DMEA Form 9
Rev. 6/57

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE Idm-E NO._____ DMEA NO. 4871

Application
- [x] Denied
- [ ] Withdrawn

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

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

Folder No. 1:

Left Side

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

Right Side

- [x] Project summary (final)
- [ ] Work Comoleted analysis (final)

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

- [ ] Field Team Semi-Annual Report for Certified Project
- [ ] Final Field Team Report (Tab)
- [ ] Operator's Final Report (Tab)
- [ ] Interim Field Team Reports
- [ ] Operator's monthly reports and all attachments
- [x] On-site Exam Report (Tab)
- [ ] Settlement Sheets
- [ ] Drill Logs

Additional Folders:

Left Side

Folders No._____: Reports
- [ ] Analysis of Semi-Annual Inspection Reports
- [ ] Project Summary (Interim) by DMEA Engineers

Right Side

- [ ] Field Team Semi-Annual Report for Certified Project
- [ ] Field Team Interim Reports
- [ ] Operator's Monthly Reports with transmittal, narrative and maps.

Folders No._____: Maps (Use pocket folder or envelope)

Folders No._____: Settlement Sheets

Folders No._____: Drill Logs

Folders No._____: Royalty material

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

ROOM 13 POST OFFICE BLDG.
KNOXVILLE 2, TENN.

November 7, 1957

Memorandum

To: Operating Committee, DMEA, Washington, D. C.

From: Field Team, DMEA, Region V, Knoxville, Tennessee

Subject: Application from William Knight Moore, Brookline, Mass. Copley Farm, Litchfield County, Conn. (Nickel, Copper)

Enclosed are the original and two copies of the subject application, with one copy of the lease. Consent to Lien was received unsigned and has been returned to the applicant for signature. We are keeping the fourth copy of the application for our use.

Please note that only two copies of the two colored maps and the "Summary of Exploration to Date" were received. One of each is attached to the original, and we are keeping the other set.

Robert A. Laurence
Robert A. Laurence
Executive Officer

W. A. Beck
W. A. Beck for V. J. Lynch
Member, Bureau of Mines

Enclosures 4

Form MF—103
Revised Feb. 1957

UNITED STATES
DEPARTMENT OF THE INTERIOR

Budget Bureau No. 42—R1035.3
Approval expires June 30, 1958

DEFENSE MINERALS EXPLORATION ADMINISTRATION

APPLICATION FOR AID IN AN EXPLORATION PROJECT

PURSUANT TO DMEA ORDER I, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

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

William knight Moore
12 Alton Place
Brookline, Mass.

RECEIVED NOV 12 1957

APPLICANT NOT TO USE THIS BLOCK

Docket Number: 4871
Date Received: 11-12-57
Government Participation %:
Region: V
Division Code: 400

BUSINESS ORGANIZATION (Check one)

- Individual [✓]
- Corporation [ ]
- Partnership [ ]
- Other (Specify) [ ]

State in which firm is organized:

LIST CORPORATE OFFICERS OR PARTNERS HERE, IF APPLICABLE

Name	Address	Title

RECEIVED NOV 8 - 1957

Mineral(s) for which you wish to explore: Nickel and copper

Estimated Cost of Project: $ 37,000.00

LOCATION OF PROPERTY

Name	County	State
Copley farm	Litchfield	Conn.

GENERAL INSTRUCTIONS

Before filling out this application, please read DMEA Order—I, Amended, "Government Aid in Defense Exploration Projects." To assure prompt action, your application must provide all applicable material and information specified on the back of this application form. Avoid unnecessary correspondence and delays by submitting complete and accurate information. *Please submit four copies of this application and all accompanying papers* except as otherwise noted. Place your name and address on each sheet. Each item of information, maps, and reports required as a part of this application is described on the back of this form. Identify each attached statement by the item number to which it applies. If an item does not apply to your application, show the item number on your statement and after it write "not applicable." Maps or sketches should be used to supplement narrative descriptions of the property location and boundaries in item 1, existing mine workings and geology in item 2, and the proposed exploration project in item 4. When this information is not too complex, all of it may be shown on one map or sketch. All documents and other attachments submitted as a part of this application, except those in item 2(g) which you mark to be returned, become the property of the Government and will not be returned to the applicant. Send true copies, *not originals*, of leases, contracts, and other documents which are an essential part of your business records. *File this application with the Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest DMEA Field Office.*

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief.

Nov 4 17
Dated

William H Moore
BY *(Signature)*

Proprietor
Title

A wilfully false statement or certification to any Department or Agency of the United States Government is a criminal offense. U. S. Code, Title 18, Sec. 1001.

INFORMATION REQUIRED WITH THIS APPLICATION

1. *Applicant's Property Rights:*

(a) State the legal description (section, township, and range; metes and bounds; patent number of claims) of the land upon which you wish to explore and all land adjacent to the proposed project area which you own or control. Describe any part of the project land or workings which should not be subject to Government lien for royalty payments. If the land consists of unpatented claims, state the book and page number for each recorded location notice, including amended locations, and the place where recorded (courthouse, recorder's office, county, and state).

(b) State all the names by which you know the property.

(c) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise. If you are not the owner, submit with this application one exact copy of the lease, contract, or other document (with address of owner) under which you control the property.

(d) Describe all liens, mortgages, or other encumbrances on the property.

2. *Physical Description:*

(a) Describe in detail and illustrate with maps or sketches all mining or exploration operations which you know have been or are being conducted upon the lands, including existing mine workings. Describe all production facilities.

(b) State your interest, if any, in operations stated in 2*(a)*.

(c) State, as far as you know, the past and current production, supporting your statement with copies of settlement sheets, mine records, or published data if available.

(d) Describe known ore reserves on the property giving quantities and grades and sampling methods used, supporting your statement with copies of assay certificates and assay maps if available.

(e) Describe by narrative and maps or sketches the geologic features of the property, including ore minerals, geologic formations if known, and type of deposit (vein, bedded, etc.).

(f) State your reasons for expecting to find ore, and if you have sampled the area you propose to explore, show where the samples were taken, describe sampling methods used, and provide copies of assay certificates.

(g) Send with your application at least *two* copies of all geologic or engineering reports, assay maps, or technologic information which you may have, indicating on each whether you require its return to you.

3. *Accessibility of Project:*

(a) To aid DMEA representatives who may be required to examine the property, state the name and address of the person who will meet the DMEA representative; give directions for reaching the property; and describe accessibility of the property including the mine workings.

(b) Name the shipping and supply points and places where employees reside and state the distances between them and the property.

4. *The Exploration Project:*

(a) Describe fully the proposed exploration project giving individual footages and sizes of openings *for each item of work.* Use narrative, maps, plans, and longitudinal and cross sections as necessary. Show the location of the proposed work as related to geologic features such as veins, ore-bearing beds, contacts of rock formations, etc. Show also the relation of the proposed work to any existing mine workings and to *property boundaries* or to the closest identifiable corner.

(b) If an access road to the project must be built, show the location on the property map and state the length, type, and construction methods proposed.

(c) In the event that an exploration contract with DMEA is executed, how soon will the work start and how many months will be required to complete it? State your anticipated average daily or monthly rate of progress for each type of work.

5. *Experience:*

State your operating experience and background with relation to your ability to carry out this exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of Costs:*

Furnish detailed estimates of the costs *for each item of the work proposed in 4(a)* under the headings listed below with a total for each heading and the estimated total cost of the project. Costs for any work to be performed by an independent contractor should be shown separately under category *(a)* below. Costs for any work that is not to be performed by an independent contractor should be given in detail under categories *(b)* through *(g)*.

(a) Independent contracts. State the cost of any proposed independent contract for the performance of all or any part of the work, expressed in units of work, such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved. Cost estimates should be supported by bids from three contractors if possible. *(Note* – If none of the work is to be contracted, write "none" after this item.)

(b) Personal services. For necessary supervision, engineering and geological services, and labor, include an itemized schedule of numbers, classes, rates of wages, salaries or fees, and periods of employment. State whether these technicians and employees are available.

(c) Operating materials and supplies. List items of material and supplies with their cost. Include under this heading power, water, and fuel, and units of equipment and tools costing less than $50 each.

(d) Operating equipment. List items of operating equipment to be used giving specifications and indicating how each item is to be acquired – i.e., rented, purchased, or provided by the applicant. If it is rented or purchased, state the estimated rental or purchase price. If it is to be furnished by the applicant, give its present fair market value.

(e) Initial rehabilitation and repairs. Describe the type and the cost of necessary *initial* rehabilitation or repair of existing buildings, fixtures, installations (exclusive of mine workings), and movable operating equipment now owned by the applicant, which will be used on the exploration project.

(f) New buildings, fixtures, installations. Describe each building, fixed improvement, and installation to be purchased, constructed, or installed for the exploration project stating specifications and cost including labor, materials and supervision.

(g) Miscellaneous. For the operating equipment listed in 6*(d)*, describe the type and estimate the cost of repairs and maintenance expected during project operations. Do not repeat initial repairs listed in 6*(e)*. Show also the costs of analytical work, accounting, workmen's compensation and employees' liability insurance, payroll taxes, and other required costs that do not fall within the previous categories.

Note – No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes), or any other indirect costs, or work performed or costs incurred before the date of the contract, should be included in the estimate of costs.

7. *(a)* State whether you are prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation stated in Sec. 7 of DMEA Order–I, Amended.

(b) Explain to what extent you propose to furnish your share of the costs by providing money, by use of equipment owned by you, or otherwise.

* * * * *

INT.-DUP. SEC., WASH., D.C. 15539

ANSWERS TO QUESTIONS OF FORM MF - 103

1. a) The property is in the state of Connecticut, in the town Torrington, 3 miles northwest of Torrington center. See enclosed geological map for exact location.

   b) The property has been known as the Hodges nickel prospect.

   c) I am the leasee.

   d) No outstanding encumbrances on the property.

2. a) There is no data available prior to my exploration work. See enclosed reports for recent exploration data. On the property is an old mine shaft with several hundred tons of ore on the tailings pile.

   b) All enclosed exploration data was instigated by myself.

   c) No such data available.

   d) There has not been enough work done on the property to date to estimate ore reserves.

3. a) Contact James Copley, Town Farm Road, Torrington, Conn.

   b) Torrington, 3 miles from the property.

4. a) I would start out with a 1,000 foot contract so as to test the ore at depth. If good ore is indicated, I would like to expand to a 10,000 foot contract.

   b) An access road would be unnecessary for now. The drilling equipment can be hauled by tractor over the lightly wooded fields.

5. I have had three to four years of experience in most phases of mining exploration work with several large companies. For the past year I have been president and general manager of my own exploration company, Antimony Minerals Ltd. of New Brunswick, Canada. I will be supervising the drilling.

6. The cost for the 1,000 feet of drilling would be contracted at approximately $5.50 per foot. Cost plus items might cost another $1.50 per foot, running the total to an estimated $7.00 per foot, or total cost of $7,000.00. If the work is extended to 10,000 feet of drilling, the cost per foot would be reduced considerably.

7. I will be prepared to furnish my share of the cost of the proposed project by providing cash and giving my services.

Docket 4871 - Nickel

SUMMARY OF EXPLORATION WORK TO DATE ON MOORE OPTION - TORRINGTON, CONNECTICUT

The first exploration work consisted of a brief magnetometer survey on the section close to the mine shaft. Large magnetic anomalies up to 4,000 gammas were recorded on areas underlain by peridotite.

Members of the Geophysical Department of Massachusetts Institute of Technology ran a geophysical survey which included self potential apparent resistivity and induced polarization (see enclosed map for profile lines run). Large anomalies were recorded on line 1+ 00 west, indicating a highly conductive zone. On line 3 + 00 west a large anomaly was also registered but the conductive zone appears to lie at depth. Further to the west the topography takes a steep rise and we decided that further geophysical work to the west would not be feasible as the ore would probably be too deep to be within range of our instruments. I am not enclosing a copy of this geophysical report as I have only one copy and the report is rather lengthy. I shall be glad to show it to the field engineer or anyone else interested.

The main value of this survey was in giving us an idea as to what happened to the ore at depth (down to an approximate 300 feet). This was accomplished by changing the spacings between the sending and receiving electrodes. The wider spacings sample the ore at a greater depth than the shallow spacings. The results indicate that the ore zone is close to vertical with good continuity with depth. Pacsack drilling was done along the line 1 00 west in order to test the geophysical anomaly. The holes were spaced as follows on line 1 00 west: hole #1 at 3 75 north; hole #2 at 4 02 north; hole #3 at 3 24 north; hole #4 at 3 59 north.

Hole #1 encountered the mineralized peroxenite at a depth of 26 feet and a 15-foot sample was taken to 41 feet. The 15-foot sample assayed 1.41% nickel and 1.23% copper. Hole #4 encountered the ore at a depth of 19 feet and a 15-foot sample was taken to 34 feet. This 15-foot sample assayed .77% nickel and .82% copper. Hole #3 encountered mineralization but not of ore grade. The mineralized dike ranges from 20 to 50% sulphides by visual estimate.

Logs of the holes are as follows: hole #1 - fine-grained peroxenite; hole #2 - coarse-grained diorite; hole #3 - mica schist (probably altered fault gouge); hole #4 - fine-grained peroxenite.

An EM survey was run by the New Jersey Zinc Company. The crossovers are shown on the geophysical map. This survey traced out the ore zone for a length of 1,200 feet, open at one end.

In conclusion, our results to date indicate that the mineralized dike has a width of between 16 and 77 feet and continues for a minimum of 1,200 feet.

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DATE | INITIALS | CODE

LITHOLOGY OF ENCLOSED MAPS

Formation A Gabbro and medium-grained peridotite which is composed mostly of needle-shaped pyroxene crystals in a matted texture.

Formation B Peridotite composed mostly of large pyroxene crystals from $\frac{1}{8}$ to 1 inch long. This formation contains large porphyryblasts of feldspar and calcareous minerals on its borders. In the southern section of map (scale 1" = $\frac{1}{8}$ mi.) some of the rocks are gabbroic looking but relic outlines of the large pyroxene crystals show that the rocks were originally a coarse peridotite.

Formation C Dioritic gneiss. Relic structure and some rounded grains indicate a sedimentary origin, although the rock itself is somewhat igneous appearing. The contact of this formation with granite and gneiss is often gradational but forms sharp contacts with Formations A and B.

Formation D Intermixed metamorphics and Basic Igneous Rocks. To the west of the map (scale 1" = 500') the formation is mostly metamorphics intersected by basic dikes. Going toward the east the rock contains more igneous and less metamorphic rocks, until the formation is essentially Formation A containing large inclusions of metamorphics. The inclusions become smaller and smaller until the formation is all Formation A.

The large block of Formation D in the southwest part of the map (scale 1" = $\frac{1}{8}$ mi.) contains a wide variety of basic igneous rocks, ranging from diorites to peridotite, intermixed with gneisses.

Formation E Mica schist. This formation sometimes shows traces of sulphides. This formation could be altered fault gouge.

Granitic Gneiss

Granite

Trace of Mineralized Dike

Suggested origin of ore deposit: Most of the rocks in this area appear to be very resistant types. Formation C, however, is quite friable and brittle. Perhaps when this formation was invaded by the basic intrusive (in a concordant manner?) the weight of the intrusive caused faulting and a large section of the intrusive broke off from the rest of the mass as a fault block. The ore seems to follow the west edge of this fault block.

MF-205
(Combines and supercedes MF-2[illegible] and MF-203)
June 1956

For Government's Use Only
EXPLO[illegible]ION PROJECT CONTRACT
Operator_____
Docket No. DMEA-_____
Contract No. Idm-E_____
Contract Date_____

RECEIVED
NOV 27 1957

CONSENT TO LIEN and SUBORDINATION AGREEMENT 1/

To the United States of America:

Referring to that certain land in the County of Litchfield, State of Connecticut, described as follows: 2/

~~A area of approximately 3 miles northeast of the town of Torrington. The property is bounded on the north and east by [illegible] on the south by land of the Torrington Water Co., and on the west by land now or formerly of Clinton and Pierce.~~,

which is the subject of a proposed exploration project contract, hereinafter called the "contract," with the United States of America, hereinafter called the "Government;" in consideration of the contract and as an inducement to the Government to enter into it, the undersigned hereby--

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

2. Grants to the Government a lien upon all of the undersigned's right, title, and interest in the land and upon any production of minerals therefrom, to secure the payment to the Government of a percentage royalty on production as may be provided for by the Contract;

3. Subordinates the undersigned's right, title, claim, or interest in or against the land and in any production therefrom to the rights of the Government under the contract with respect to royalty on production and liens to secure same;

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

~~A 75% option on the property by a different interest was granted through non-payment of option payment.~~

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

2/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [~~or contract, deed, or other document~~] dated May 29 1957, and recorded in Book 204, Page 428, official records of said county." If (b) is used, the book and page of recordation cannot be dispensed with. If the space provided is insufficient, use an Annex, and refer to the Annex in the space.

