized (a)	Outstanding (b)	Par Value (c)	Number of Shares Outstanding (d)	Dividend Rate Last Paid* (e)
Common stock	$	$	$		
Preferred stock	$	$	$		

*Indicate period covered.

10. Production:

Item	Kind of Product (a)	1948 Total (b)	1949 Total (c)	1950 Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.)					
2. Quantity of product processed (specify unit of measure and type of process)					
3. Quantity and grade of product sold or shipped (specify units of measure)					

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

12. Ore or Mineral Reserves: see form MF-103 also Bulletin #56

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

3. For each operation listed above supply the following:

(a) Distance and direction from nearest city.

2,500 feet northeast of Regal Station - approximately 5 miles from Murphy City limites - lies on Southern Railroad

(b) Mining District

Murphy Marble Belt

(c) Township, Section, Range

(d) County, State

Cherokee, North Carolina

4. State whether or not property is now in operation, by whom operated

Regal Property - not operating

(c) owned completely including all mineral rights by American Talc Company

5. Number of years in production.

Regal Mine, N. C. - original operation not known.

6. Experience of operators:

The American Talc Company while a new organization (1950) has men highly experienced in talc as executives.

Mr. M. Woodward Glenn is President of the Georgia and the Southern Talc Companies in Chattsworth, Ga. He has been active in talc prospecting, milling, and mining for 18 years. His father started the operations, so his contacts with talc producing are those of a lifetime. Mr. Glenn served on Talc Industry Advisory Committees of both WPB and OPA during War II.

Complete descriptions of Mr. Glenn's talc operations in Georgia are given in "Talc Deposits of Murray County, Georgia", by A. S. Fircon and K. H. Teague, Bulletin #53 of the Geological Survey published 1947.

Special notice should be made that Mr. Glenn has long been a major producer of Talc (soapstone) crayons. The mining of ore for this type of product is the same as mining block, steatite talc for it requires recovery of large, blocks of massive type ore without shattering or fracturing.

Mr. Newman R. Davis the Supervisor in North Carolina has been actively doing this type of work since 1932, in both North Carolina and Georgia. He is recognized as an outstanding, practical talc miner.

Mr. Joseph Ferry has been connected with talc over many years through the Imperial Talc Company and the Charles Mathieu, Inc., the principal importer of Italian Talc in the United States. Mr. Ferry helped form the American Talc Company due to the dangers of the international situation and the possibilities that all qualities of Italian Talc both block steatite and ground might again be cut off in the event of hostilities.

Mr. W. Wallace Roff has been working with talc since 1923. As a Vice President of Whittaker, Clark & Daniels, Inc., large sales-distributors for both domestic and imported talcs. This company for many years were the largest importers of Indian Block Steatite Talc. Therefore Mr. Roff is exceptionally experienced with the problems in connection with this material.

The American Talc Company is a non-operating company. The Southern Talc Company has been contracted to handle all operations, mining and milling in North Carolina.

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

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

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

TOTAL ORE OR MINERAL RESERVES

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

(*c*) If placer:

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

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

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

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

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

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

13. Access Roads:

Give road distances to shipping, supply and residence points, stating kind and condition of roads. mine is served by A-1 access roads

14. Water Supply:

State source and quantity of water available for operations and whether sufficient for all seasons of year. water supply available at all times of the year for core drilling.

15. Power:

State amount of power used, rate per hour, and source thereof. serviced by T. V. A. area - ample

16. Labor: see form MF-103

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

17. Equipment and Facilities: see form MF-103

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

18. Are there any particular conditions or circumstances affecting your operations that are not described above? If so, explain. see form MF-103

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.

American Talc Company
(Name of company)

By Joseph R Ferry
(Signature of authorized official)
Joseph Ferry

May 16 - 1952
(Date)

Vice President & Treasurer
(Title)

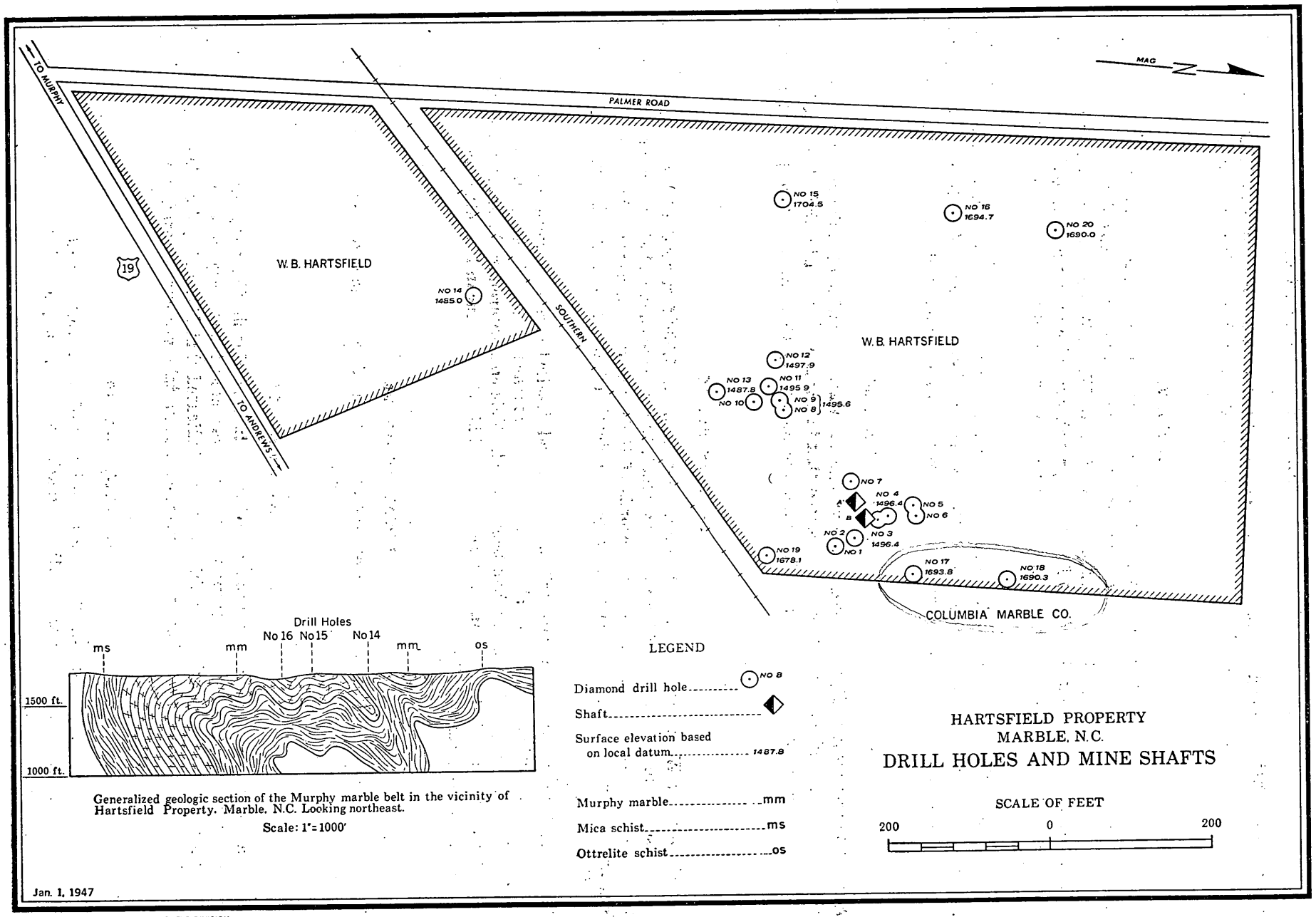
Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

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

PRELIMINARY STUDY OF VAN HORN'S REPORT AS

COMPARED TO REGAL MINE'S RECENT DEVELOPMENT

1. As per sketch of July 26 - after comparing to Van Horn's sketch - shows the Stained Regal Talc body does not lie with White Marble - at least we struck no White Marble. This leads me to believe this body of Yellow Talc is a float body which was thrust down into the valley after being broken off from the main body of Talc which, according to Van Horn, must lie with the White Marble. Now that we have found the White Marble at Holes No. 10 and No. 11, which is where Van Horn's Report indicates the Talc should be, we have more faith in thinking we are nearer to the true vein. I personally think the caves, or cavities, we are encountering in Holes No. 10 and 11 were regions where the displaced Yellow Talc once was in position. Hole No. 10 was lost because of one of these cavities. It is possible that all of the Talc body which once lay in the cavities in the vicinity around Holes No. 10 and 11 may have been shifted, and we will either have to go much deeper or still higher on the ridge which we are now on with Hole No. 11.



Generalized geologic section of the Murphy marble belt in the vicinity of Hartsfield Property. Marble, N.C. Looking northeast.

Scale: 1"=1000'

CARTOGRAPHY BY TVA MAPS AND SURVEYS DIVISION

PLATE 7

mately 200 linear feet of trenches and pits have been dug to an average depth of eight feet, disclosing heavi tremolitic talc similar to that at Maltby. Tremolite crystals as much as 20 inches long have been found here.

LOCATION NO. 23

Across the dirt road mentioned above, and 350 feet northeast of Location No. 22, three shafts of unknown depth have been sunk for talc. The first, and most successful, work was done by the Biltmore Talc Company, of Asheville, North Carolina, at about the time of World War I. It is reported that several drifts opened from the shaft at about the 60-80 foot level, probably trending northeast since the talc was supposed to have plunged northeastwardly at a low angle. Several hundred tons of "good grade cosmetic talc" is supposed to have been taken from the mine.

Around 1940, W. O. Hoffman sunk a shaft which was superimposed exactly upon the old Biltmore shaft, but operations were stopped before any development work was done. In 1946, W. A. Sherril, of Murphy, began a shaft to the north of the Biltmore location but this work too was abandoned without finding talc.

LOCATION NO. 24

About 600 feet west of Hyatt Creek, in the village of Marble, shafts of unknown dates were sunk on either side of U. S. Highway 19. It is not reported that talc was encountered although a mottled marble outcrop under the trestle across Hyatt Creek indicates the possibility that talc could be present in the general area.

LOCATION NO. 25

On property of W. B. Hartsfield, of Atlanta, Georgia, about 1,500 feet north of Moss Cemetery and 1,500 feet southwest of the Columbia Marble Company plant, 13 core holes and a shaft were put down around 1944. The drill holes did not intercept talc and no records of the cores were preserved, but the shaft encountered boulders of talc, tremolite, and siliceous marble at a depth of about 55 feet. Definite bed rock was not found in the shaft.

Several additional core holes were drilled in 1946 and detailed core logs were made. Core data showed that the marble formation was in normal position (not overturned) and subject to broad folding, and that any original talc at the specific location had been eroded. Talc encountered in the shaft apparently was transported material contained in alluvium and residuum. This does not mean that other talc deposits could not be in place in the general vicinity.

LOCATION NO. 26

It is reported that talc was found in a 66 foot shaft on the J. F. Palmer property, but reliable information about the general conditions could not be secured.

LOCATION NO. 27

J. W. Bailey put down a shaft on property of the Columbia Marble Company and some talc was found, but the shaft was located in swampy ground and work was abandoned because of excessive water. Later diamond drilling for marble by the Columbia Company indicated that Mr. Baileys' choice of a shaft site was logical so far as the marble's lithology was concerned, but no talc was encountered in the drill holes.

LOCATION NO. 28

On Junaluska Creek, at Andrews, 3,500 feet southwest of U. S. Highway 19, the Weber Company, of New York, put down several shafts near the southeast marble contact. Only a sericitic and possibly talcose, black and green slate was found.

lets, sounds, bars, peninsulas, and islands, and if one further pictures cyclic ingress and egress of the sea, the complex possibilities of gradation and hiatus are apparent. Imagine these calcareous deposits, sands, and silts being solidified, pushed up, crumpled, sheared, and partly eroded; such processes are involved in the geologic history of our present inland rock formations. In the vicinity of the Murphy marble belt, conglomerates, quartzites, gneisses, schists, and marble show intergradation, and their relations to each other are affected by folding and fracturing and by the injection of hot, aqueous liquids and vapors derived from underlying igneous masses. With these conditions in mind local changes along and across the strike of formations can be explained.

FOLDS

In his mapping of the Nantahala quadrangle[1], Keith concluded that the Murphy marble and adjacent formations were part of a broad syncline in which the marble was prevented by faulting from reappearing southeast of the fold axis. It seems likely that much of Keith's theory was based on the outcrop patterns of folds in the Murphy marble and on the idea that all folds plunged to the southwest, thus requiring a synclinal structure as the only logical interpretation if his data were sufficient.