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

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

7. Added provision: _____ (State "None" or "See Annex No.____")

Dated this 21st day of November, 1957.

James R. Copley [Seal] RFD-1 Tamworth Ct. [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

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

William N Moore Proprietor

[Corporate Seal]

12 Alton Pl. Brookline Mass.

MF-205
(Combines and supercedes MF-2[illegible] and MF-203)
June 1956

For Government's Use Only
EXPLOR[illegible]ON PROJECT CONTRACT
Operator_____
Docket No. DMEA-_____
Contract No. Idm-E_____
Contract Date_____

RECEIVED
NOV 27 1957
D.M.E.A.

CONSENT TO LIEN and SUBORDINATION AGREEMENT 1/

To the United States of America:

Referring to that certain land in the County of ~~Litchfield~~, State of ~~Connecticut~~, described as follows: 2/

~~66 acres approximately 3 miles North-West of the town of Torrington. The property is bounded on the North and East by nickel creek river; on the South by land of the Torrington Water Co.; and on the west by land now of formerly of Clinton and Fierco.~~,

which is the subject of a proposed exploration project contract, hereinafter called the "contract," with the United States of America, hereinafter called the "Government;" in consideration of the contract and as an inducement to the Government to enter into it, the undersigned hereby--

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

2. Grants to the Government a lien upon all of the undersigned's right, title, and interest in the land and upon any production of minerals therefrom, to secure the payment to the Government of a percentage royalty on production as may be provided for by the Contract;

3. Subordinates the undersigned's right, title, claim, or interest in or against the land and in any production therefrom to the rights of the Government under the contract with respect to royalty on production and liens to secure same;

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

~~A 1956 option by a different interest was dropped through non-payment of option payment~~

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

2/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [~~or contract, deed, or other document~~] dated May 29 1957, and recorded in Book Vol 204, Page 428, official records of said county." If (b) is used, the book and page of recordation cannot be dispensed with. If the space provided is insufficient, use an Annex, and refer to the Annex in the space.

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

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

7. Added provision: None (State "None" or "See Annex No.____")

Dated this 21st day of November, 1957.

James R. Copley [Seal] RFD-1 Taunton St. [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

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

William K Moore Proprietor

[Corporate Seal]

12 Alton Pl. Brookline Mass

MF-205
(Combines and supercedes MF-2[illegible] and MF-203)
June 1956

For Government's Use Only
EXPLO[illegible]ON PROJECT CONTRACT
Operator
Docket No. DMEA-
Contract No. Idm-E
Contract Date

RECEIVED
NOV 27 1957
D.M.E.A.

CONSENT TO LIEN and SUBORDINATION AGREEMENT 1/

To the United States of America:

Referring to that certain land in the County of Litchfield, State of Connecticut, described as follows: 2/

66 acres approximately 3 miles North-West of the town of Torrington. The property is bounded on the North and East by nickel creek river; on the South by land of the Torrington Water Co.; and on the west by land now of formerly of Clinton and Bierce.

which is the subject of a proposed exploration project contract, hereinafter called the "contract," with the United States of America, hereinafter called the "Government;" in consideration of the contract and as an inducement to the Government to enter into it, the undersigned hereby--

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

2. Grants to the Government a lien upon all of the undersigned's right, title, and interest in the land and upon any production of minerals therefrom, to secure the payment to the Government of a percentage royalty on production as may be provided for by the Contract;

3. Subordinates the undersigned's right, title, claim, or interest in or against the land and in any production therefrom to the rights of the Government under the contract with respect to royalty on production and liens to secure same;

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

A 1956 option by a different interest was dropped through non-payment of option payment

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

2/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [~~or contract, deed, or other document~~] dated May 29, 1957, and recorded in Book Vol 204, Page 428, official records of said county." If (b) is used, the book and page of recordation cannot be dispensed with. If the space provided is insufficient, use an Annex, and refer to the Annex in the space.

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

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

7. Added provision: None (State "None" or "See Annex No.____")

Dated this ~~15~~ 21st day of November, 1957.

James R. Copley [Seal] R. T. DeTarnowsky [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

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

William K Moore Proprietor

[Corporate Seal]

12 Alton Pl. Brookline Mass.

MF-205
(Combines and supercedes MF-2[illegible] and MF-2030)
June 1956

For Government's Use Only
EXPLO[illegible]ION PROJECT CONTRACT
Operator
Docket No. DMEA-4871
Contract No. Idm-E
Contract Date

RECEIVED NOV 27 1957 D.M.E.A.

CONSENT TO LIEN and SUBORDINATION AGREEMENT 1/

To the United States of America:

Referring to that certain land in the County of Litchfield, State of Connecticut, described as follows: 2/

66 acres approximately 3 miles North-West of the town of Torrington. The property is bounded on the North and East by Naini creek River, on the South by land of the Torrington Water Co.; and on the west by land now or formerly of Clinton and Thorne.,

which is the subject of a proposed exploration project contract, hereinafter called the "contract," with the United States of America, hereinafter called the "Government;" in consideration of the contract and as an inducement to the Government to enter into it, the undersigned hereby--

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

2. Grants to the Government a lien upon all of the undersigned's right, title, and interest in the land and upon any production of minerals therefrom, to secure the payment to the Government of a percentage royalty on production as may be provided for by the Contract;

3. Subordinates the undersigned's right, title, claim, or interest in or against the land and in any production therefrom to the rights of the Government under the contract with respect to royalty on production and liens to secure same;

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

A 1956 option by a different interest was dropped through non-payment of option payment

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

2/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [~~or contract, deed, or other document~~] dated May 29, 1957, and recorded in Book Vol 204, Page 428, official records of said county." If (b) is used, the book and page of recordation cannot be dispensed with. If the space provided is insufficient, use an Annex, and refer to the Annex in the space.

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

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

7. Added provision: None (State "None" or "See Annex No.____")

Dated this 21st day of November, 1957.

James Copley [Seal] R.F.D. 1 Tamworth N.H. [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

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

William K Moore Proprietor
[Corporate Seal]
12 Alton Pl Brookline Mass

WILLIAM K. MOORE, M. A.

Mining Properties bought and sold. Assesment and development work.

12 ALTON PLACE
BROOKLINE 46, MASS.
Tel. Longwood 6-7667

Geological and Geophysical Surveys. Diamond drilling.

January 14, 1957

Mr. E. L. Burmeister
Mine Examination & Exploration Engr.
Bureau of Mines
College Park, Maryland

Re: DMEA 4871 (nickel, copper)
William K. Moore, Copley Farm
Litchfield County, Conn.

Dear Mr. Burmeister:

Enclosed is a photostatic copy of the Levine-Copley lease. ~~I have only recently been able to get in contact with Mr. Copley and hope to send down a statement by him this week.~~ Also a statement by Mr Copley

It appears now that Joy Manufacturing is the only contract drilling company operating in the northeast states. I have contacted several general contracting companies who would be willing to take on the job but at a price many times that which was offered by Joy Manufacturing. The next closest bid I had was $35 per foot. The next best bet appears to be E. M. Longyear Company who I am contacting now. However, they will have to transport drilling equipment and personnel all the way from Minneapolis, so I doubt if their bid will be competitive with Joy. If you have any ideas on the matter please let me know.

Yours sincerely,

William K. Moore

enc.
WKM/js

DMEA
RECEIVED FEB 12 1958

DATE	INITIALS	CODE

RECEIVED
FEB 10 1958
U. S. Geological Survey
Geologic Division
Knoxville, Tenn.

RECEIVED FEB 12 1958

DATE	INITIALS	CODE

January 13, 1958.

To whom it may concern:

This is to certify that on August 21, 1956 the undersigned entered into an arrangement whereby Charles Citelli and Arthur Levine were given a permit to prospect on my land in Torrington. The privilege to prospect was to remain in effect until January 1, 1957, and an option to lease certain of my property was given to these two persons.

However, the lease presented to me by these men was not in proper form, nor did it conform to my understanding with these men. Accordingly, I refused to grant any lease on my property.

I am not now, nor do I intend to be in the future, connected in any way with the said Citelli and Levine involving my land in Torrington.

Further, I have entered into an arrangement with William K. Moore of Boston for the development of mining potential on sixty acres of land in Torrington.

Very truly yours,

James Copley

Torrington, Connecticut.

Copley letter

RECEIVED
FEB 10 1958
U. S. Geological Survey
Geologic Division
Knoxville, Tenn.

FORM 101—CONDOR CORPORATION, DENVER, COLORADO

As received from Applicant

DMEA
RECEIVED FEB 12 1958

DATE	INITIALS	CODE

Permit to Prospect With Option to Lease

This agreement is entered into between James R. Copley, hereinafter known as the owner, and Charles Citelli & Arthur Levine, hereinafter known as the prospector, this 21st day of August, 1956.

1. Consideration: The consideration for this agreement is the sum of One Dollar ($1.00) in hand paid to the owner by the prospector together with other good and valuable considerations, receipt of which are hereby mutually acknowledged.

2. Permit to Prospect: The owner hereby grants to the prospector the right to enter in and on the lands or mining claims of the owner, and any part thereof (to wit: KNOWN AS The Hodges Prospect on Town Farm Road - Town of Torrington, Conn. — 60 Acres More or Less — - NICKEL -) and to prospect for all minerals, including coal, oil, and uranium, and sink such prospect shafts and slopes, or drill such holes as may be necessary to ascertain the quantity and quality of any mineral in and on and underlying the land, such privilege so hereby granted to continue in full force and effect to and until the 1st day of January, 1957.

3. Option to Lease: The owner grants to the prospector until the 1st day of January, 1957, an option on the terms and conditions set forth herein, to receive a mining lease, in the form hereto annexed, of all mineral properties in and on and underlying the above described real property. SEE NO. 8 —

4. Work and Exploration: All prospecting, exploration, testing, development and work done under this agreement shall be done at the discretion of the prospector and at their own expense, provided that all work done and all improvements made by the prospector on said property, or any part thereof, under the terms hereof during the period of said option shall be done in a miner-like and proper manner, to enable said premises and all thereof to be carefully operated, and so that the minerals therein contained may be extracted in an economical and miner-like manner.

All equipment, tools, machinery, structures, improvements, and personal property of every nature and description brought or placed upon said premises prior to the exercise of said option by the prospector for use in said work shall not become a fixture but shall remain the property of the prospector and subject to removal by the prospector, and in the event the prospector does not exercise their option to lease they shall be entitled to remove all of said equipment, tools, machinery, structures, improvements, and personal property from said premises within 30 days from the expiration of said option.

5. Samples: The prospector shall have the right prior to the exercise of their option to lease to remove and take as their own assay samples and mill tests from said property in reasonable quantities.

6. Failure to Exercise Option to Lease: In the event that the prospector shall elect not to exercise the option to lease, they shall peaceably surrender and vacate the said property, free and clear of any liens and incumbrances incurred by the prospector in their operation, but the prospector shall not be held liable for any damages or compensation for the sinking of shafts, slopes, or prospect holes.

7. Indemnity: The prospector during their occupation of said property and all thereof, agrees to protect said property and all thereof against all claims of labor and materialmen and other liens and liabilities arising out of the acts of the prospector on said property, and the prospector further agrees to hold harmless the owner against any and all claims for damages for injury incurred by workmen in their employ at said properties, or any other person or persons.

8. OWNER, MR. JAMES R. COPLEY, SHALL RECEIVE A FIVE PERCENT (5%) NET SMELTER RETURN ON AN OVERALL PRICE OF $100,000 — ALSO A MONTHLY RENTAL OF $100.00 — AT SIGNING OF LEASE —

Signed in duplicate the date first above written.

Owner: James R. Copley

Prospector: Charles Citelli

Witness
Chas. F. Williams

Arthur P. Levine

DMBA
RECEIVED
DATE

Permit to Prospect With Option to Lease

This agreement is entered into between James R. Copley, hereinafter known as the owner, and Charles Citelli & Arthur Levine; hereinafter known as the prospector, this 21st day of August, 1956.

1. Consideration: The consideration for this agreement is the sum of One Dollar ($1.00) in hand paid to the owner by the prospector together with other good and valuable considerations, receipt of which are hereby mutually acknowledged.

2. Permit to Prospect: The owner hereby grants to the prospector the right to enter in and on the lands or mining claims of the owner, and any part thereof (to wit: KNOWN AS The Hodges Prospect ON Town Farm Road Town of Torrington, Conn. — 6 ACRES MORE OR LESS — — NICKEL —) and to prospect for all minerals, including coal, oil, and uranium, and sink such prospect shafts and slopes, or drill such holes as may be necessary to ascertain the quantity and quality of any mineral in and on and underlying the land, such privilege so hereby granted to continue in full force and effect to and until the 1st day of JANUARY, 1957.

3. Option to Lease: The owner grants to the prospector until the 1st. day of JANUARY, 1957, an option on the terms and conditions set forth herein, to receive a mining lease, in the form hereto annexed, of all mineral properties in and on and underlying the above described real property. See NO. 8 —

4. Work and Exploration: All prospecting, exploration, testing, development and work done under this agreement shall be done at the discretion of the prospector and at their own expense, provided that all work done and all improvements made by the prospector on said property, or any part thereof, under the terms hereof during the period of said option shall be done in a miner-like and proper manner, to enable said premises and all thereof to be carefully operated, and so that the minerals therein contained may be extracted in an economical and miner-like manner.

All equipment, tools, machinery, structures, improvements, and personal property of every nature and description brought or placed upon said premises prior to the exercise of said option by the prospector for use in said work shall not become a fixture but shall remain the property of the prospector and subject to removal by the prospector, and in the event the prospector does not exercise their option to lease they shall be entitled to remove all of said equipment, tools, machinery, structures, improvements, and personal property from said premises within 30 days from the expiration of said option.

5. Samples: The prospector shall have the right prior to the exercise of their option to lease to remove and take as their own assay samples and mill tests from said property in reasonable quantities.

6. Failure to Exercise Option to Lease: In the event that the prospector shall elect not to exercise the option to lease, they shall peaceably surrender and vacate the said property, free and clear of any liens and incumbrances incurred by the prospector in their operation, but the prospector shall not be held liable for any damages or compensation for the sinking of shafts, slopes, or prospect holes.

7. Indemnity: The prospector during their occupation of said property and all thereof, agrees to protect said property and all thereof against all claims of labor and materialmen and other liens and liabilities arising out of the acts of the prospector on said property, and the prospector further agrees to hold harmless the owner against any and all claims for damages for injury incurred by workmen in their employ at said properties, or any other person or persons.

8. OWNER, MR JAMES R. COPLEY, SHALL RECEIVE A FIVE PERCENT (5%) NET SMELTER RETURN ON A OVERALL PRICE OF $100,000 — ALSO A MONTHLY RENTAL OF $100.00 — AT SIGNING OF LEASE —

Signed in duplicate the date first above written.

Owner: James R. Copley Prospector. Charles Citelli

Witness

Chas. F. Williams

Arthur Levine

Permit to Prospect With Option to Lease

This agreement is entered into between James R. Copley, hereinafter known as the owner, and Charles Citelli & Arthur Levine; hereinafter known as the prospector, this 21st day of August, 1956.

1. Consideration: The consideration for this agreement is the sum of One Dollar ($1.00) in hand paid to the owner by the prospector together with other good and valuable considerations, receipt of which are hereby mutually acknowledged.

2. Permit to Prospect: The owner hereby grants to the prospector the right to enter in and on the lands or mining claims of the owner, and any part thereof (to wit: KNOWN AS The Hodges Prospect ON Town Farm Road Town of Torrington, Conn. — 60 Acres MORE OR LESS — — NICKEL —) and to prospect for all minerals, including coal, oil, and uranium, and sink such prospect shafts and slopes, or drill such holes as may be necessary to ascertain the quantity and quality of any mineral in and on and underlying the land, such privilege so hereby granted to continue in full force and effect to and until the 1st day of January, 1957.

3. Option to Lease: The owner grants to the prospector until the 1st day of January, 1957, an option on the terms and conditions set forth herein, to receive a mining lease, in the form hereto annexed, of all mineral properties in and on and underlying the above described real property. SEE NO. 8 —

4. Work and Exploration: All prospecting, exploration, testing, development and work done under this agreement shall be done at the discretion of the prospector and at their own expense, provided that all work done and all improvements made by the prospector on said property, or any part thereof, under the terms hereof during the period of said option shall be done in a miner-like and proper manner, to enable said premises and all thereof to be carefully operated, and so that the minerals therein contained may be extracted in an economical and miner-like manner.

   All equipment, tools, machinery, structures, improvements, and personal property of every nature and description brought or placed upon said premises prior to the exercise of said option by the prospector for use in said work shall not become a fixture but shall remain the property of the prospector and subject to removal by the prospector, and in the event the prospector does not exercise their option to lease they shall be entitled to remove all of said equipment, tools, machinery, structures, improvements, and personal property from said premises within 30 days from the expiration of said option.

5. Samples: The prospector shall have the right prior to the exercise of their option to lease to remove and take as their own assay samples and mill tests from said property in reasonable quantities.

6. Failure to Exercise Option to Lease: In the event that the prospector shall elect not to exercise the option to lease, they shall peaceably surrender and vacate the said property, free and clear of any liens and incumbrances incurred by the prospector in their operation, but the prospector shall not be held liable for any damages or compensation for the sinking of shafts, slopes, or prospect holes.

7. Indemnity: The prospector during their occupation of said property and all thereof, agrees to protect said property and all thereof against all claims of labor and materialmen and other liens and liabilities arising out of the acts of the prospector on said property, and the prospector further agrees to hold harmless the owner against any and all claims for damages for injury incurred by workmen in their employ at said properties, or any other person or persons.

8. OWNER, MR JAMES R COPLEY, SHALL RECEIVE A FIVE PERCENT (5%) NET SMELTER RETURN ON A OVERALL PRICE OF $100,000 — ALSO A MONTHLY RENTAL OF $100.00 — AT SIGNING OF LEASE —

Signed in duplicate the date first above written.

Owner: James R. Copley

Prospector: Charles Citelli

Witness: Chas. F. Williams

Arthur P. Levine

MF-205
(Combines and supercedes MF-[illegible] and MF-205)
June 1956

For Government's Use Only
EXPL[illegible]TION PROJECT CONTRACT
Operator_____
Docket No. DMEA-_____
Contract No. Idm-E_____
Contract Date_____

RECEIVED
NOV 27 1957
D.M.E.A.

CONSENT TO LIEN and SUBORDINATION AGREEMENT 1/

To the United States of America:

Referring to that certain land in the County of Litchfield, State of Connecticut, described as follows: 2/

66 acres approximately 3 miles North-West of the town of Torrington. The property is bounded on the North and East by Nickel Creek River; on the south by land of the Torrington Water Co.; and on the west by land now or formerly of Clinton and Bierce.

which is the subject of a proposed exploration project contract, hereinafter called the "contract," with the United States of America, hereinafter called the "Government;" in consideration of the contract and as an inducement to the Government to enter into it, the undersigned hereby--

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

2. Grants to the Government a lien upon all of the undersigned's right, title, and interest in the land and upon any production of minerals therefrom, to secure the payment to the Government of a percentage royalty on production as may be provided for by the Contract;

3. Subordinates the undersigned's right, title, claim, or interest in or against the land and in any production therefrom to the rights of the Government under the contract with respect to royalty on production and liens to secure same;

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

A 1956 option on the property by a different interest was dropped through non-payment of option payment.

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

2/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [~~contract, deed, or other document~~] dated May 29 1957, and recorded in Book Vol 204, Page 428, official records of said county." If (b) is used, the book and page of recordation cannot be dispensed with. If the space provided is insufficient, use an Annex, and refer to the Annex in the space.

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

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

7. Added provision: _____ (State "None" or "See Annex No.____")

Dated this 21st day of November, 1957.

James. R. Copley [Seal] RFD-1 Tamworth N.H. [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

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

William K Moore Proprietor

[Corporate Seal]

12 Alton Pl Brookline Mass.

Mr. Copley says not on consent to lease should be sufficient, not necessary for him to see deed and lease of this land.

S. Wolff
11/27/57

NOV 12

LEASE AGREEMENT

This AGREEMENT entered into this day of April, 1955, by and between James Copley of Torrington, Connecticut, hereinafter called "Lessor", and William Knight Moore of Concord, Middlesex County, Massachusetts, hereinafter called "Lessee".

WITNESSETH:

Whereas, Lessor is the owner of approximately sixty (60) acres of land located west and south of Nickel Creek River, in Torrington, Connecticut, known as the James Copley Farm, all as more particularly described below, which land is represented by the Lessor to be free of any and all liens and encumbrances and subject to no outstanding mineral rights of any nature; and

Whereas, Lessor is desirous of arranging to have said land worked and developed so that profitable mineral operations may be conducted thereon, and is willing to participate with Lessee in potential profits to be derived therefrom on the terms and conditions herein set forth;

NOW, THEREFORE, in consideration of the mutual covenants herein contained and for other good and valuable consideration by each of the parties to the other paid, the receipt whereof is hereby acknowledged, the parties hereto do hereby covenant and agree as follows:

1. Lessor does hereby demise and lease unto the Lessee, and his heirs, administrators, executors, and assigns, the vacant land owned by Lessor, consisting of approximately sixty (60) acres in area, and located west and south of Nickel Creek River in Torrington, Connecticut, known as the James Copley Farm, as more particularly bounded and described as follows:

Northerly and Easterly by Nickel Creek River;
Southerly by land of the Torrington Water Company;
Westerly by land now or formerly of Clinton and Rieres, in part by each.

MF-500

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

REFERENCE SLIP

DATE 11/25/57

REFERRED TO:
1. ~~Operating Domestic~~
2.
3.
4. 400

FOR:

..... Action	..... Recommendation
..... Approval	..... Record of .....
..... Comment	✓ Referring to DMEA-4871
..... Conference	..... Reply for signature of .....
..... Consideration	..... Rewriting
..... Filing	..... Signature
..... Instructions	..... Suggestions
..... Investigation	..... Your information
..... Initials	
..... Mailing	
..... Previous correspondence	

REMARKS: To accompany Docket No. DMEA-4871

Check (X) before the items needing attention.

DMEA-4871
Confidential

VDL
Initials of sender.

GPO 16—63815-1

Lessor does hereby covenant and agree with Lessee to lay out, with the cooperation of Lessee, a right of way over other land of Lessor, to provide adequate ingress and egress to public highways or other rights of way leading to the demised premises. Lessee shall have full right to use said right of way for all purposes for which passageways and roadways are customarily used, but Lessee shall pay for all costs and expenses incurred or sustained in laying out said right of way and making it usable for Lessee's purposes.

TO HAVE AND TO HOLD unto the Lessee, his heirs, administrators, executors, and assigns for a term of ninety-nine (99) years, commencing April 1, 1957.

2. Lessee is granted full and unrestricted rights, either alone or through others designated or licensed by him, to occupy and use said land; and, in addition, to exercise and conduct mining operations in or upon said land and to enjoy full and complete mineral rights therein.

YIELDING AND PAYING unto the Lessor, or his heirs, administrators, executors, or assigns as rent a sum equal to one-half the net profit derived by the Lessee from mining operations to be conducted by him in or upon the demised premises, or from licensing or subletting the demised area to others for the purpose of conducting mineral operations thereon.

3. The rental hereinbefore referred to shall be payable to the Lessor in or within sixty (60) days after the end of each lease year, except that Lessee's rights hereunder shall automatically terminate upon the occurrence of any of the following conditions:

(a) if within one month from date hereof Lessor shall fail to receive the minimum sum of Two Thousand ($2,000.00) Dollars either as his share of a participation arrangement which Lessee contemplates entering into, or as a payment from Lessee directly;

(b) if within twelve months from date hereof, Lessor shall fail to receive the additional minimum sum of Two Thousand ($2,000.00) Dollars, either as his share of the net profit derived by Lessee, as set forth in Paragraph 2 above, or as a payment from Lessee directly;

(c) if within twenty-six months from date hereof, Lessor shall fail to receive an additional sum of Sixteen Thousand ($16,000.00) Dollars, either as his share of the net profit derived by Lessee, as set forth in Paragraph 2 above, or as a payment from Lessee directly.

4. Lessee shall be under no obligation to make the payments referred to in Paragraph 3 (a), (b) and (c) hereof, and the sole effect of his failure to do so shall be the automatic termination of his rights hereunder. If this lease shall terminate by virtue of any provision contained in Paragraph 3 of this agreement, Lessee shall forthwith release Lessor from any claims hereunder and file in the Land Records of Torrington a release of this agreement.

5. Lessee shall be in full and complete charge of mining developments or rental or licensing arrangements to be entered into in connection with said land, or its sale, lease or other disposition thereof, and prior to the determination of net profits to be payable to Lessor hereunder, Lessee shall be entitled to the payment to him of reasonable compensation for his services in accordance with established standards for said services.

6. Upon receipt of the sum of Twenty Thousand ($20,000.00) Dollars pursuant to the provisions of Paragraph 3 hereof, James Copley agrees to convey, or to cause to be conveyed to said William Knight Moore, or his nominee, the land herein demised, free and clear of any and all liens and encumbrances, except any recorded lease or caveat filed on records in Torrington, or attachments made by Levine and Citelli,* in the event that suit is begun for breach of option to lease. Said conveyance shall also include the right of way referred to in Paragraph 1 hereof; and

* Applicants in DMEA 4634 Nickel (Denied) which covered land West of Buntam, on Route 25 whereas this land is North of Route 4 West of Torrington
WSM
4/14/57

as further consideration for said conveyance, Moore covenants and agrees to pay to said Copley, on or before March 1 of each year, a sum equal to one-half the net profit derived by said Moore from the sale, lease, license, or other use or disposition of said land during the prior calendar year.

7. Lessee expressly covenants and agrees to indemnify, reimburse and save harmless the Lessor of and from any and all claims of whatsoever nature arising out of the conduct of mining operations on the demised premises, including any and all claims arising, or which may arise, out of water pollution in the creek as a result of the mining operations, said coverage to include damage to realty and personalty, and injury to individuals.

8. Lessee further covenants and agrees to indemnify, reimburse, and save harmless the said Lessor of and from any and all claims for damage to personal property or for personal injury, which may arise by reason of any blasting operations conducted on the demised premises by the Lessee, or his heirs, executors, administrators, assigns, or licensees.

9. It is expressly understood and agreed that Lessor is not to share in any losses which Lessee may sustain in the operation or management of said demised premises.

10. Lessee shall be entitled to assign his interest hereunder subject to the terms, covenants and conditions of this agreement; but Lessee may, in any event, sublet the premises, or license others to conduct mineral operations on said premises upon such terms and conditions as Lessee shall deem reasonable and proper, provided that said arrangements are made in good faith.

11. Wherever the context so admits, the words "Lessor" and "Lessee" shall be interpreted to include heirs, administrators, executors, representatives, successors and assigns of these

designated herein.

IN WITNESS WHEREOF, James Copley and William Knight Moore have hereunto set their hands and seals the day and year first above written.

_____

_____

I, _____, wife of James Copley, assent to the foregoing and agree to release to William Knight Moore my dower and/or any other rights in and to said demised premises, in the event that Paragraph 8 hereof shall become operative.

WITNESS my hand and seal this _____ day of April, 1957.

Witness to Signature

_____ _____

Torrington, Connecticut April _____, 1957.

Then personally appeared before me the above named James Copley and acknowledged the foregoing to be his free act and deed, before me,

_____
Notary Public

12 Alton Place
Brookline 46, Mass.

March 21, 1957

Subject: DMA-1871

Mr. H. L. Burmeister
Mine Examination & Exploration Eng.
U. S. Department of the Interior
Defense Minerals Exploration Adm.
College Park, Maryland

Dear Mr. Burmeister:

Enclosed is the revised Joy Manufacturing contract.

The following is my proposed drilling plan: The first two proposed holes would be angle holes of 150' in length each, placed on either side of the vein so that the width and dip of the vein can be determined. I plan to sample this vein at a point about 150 feet west of the old mine pit. Further west of this point the topography takes a steep rise making angle holes a more uncertain proposition. The third hole would be a vertical hole of a proposed length of 350'. This hole would penetrate the center of the vein, slightly to the west of holes number one and two. This hole would give a idea of the continuity of the ore with depth and, combined with data from backsack drill results, would give the shape of the roof of the ore-bearing vein. The fourth and last hole would also be 350' in length and would be an angle hole approximately 1,000 feet west of the other holes in order to sample the ore at the other end of the vein.

Yours sincerely,

William R. Moore

/jb
Enc.

CORE DRILLING AGREEMENT

NO.
PAGE

1. **THIS AGREEMENT**, made and entered into this 18th day of March, 1958 by and between William Moore of 12 Alton Place, Brookline, Massachusetts the party of the first part and the JOY MANUFACTURING COMPANY, of Pittsburgh, Pennsylvania, party of the second part,

Witnesseth:

2. In consideration of certain payments hereby agreed to be made by the said first party to the said second party, the said second party hereby agrees to drill, sink or prospect with a diamond core drill from surface in or near Torrington, Connecticut at site s to be selected by the said first party, subject to the conditions hereinafter mentioned. It is further agreed by the said first party that the depth of none of the herein specified drill holes shall exceed a depth of 500 feet, and the total amount as guaranteed must be drilled in not more than five holes.

3. The said second party agrees to use for the above described work one Diamond Core drill, and men skilled in operating same; to operate the drill, both day and night whenever practicable, and to furnish only such person as the said first party may designate by written order, all core taken out of said prospect hole s. Size of core to be approximately 1 1/4" inches in diameter. The said first party shall provide suitable boxes if it desires to save the core, and if it also desires may have a man at the drill at all times to remove and take charge of said core. No information whatever regarding the records and results of this drilling is to be given any other party, without the written consent of the said first party.

4. The said first party hereby agrees to pay to said second party the following price for the herein described drilling.

For a minimum of 1,000 feet of drilling 4.75 per ft.

5. In accordance with this agreement, the said first party hereby guarantees the said second party a minimum total of 1,000 feet of drilling at the price as herein provided in Clause Four.

The said second party shall have the option of withdrawing from this contract after a total of 1,000 feet have been drilled under the terms of this agreement.