Between Culberson and Andrews, a study of cleavages northwest of the Murphy marble shows with little doubt that southeast-dipping beds are overturned, except in the minor folds, in all rocks from the phyllite and mica schist (pms) to the mica schist (ms). Similar studies at Murphy indicate overturning in the ottrelite schist (os) and ottrelite gneiss (og). Although few internal structures of the Murphy marble point conclusively to overturning, features that might characterize overturned beds have been recorded inadvertently as far back as the work[2] of Loughlin, Berry, and Cushman (See Fig. 5).

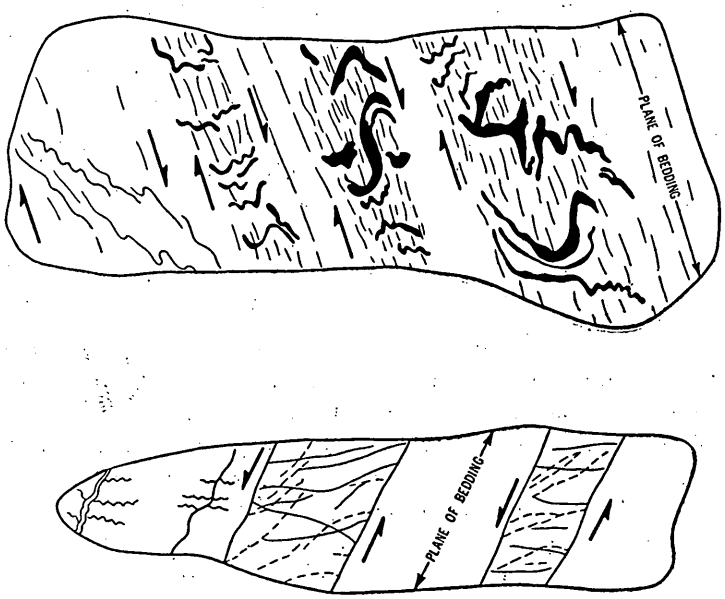


FIG. 5.—SKETCHES SHOWING INTERNAL FRACTURES IN MARBLE FROM REGAL QUARRY (AFTER LOUGHLIN, BERRY AND CUSHMAN). ARROWS HAVE BEEN ADDED TO SHOW RELATIVE MOVEMENT AND POSSIBLE INDICATIONS OF OVERTURNING. ANTICLINES WOULD BE IN DIRECTION OF HANGING-WALL SIDES.

The presence of overturned southeast-dipping beds over such a broad area can be explained satisfactorily by assuming them to be part of the northwest limb of an overturned anticline. Further evidence of anticlinal structure is seen by comparing the outcrop pattern of northeast-plunging folds with the pattern of southwest-plunging folds in the Murphy marble (See Geologic Map). A blanketing schistosity renders cleavage analysis undependable in most of the rocks southeast of the marble belt, but a few indications of normal stratigraphic sequence have been found in the quartz-mica schist (qms). This might lead

[1] Arthur Keith, 1907.
[2] G. F. Loughlin, E. W. Berry, and J. A. Cushman, op. cit., pp. 38-39.

to the assumption, which requires confirmation by additional study, that the Peachtree-Martins Creek marble is a part of the southeast limb of the anticline.

Dip and strike vary from place to place along the Murphy marble belt, but for estimating and projecting purposes it is convenient to use N45°E for the strike and 50°SE for the dip. Bedding is often parallel to schistosity but deviation may occur in a critical locality. The most accurate criteria for bedding determinations are banding and facies changes, and all other criteria should be regarded with suspicion, but even banding might be caused by non-conforming structures. The most satisfactory method is to compare several criteria and check one against another.

FAULTS

References to minor faults have already been made in the preceding discussion. Fault planes that show considerable movement have not been observed directly, but drag structures indicate that such faults do exist near some of the minor folds in schistose and gneissic rocks. In connection with rocks of the Great Smoky and Hiwassee formations, where structures are of the same age and general type as are those along the Murphy marble belt, the writer has reported that normal fault zones having dip slips of up to 200 feet measured in tenths of feet in width, whereas thrust faults having little slip exhibited shear zones of ten feet or more[1]. Similar conditions should be expected in rocks adjacent to the marble.

As was disclosed in the section on folds, stratigraphic interpretations do not require postulation of the Murphy fault[2], nor are the faults of the Stoses[3] necessary to an explanation of the position of the Murphy marble-Andrews schist-Nottely quartzite group of rocks. If these faults are non-existent, the Murphy marble is a part of the Ocoee series and is older than either the Great Smoky formation or the Nantahala slate. The failure of the marble to reappear northwest of its present outcrop is not incongruous, because it is probable that original conditions of sedimentation did not allow calcareous sediments to extend very far along the dip. As has been noted, however, a very great amount of stress has been relieved throughout the mica schist (ms), staurolite-mica schist (stm), and quartz-mica schist (qms), and hundreds of feet of displacement could be represented in any of these formations. It is believed that the actual amount of displacement cannot be determined until many additional detailed studies have been made along the trend of these formations.

CLEAVAGES AND JOINTS

The fractures produced by dynamic metamorphism are controlled, in part, by the relative competency of the rocks involved. Relative competency varies in turn as metamorphism progresses, so that older fractures influence fractures which are formed at a later time. A stress which is applied slowly in coarse, crystalline marble can be relieved, without fracture, by a gliding along internal planes of individual crystals and a subsequent recrystallization of the marble. A number of conditions indicate that such an action has taken place in a part of the Murphy marble: pure, coarse phases of the marble are relatively free from fractures even though differential movement must have taken place; fine-grained dolomite and impure marble, however, was less capable of rescrystallization and, therefore, susceptible to fracturing which gave access to mineralizing agents. These conditions have a direct bearing on the size and position of talc deposits.

Flow cleavage and fracture cleavage are foliate structures which are of prime importance in the Murphy marble belt. Flow cleavage is present in beds of incompetent micaceous rocks, and nearly parallels the limbs of folds. Fracture cleavage is an equivalent structure of the denser, more competent quartzites and marble and is more nearly perpendicular to the limbs of folds. Both cleavages may be used, with a few exceptions, to determine whether the rocks in which they occur are overturned or in a normal position. The acute angle of intersection of cleavage and bedding will point in a direction which, if followed along the bedding, leads to the crest of an anticline (Fig. 6). Cleavages provide paths for mineralizing agents and are common locations of secondary minerals.

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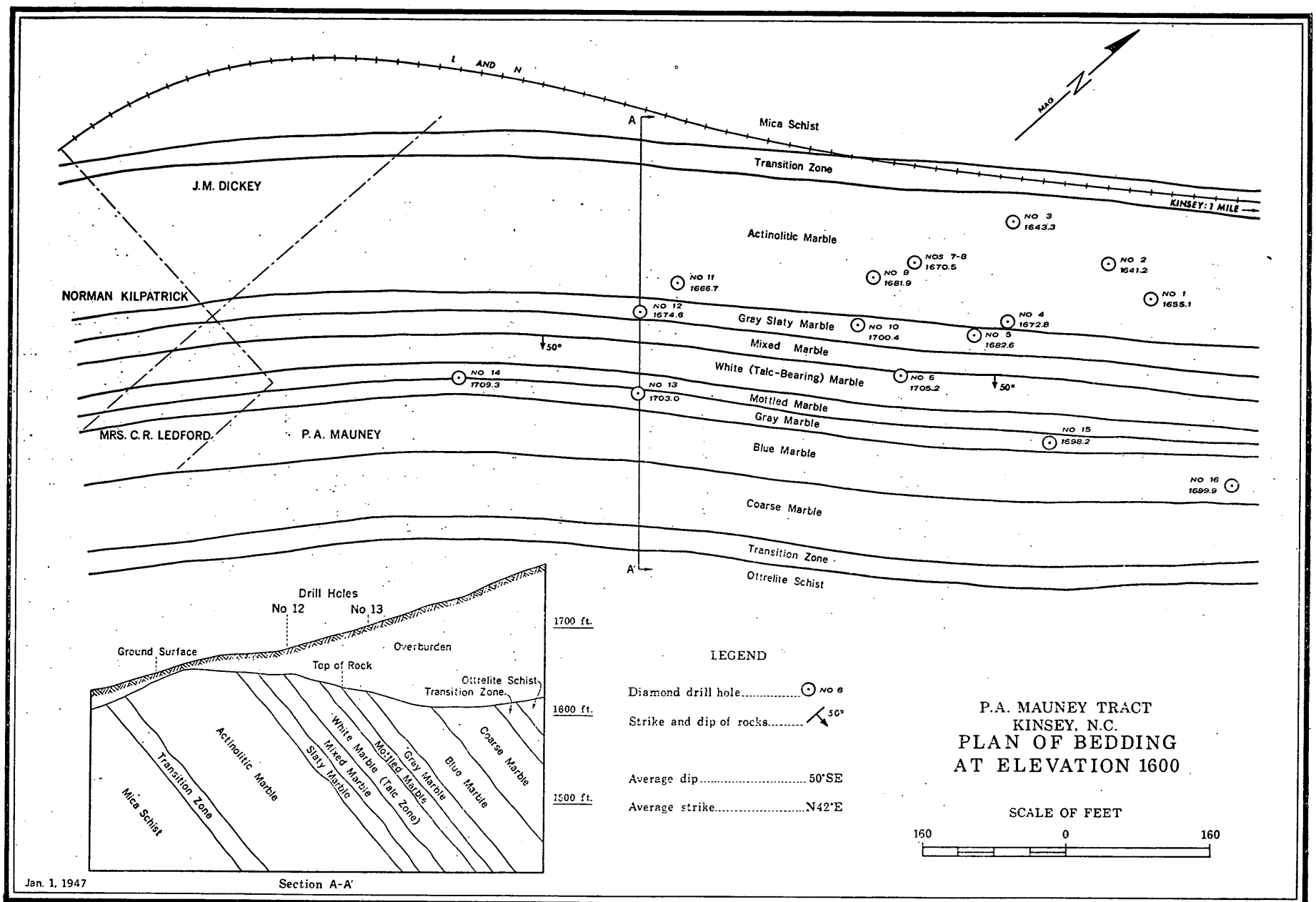

CARTOGRAPHY BY TVA MAPS AND SURVEYS DIVISION

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Near the southwest bank of the Nottely River, downstream from Hall's Ford and 300 feet northeast of Kinsey, an abandoned marble quarry now occupies the approximate site of the old Kinsey Talc Mine. A number of old caved shafts or pits can be seen for 100 feet southeast of the quarry. The quarry seems to include a small part of the white marble zone, full sections of the mixed zone and slaty zone, and a part of the actinolitic zone. One four-foot ledge of silicified marble can be seen on the caved southeast wall of the quarry and five lenses of talc, from three inches to twelve inches thick, crop out in the same place. Quantities of soft talc appear on the surface and in clay overburden, but these may come from the spoil of the older workings. Three core holes were drilled by the Cherokee Minerals Company in 1938 but core recovery was poor and no signs of talc were revealed. Two of the holes were located southeast of the L&N Railroad, and the third hole was on the northwest side nearer the quarry. It is believed that these core holes were not indicative and that additional prospecting would not be out of order.

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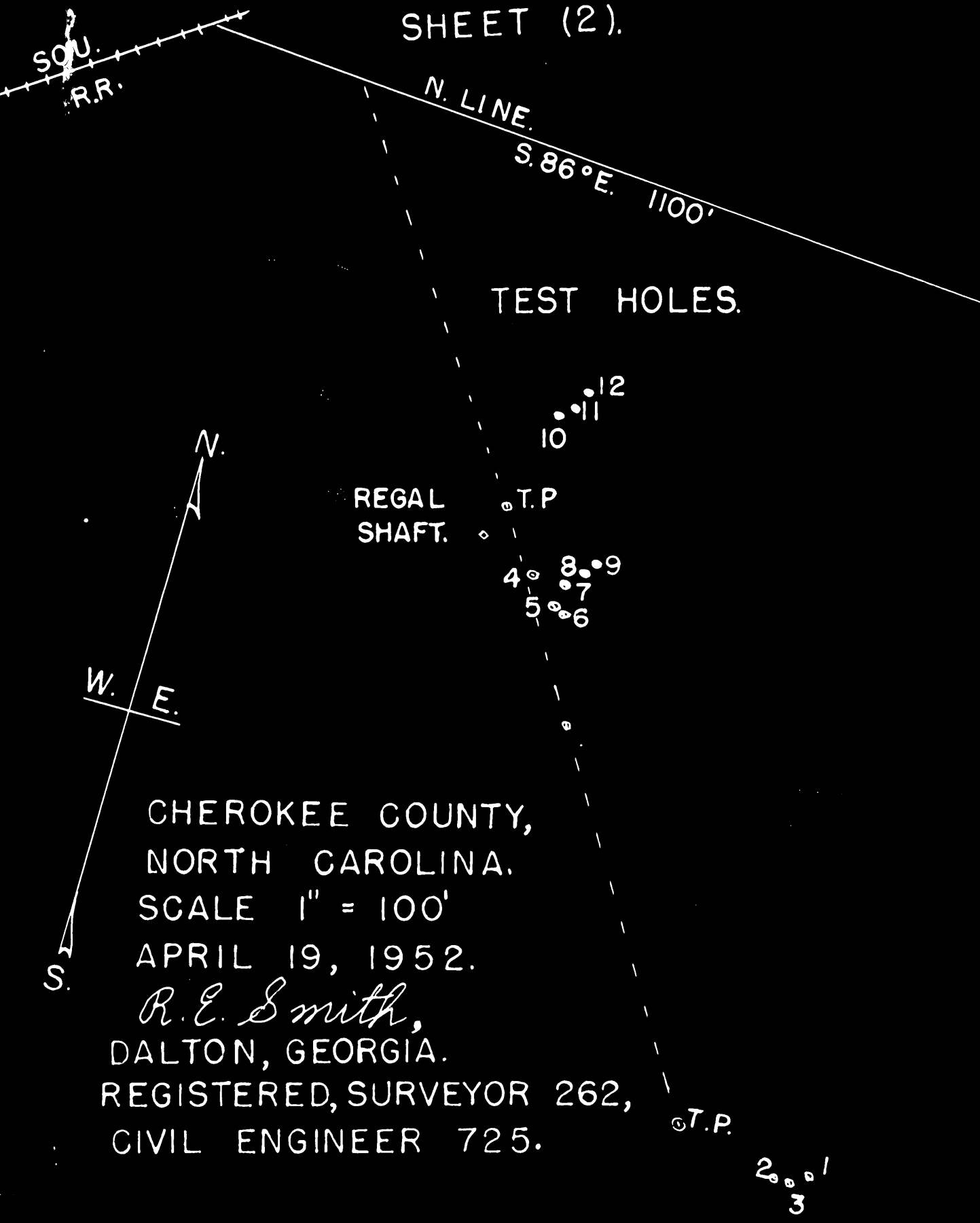
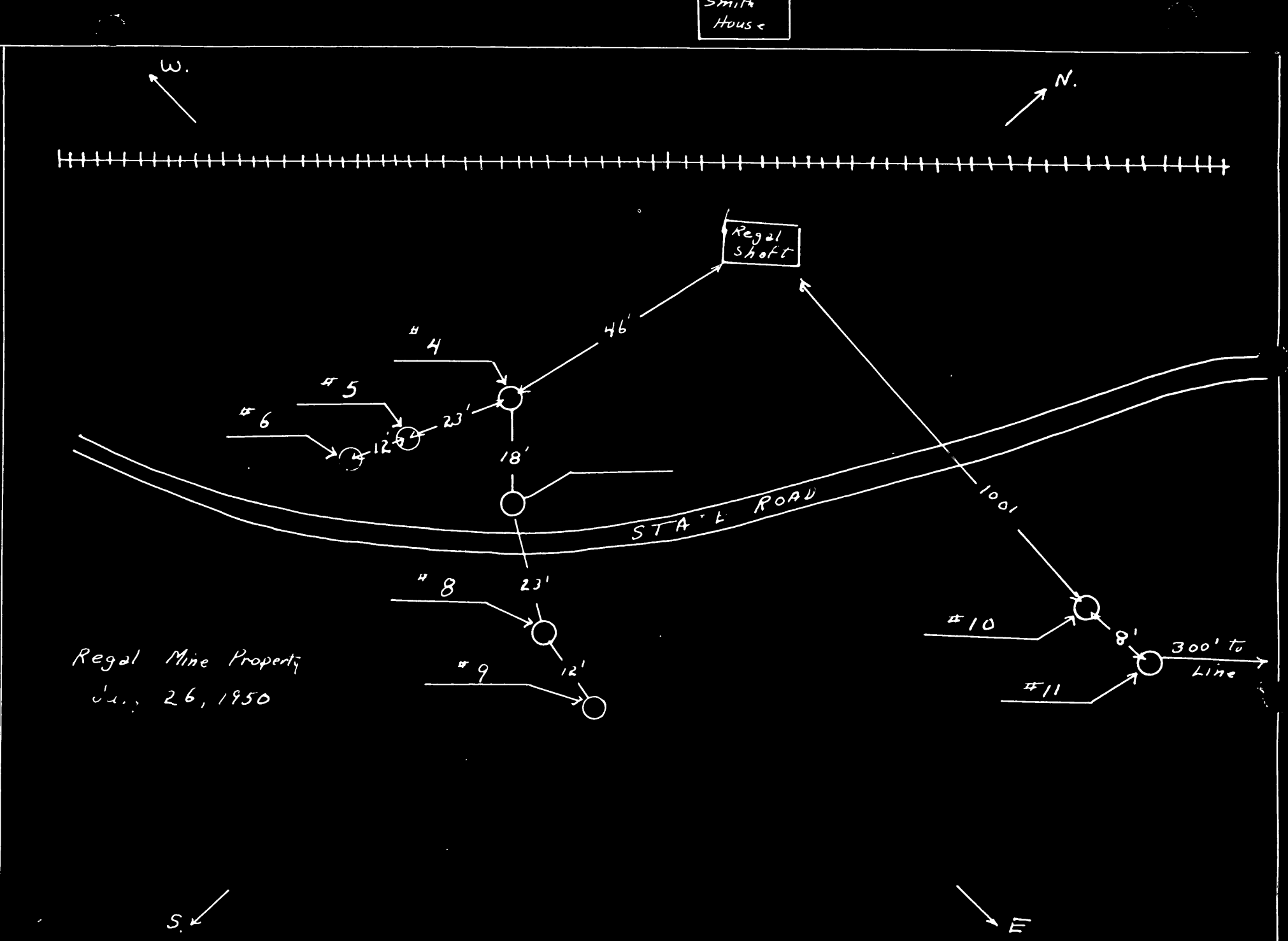
The Carolina Talc Mine is also known locally as the Bailey Mine, Notla Mine, and Kinsey Mine (not to be confused with Location No. 5). It is situated on the right floodplain of the Nottely River 3,000 feet northeast of Kinsey and 1,900 feet west of Rogers Chapel. The first reported prospecting was done by H. S. Predmore and/or the Binney and Smith Company around 1907-08, and the first shaft was sunk in 1916. From 1926 until 1934 the property was operated through the Notla Talc Company by Binney and Smith. The Carolina Talc Company took over the property in 1934 and carried on successful operations until July 23, 1938, when high water from the Nottely River spread out over the flood plain, caving the mine from the surface and flooding it. Hiwassee Dam was nearing completion at the time and no attempt was made to resume operations since the surface level at the mine soon would be under six feet of water. It was estimated at the time that about 25,000 tons of talc remained underground, but more recent studies indicate that more complete core drill information probably would have resulted in higher estimates.

REGAL TRACT.
SHEET (2).



CHEROKEE COUNTY,
NORTH CAROLINA.
SCALE 1" = 100'
APRIL 19, 1952.

R. E. Smith,
DALTON, GEORGIA.
REGISTERED, SURVEYOR 262,
CIVIL ENGINEER 725.



Regal Mine Property
Jan. 26, 1950

EXPLORATION

Subject: DMEA-2545
Re: Exploration Loan
Regal Talc Property
May 22, 1952

Mr. Joseph R. Ferry
American Talc Company
77 River Street
Hoboken, New Jersey

My dear Mr. Ferry:

This will acknowledge receipt of your application dated May 5, 1952 for a loan under the Defense Production Act of 1950.

Your application was assigned Docket Number DMEA-2545 and referred to the Non-Metallics Division.

Kindly refer to DMEA-2545 in any future correspondence relating to your application.

Sincerely yours,

Robert E. Adams
Administrative Officer

7862

DMEA-2545

AMERICAN TALC COMPANY

MINERS AND MANUFACTURERS

CHATSWORTH, GEORGIA

QUALITY TALC FOR ALL PURPOSES

May 22, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 22 1952

Defense Minerals Production Authority
Washington 25, D. C.

Gentlemen:

Attached is a request for a government exploration loan to core drill in North Carolina for block steatite talc of strategic quality.

Data requested on government forms MF-100 and MF-103 is attached.

Briefly request is made for $36,000. to be used in sinking 40 core drills on the Regal Talc Property located in the Murphy Marble Belt in North Carolina.

It is requested that favorable consideration be given to this application and although year round operations are possible in the area, as much advantage as possible would like to be taken of the good summer months on this work.

This letter also authorizes Miss A. J. Gitter to discuss this application with any federal agency concerned.

Thank you for your cooperation.

Very truly yours,

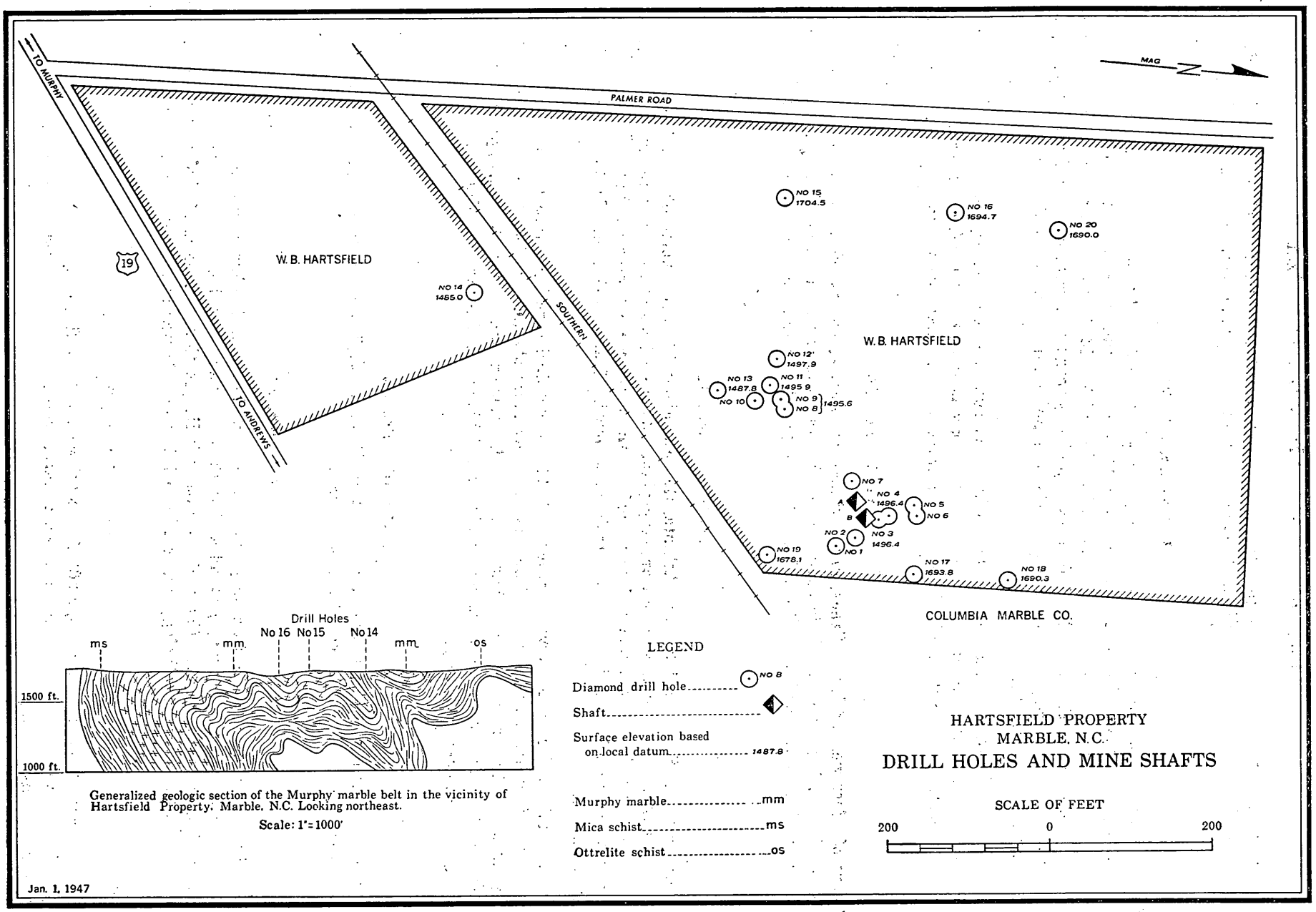
AMERICAN TALC COMPANY

Joseph R Ferry

Joseph Ferry, Vice Pres.

JF/ea

Woodward Glenn
Southern Talc Co
Chatsworth Georgia



Generalized geologic section of the Murphy marble belt in the vicinity of Hartsfield Property, Marble, N.C. Looking northeast.

Scale: 1"=1000'

CARTOGRAPHY BY TVA MAPS AND SURVEYS DIVISION

PLATE 7

mately 200 linear feet of trenches and pits have been dug to an average depth of eight feet, disclosing heavily tremolitic talc similar to that at Maltby. Tremolite crystals as much as 20 inches long have been found here.