~~In the event the said first party should stop the drilling before the guaranteed footage has been drilled it agrees to pay the said second party half the price per foot for the undrilled balance in addition to payment at full price for the footage actually drilled.~~

JOY MANUFACTURING COMPANY

Form 6215 (1A)

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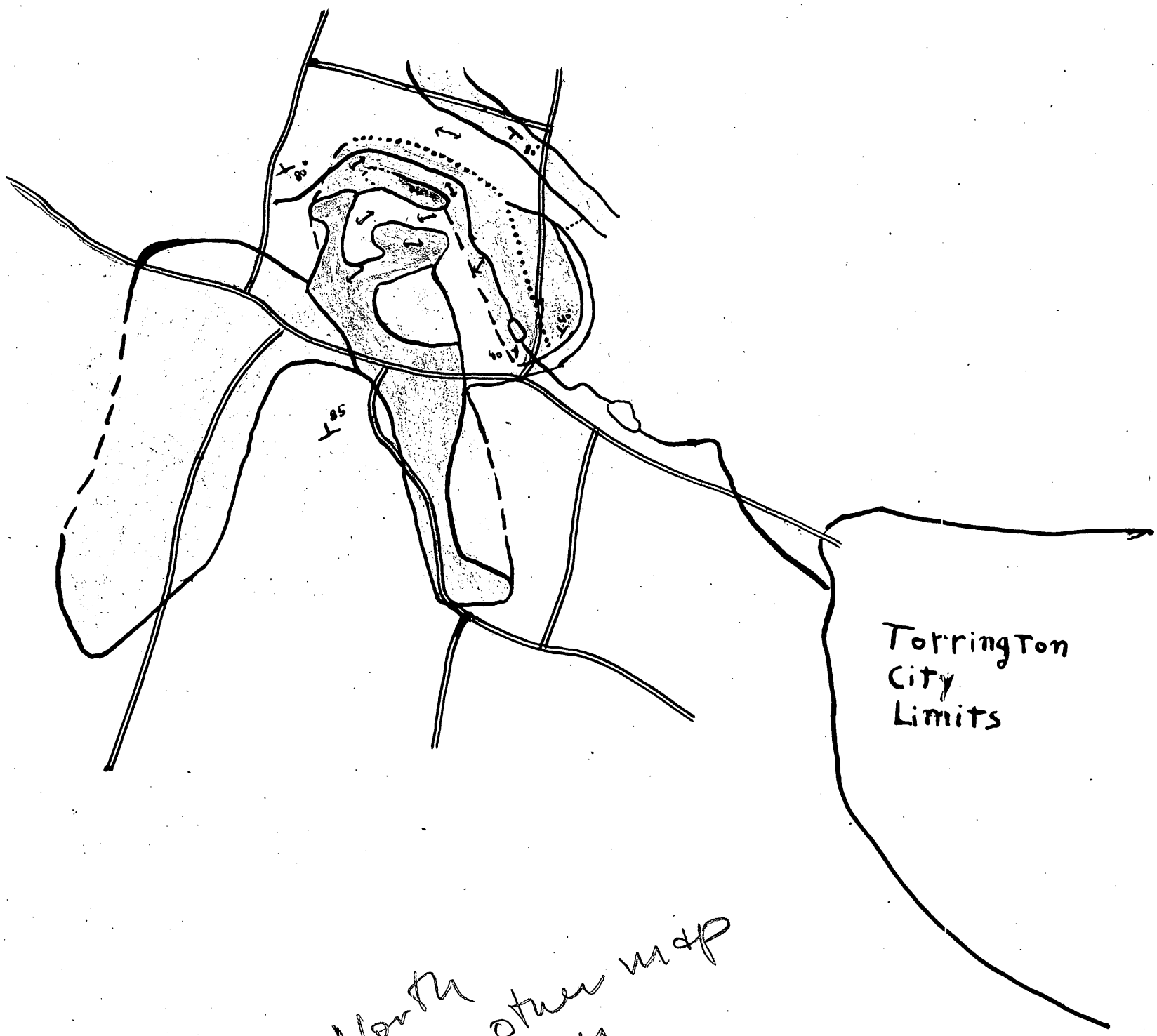

For North
See the other map
WSM
11/14/57

Basic Intrusive
West Torrington, Conn.

Scale 1" = 1/2 mile

Maped and Compiled
W Moore, M.A. 10/21/57

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DMEA Form 7
(12-56)

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Date	Surname	Code
6-20	Hopkins	400
6-20	Martin	400
6/23	Selfridge	130
6/20	Lamb	130
6/20	Nelson	130
6/23	Johnson	110
4	Mittendorf	106
		220

JUN 23 1958

Mr. William Knight Moore
12 Alton Place
Brookline, Massachusetts

Re: Docket No. DMEA 4871, Nickel-Copper
Hodges Nickel Prospect
Litchfield County, Connecticut

Dear Mr. Moore:

Your application for aid for an exploration project and other data available to us in Washington relative to the above-named property have been carefully reviewed.

Projects approved by the DMEA must, in its judgement, show definite promise of yielding materials of acceptable grade in quantities that will significantly improve the mineral supply position of the National Defense Program.

Careful study of our information indicates that, although nickel and copper mineralization occur on the property, the probability of disclosing significant ore reserves is not sufficiently promising to justify Government participation. We regret to advise you, under the circumstances, that your application for exploration assistance is denied.

Your interest in the DMEA program is appreciated. Thank you for bringing your property to our attention.

Sincerely yours,

C. O. Mittendorf

Administrator

HHHOPKINS/dl
6-19-58
cc to : Code 400
Admr. R. File
Oper, Comm.
FT. REG. V
Messrs. H. W. Davis, USBM
T. H. Kiilsgaard, USGS

8623

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Date	Surname	Code
6/20	Hopkins	400
6/20	Martin	400
		100

June 20, 1958

MEMORANDUM

To: Administrator, DMEA

From: Division of Iron and Ferro-Alloys, DMEA

Subject: Denial of the subject application for exploration assistance in the amount of $7,000.00
Docket No. DMEA 4871 - Nickel, Copper
William Knight Moore
Hodges Nickel Prospect
Litchfield County, Connecticut

A denial of the subject application for exploration is recommended by this Division based on the following information:

The property was examined April 25, 1958, by H. L. Burmeister, Bureau of Mines and W. P. Williams, Geological Survey, accompanied by Mr. W. K. Moore, the applicant. Mr. James Copley, owner, was later interviewed.

Applicant: Mr. William Knight Moore
12 Alton Place
Brookline, Massachusetts

Property: The property consists of approximately 60 acres of land in the Copley farm located in the town of Torrington, Litchfield County, Connecticut.

The property is owned by James Copley who has leased the mining rights to the applicant for a period of 99 years. The lease is dated April 26, 1957.

Geology: The property is located in the Western Highlands physiographic sub-province of New England.

The oldest rocks in the general area are schists and gneisses of the Berkshire and Hartland formations of either Pre-cambrian or early Paleozoic age. These rocks have been intruded by gneissic diorites, biotite-pyroxenite, gabbro, hornblendite and granodiorite porphyry.

The nickel "ore" consists of grayish brown to dark brown medium grained peridotite that contains disseminated pyrite, pyrrhotite, pentlandite and possibly covellite. This sulphide-bearing peridotite passes through the shaft collar from east to west. At the shaft collar, it is weathered, iron-stained, gossanous and locally coated with a white sulfate oxidation product. Its origin is believed to be either a mineralized shear zone or a magmatic segregate. Under these conditions it is not expected that the deposit can be a large nickeliferous body.

Past Production and Development: There has been no production and the only mine opening is a shaft that was sunk about 1842 and is now filled with water. There has been no recent work on the property other than the drilling of four holes 80 feet west of the shaft.

Ore Values & Tonnage: Two chip samples taken across the sulfide zone at the shaft, and a grab dump sample gave the following results:

	% Ni	% Co	% Cu
Chip #1	0.13	0.05	0.44
#2	0.04	0.04	0.41
Dump #3	0.35	0.05	1.51

The applicant's drill hole samples gave the following results:

No.1	% Cu	% Ni	% Co
26' to 31'	1.20	1.52	N. D.
31' to 36'	1.18	1.31	N. D.
36' to 41'	1.30	1.41	N. D.
No.2	No Core		
No.3	No Core		
No.4			
19' to 34'	0.82	0.77	N. D.

No reserves are indicated

Applicant's Proposal: Proposal in application is indefinite. During the field examination, the applicant stated that he wanted

to drill 4 diamond drill holes at different locations- 2 to a depth of 150 feet each and 2 to a depth of 350 feet each, for a total footage of 1,000 feet.

Comments and Conclusions: The members of the Field Team concur in the recommendation that the application be denied because geologic evidence indicates that the mineralized zones are small and occur in scattered and discontinuous pod-like masses and dikes; and it is unlikely that a significant discovery would result from the applicant's work proposal.

The Commodity Divisions of the Geological Survey and the Bureau of Mines concur in the recommendation.

W S Martin

W. S. Martin, Director
Division of Iron and Ferro-Alloys

JHOPKINS/dl 6-20-58
cc to: Code 400
Admr. R. File
Oper. Comm.

DMEA Form 20
March 1958

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration
Washington 25, D. C.

MEMORANDUM OF CONGRESSIONAL CALL

TO: ~~[illegible]~~ DMEA Files - Code 225

THRU: ~~[illegible]~~ Administrator, DMEA _____ June 20, 1958
Signature Date

Call from Office of Senator Bush Date of call June 20, 1958 Time 12:15

State below subject of call and conclusions or action taken.

Mrs. Hampton telephoned to ask about status of application of William Knight Moore, Docket No. DMEA 4871. She was told that case would be acted on to-day and that we would call her after 4:00 and tell her what action was taken.

6/20 phoned to say we would not know till June 23

1802823 6/23 phoned to say it was denied

W S Martin June 20, 1958
Call received by Date

Prepare in duplicate when call is received. Send both copies to Administrator who will send original to DL and copy to DMEA Central Files. If call pertains to application or contract, copy will be recorded and filed in official docket.

34038

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

June 6, 1958

Re: DMEA 4871
William Knight Moore
Hodges Nickel Prospect
Litchfield County, Conn.
$7,000 - Nickel and Copper

Memorandum

To: W. S. Martin, Director, Division of Iron and Ferro-Alloys, Defense Minerals Exploration Administration

From: H. W. Davis, Branch of Ferrous Metals and Ferroalloys

Subject: Review of Field Examination Report

It is the opinion of the examining team that the applicant's proposed drilling project is premature and that the drilling would not result in a significant ore discovery.

I agree with the recommendation of the Field Team that the application be denied.

H. W. Davis

H. W. Davis

Attachment

Copy to: Ferrous Metals
H. W. Davis
Div. of Minerals
Thor H. Kiilsgaard, U.S.Geol.Survey
Frank D. Lamb
Files

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DMEA
RECEIVED JUN 6 1958

IN REPLY REFER TO:

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

616 H.g. 225
WSM 400

June 5, 1958
Re: DMEA 4871
William K. Moore
Hodges Nickel Prospect
Litchfield County, Connecticut
$7,000.00 - Nickel, copper

Memorandum

To: W. S. Martin, Defense Minerals Exploration Administration

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of Field Team Report

The applicant requested assistance in exploring, by drilling, a long known occurrence of nickel-copper-bearing peridotite.

The prospect has been explored by shaft (old and caved) diamond drilling (Packsack) and geophysical surveys. As determined by sampling of the outcrop at the shaft, by the examiners, the material is low grade. The diamond drilling, a fence of four holes, 100 feet west of the shaft, showed 15 feet of ore grade material in one hole, 15 feet of sub-grade material in one hole, and two holes are barren.

Diamond Drill Hole No. 1:

Total Depth - 46 feet
Mineralized section 26 - 41 feet

Assays:

26 - 31 feet	1.20% Cu	1.52% Ni	Co - N.D.
31 - 36 feet	1.18 "	1.31 "	"
36 - 41 feet	1.30 "	1.41 "	"

The core from the ore zone, which was all that was available for examination, consisted of greenish-black, medium-grained peridotite with finely disseminated pyrite, pyrrhotite, chalcopyrite, and probably pentlandite. According to the applicant, the rest of the core from the hole was barren pyroxenite.

Diamond Drill Hole No. 4:

Total Depth - 34 feet
Mineralized section 19 - 34 feet

Assays:

19 - 34 feet	0.82% Cu	0.77% Ni	Co - N.D.

The core in the mineralized zone consisted of green and gray, fine grained, schistose peridotite. Disseminated pyrite, pyrrhotite, chalcopyrite, and pentlandite (?).

All holes are taken to be vertical.

If the applicant's 100 scale map is correct, the mineralized peridotite has a width somewhat less than 80 feet, the distance between the barren holes 2 & 3. Holes 1 and 4 are about 15 feet apart on the map and about midway between 2 and 3.

The geophysical work, consisting of magnetometer and electromagnetic surveys, indicates the existence of interesting anomalous conditions, but without diamond drilling, the significance of the indications is a question.

The body of mineralized peridotite, as mapped, is 140 feet long, and is one of several bodies of ultra-basic rocks in the immediate vicinity. The occurrences of small masses of peridotite, gabbro, etc., one at least containing nickel and copper sulfides, are similar to those at Mt. Prospect eight miles to the southwest. The Mt. Prospect showings were the subject of an application, DMEA 4634, which was denied without prejudice.

Due to the lack of substantive favorable data, the examiners recommend that this application also be denied without prejudice.

I concur with the recommendation.

N. E. Nelson

N. E. Nelson

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 13 POST OFFICE BLDG.
KNOXVILLE 2, TENN.

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6/6	2/B	130
6/6	C	220
	WSM	400

June 2, 1958

Memorandum

To: Operating Committee, DMEA, Washington, D. C.

From: Field Team, DMEA, Region V, Knoxville, Tennessee

Subject: Field Examination Report - DMEA-4871 (Nickel, Copper)
William Knight Moore, 12 Alton Place, Brookline 46, Mass.
Hodges Nickel Prospect, Litchfield County, Connecticut

Enclosed are the original and two copies of the subject examination report. One copy of the Applicant's geophysical report is also enclosed.

Available evidence does not support the probability of a significant discovery, and we agree with the examiners' recommendation for denial without prejudice.

ON SITE EXAM

Robert A. Laurence
Robert A. Laurence
Executive Officer

V. J. Lynch
V. J. Lynch, Member
Bureau of Mines

Enclosures 3

Maps enclosed in envelope attached

Reviewed by
DMEA OPERATING COMMITTEE
6-6-58
(date)

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UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

FIELD EXAMINATION REPORT
DMEA - REGION V

DMEA-4871 (Nickel, Copper)
HODGES NICKEL PROSPECT

Litchfield County, Connecticut

by

Harry L. Burmeister, Mining Engineer
U. S. Bureau of Mines

and

W. P. Williams, Geologist
U. S. Geological Survey

Reviewed by
DMEA OPERATING COMMITTEE
6-6-58
(date)

May, 1958

FIELD TEAM REPORT ON EXAMINATION OF PROPERTY

DMEA Docket No. 4871 (Nickel, Copper)
Property: Hodges Nickel Prospect
Applicant: William Knight Moore, 12 Alton Place,
Brookline 46, Massachusetts

INTRODUCTION AND SUMMARY

This property was examined on April 25, 1958 by a DMEA team composed of W. P. Williams, U. S. Geological Survey and H. L. Burmeister, U. S. Bureau of Mines. The examiners were accompanied by Mr. W. K. Moore, the Applicant and later the owner, Mr. James Copley was interviewed. All outcrops and mine workings on the property were inspected and samples taken where possible. All available "Packsack" core from holes previously drilled by the Applicant was inspected. Property boundaries were discussed with and pointed out by Mr. James Copley, owner of the property here involved. Results of a limited geophysical survey were obtained from the Applicant for evaluation.

CONCLUSIONS AND RECOMMENDATIONS

The nickel-bearing peridotite on the Applicant's property bears strong geologic similarities to other nickeliferous deposits in the vicinity, especially those on Mount Prospect, eight miles away. The nickel deposits of western Connecticut have been known for over one hundred years. A successful commercial nickel mining venture has so far not been established.

Geologic evidence to date indicates that the nickeliferous ultramafic rocks in the region are found in relatively small dikes and pod-like masses. The deposits, as now known, are scattered and discontinuous. They would

present exceedingly difficult targets for present-day exploration methods. The shallow drilling completed by the Applicant is only 80 feet distant from an abandoned shaft. Although two of the holes penetrated mineralized rock, the drilling presents little or no evidence to dispel the conclusion that the mineralized zone is small and discontinuous.

The Applicant's geophysical work on the property is not extensive enough or complete enough to indicate the possible presence of a significant, continuous, mineralized zone. Moreover, the geophysical surveys are not comprehensive enough to form the basis for an exploration drilling project. Complete coverage of the property with competently executed geophysical surveys could form such a basis for further work.

Under the present conditions, it is the opinion of the examining team that the Applicant's proposed drilling project is premature and that the drilling would not result in a significant ofe discovery. It is recommended that the application be denied without prejudice. New geological and geophysical evidence about the mineralized zone on the property should be seriously considered as possible justification for Government expenditures for exploration on the property.

LOCATION AND ACCESSIBILITY

The Applicant's leasehold occupies a portion of the Copley farm and is located in the town of Torrington, Litchfield County, Connecticut. The Copley farmhouse is reached from the village of West Torrington by proceeding westward on state route No. 4 for a distance of 1.8 miles to the entrance of Town Farm Road from the north. From this point, follow Town Farm Road north for 1 mile to the Copley farmhouse on the left or west side of the road, figure 1. From the farmhouse walk 1000 feet westerly over a field

to Nickel Mine Creek. From this point an abandoned road leads north westerly to the shaft approximately 700 feet from the creek crossing, figure 2.

Exploration equipment and supplies would have to be moved from the Copley farmhouse by the above described route. No great difficulty would be encountered except that high water in the creek would present a problem.

COMPETENCY OF APPLICANT

The Applicant would probably be competent to supervise a small exploration project. The application as submitted was poorly executed. Most of the required information was not contained in the application and great effort was necessary over an extended period of time to procure the material now at hand.

PROPERTY RIGHTS

The Applicant holds a 99 year mining lease on an approximate 60 acre portion of the James Copley farm. The lease is dated April 26, 1957 and stipulates automatic termination of the lease if lessee fails to make substantial payments one month after date of lease and twelve months after date of lease. At the time of the examination, Mr. James Copley the lessor stated that the lease was in full effect.

The lease provides for transfer of title to William Knight Moore, free and clear upon total aggregate payment of $20,000.00 under the terms of paragraph 3 of the lease, except for any action which might be brought as a result of an "Option to Lease" given to Charles Citteli and Arthur Levine on August 21, 1956. The "Option to Lease" specifies that the option must result in a lease on or before January 1, 1957 or the property is to be peaceably surrendered to the owner. The owner told the examiners that the option holders had not entered on the ground to do any work and that no lease had resulted nor has suit been brought.

Under date of January 13, 1958, Mr. Copley the owner, wrote a letter concerning this situation. Copies of this letter were made and submitted to the Field Team.

The Applicant was confused regarding the boundaries of the lease. At the time of examination, the owner outlined the boundaries as indicated on figure 1. The western boundary is not included in figure 2 but indicates it is westward of the map limit.

"Consent to Lien", has been furnished by the owner.

THE PROPERTY, HISTORY, PRODUCTION

The property has been known in the past as the Hodges Nickel Prospect. The only mine opening on the property is a vertical shaft that was filled to the collar with water on the date of examination. The collar is about 30 feet long in east-west direction and about 15 feet wide. The Applicant stated that natives in the vicinity told him that the shaft was about 65 feet deep and that some short lateral development had been done to the westward from the bottom of the shaft. None of this could be verified because of water and debris.

A search of literature offered no information about the property or the shaft. The shaft probably dates back to about the time (1842) when the nickel shafts were sunk on Mount Prospect a few miles to the west.

The Applicant drilled four short, Packsack drill holes about 80 feet west of the shaft. No other exploration or development work has been done on the property. There are no buildings or improvements, in the mining sense, on the property. No mining records of any kind could be found. There are no demonstrable ore reserves on the property.

GEOLOGY

The Applicant's property is located in the Western Highlands physiographic sub-province of New England. Topographic relief in the vicinity is about 600 feet.

The oldest rocks in the general area are schists and gneisses of the Berkshire and Hartland formations. Their age is not definitely determined but is either Precambrian or very early Paleozoic. The older rocks have been intruded by gneissic diorites, biotite pyroxenite, gabbro, hornblendite, and granodiorite porphyry. Ultramafic dike rocks cut the earlier rocks. Granite rocks, still younger, have been noted in the general vicinity but none was seen on the Applicant's property.

Rock relationships on the property are complex but similar to the better known nickel deposits on Mount Prospect, about 8 miles to the southwest. Figure 2 shows the rock types that surround the old flooded shaft. The nickel "ore" consists of grayish brown to dark brown, medium grained peridotite. Near the shaft and on the shaft dump the peridotite contains disseminated pyrite, pyrrhotite, pentlandite, and possibly covellite.

The sulfide-bearing peridotite passes through the shaft collar from east to west, figure 2. Contacts with the wall rocks are not sharp. On each side the sulfide zone passes into barren gneissic peridotite. The sulfide zone at the shaft collar is weathered, iron stained, gossanous, and locally coated with a white, sulfate oxidation product.

Immediately west of the shaft the sulfide zone passes into the hillside beneath glacial debris and soil cover. Immediately east of the shaft lies the shaft dump. The only sulfide-rich peridotite exposed on the property is within a few square feet immediately adjacent to the flooded shaft collar.

Because of the lack of exposures it is difficult to determine the localizing structure for the sulfide zone. It may be a mineralized shear zone but if so, later hydrothermal alteration has recrystallized and healed the shearing. A better explanation of the origin might be that the zone was originally a magmatic segregate, thus forming a relatively small, pod-like mass. Under those conditions we do not expect the deposit to be a large nickeliferous body.

SAMPLING

Two chip samples were taken across the sulfide zone at the shaft collar. Locations of the samples are shown on figure 2. A selected grab sample was taken from the shaft dump.

	% Ni	% Co	% Cu
Sample No. 1	0.13	0.05	0.44
No. 2	0.04	0.04	0.41
Dump No. 3	0.35	0.05	1.51

See attached assay sheets

The locations of the four Packsack drill holes drilled by the Applicant are shown on figure 2. Split core from the 'ore' zones of two of the holes were examined on the property. Following is a summary of the holes:

Diamond Drill Hole No. 1:

Total Depth - 46 feet
Mineralized section 26 - 41 feet

Assays:

26 - 31 feet	1.20% Cu	1.52% Ni	Co - N.D.
31 - 36 feet	1.18 "	1.31 "	"
36 - 41 feet	1.30 "	1.41 "	"

The core from the ore zone, which was all that was available for examination, consisted of greenish-black, medium-grained peridotite with finely

disseminated pyrite, pyrrhotite, chalcopyrite, and probably pentlandite. According to the applicant, the rest of the core from the hole was barren pyroxenite.

Diamond Drill Hole No. 2:

Total Depth - 30 feet

No core available for examination. According to Applicant the hole penetrated coarse-grained diorite throughout. The hole was reported barren. No assay samples taken.

Diamond Drill Hole No. 3:

Total Depth - 40 feet

No core available. Reportedly penetrated mica schist throughout. No assays taken.

Diamond Drill Hole No. 4:

Total Depth - 34 feet
Mineralized section 19 - 34 feet

Assays:

19 - 34 feet	0.82% Cu	0.77% Ni	Co - N.D.

The core in the mineralized zone consisted of green and gray, fine grained, schistose peridotite. Disseminated pyrite, pyrrhotite, chalcopyrite, and pentlandite (?).

GEOPHYSICS

As support for his application, the Applicant has submitted the results of geophysical surveys on the property. The geophysical data were loaned to the Geophysics Branch, U. S. Geological Survey for analysis. The data were discussed with members of the Geophysics Branch.

The Applicant stated that he had personally performed the magnetic survey using a standard Schmidt type, vertical force magnetometer. Magnetic

anomalies in areas of ultramafic rocks are difficult to interpret. Most of the Applicant's magnetic anomalies could very likely be duplicated on any adjoining tract if ultramafic rocks were present.

The line denoting crossovers, or the axis of an electromagnetic conductor, is supposed to be the result of an electromagnetic survey performed by the New Jersey Zinc Company. When the Applicant was questioned further he admitted that, in answer to his queries, field personnel of the New Jersey Zinc Company had indicated verbally to him the approximate location of the electromagnetic conductor axis. It is the opinion of the examining team that the electromagnetic indications on the applicant's maps can be completely discounted. The applicant stated he had no electromagnetic profiles that would show the magnitude of the EM anomaly.

Surveys performed on the applicant's property by students of Massachusetts Institute of Technology included induced polarization, apparent resistivity, and self-potential surveys. A brief report by Norman F. Ness summarizing the results of those surveys was loaned to the examining team by the applicant. A copy of that report accompanies the original of this report.

The Ness report, most of all, shows that the geophysical work was far from complete and comprehensive. The surveys really appear to represent experimental runs of very limited areal extent. The surveys are localized, and the depicted anomalies cover maximum areas of only a few hundred square feet. Since the whole property has not been covered with competent geophysical surveys it is difficult to evaluate the anomalies with regard to their relationship to background values.

If it is assumed that the geophysical anomalies are completely valid, their small size only lends weight to the general belief that the nickel deposits in the vicinity are of small size, low grade, and hence of small economic potentialities. The last is the conclusion reached by E. N. Cameron, in Origin of Sulphides in the Nickel Deposits of Mount Prospect, Connecticut, Bull. Geol. Soc. of Am., Vol. 54, pp. 651 - 686, 1943.

PROPOSED EXPLORATION

The Applicant's exploration plans were indefinitely stated in the application. The application said, "I would start out with a 1,000 foot contract so as to test the ore at depth. If good ore is indicated, I would like to expand to a 10,000 foot contract." That is the substance of the exploration proposal.

During the field examination the Applicant said he wanted to drill four diamond drill holes. Beginning at a point 150 feet west of the old shaft, two holes would be drilled at -45° inclination, each 150 feet deep. The first hole would be 150 feet west of the shaft, the second would be 250 feet west. At a point 200 feet west of the shaft a third hole would be drilled vertically to a depth of 350 feet. A fourth hole would be drilled 1,000 feet west of the shaft, to a depth of 350 feet, at -50° inclination. The above is meant for first stage drilling and amounts to a total of 1,000 feet of drilling.

AVAILABILITY OF MANPOWER, SUPPLIES, WATER, ETC.

Mining labor is not available in the immediate vicinity. Recuitment of labor would not be necessary for proposed exploration. An abundant water supply is assured from Nickel Mine Creek. Ordinary supply and repair facilities for exploration would be available in nearby Torrington.

ESTIMATE OF COSTS

In view of the recommendations contained in this report, no estimate of costs is included. Should new geological and geophysical evidence be submitted by the Applicant, costs would have to be calculated on a new exploration plan.

Drilling bids were submitted by E. J. Longyear Company and Joy Manufacturing Company on March 5 and 18, 1958 respectively.

May, 1958

H. L. Burmeister, Engineer
U. S. Bureau of Mines

W. P. Williams, Geologist
U. S. Geological Survey

G-303
(March 1947)

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

No. 674

Report to Mr. Burmeister

Chemical Laboratory Report

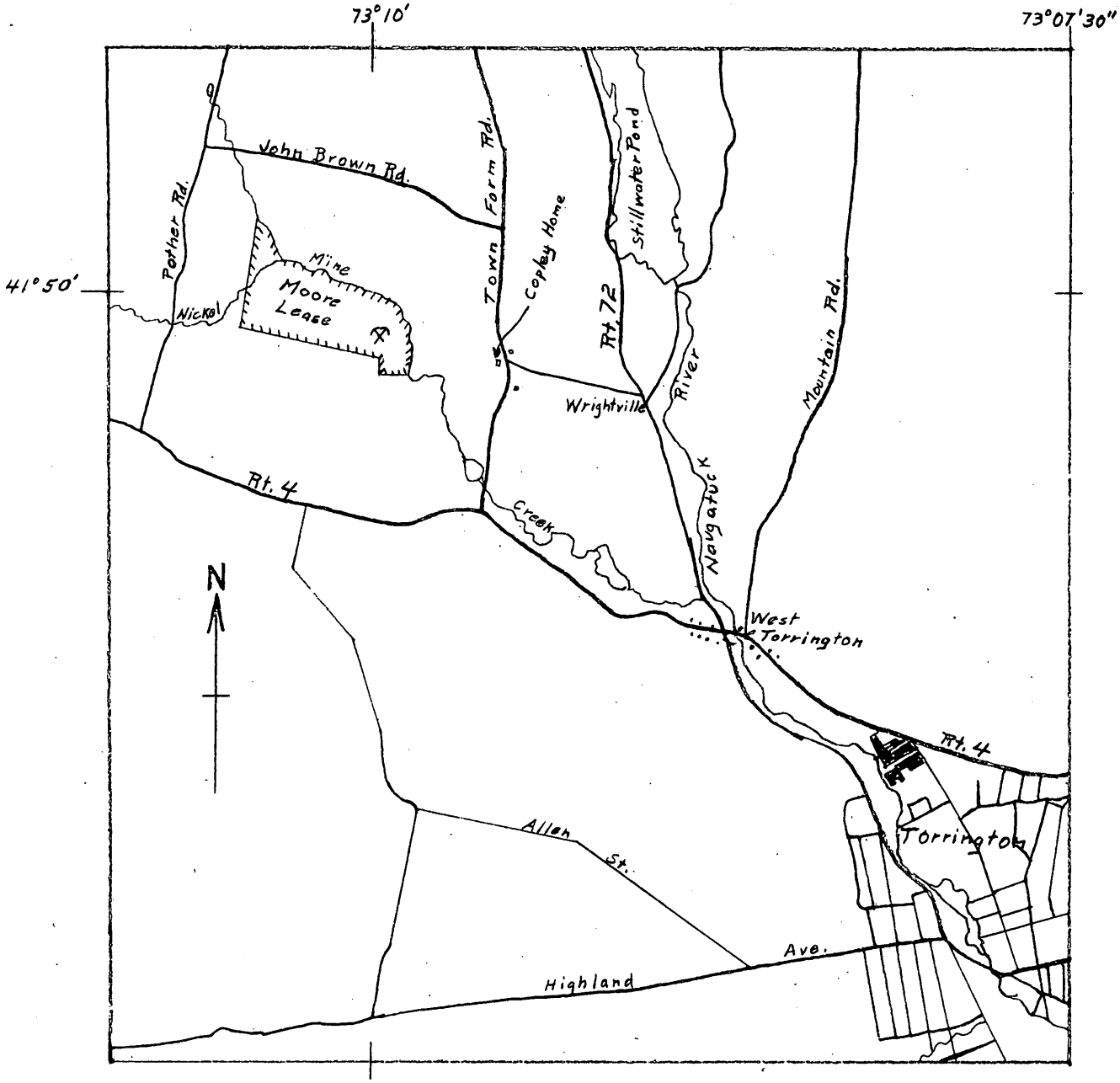
Date received April 28, 1958

Date reported May 8, 1958

Serial No.	DESCRIPTION	Lot No.	Cu	Ni	Co
B5804	Crawford Pond 1		[redacted]		
B5805	2				
B5806	3				
B5807	Hodges Nickel Prospect 1		.44	.13	.05
B5808	2		.41	.04	.04
B5809	3		1.51	.35	.05

U. S. GOVERNMENT PRINTING OFFICE 16—83553-3

Signed [illegible]



DMEA 4871

HODGES NICKEL PROSPECT

LITCHFIELD COUNTY, CONN.

U.S.G.S WEST TORRINGTON, CONN. QUAD.

0 ½ 1 mile

FIG. 1

Exam. Report

RECEIVED JUN [illegible] 1958

GEOPHYSICAL [illegible]

[illegible]ST TORRINGTON, CONNECTICUT

[illegible]

Apparent Resistivity

Self-Potential

April 29, 1957

[illegible]man P. [illegible]

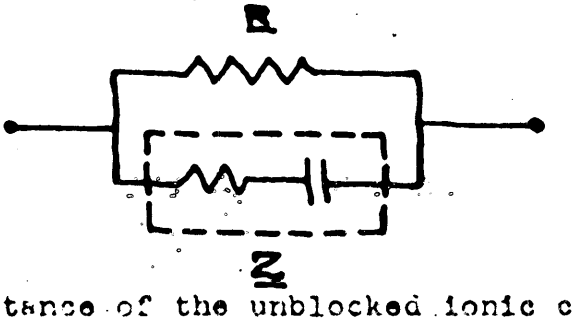
Induced Polarization

By surface measurements of quantities intrinsically dependent on certain physical parameters of the material within the earth, geophysics attempts to determine the sub-surface distribution of these parameters and thereby the sub-surface geological conditions. Many of the ores of the metals industry are electrical semi-conducting sulphides and oxides and relative to ordinary earth materials these ores may be considered as good conductors. This property of such ores has been recently applied as a very successful method of detecting and delineating ore zones hidden beneath the earth's surface. An artificial field of force, electric or electromagnetic, is induced into the earth and the subsequent distortions of these fields by the conducting zones is looked for.

However in some cases, due to the disseminated character of the ore minerals or due to the relatively high conductivities of certain of the surrounding rocks or soils, these distortions become indistinguishable from those due to variations in the unmineralized rocks. Since most of the electric conduction in ordinary rocks is carried by ions dissolved in the fluids that fill the pores and interstices of the rock, it was suggested that use might be made of this fact in connection with the ores being electronic conductors. Thus electric current flow through a mineralized rock should involve the well-known effects associated with the passage of current flow between electrodes and solutions, especially

the polarization of the electrodes. Detecting this polarization of the ore minerals would then be a means of locating the ore zones and it is this method of geophysical prospecting that is referred to as the "induced polarization method".

The ore minerals, although they are very good conductors of electronic current flow, may be considered as blocking the ionic flow of current through the pores and interstices which they intercept. This is a result due to the fact that the activation energies required to effect the electro-chemical reactions involved with the charge transfer between the minerals and the fluids represent an electrical resistance large compared with the ionic resistance of parallel paths around the mineral. Since the ions in solution can approach very close to the conducting mineral surface there is excellant capacitive coupling between them. The following circuit diagram represents the equivalent electrical impedance of a small sample of the rock.