LOCATION NO. 23

Across the dirt road mentioned above, and 350 feet northeast of Location No. 22, three shafts of unknown depth have been sunk for talc. The first, and most successful, work was done by the Biltmore Talc Company, of Asheville, North Carolina, at about the time of World War I. It is reported that several drifts opened from the shaft at about the 60-80 foot level, probably trending northeast since the talc was supposed to have plunged northeastwardly at a low angle. Several hundred tons of "good grade cosmetic talc" is supposed to have been taken from the mine.

Around 1940, W. O. Hoffman sunk a shaft which was superimposed exactly upon the old Biltmore shaft, but operations were stopped before any development work was done. In 1946, W. A. Sherril, of Murphy, began a shaft to the north of the Biltmore location but this work too was abandoned without finding talc.

LOCATION NO. 24

About 600 feet west of Hyatt Creek, in the village of Marble, shafts of unknown dates were sunk on either side of U. S. Highway 19. It is not reported that talc was encountered although a mottled marble outcrop under the trestle across Hyatt Creek indicates the possibility that talc could be present in the general area.

LOCATION NO. 25

On property of W. B. Hartsfield, of Atlanta, Georgia, about 1,500 feet north of Moss Cemetery and 1,500 feet southwest of the Columbia Marble Company plant, 13 core holes and a shaft were put down around 1944. The drill holes did not intercept talc and no records of the cores were preserved, but the shaft encountered boulders of talc, tremolite, and siliceous marble at a depth of about 55 feet. Definite bed rock was not found in the shaft.

Several additional core holes were drilled in 1946 and detailed core logs were made. Core data showed that the marble formation was in normal position (not overturned) and subject to broad folding, and that any original talc at the specific location had been eroded. Talc encountered in the shaft apparently was transported material contained in alluvium and residuum. This does not mean that other talc deposits could not be in place in the general vicinity.

LOCATION NO. 26

It is reported that talc was found in a 66 foot shaft on the J. F. Palmer property, but reliable information about the general conditions could not be secured.

LOCATION NO. 27

J. W. Bailey put down a shaft on property of the Columbia Marble Company and some talc was found, but the shaft was located in swampy ground and work was abandoned because of excessive water. Later diamond drilling for marble by the Columbia Company indicated that Mr. Baileys' choice of a shaft site was logical so far as the marble's lithology was concerned, but no talc was encountered in the drill holes.

LOCATION NO. 28

On Junaluska Creek, at Andrews, 3,500 feet southwest of U. S. Highway 19, the Weber Company, of New York, put down several shafts near the southeast marble contact. Only a sericitic and possibly talcose, black and green slate was found.

inlets, sounds, bars, peninsulas, and islands, and if one further pictures cyclic ingress and egress of the sea, the complex possibilities of gradation and hiatus are apparent. Imagine these calcareous deposits, sands, and silts being solidified, pushed up, crumpled, sheared, and partly eroded; such processes are involved in the geologic history of our present inland rock formations. In the vicinity of the Murphy marble belt, conglomerates, quartzites, gneisses, schists, and marble show intergradation, and their relations to each other are affected by folding and fracturing and by the injection of hot, aqueous liquids and vapors derived from underlying igneous masses. With these conditions in mind local changes along and across the strike of formations can be explained.

FOLDS

In his mapping of the Nantahala quadrangle[1], Keith concluded that the Murphy marble and adjacent formations were part of a broad syncline in which the marble was prevented by faulting from reappearing southeast of the fold axis. It seems likely that much of Keith's theory was based on the outcrop patterns of folds in the Murphy marble and on the idea that all folds plunged to the southwest, thus requiring a synclinal structure as the only logical interpretation if his data were sufficient.

Between Culberson and Andrews, a study of cleavages northwest of the Murphy marble shows with little doubt that southeast-dipping beds are overturned, except in the minor folds, in all rocks from the phyllite and mica schist (pms) to the mica schist (ms). Similar studies at Murphy indicate overturning in the ottrelite schist (os) and ottrelite gneiss (og). Although few internal structures of the Murphy marble point conclusively to overturning, features that might characterize overturned beds have been recorded inadvertently as far back as the work[2] of Loughlin, Berry, and Cushman (See Fig. 5).

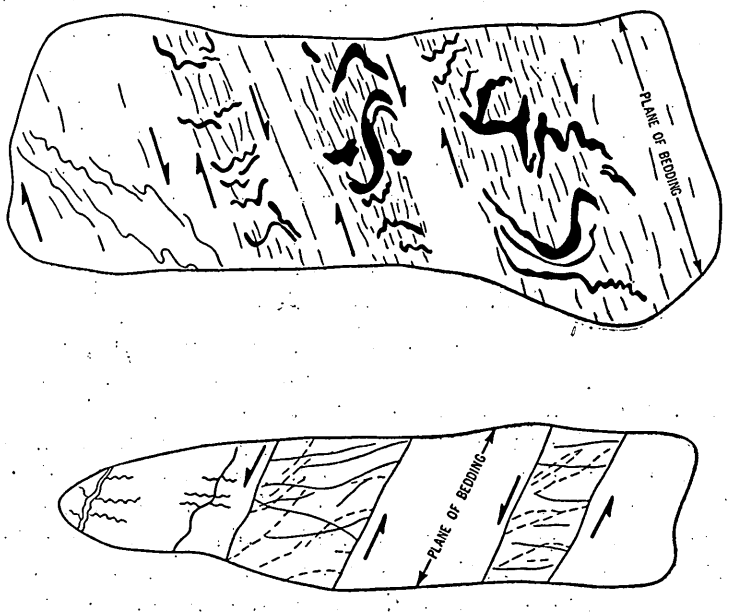


FIG. 5.—SKETCHES SHOWING INTERNAL FRACTURES IN MARBLE FROM REGAL QUARRY (AFTER LOUGHLIN, BERRY AND CUSHMAN). ARROWS HAVE BEEN ADDED TO SHOW RELATIVE MOVEMENT AND POSSIBLE INDICATIONS OF OVERTURNING. ANTICLINES WOULD BE IN DIRECTION OF HANGING-WALL SIDES.

The presence of overturned southeast-dipping beds over such a broad area can be explained satisfactorily by assuming them to be part of the northwest limb of an overturned anticline. Further evidence of anticlinal structure is seen by comparing the outcrop pattern of northeast-plunging folds with the pattern of southwest-plunging folds in the Murphy marble (See Geologic Map). A blanketing schistosity renders cleavage analysis undependable in most of the rocks southeast of the marble belt, but a few indications of normal stratigraphic sequence have been found in the quartz-mica schist (qms). This might lead

[1] Arthur Keith, 1907.
[2] G. F. Loughlin, E. W. Berry, and J. A. Cushman, op. cit., pp. 38-39.

to the assumption, which requires confirmation by additional study, that the Peachtree-Martins Creek marble is a part of the southeast limb of the anticline.

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FAULTS

References to minor faults have already been made in the preceding discussion. Fault planes that show considerable movement have not been observed directly, but drag structures indicate that such faults do exist near some of the minor folds in schistose and gneissic rocks. In connection with rocks of the Great Smoky and Hiwassee formations, where structures are of the same age and general type as are those along the Murphy marble belt, the writer has reported that normal fault zones having dip slips of up to 200 feet measured in tenths of feet in width, whereas thrust faults having little slip exhibited shear zones of ten feet or more[1]. Similar conditions should be expected in rocks adjacent to the marble.

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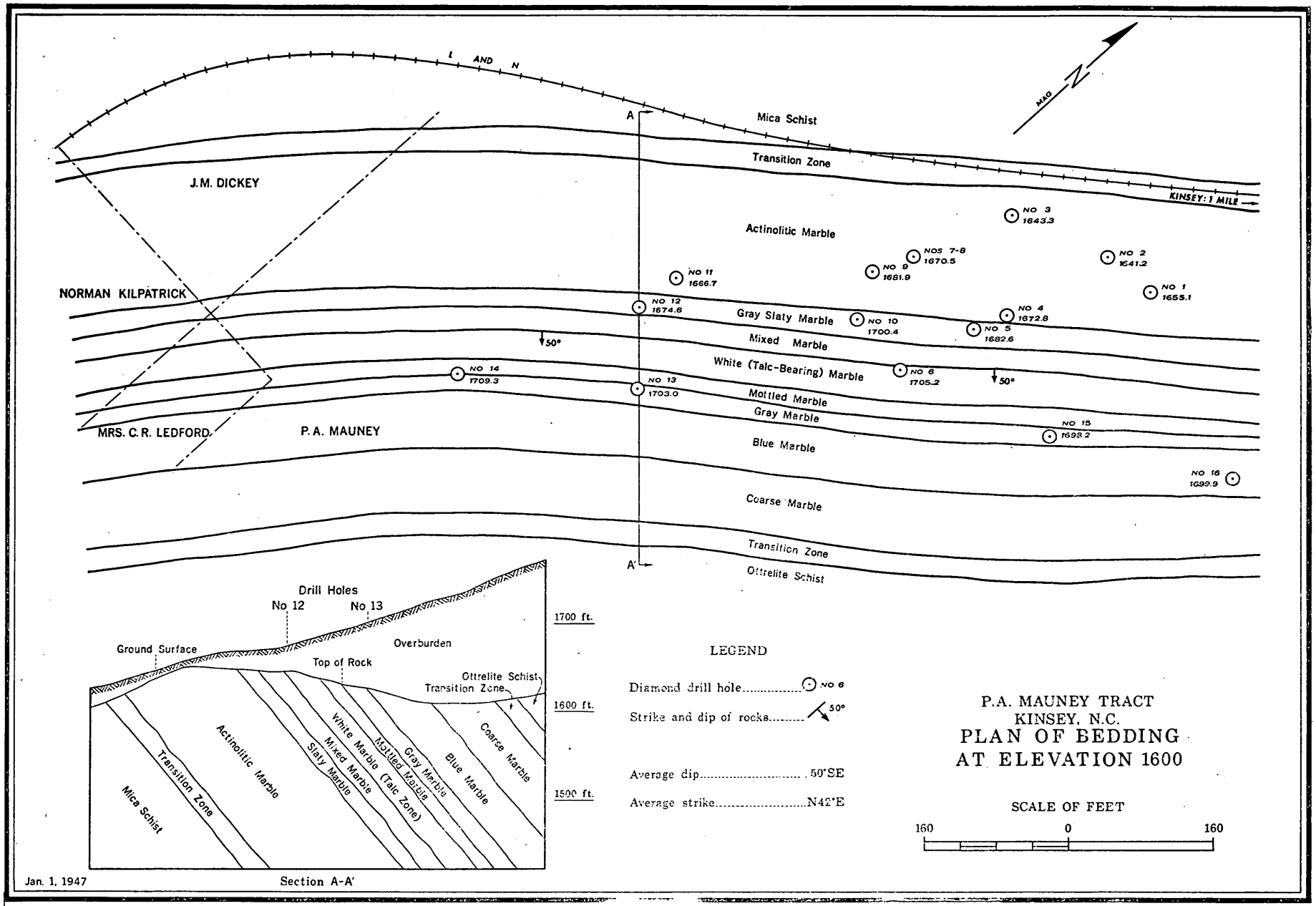

CARTOGRAPHY BY TVA MAPS AND SURVEYS DIVISION

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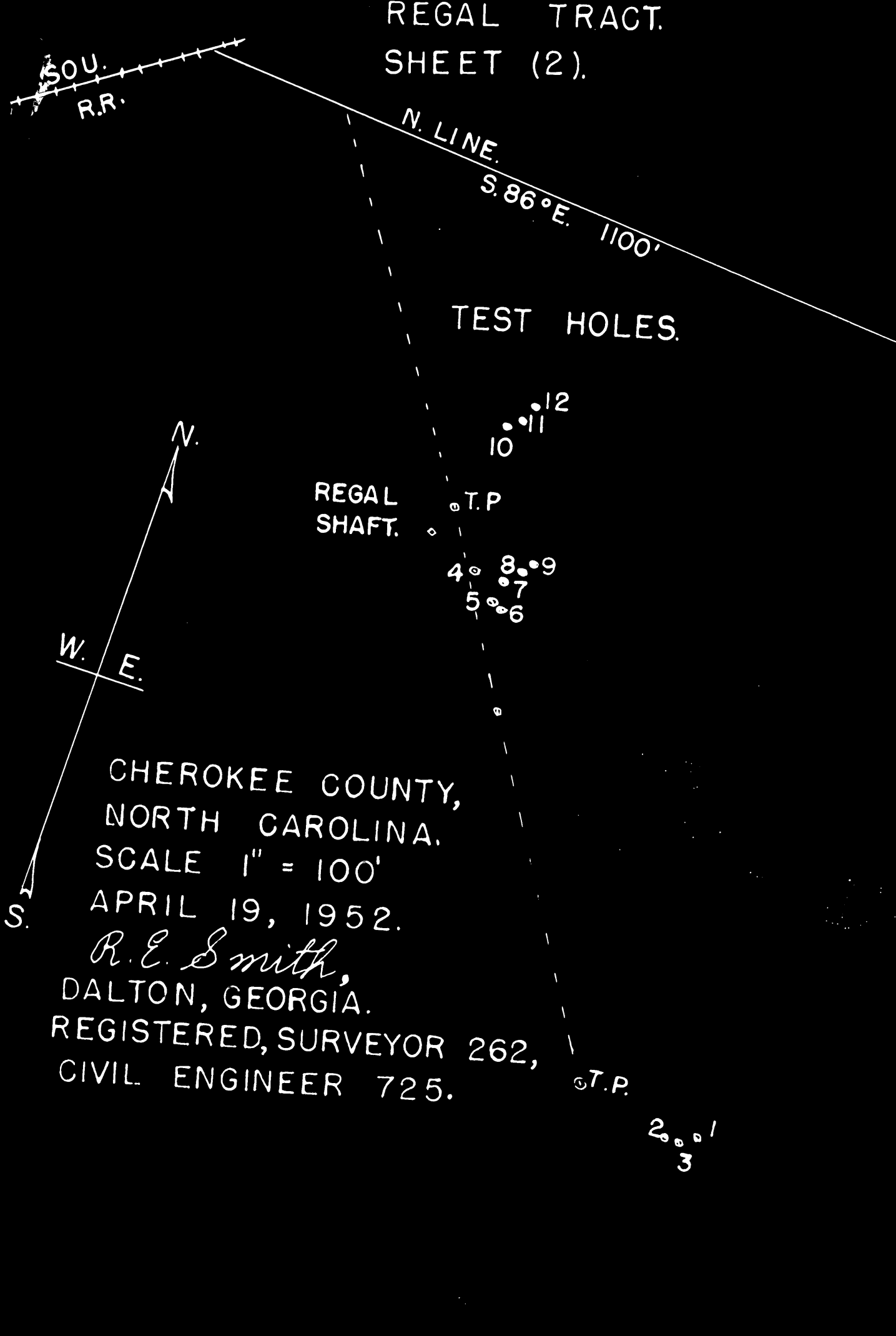
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SHEET (2).
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R.R.
N. LINE.
S. 86° E. 1100'
TEST HOLES.
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CHEROKEE COUNTY,
NORTH CAROLINA.
SCALE 1" = 100'
APRIL 19, 1952.
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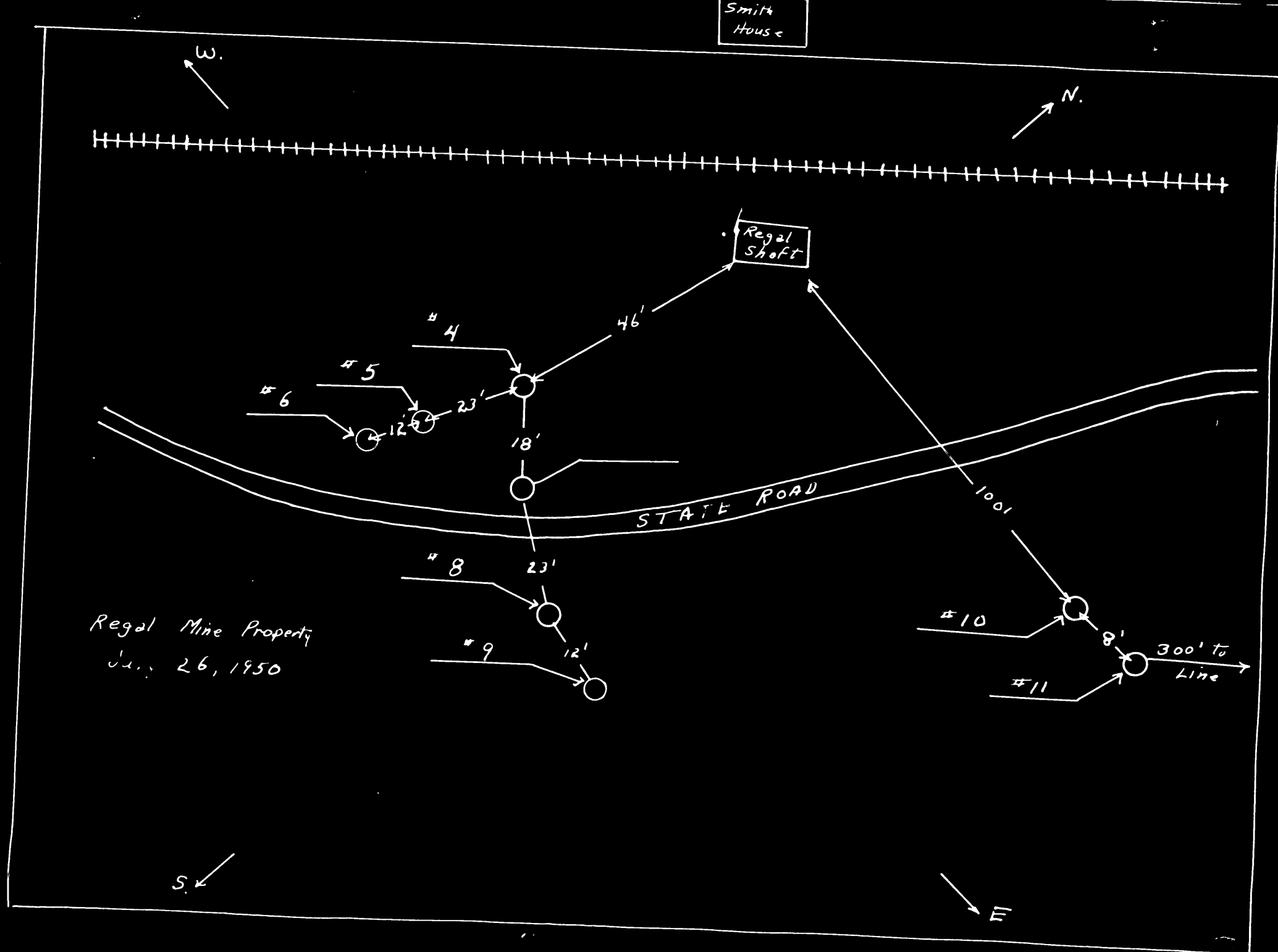
Smith House
W.
N.
Regal Shaft
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#4
#5
#6
23'
12'
18'
STATE ROAD
100'
#8
23'
#9
12'
#10
8'
300' to Line
#11
Regal Mine Property
July 26, 1950
S.
E

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

OFFICIAL BUSINESS

PENALTY FOR PRIVATE USE TO AVOID
PAYMENT OF POSTAGE, $300
(PMGC)

Contract Service Section
General Accounting Office
Washington 25, D. C.

Regal

Ground Surface

Hole #7

6/5/50

Hole #8

6/9/50

Hole #9

6/19/50

10

20

30

40

50

60

70

80

90

96

100

Surface

Yellow Talc

Gray Marble

Cave

Gray Marble

105

Surface

Sand Stone

Gray Marble

Quartz

Gray Marble

115

Surface

Gray Marble

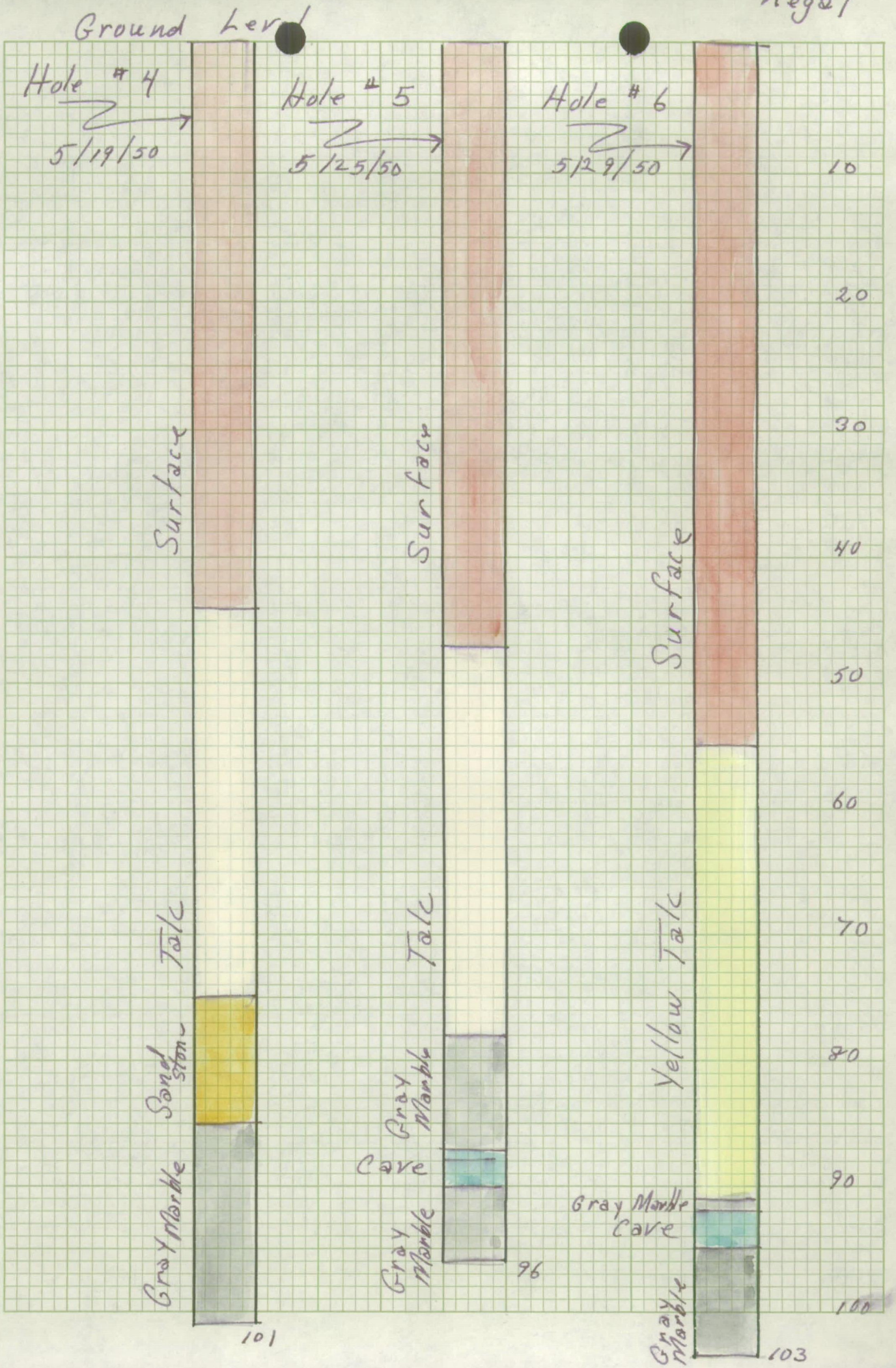
No. 5780-10
10 SQUARES TO THE INCH
Made in U. S. A.

Regal

Ground Level

No. 5780-10
10 SQUARES TO THE INCH
Made in U. S. A.

Regal



No. 5780-10
10 SQUARES TO THE INCH
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Regal

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10 SQUARES TO THE INCH
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Form MF-103
(Revised June 1951)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.1.

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

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

Not To Be Filled in by Applicant

Docket No. DMEA-2545
Metal or Mineral
Date Received 5-22-52
Amount $
Participation (Government %)

American Talc Company
77 River Street
Hoboken, New Jersey

Name and address of applicant

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
MAY 26 1952

Date May 5, 1952

If you have already filed MF-100, give date filed attached, type of assistance requested exploration in North Carolina

DMA Docket Number (if available)

Regal Mine

INSTRUCTIONS

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

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

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

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

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

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

2. (*a*) What metals or minerals do you expect to find? Block Steatite Talc

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

16—64067-2

Reference: Bulletin No. 56 "Talc Deposits of the Murphy Marble Belt" by E.C. Van Horn - abstracted comments

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

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

3. (*a*) Describe fully the proposed work and give the total cost of the project. $40,000 - see attachment #

   (*b*) State the time required to start the project and to complete it. start immediately - completed 2 year

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

5. Furnish an itemized list of existing facilities, buildings, installations, and fixtures with a statement of the cost of any necessary rehabilitation or repairs to put into useful and operable condition. no existing facilities - will use Moore, Barton and Cornwall office facilities

6. Furnish a detailed list of additional facilities, buildings, and fixtures to be purchased, installed, or erected by you, with the estimated cost of each item. none

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

   (*a*) Rented none

   (*b*) Purchased see attachment #

   (*c*) Furnished by you none

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

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

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

10. (*a*) How much are you prepared to invest in the proposed project? $4,000.