R is the resistance of the unblocked ionic conduction paths and Z is the impedance of the parallel conduction paths that are blocked by a metallic material. Z is composed of a pure resistance and a frequency dependent component associated respectively with the ionic conduction portion of the path and with the interfacial polarization effect. Throughout any finite volume of rock there is sufficient scatter of R and Z values so that the frequency dependence is spread

over a wide range of frequencies and thus only small phase shifts can possibly occur although the total change of impedance with frequency is rather large.

The inductive coupling effect indicates the presence of metallic material (in certain anomalous areas this effect may be due to the content of other types of material, principally clays, but in hard-rock areas these problems will cause no difficulty). The capacitive component may be observed either by transient measurements or by frequency measurements of the electrical impedance of the rocks. Laboratory measurements of numerous rock samples are in close agreement with the fore-going analysis, and in fact are used to clarify some of the complexities associated with the general problem of electric current flow in all types of earth materials.

Since in the equivalent electrical circuit for rock materials the $\underline{I}$ and $\underline{Z}$ conductivities add because they are in parallel, it is to be noted that the change of conductivity of the rock with frequency is simply the change of conductivity of the blocked paths. That is, if we represent the electrical impedance of the rock at some frequency ω_1 then the change in conductivity is given by:

$$\frac{1}{R'(\omega_1)} - \frac{1}{R'(\omega_2)} = \frac{1}{Z(\omega_1)} - \frac{1}{Z(\omega_2)} = \text{METAL FACTOR}$$

This parameter, being dependent on the blocked conduction paths and since the blocking is predominantly due to metallic minerals, has been designated as the metal factor. Empirical results in the laboratory and in the field for geologically well-known areas confirm this interpretation.

of this parameter as being very sensitive and in some fact proportional to the amount of metallic minerals present in rocks. It is this factor which the induced polarization method measures and utilizes for subsequent interpretation by physically measuring at two different frequencies the impedance of the earth. It is necessary that these frequencies be sufficiently low so that magnetic coupling of the sending and receiving wires does not occur and complicate the interpretation of the capacitive coupling effect. It is convenient to use as one of the frequencies effectively D.C. so that an apparent resistivity survey may be made in conjunction with the induced polarization survey so that its significance may be used in the interpretation of the prospect under investigation. Finally a spontaneous potential survey is also made and all three methods when interpreted yield a fairly clear picture as to the expected economic value of the prospect.

In actually carrying out the field operations it has been possible to simultaneously perform the three types of geophysical exploration methods as a profile is made over any one given line of interest. Also the field measurements yield both a horizontal and a vertical profile as the survey proceeds along the given line. This is accomplished by fixing the spacing between the set of sending electrodes and the set of receiving porous pots and varying the distance between these two sets. Thus associated with any position of the sending

electrodes a series of values is obtained as the distance between the two sets is increased (the receiving set moving along the line increasing the distance). The sending electrodes are then advanced along the line and the entire process repeated resulting in a continuous horizontal and vertical profile for that line. The following graph represents both the method and the procedure for plotting the field results preliminary to the interpretation. The vertical scale is arbitrary, as it is obvious from theoretical considerations that any simple attempt to invert the field results and linearly associate depth of penetration with separation of senders and receivers is completely erroneous (in very special cases of limited interest interpretation in this manner can be made, but these cases do not present themselves in the actual field areas). Interpretations are made from knowledge of both theoretical solutions for ideal geological conditions (horizontally and vertically stratified earth), from modelled results for various geometries and principally from experience with the behavior of this method of prospecting which has been applied in many different areas geographically and geologically.

(SAME PATTERN)

0 1 2 3 4 5 6 7 8

S2-3
R4-5

Report on Geophysical Investigations

Areas and Dates: During the months of March and April 1957 a geophysical survey utilizing the induced polarization, apparent resistivity and self-potential methods of prospecting was made on a sulphide property located in West Springfield, Connecticut. Specifically the first work period was March 17-21, when a general areal survey was conducted according to previous geological and magnetic indications. After subsequent interpretation of these results furthur work was done in areas indicated as interesting by these methods on April 18-20. These results allowed a much clearer picture of the ore deposit to be made, and an estimate of the economic importance of the deposit to be drawn.

Methods Employed: The previously mentioned three geophysical prospecting methods were used in this investigation with the sending electrodes located very far apart, one of them being placed in the specific line of interest at least 1000 feet from the area of interest so that when the receiving spread distance of 100 feet was employed the results obtained close to the one sending electrode behaved essentially as a pole-dipole configuration. This geometrical arrangement of positions allows a fairly clear picture to be made of the location of the conducting zones distorting the electric field and also the distribution of the mineralized zones causing the capacitive coupling effect in the induced polarization method.

General Results: During the first period of investigation, work was directed by interpretation of a previous magnetometer survey. At this time lines A1 and 7W were run in an attempt to determine

the possible significance of certain magnetic anomalies associated with these lines. These efforts indicated that the observed magnetic anomalies were due to shallow and localized surface zones, which can be clearly seen from the maps for the I. P. and Resistivity results for these lines. Also the S.P. results yield somewhat the same result although the interpretation of these anomalies is much less conclusive as to the exact nature of their origin on these lines.

The southern portion of line O was also run at this time, ver the known and visible ore deposit (the result of previous attempts to work the area early in the 1900's). The anomalies associated with this line clearly confirm the previous conclusion that the effects on lines A1 and 7W were only small surface shows, for the magnitude of the anomalies are much greater for all the methods and thus much more distinct for this actual ore zone.

From the results of the first survey furthur work was done in April to delineate the deposit by obtaining a rather detailed picture of the ore zone. At this time a portion of line O was re-run, the results in close agreement with the previous results, and also line O was extended until the ore zone was passed over. Then line 2W was run in an attempt to determine the westward extent of the ore zone; the results indicative of a continuation but at depth rather than near the surface and perhaps with some thining of the body. No doubt but that some of the deepening is due to the topography, a hill rising to the west from line O. The S. P. survey also indicates the presence of a conducting ore body near stations

3-4-5 on line O. These results will be discussed in greater detail in the following sections on the specific methods and their respective results.

Induced Polarization Results: As already mentioned, lines A1 and 7W yielded results that are indicative of shallow surface mineralized zones. This interpretation is made noting that the relatively high metal factors associated with these lines are localized with respect to a specific set of receiving positions, but not with the sending position. This effect can only occur when the mineralized zones are small and close to the surface hence a distortion of the field is observed only when the receivers are at these points on the line. This effect is clearly evidenced on line 7W where the high metal factors occur only when the receivers are at positions 1s-2s and 2s-3s. Also this map indicates that the magnitude of the frequency effect decreases with depth, as would be expected from small surface enrichments. The same situation occurs on line A1 but the picture is not as clear for there are more than one small area along this line that is enriched and thus their effects are mixed.

The profile on line O indicates the presence of a highly mineralized zone as the survey proceeds along the line and particularly when the receivers are located at stations 4n-5n. This large effect is seen to be effective at depth also, there being roughly a triangle of high metal factors straddling position 4 on this line. This indicates the presence of a

vertical-mineralized zone located approximately between stations 3.25N and 4.25N on line 0. A theoretical solution for a vertically mineralized zone 100 feet thick located between 3.5N and 4.5N with resistances and metal factors corresponding to this particular ore deposit is shown on the map. The general character and the relative magnitude of the anomalies coincides rather well with the field results and tends to definitely confirm the previous interpretation.

Quantity	D.C. Freq.	A.C. Freq.	Metal Factor
Host Rock Resistivity	2500 ohm-feet	2400 ohm-feet	2
Ore Zone Resistivity	125 ohm-feet	60 ohm-feet	865

Values used in Theoretical Solution for Vertically Mineralized Zone

On line 2W the metal factor steadily increases with separation, and hence in some measure with depth. From theoretical solutions of horizontally stratified media it is estimated that the ore zone will be located between 250 feet and 450 feet below the surface at station 4 on line 2W.

Apparent Resistivity Results: As normally occurs, the resistivity survey yields results in close agreement with the induced polarization survey. The surface effects on lines A1 and 7W are seen as well as the vertically mineralized zone on line 0; and on line 2W the decrease of resistance with separation is easily evidenced. Laboratory measurements of a

sample of the host rock, a hornblende altering slightly to chlorite, yield a resistivity of 3000 ohm-feet and a metal factor of 2. These values are in close agreement with the field results and confirm the interpretation of small surface enrichments on lines A1 and 7W. A sample of the ore proved to be so high in metal content that attempts to measure its resistivity and metal factor were not too successful since there was continuous metallic connections across the small sample used. The resistivity value obtained was 3 ohm-feet, but this is not a good indication for the distributed value in the earth because of the shorting of the contacts previously referred to.

As seen from the theoretical solution for the vertically mineralized zone the resistivity measurements closely follow the general character and magnitude of the field results, strengthening the interpretation from the behavior of the metal factor.

<u>Self-Potential Results</u>: Although the S. P. survey was not as complete as is usually the practice, the areal coverage was sufficient to indicate the presence of a conducting ore body approximately perpendicular to line 0 and intersecting it at stations 3.25N and 4.25N. The closure expected, were the survey completed to the east of line 0, would be 100 millivolts and this indicates an appreciable S.P. anomaly. The contour lines west of line 0 run parallel to the

topography, the wraping of the lines being due partially to the down-slope gravitational component acting on the fluids in the earth and partially due to the increase of the depth of the conductor. The sharp gradient of the contour lines along line 0 indicates a narrow mineralized zone, centered around line 0 position 3.75N and probably running generally east-west. This confirms the previous results, although it does not give as good an estimate of the width nor the depth.

Interpretation: The results of this geophysical investigation indicate the presence of a vertically mineralized zone approximately 100 feet wide between stations 3.25N and 4.25N on line 0. It is expected that the zone continues to the west as far as line 2W but with increasing depth and perhaps with some thinning. The extent of the ore zone to the east, while not specifically determined is probably at least 100 feet, and from the geology seems to be almost 200 feet. The bottom of the ore zone, although it may be more, it is probably 300 feet deep on line 0. The final picture is that of a vertically mineralized 100 feet wide zone crossing line 0 at station 3.75N extending 400 feet in an east-west direction and approximately 300 feet deep. This interpretation is not to be taken as exact within certain errors, but is meant to yield a reasonable picture of the distribution of the ore zone as determined by these geophysical methods.

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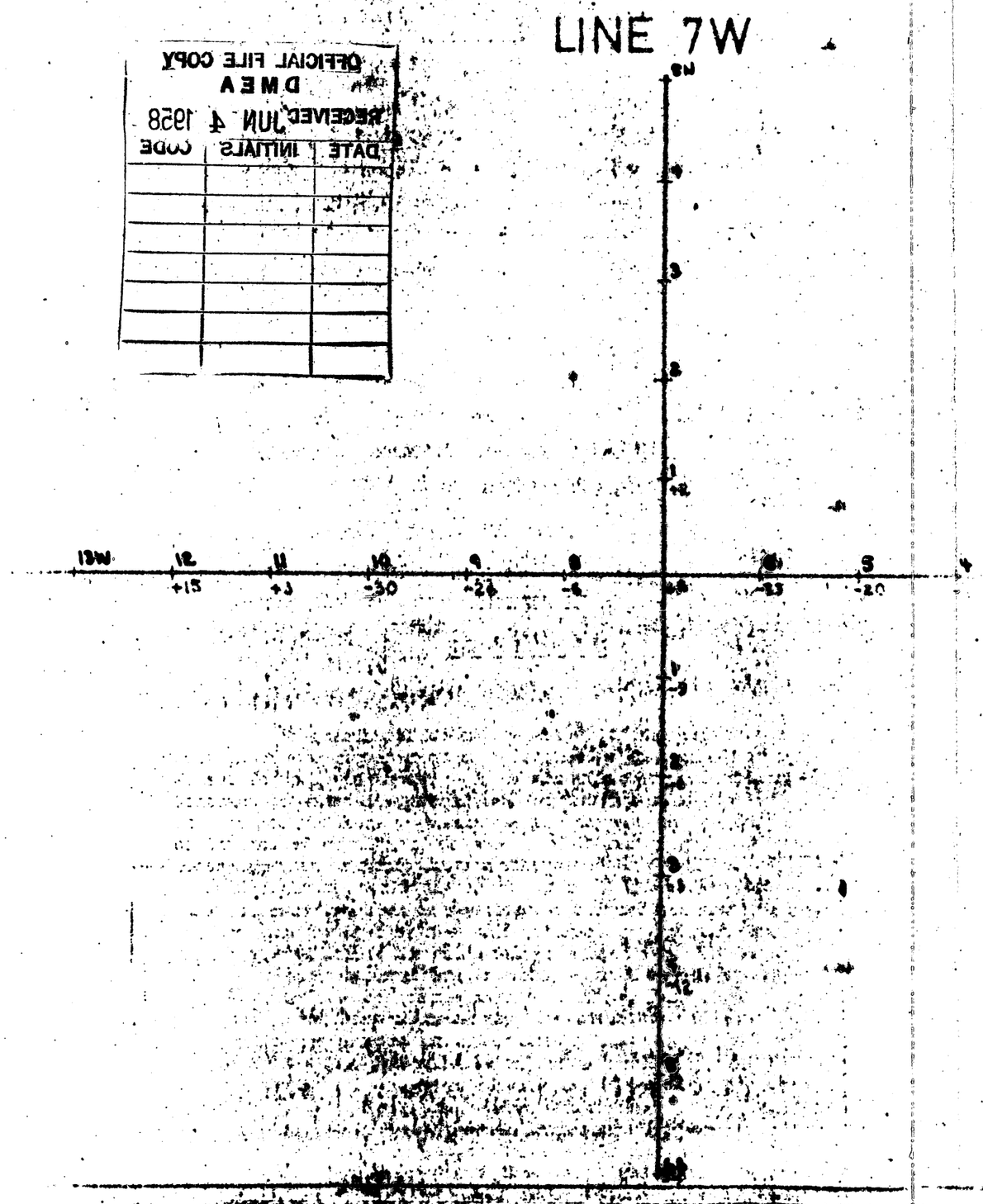