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

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

CERTIFICATION

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

American Talc Company
(Name of company)

By Joseph R Ferry
(Signature of authorized official)
Joseph Ferry

May 16 — 1952
(Date)

Vice President & Treasurer
(Title)

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

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

American Talc Company
77 River Street
Hoboken, N. J.

MF-103
Attachment #1

1. (a)Give a description of the real property.

Reference: Bulletin #56 "Talc Deposits of the Murphy Marble Belt" by E. C. Van Horn - page 46 - Location 17 and 18.

"The Regal Talc mines are situated about 2,500 feet northeast of Regal Station and 4,700 feet southwest of Tomotla School. Lovat Frazer is in charge of the property. Probably as many as 25 pits, shafts, and adits have been opened within several hundred feet of the present main shaft, although significant production has not been realized so far as is known. The main shaft is reported to be about 80 feet deep, with short drifts branching out at two levels. None of the openings have encountered hard rock but masses of badly stained talc were found. From the meager information obtainable, and in view of the known position of the marble in good quantity, and that most, if not all, of the talc intercepted thus far has been transported from a few feet to possibly a hundred feet or more."

There is an 80 foot shaft.

Drifts and cross cuts unknown

Tunnels;adits unknown.

Probably 25 adits, pits have been dug on property.

Mine now flooded.

Core drills recently made indicate extensive body of stained white talc around shaft indicating vein of good talc under surface as distinguished from surface transported talc.

1. (b) If you arenot the owner of the property, submit a copy of the lease, purchase option, or other agreements under which you are authorized to operate the property with each copy of your application.

Owned completely including all mineral rights by applicant - American Talc Company. Recorded in county office, Murphy, N. C.

1. (c) Give the legal description:

BEGINNING at a point in thecenter of the Southern Railway track, a corner of a lot formerly conveyed to S. E. Leatherwood, and runs with the Southern Railroad, the course between terminals being as follows: N 65 E 265 feet; N 21.30 E 645 feet; N 42 E 248 feet; about 20 feet of trestle spanning Marble Creek; then continuing with said Railroad N 56.30 E 1184 feet to a point at road crossing; then N 55 E 410 feet to a point on said Railroad in the South boundary line of S.S. No. 25 and the North boundary line of S.S. No. 24; then with said line S 86 E 1100 feet to a White Oak stump; then S 63 W 573 feet to a stone on top of ridge; then S 31.45 W 1118 feet to a 6" x 8" marble slab set flush with ground; then S 52 E 589 feet to a stake at 8" pine; then S 34 E 157 feet to a stake on the South East bank of N. C. Highway No. 10, U. S. Highway No. 19; then with said highway as it meanders, the course between terminals being as follows: S 61 W 318 feet; S 65.30 W 664 feet; S 56 W 358 feet; S 51.30 W 387 feet; S 42 W 898 feet to center of bridge spanning Marble Creek; then with the meanders of said creek upstream, N. 45.30 W 100 feet; N 2 E 142 feet to a stake in said creek; a corner of S. E. Leatherwood lot; then with the lines of said lot N 59 E 220 feet to a stake on top of a ridge; then N 29 E 72 feet to a 4" Pine; then N 33.30 E 104 feet; then N 31 E 162 feet; then N 44 E 100 feet; then N 38 E 198 feet to three pines; then N 36.30 E 190 feet to a 5" Black Oak on top of said ridge; then N 64 W 915 feet to the beginning, containing 92.70 acres more or less.

American Talc Company
77 River Street
Hoboken, N. J.

MF-103
Attachment #4

2. (b) Furnish statement of the geologic features of your property.

Reference: Bulletin No. 56 "Talc Deposits of the Murphy Marble Belt" by E. C. Van Horn

abstracted comments

Gray banded marble is exposed along a small stream, immediately west of Regal Station, by pits which were made in search of dimension marble. The famous Regal Marble quarry, 400 feet southeast of Regal Station, is now filled with water, but it has been described in bulletins of the North Carolina Geological Survey.

Waste blocks, piled around the quarry, show many of these accessory minerals. The Regal quarry is situated near the stratigraphic base of the overturned formation and southeast of where the talc-bearing zone normally would be exposed.

Between Regal and Marble the formation can be traced by means of talc prospects and the positions of adjacent formations.

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

Core drilling Regal Property for block steatite talc.

40 holes to be put down at a depth of 250 to 300 feet (Note: largest talc deposit located to date in Murphy Marble belt was below 250 feet)

40 holes x 300 feet = 12,000 total feet to be core drilled.

Estimate 2.5 feet per working hour of 3 man crew based on past experiences at Barton-Moore Mine.

12,000 feet ÷ 2 1/2 feet = 4,800 hours of drilling for 3 man crew

4,800 hours ÷ 50 hour work week = 96 weeks work.

96 work weeks approximates 2 years.

This allows 20 holes to be placed per year or 1 2/3 holes per month at a depth of 300 feet.

Total Costs -

Equipment -	$10,000.	
Labor & Sup.	24,000.	
Rentals, Gasoline, elect.	6,000.	($250. per month)
	$40,000.	

Estimated cost per foot = $3.33

American Talc Company
77 River Street
Hoboken, N. J.

MF-103
Attachment #6

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

(b) Purchased

Portable Compressor	$2,200.00
Motor and switches etc.	2,000.00
Drill - Outside Joy with accessories	5,300.00
Miscellaneous bits, etc.	500.00
	10,000.00

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

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

LABOR

	Monthly	Yearly	Total
Analytical & Testing	50.00	600.00	1,200.00
*Accounting & Records	25.00	300.00	600.00
*Supervisor	100.00	1,200.00	2,400.00
*Consultant	50.00	600.00	1,200.00
*Foreman	75.00	900.00	1,800.00
3 man crew	600.00	7,200.00	14,400.00
miscellaneous labor	100.00	1,200.00	2,400.00
TOTAL	1,000.00	12,000.00	24,000.00

* Estimated on basis of shared cost with Barton-Moore Project

There is reason to believe that high quality block steatite talc would be available in the Murphy Marble Belt area. The published geological surveys show the presence of talc in this section.

An exploration loan has been granted for another project located within this same area as it was established that there is the possibility of securing the strategic type of block steatite. Evidence also exists to confirm this in that the American Lava Company, of Chattanooga, Tennessee, formerly obtained steatite quality talc. Further indication of the presence of a massive type of material is shown by the availability of ore of a quality suitable for cutting crayons. Even though the ore for cutting crayons is not satisfactory for firing, its presence indicates a massive type of formation in the Murphy Marble Belt which, in spots, very likely could be dense enough for satisfactory firing.

Reference should also be made to the fact that the printed geological surveys only go to depths of approximately 75-100 feet. However, core drilling since the days of the most recent publication have disclosed the largest deposits of talc yet located in North Carolina to be at depths of 250-300 feet. Hence, it is deemed desirable to core drill to this depth.

Form MF-100
(May 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

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

NOT TO BE FILLED IN BY APPLICANT

Docket No. DMEA-2545

Date received 5-22-52

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
MAY 28 1952

American Talc Company
77 River Street
Hoboken, N. J.

Name and address of applicant

Date May 5, 1952

INSTRUCTIONS

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

GENERAL TECHNICAL DATA

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

1. Materials produced: Exploration for block steatite talc
   (*a*) What are the chief mine, mill, or smelter products?
   (*b*) What are the byproducts, if any?
2. Name(s) and type(s) of mine(s), mill(s), smelter(s), refinery(ies), pit(s), quarry (ies), drilling operation(s). Include old names of property, if any. Show extent of workings, including the following: see form MF-103
   (*a*) Linear feet of shafts.
   (*b*) Linear feet of drifts and crosscuts.
   (*c*) Linear feet of tunnels or adits.
   (*d*) Linear feet of other mine openings (explain briefly).

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following: see attachment #1
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.
4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated. see attachment #1
   (*b*) Are you operating this property as:
   - ☐ Owner.
   - ☐ Lessee.
   - ☐ Contractor.
5. Number of years in production see attachment #1

   If not in production or operation, estimated date when production will begin _____
6. Experience of operators: see attachment #2

   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project.
7. History: see form MF-103
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation.
   (*b*) State briefly the known history and production of adjoining and neighboring properties.
   (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

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

Name and Address (a)	Official Title (If officer is also director indicate by "D") (b)	Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year (c)	Estimated Net Worth Outside of Interest in Applicant (d)	Number of Shares Held in Applicant Corporation: Common (e)	Number of Shares Held in Applicant Corporation: Preferred (f)	Life Insurance Carried for Benefit of Applicant: Amount (g)	Life Insurance Carried for Benefit of Applicant: Net Cash Surrender Value After Loans (h)
M. Woodward Glenn	President						
Joseph Ferry	Vice Pres. Treasurer						
	Total		x x x x x			x x x x x	x x x x x

If more lines are needed continue on separate sheet.

9. Capital Stock Issues: none

For Corporate Applicants

Item	Authorized (a)	Outstanding (b)	Par Value (c)	Number of Shares Outstanding (d)	Dividend Rate Last Paid* (e)
Common stock	$	$	$		
Preferred stock	$	$	$		

*Indicate period covered.

10. Production:

Item	Kind of Product (a)	1948 Total (b)	1949 Total (c)	1950 Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.)					
2. Quantity of product processed (specify unit of measure and type of process)					
3. Quantity and grade of product sold or shipped (specify units of measure)					

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

12. Ore or Mineral Reserves: see form MF-103 also Bulletin #56

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

3. For each operation listed above supply the following:

(a) Distance and direction from nearest city.

2,500 feet northeast of Regal Station - approximately 5 miles from Murphy City limits - lies on Southern Railroad

(b) Mining District

Murphy Marble Belt

(c) Township, Section, Range

(d) County, State

Cherokee, North Carolina

4. State whether or not property is now in operation, by whom operated

Regal Property - not operating

(c) owned completely including all mineral rights by American Talc Company

5. Years in Production

Regal Mine, N. C. - original operation not known.

6. Experience of operators:

The American Talc Company while a new organization (1950) has men highly experienced in talc as executives.

Mr. M. Woodward Glenn is President of the Georgia andthe Southern Talc Companies, in Chattsworth, Ga. He has been active in talc prospecting, milling and mining for 18 years. His father started the operations, so his contacts with talc producing are those of a lifetime. Mr. Glenn served on Talc Industry Advisory Committees of both WPB and OPA during War II.

Complete descriptions of Mr. Glenn's talc operations in Georgia are given in "Talc Deposits of Murray County, Georgia", by A. S. Fircon and K. H. Teague, Bulletin #53 of the Geological Survey published 1947.

Special notice should be made that Mr. Glenn has long been a major producer of talc (soapstone) crayons. The mining of ore for this type of product is the same as mining block, steatite talc for it requires recovery of large, blocks of massive type ore without shattering or fracturing.

Mr. Newman R. Davis the Supervisor in North Carolina has been actively doing this type of work since 1932, in both North Carolina and Georgia. He is recognized as an outstanding, practical talc miner.

Mr. Joseph Ferry has been connected with talc over many years through the Imperial Talc Company and the Charles Mathieu, Inc., the principal importer of Italian Talc in the United States. Mr. Ferry helped form the American Talc Company due to the dangers of the international situation and the possibilities that all qualities of Italian Talc both block steatite and ground might again be cut off in the event of hostilities.

Mr. W. Wallace Roff has been working with talc since 1923. As a Vice President of Whittaker, Clark & Daniels, Inc., large sales-distributors for both domestic and imported talcs. This company for many years were the largest importers of Indian Block Steatite Talc. Therefore Mr. Roff is exceptionally experienced with the problems in connection with this material.

The American Talc Company is a non-operating company. The Southern Talc Company has been contracted to handle all operations, mining and milling in North Carolina.

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

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

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

TOTAL ORE OR MINERAL RESERVES

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

(*c*) If placer:

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

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

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

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

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

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

13. Access Roads:

Give road distances to shipping, supply and residence points, stating kind and condition of roads. all mines are served by A-1 access roads

14. Water Supply:

State source and quantity of water available for operations and whether sufficient for all seasons of year. Water supply available at all times of the year for core drilling.

15. Power:

State amount of power used, rate per hour, and source thereof. serviced by T.V.A. area - ample

16. Labor: see form MF-103

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

17. Equipment and Facilities: see form MF-103

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

18. Are there any particular conditions or circumstances affecting your operations that are not described above? If so, explain. see form MF-103

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.

American Talc Company
(Name of company)

By _____
(Signature of authorized official)
Joseph Ferry

_____
(Date)

Vice President & Treasurer
(Title)

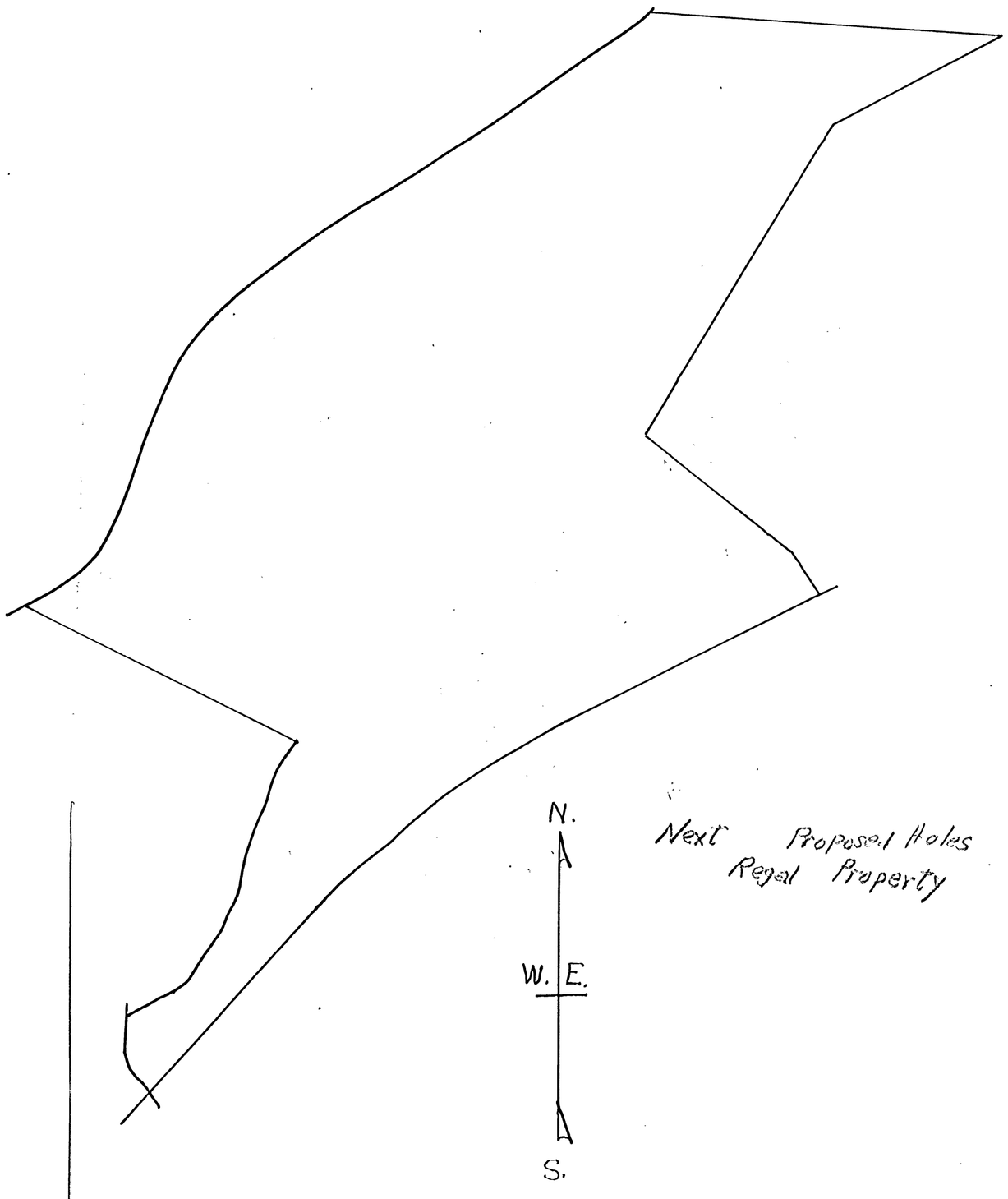
Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

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

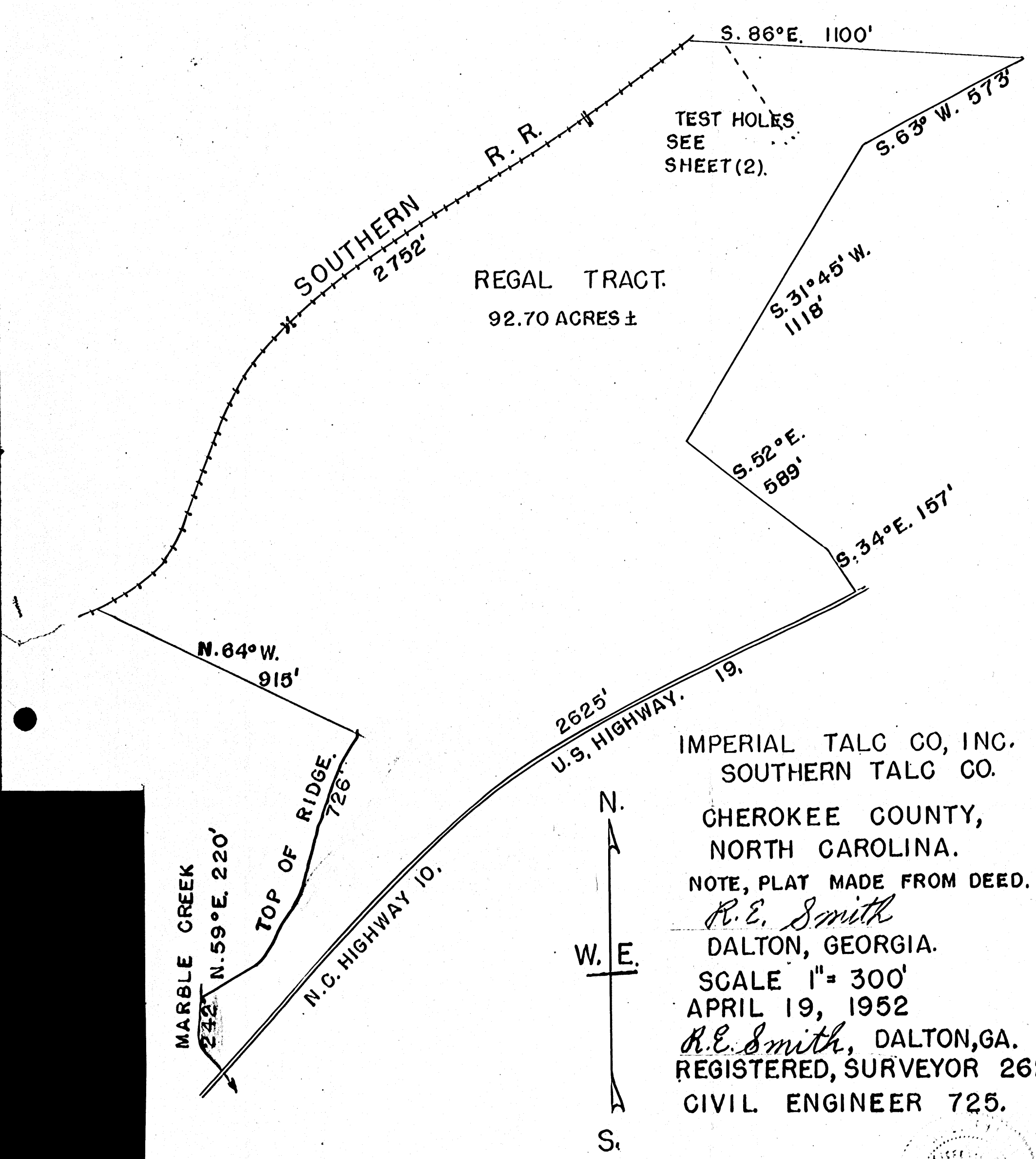
PRELIMINARY STUDY OF VAN HORN'S REPORT AS

COMPARED TO REGAL MINE'S RECENT DEVELOPMENT

1. As per sketch of July 26 - after comparing to Van Horn's sketch - shows the Stained Regal Talc body does not lie with White Marble - at least we struck no White Marble. This leads me to believe this body of Yellow Talc is a float body which was thrust down into the valley after being broken off from the main body of Talc which, according to Van Horn, must lie with the White Marble. Now that we have found the White Marble at Holes No. 10 and No. 11, which is where Van Horn's Report indicates the Talc should be, we have more faith in thinking we are nearer to the true vein. I personally think the caves, or cavities, we are encountering in Holes No. 10 and 11 were regions where the displaced Yellow Talc once was in position. Hole No. 10 was lost because of one of these cavities. It is possible that all of the Talc body which once lay in the cavities in the vicinity around Holes No. 10 and 11 may have been shifted, and we will either have to go much deeper or still higher on the ridge which we are now on with Hole No. 11.



Next Proposed Holes
Regal Property



IMPERIAL TALC CO, INC.
SOUTHERN TALC CO.

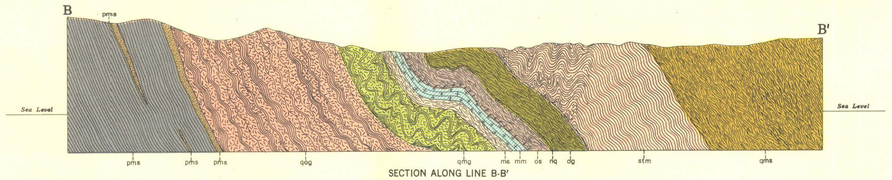
CHEROKEE COUNTY,
NORTH CAROLINA.

NOTE, PLAT MADE FROM DEED.

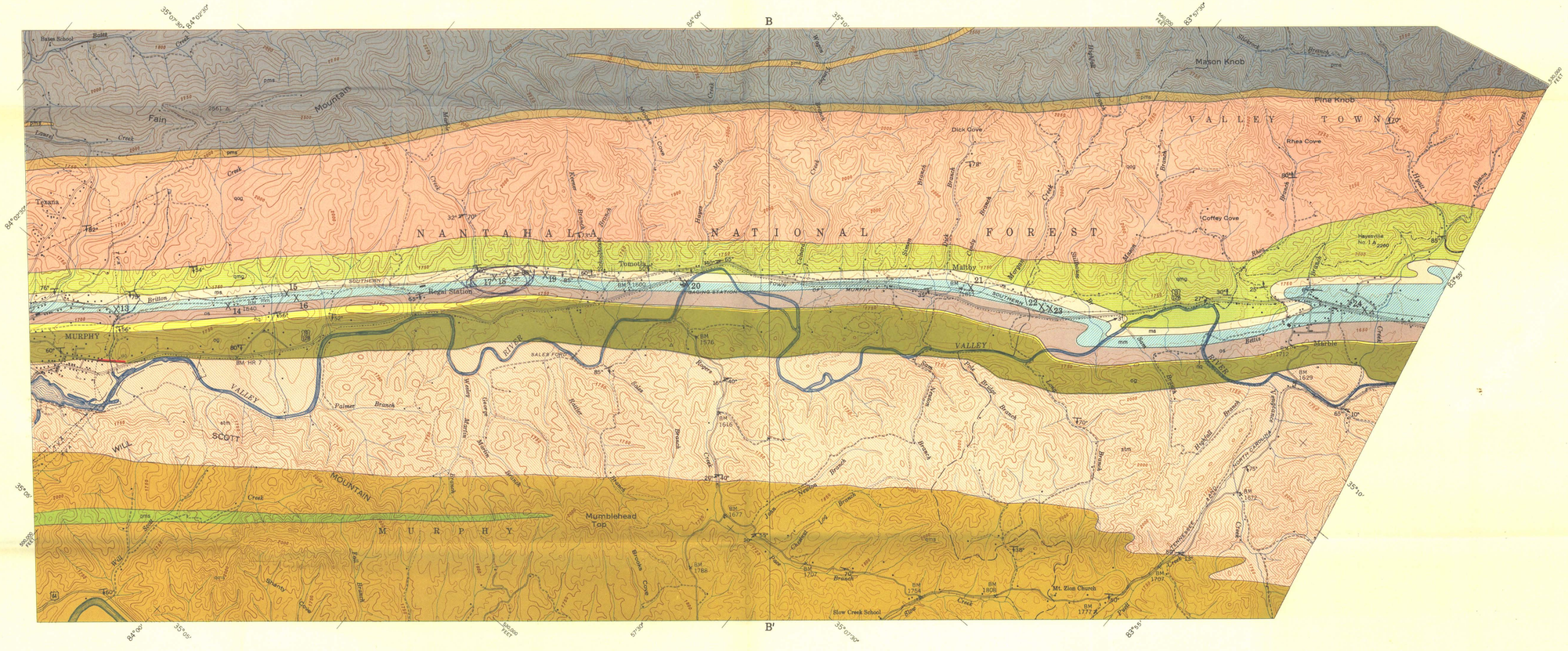
R. E. Smith
DALTON, GEORGIA.