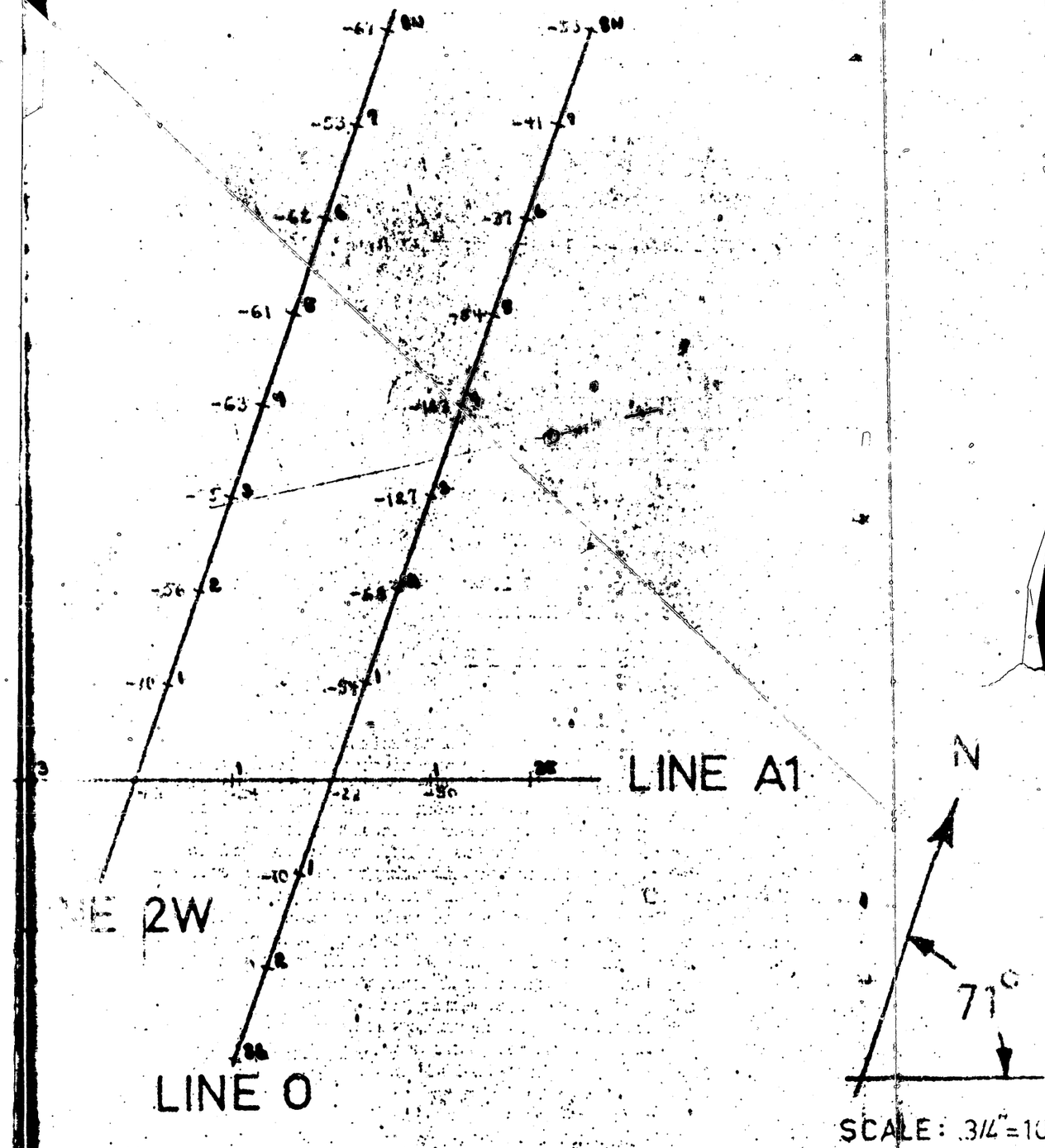

SELF-POTENTIAL
SURVEY

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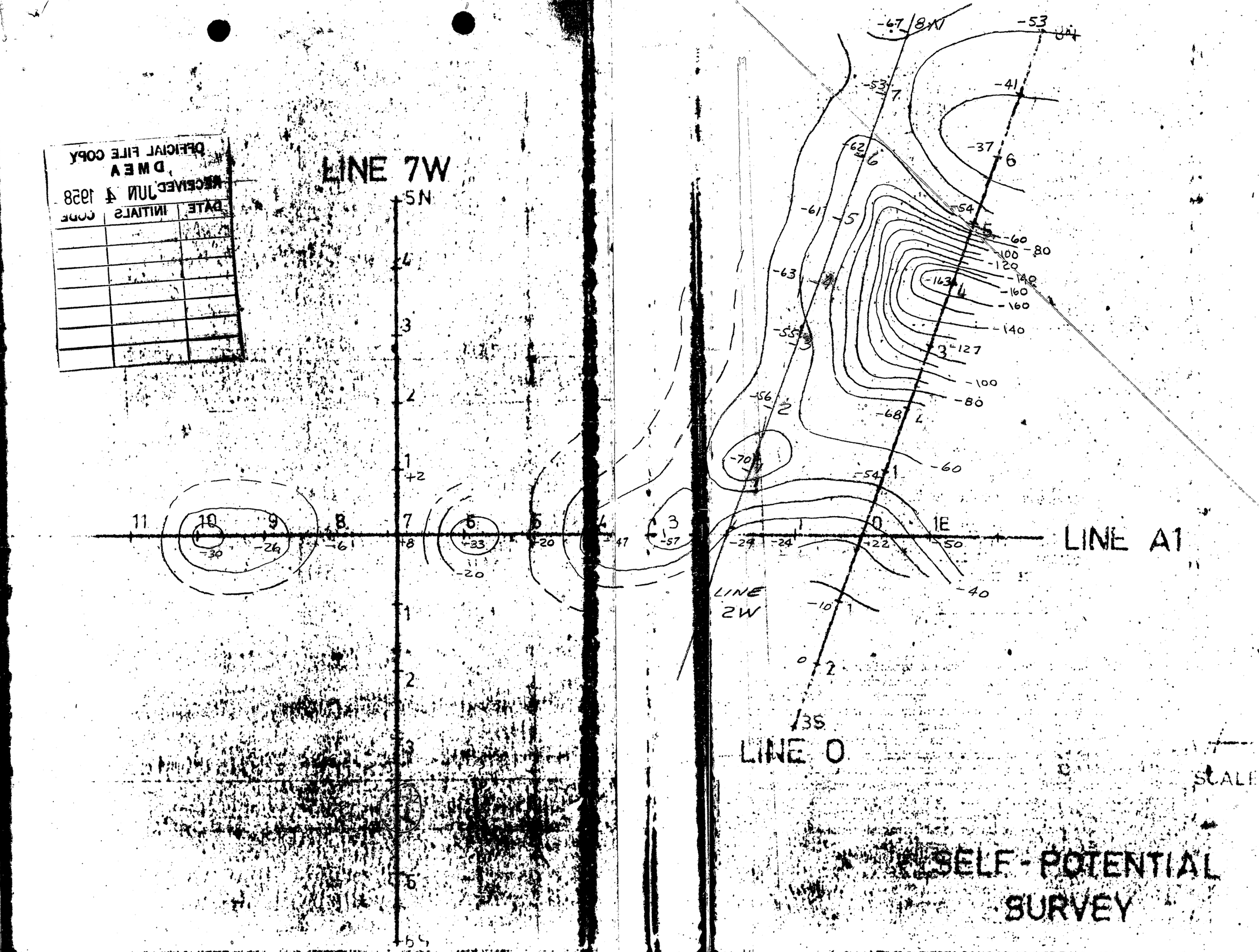

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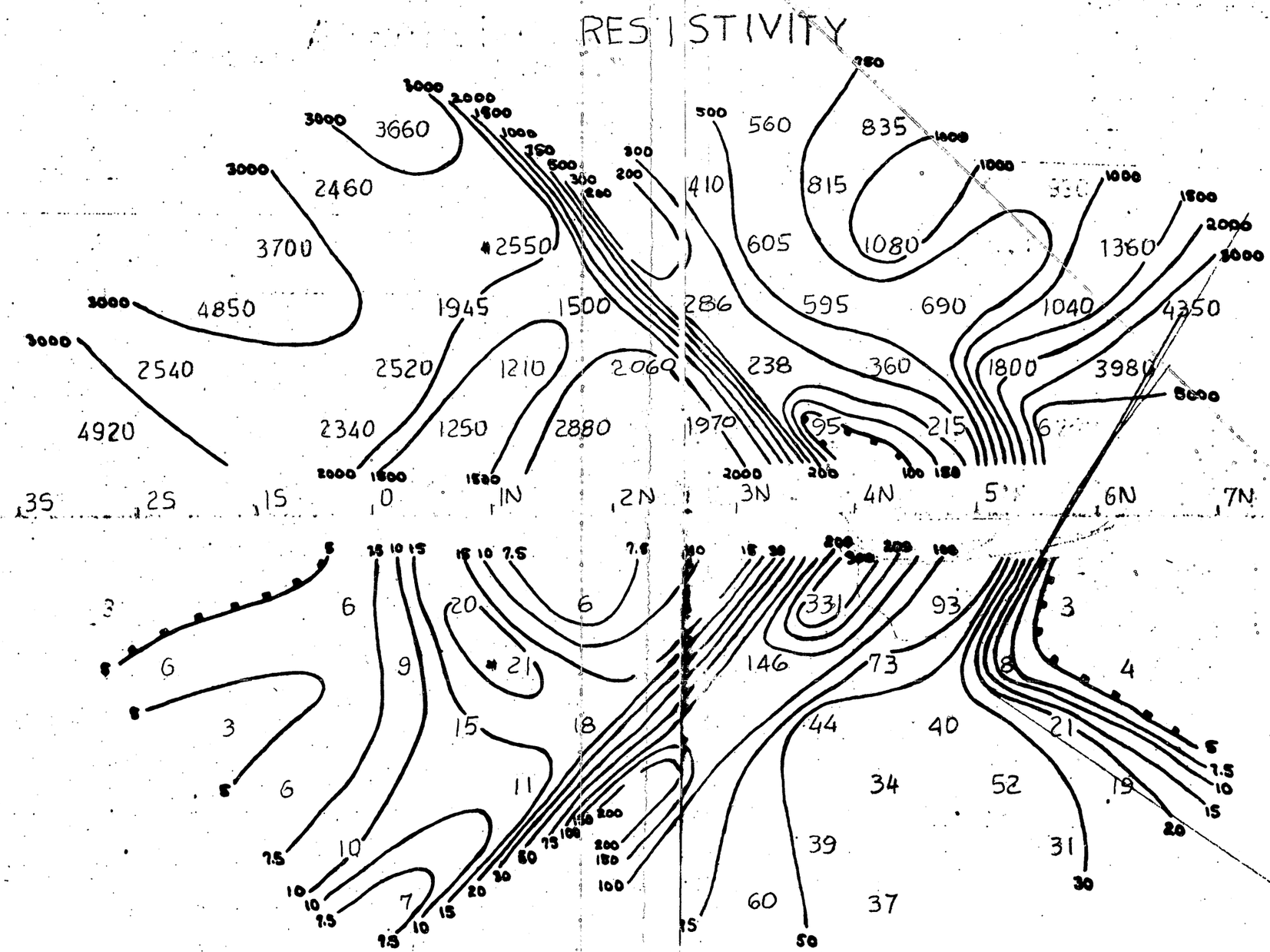

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WEST TORRINGTON, CONN.
APRIL 19, 1957
NORMAN F. NESS

LINE 0
SCALE 1"=100'

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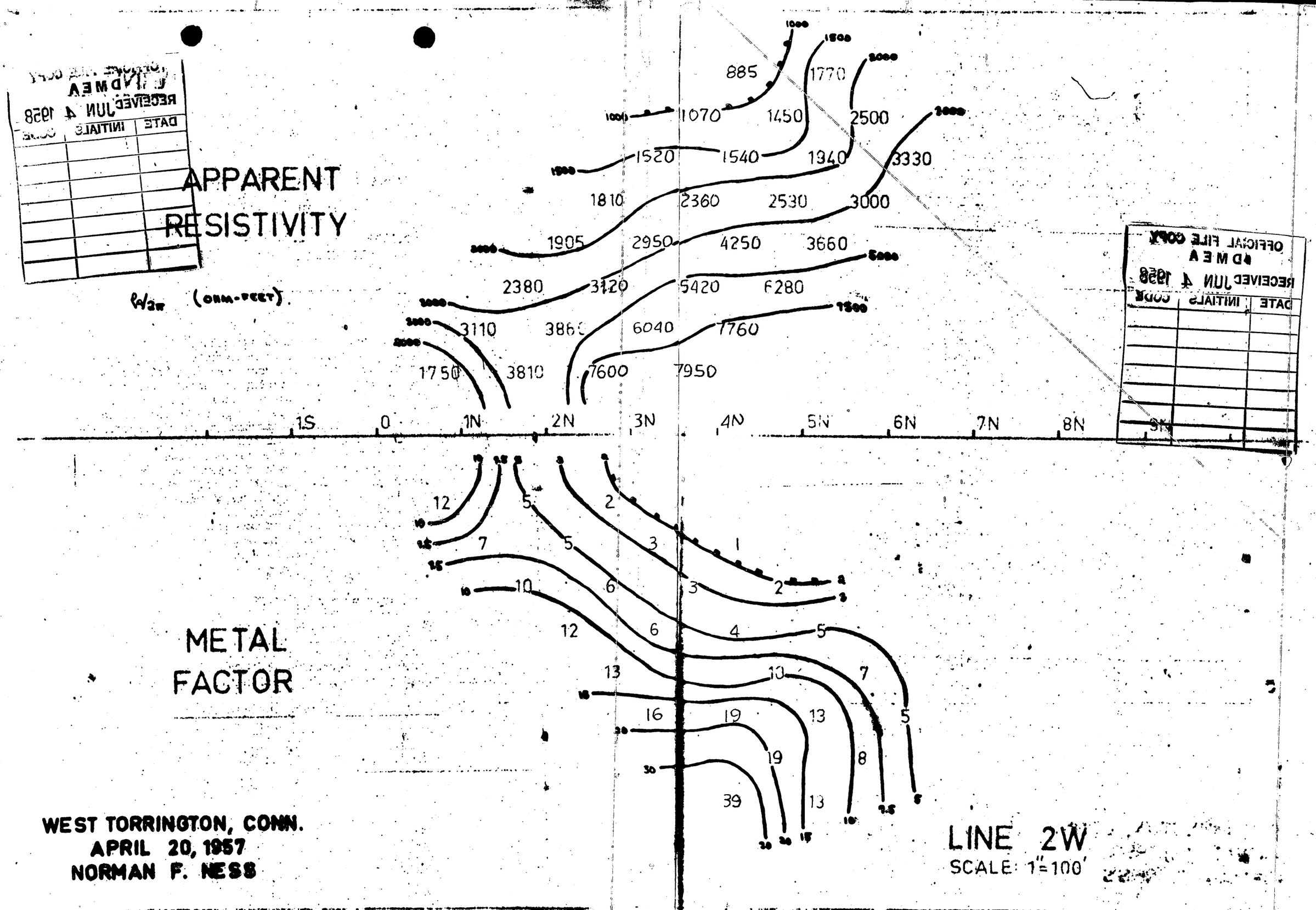

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WEST TORRINGTON, CONN.
APRIL 20, 1957
NORMAN F. NESS

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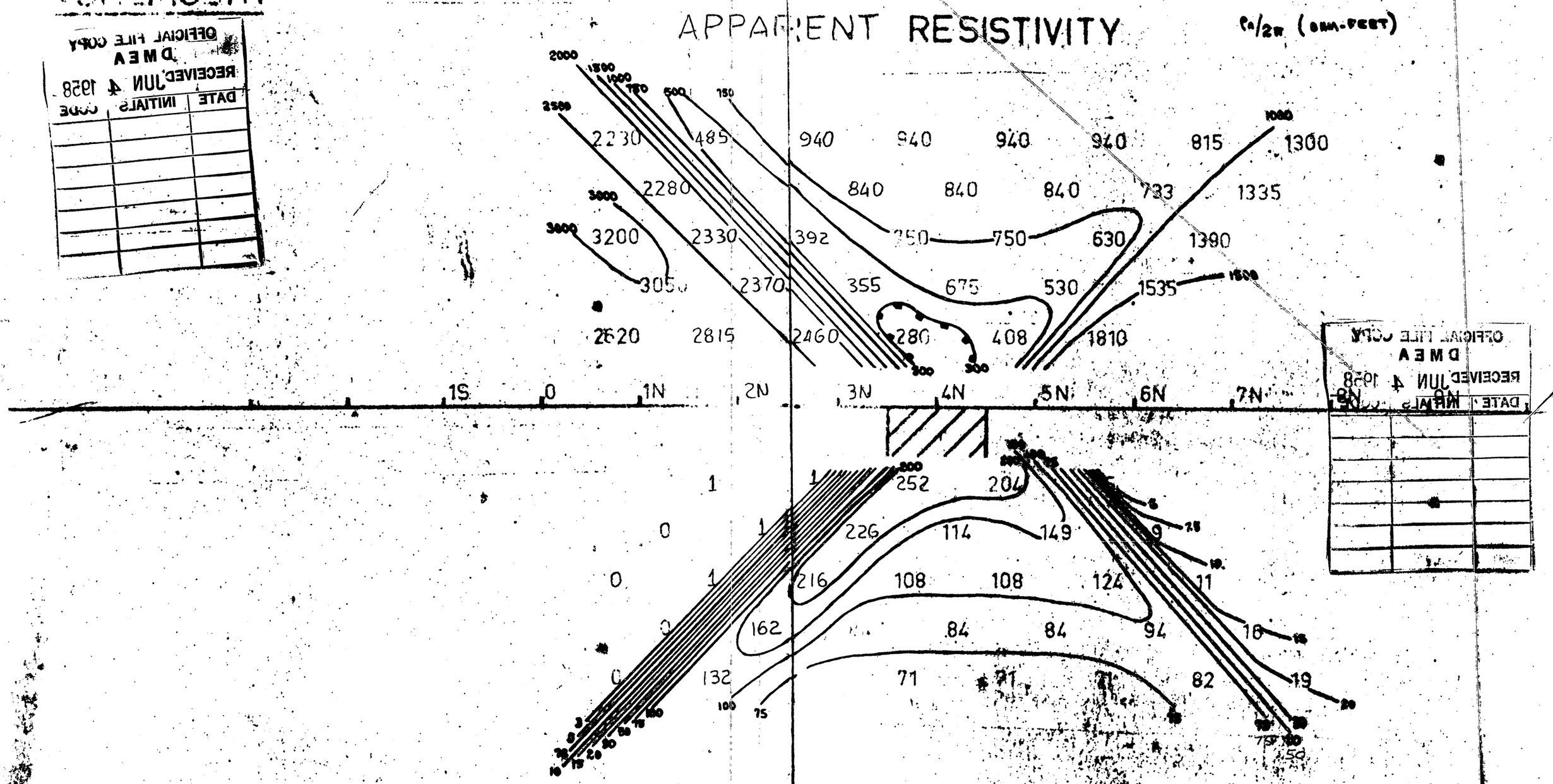
DATE | INITIALS | CODE