SCALE 1" = 300'
APRIL 19, 1952

R. E. Smith, DALTON, GA.
REGISTERED, SURVEYOR 262,
CIVIL ENGINEER 725.



SECTION ALONG LINE B-B′



LEGEND

Diorite
(dark gray sills or dikes; best exposed near Murphy and Hewitt)

Quartz-mica gneiss
(essentially gneiss with beds of massive quartzite; arkosic at base; has distinctive flat-lying recumbent folds)

Ottrelite schist
(coarse brown mica schist with abundant ottrelite and minor but uniform amounts of pyrite; grades into formations on either side; limonite beds in residuum)

Staurolite-mica schist
(light colored with thin beds of feldspathic quartzite; occasionally gneissic; chloritic and sericitic west of Murphy; mica schist and quartz schist east of Andrews)

Phyllite and mica schist
(usually dark, fine-grained; contains pyrite, graphite, ottrelite, and occasional quartzite stringers; quartzite-conglomerate at base)

Mica schist
(fine-grained uniform schist impregnated with pegmatite material; becomes siliceous in vicinity of Nantahala River)

Nottely quartzite
(usually dense white quartzite with conglomeratic phases and beds of ottrelite schist; becomes less dense to the east and difficult to distinguish from adjoining ottrelite gneiss)

Quartz-mica schist
(essentially schist with intermittent quartzite stringers; cleavage surfaces have typical "brassy" sheen)

Quartz-ottrelite gneiss
(dark banded gneiss with local garnetic phases; schistose with fewer accessory minerals in vicinity of Culberson and Nantahala River)

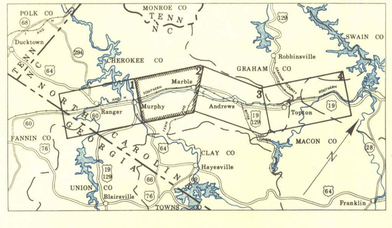
Murphy marble
(white to dark blue, usually dolomitic marble with siliceous phases and zones of amphibole, talc, phlogopite, and argillaceous laminae)

Ottrelite gneiss
(typically gneiss, with schistose phases and zones of feldspathic quartzite; chief source of limonite beds)

Talc mine 2
Talc prospect 25
Strike and dip of rocks ..... 45°
Strike and dip of foliation, with plunge of lineation (cleavage intersection) ..... 50° 22°
Inclined fold axis ..... 8°
Horizontal fold axis

Note:
See text for facies changes along strike

INDEX TO SHEETS



GEOLOGIC MAP
TALC DEPOSITS OF MURPHY MARBLE BELT

NORTH CAROLINA DEPARTMENT OF CONSERVATION AND DEVELOPMENT
DIVISION OF MINERAL RESOURCES
IN COOPERATION WITH
TENNESSEE VALLEY AUTHORITY
COMMERCE DEPARTMENT - MINERALS SECTION

SCALE 1:24,000

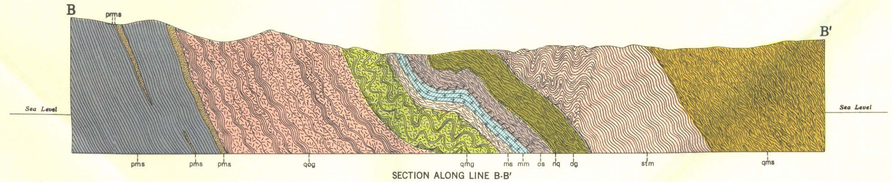
5,000 0 5,000 Feet
1 0 1 Mile

1947

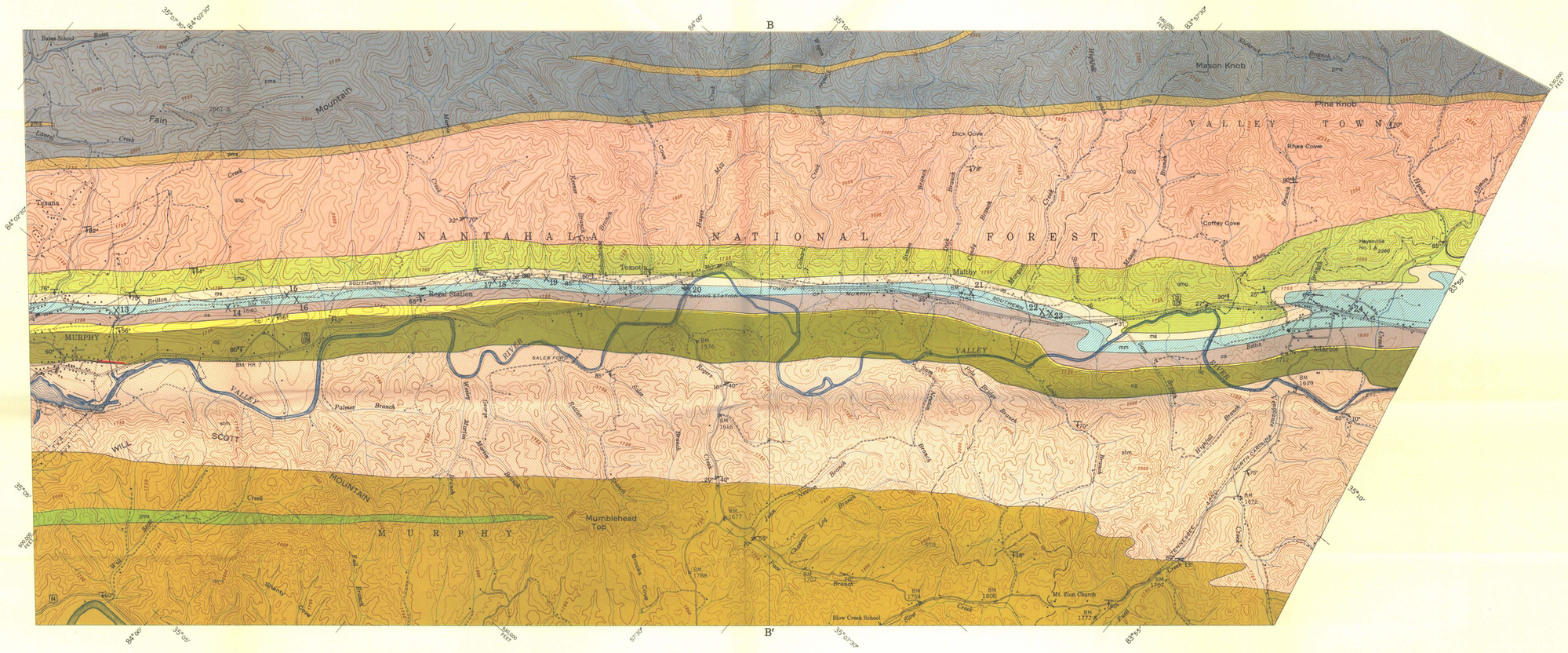
Cartography and Reproduction
TVA Maps and Surveys Division

SHEET 2 OF 4 SHEETS

5-CO-800K 501-2



SECTION ALONG LINE B-B'



LEGEND

- **do** — Diorite (dark gray sills or dikes; best exposed near Murphy and Hewitt)
- **qmg** — Quartz-mica gneiss (essentially gneiss with beds of massive quartzite; arkosic at base; has distinctive flat-lying recumbent folds)
- **os** — Ottrelite schist (coarse brown mica schist with abundant ottrelite and minor but uniform amounts of pyrite; grades into formations on either side; limonite beds in residuum)
- **stm** — Staurolite-mica schist (light colored with thin beds of feldspathic quartzite; occasionally gneissic; chloritic and sericitic west of Murphy; mica schist and quartz schist east of Andrews)
- **pms** — Phyllite and mica schist (usually dark, fine-grained; contains pyrite, graphite, ottrelite, and occasional quartzite stringers; quartzite-conglomerate at base)
- **ms** — Mica schist (fine-grained uniform schist impregnated with pegmatite material; becomes siliceous in vicinity of Nantahala River)
- **nq** — Nottely quartzite (usually dense white quartzite with conglomeratic phases and beds of ottrelite schist; becomes less dense to the east and difficult to distinguish from adjoining ottrelite gneiss)
- **qms** — Quartz-mica schist (essentially schist with intermittent quartzite stringers; cleavage surfaces have typical "brassy" sheen)
- **qog** — Quartz-ottrelite gneiss (dark banded gneiss with local garnetic phases; schistose with fewer accessory minerals in vicinity of Culberson and Nantahala River)
- **mm** — Murphy marble (white to dark blue, usually dolomitic marble with siliceous phases and zones of amphibole, talc, phlogopite, and argillaceous laminae)
- **og** — Ottrelite gneiss (typically gneiss, with schistose phases and zones of feldspathic quartzite; chief source of limonite beds)

Talc mine 2
Talc prospect 25
Strike and dip of rocks ..... 45°
Strike and dip of foliation, with plunge of lineation (cleavage intersection) ..... 50° 22°
Inclined fold axis ..... 8°
Horizontal fold axis

Note:
See text for facies changes along strike

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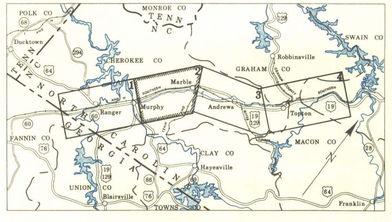

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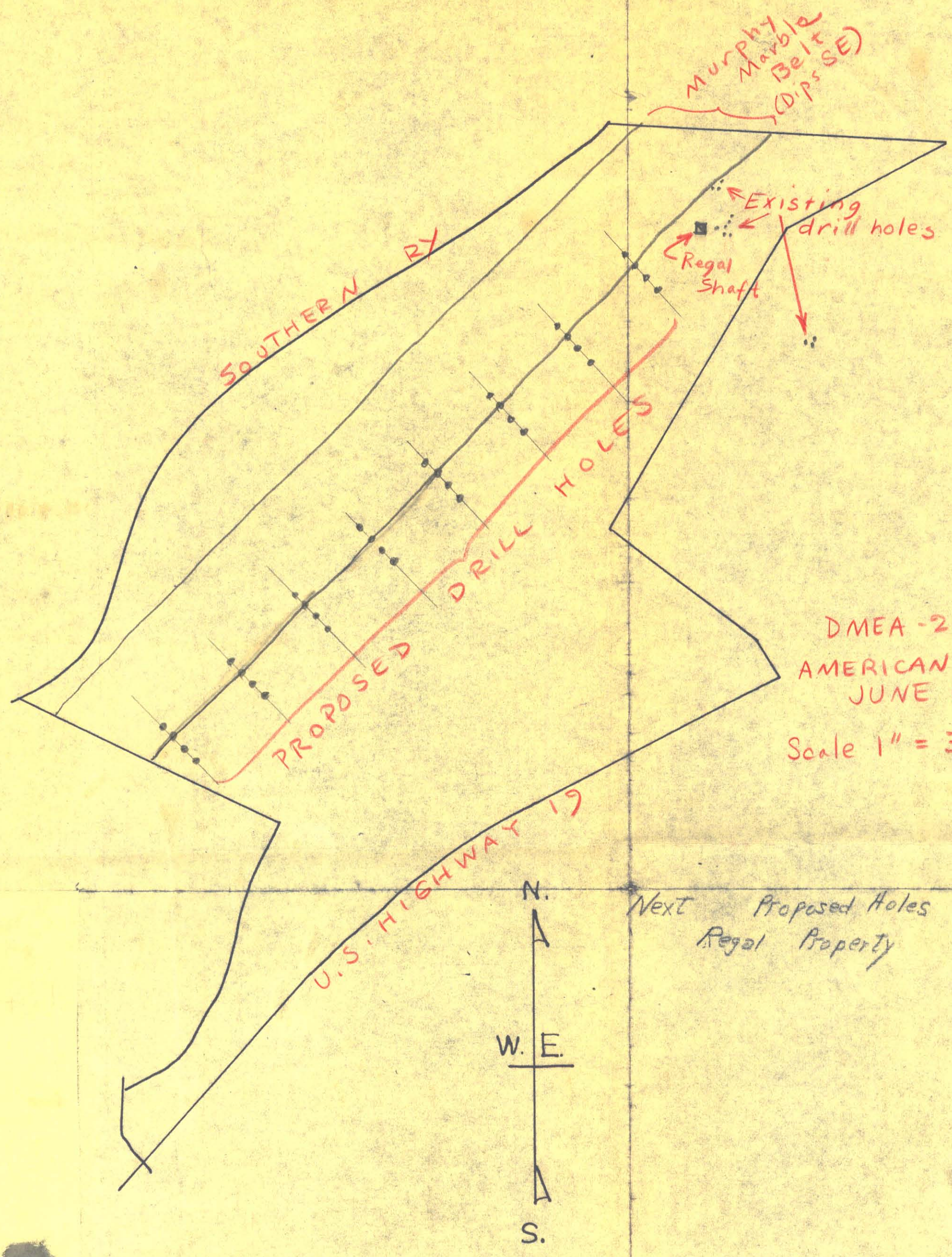

DMEA-2545
AMERICAN TALC CO
JUNE 1952

Scale 1" = 300 ft.

Next Proposed Holes
Regal Property