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THEORETICAL PROFILE

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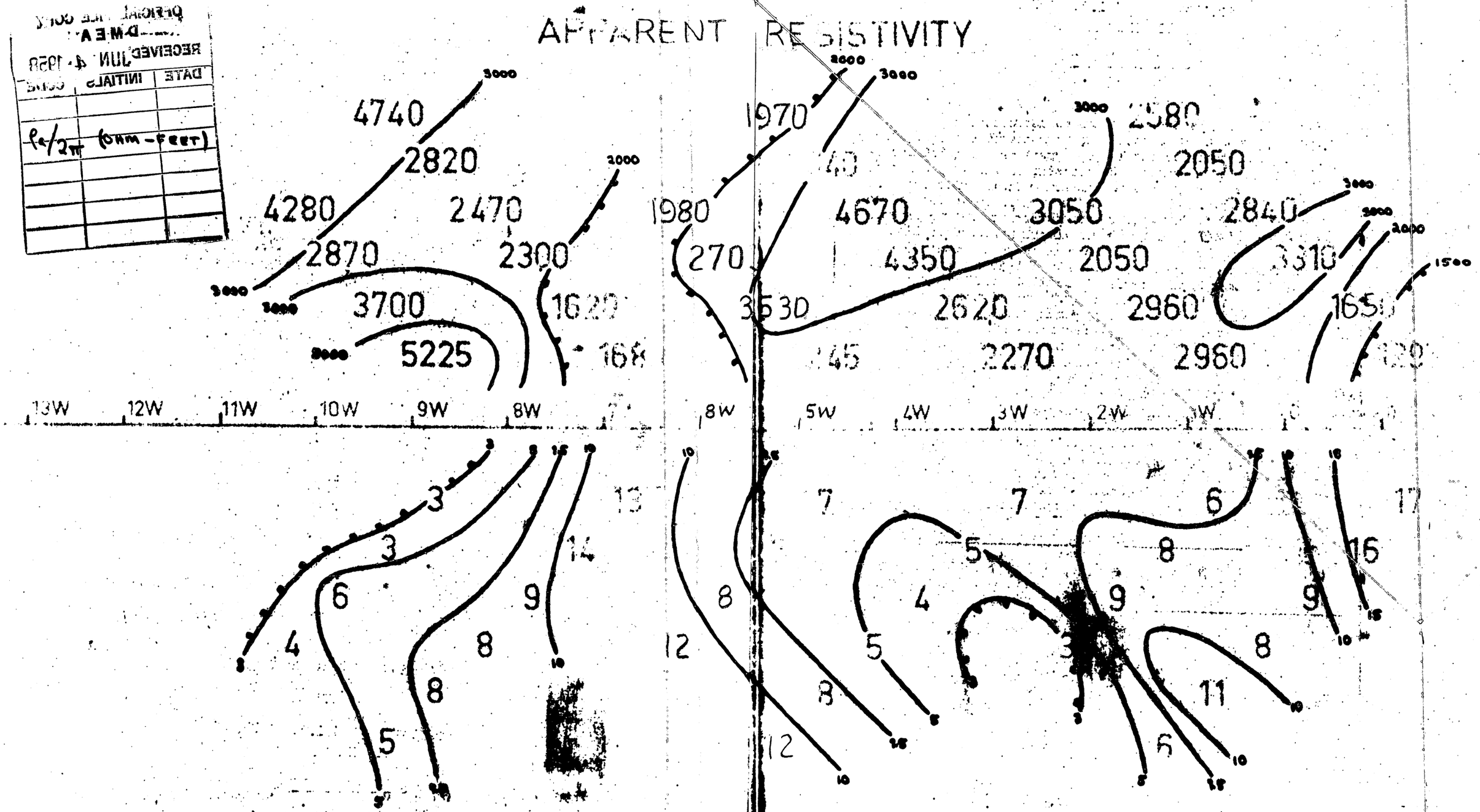

WEST TORRINGTON, CONN.
MARCH 23, 1957
NORMAN F. NESS

LINE A1
SCALE: 1" = 100'

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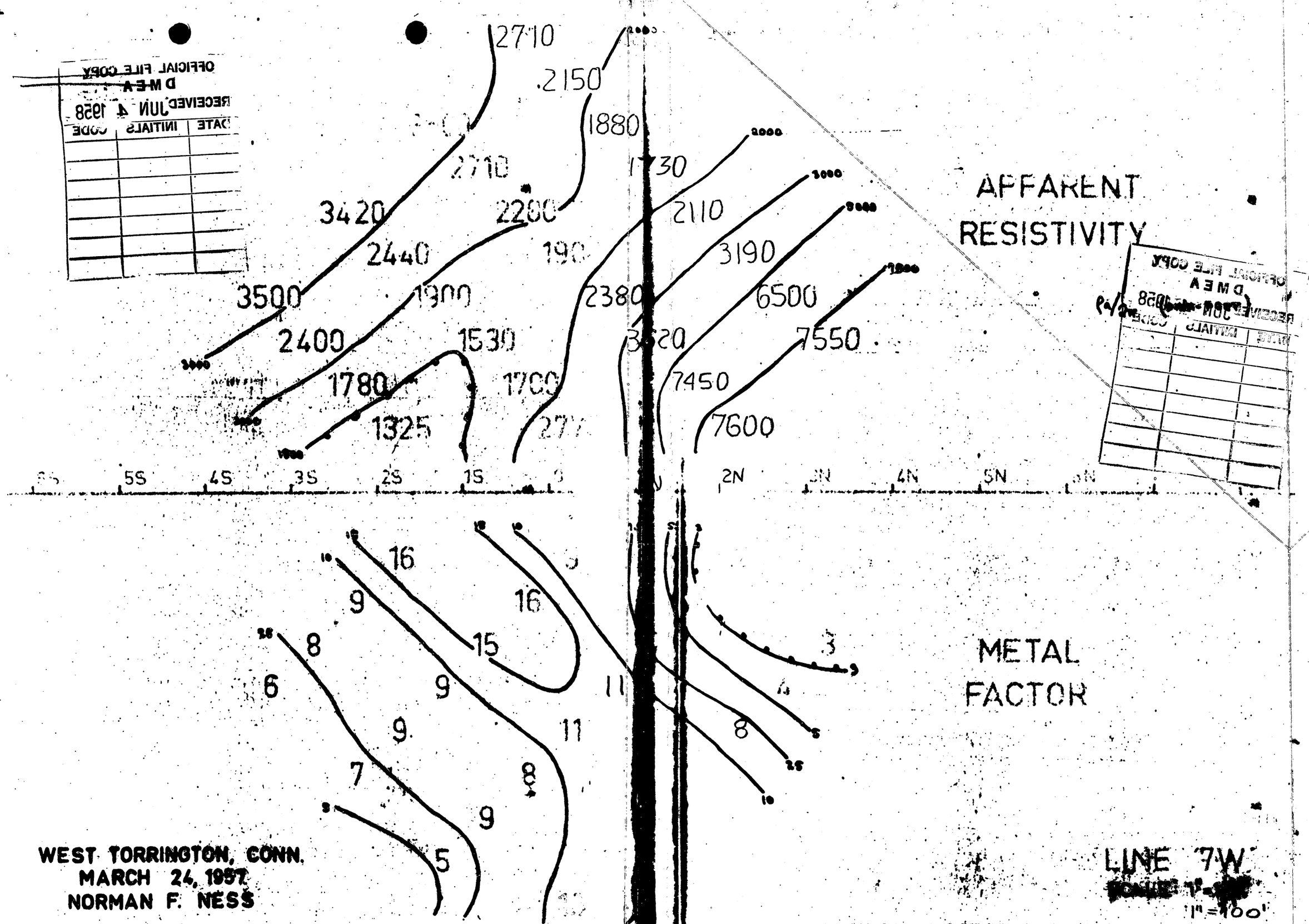
DATE | INITIALS | CODE



WEST TORRINGTON, CONN.
MARCH 24, 1957
NORMAN F. NESS

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

OFFICIAL BUSINESS

Moore phoned 5/29/58 to ask about status. Gave him Laurence's address and telephone number

WSM

11:20 A. M. 5/29/58

MR. MARTIN, MR. MOORE ~~AXXx~~CALLED AND WILL CALL BACK AT 11:50. (Long Distance)

dlm

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 13 POST OFFICE BLDG.
KNOXVILLE 2, TENN.

March 20, 1958

Memorandum

To: Operating Committee, DMEA - Washington

From: DMEA Field Team, Region V - Knoxville, Tennessee

Subject: DMEA-4871 (Nickel) William K. Moore, Brookline, Mass.
Hodges Prospect, Litchfield County, Connecticut.

Enclosed are three copies of a diamond-drilling bid from the E. J. Longyear Company, which should be added to the material pertaining to the subject application. Also two signed and dated copies of the Lease Agreement.

Robert A. Laurence
Robert A. Laurence
Executive Officer, DMEA
Region V

V. J. Lynch
V. J. Lynch, Member
Bureau of Mines

Longyear

E. J. LONGYEAR COMPANY
General Offices, Foshay Tower
Minneapolis 2, Minnesota, U. S. A.
TELEPHONE: FEDERAL 2-2447 • CABLE LONGCO

cc: Mr.H.L.Burmiester
Bureau of Mines
Eastern Experimental
Station
College Park, Md.

March 5, 1958

William Moore.

United States Nickel Corporation
12 Alton Place
Brookline, Massachusetts

Attention: Mr. William K. Moore

PROPOSED DIAMOND CORE DRILLING PROGRAM, VICINITY OF TORRINGTON, CONNECTICUT
D.M.E.A. APPLICATION NO. 4871

Gentlemen:

1. Based on the information furnished in your letters of February 1 and 7, 1958, we are pleased to submit below proposal for your contemplated exploratory drilling program which is to be carried out in the above-described area.

2. We understand that the program as now planned will consist of a minimum of four angle holes, varying in inclination from minus 45 to minus 60 degrees, ranging up to a maximum of 400 feet in depth, with a minimum aggregate footage of 1,000 feet; that the formations to be penetrated will consist of varying amounts of diorites and gabbros; and that AX-size core is desired. We further understand that the water required for the drilling operation will be available within a maximum distance of 1,000 feet of any proposed drill hole.

In addition to the foregoing, we further understand that if the results of the initial program are favorable, you may wish to drill an additional four to nine thousand feet.

3. For this work we propose to furnish one skid-mounted Longyear diamond core drill of suitable capacity, together with the necessary service and accessory equipment required to complete the work as now planned. We further propose to operate the drill on either a one or two shift basis, six days per week.

4. We will carry public liability insurance covering personal injury and property damage, and Workmen's Compensation insurance, and also, all-risk insurance on the drilling equipment protecting against loss by theft, fire, flood, land-slides and other similar hazards.

We will also assume and pay any and all Old Age Benefit, Unemployment and Social Security taxes and contributions imposed by federal or state authorities.

Certificates showing the coverage referred to will be furnished upon request.

5. Based upon the conditions as outlined above, we are pleased to quote as follows:

a) Overburden Drilling -- In angle holes varying in inclination from minus 45° to minus 60° -

0 to 50 feet in depth.....$4.00 per ft.

b) Diamond Core Drilling - In angle holes as specified above --

Top of Ledge to 500 feet in depth -

AX-size, recovering core approximately 1-3/16" in diameter.....$ 3.75 per ft.

BX-size, recovering core approximately 1-5/8" in diameter.....$ 4.00 per ft.

c) Reaming and Casing - 0 to 500' in depth --

AX hole to receive AX casing.....$ 1.75 per ft.

d) Cementing, waiting for cement to set, and drilling out cement.....$ 8.50 per hour, plus cost of cement

e) Inclination tests.....$ 8.50 per hour

f) Delays for your convenience, or for which you are responsible.....$ 7.50 per hour

g) Wooden core boxes (capacity 36' AX-size core.$ 3.00 per box

h) Tractor service, if and when required, for building and maintaining access roads and leveling drill sites..... At Our Cost

i) Mobilization and demobilization of personnel and drilling equipment.....$600.00 Lump Sum

6. The above-quoted drilling rates are based on wages currently being paid in Eastern United States. If during the life of this project, it becomes necessary for us to adjust the wages being paid our workmen because of demands of labor union or otherwise, it is understood and agreed that the Longyear Company reserves the right to increase drilling rates to cover resultant additional operating expenses.

7. Drill cores will be turned over to your representative at the drill site in core boxes provided by the Longyear Company as specified above.

8. If we are the successful bidder, it is understood that you will prepay the mobilization and demobilization expenses, and the cost of the initial 1,000 feet of drilling. We estimate that the amount required to cover this work will be $4,800.00. In the event that more than 1,000 feet of drilling is required, it is understood and agreed that you will deposit with us additional funds in sufficient amount to cover any such extra work.

9. Invoices covering the work performed will be prepared promptly following the first of each month.

10. We very much appreciate the opportunity to consider this program. If awarded the contract, we would be prepared to start the work within a maximum of two weeks after receipt of official notice to proceed.

ACCEPTED:
U.S. NICKEL CORPORATION

By: ~~M.J.Gleasonrbal~~

Sincerely,
E. J. LONGYEAR COMPANY

Manager, Contract Drilling Division

LEASE AGREEMENT

This AGREEMENT entered into this 26 18 day of April, 1957, by and between James Copley of Torrington, Connecticut, hereinafter called "Lessor", and William Knight Moore of Concord, Middlesex County, Massachusetts, hereinafter called "Lessee",

WITNESSETH:

Whereas, Lessor is the owner of approximately sixty (60) acres of land located west and south of Nickel Creek River, in Torrington, Connecticut, known as the James Copley Farm, all as more particularly described below, which land is represented by the Lessor to be free of any and all liens and encumbrances and subject to no outstanding mineral rights of any nature; and

Whereas, Lessor is desirous of arranging to have said land worked and developed so that profitable mineral operations may be conducted thereon, and is willing to participate with Lessee in potential profits to be derived therefrom on the terms and conditions herein set forth;

NOW, THEREFORE, in consideration of the mutual covenants herein contained and for other good and valuable consideration by each of the parties to the other paid, the receipt whereof is hereby acknowledged, the parties hereto do hereby covenant and agree as follows:

1. Lessor does hereby demise and lease unto the Lessee, and his heirs, administrators, executors, and assigns, the vacant land owned by Lessor, consisting of approximately sixty (60) acres in area, and located west and south of Nickel Creek River in Torrington, Connecticut, known as the James Copley Farm, as more particularly bounded and described as follows:

Northerly and Easterly by Nickel Creek River;
Southerly by land of the Torrington Water Company;
Westerly by land now or formerly of Clinton and Bierce, in part by each.

Lessor does hereby covenant and agree with Lessee to lay out, with the cooperation of Lessee, a right of way over other land of Lessor, to provide adequate ingress and egress to public highways or other rights of way leading to the demised premises. Lessee shall have full right to use said right of way for all purposes for which passageways and roadways are customarily used, but Lessee shall pay for all costs and expenses incurred or sustained in laying out said right of way and making it usable for Lessee's purposes.

TO HAVE AND TO HOLD unto the Lessee, his heirs, administrators, executors, and assigns for a term of ninety-nine (99) years, commencing April 1, 1957.

2. Lessee is granted full and unrestricted rights, either alone or through others designated or licensed by him, to occupy and use said land; and, in addition, to exercise and conduct mining operations in or upon said land and to enjoy full and complete mineral rights therein.

YIELDING AND PAYING unto the Lessor, or his heirs, administrators, executors, or assigns as rent a sum equal to one-half the net profit derived by the Lessee from mining operations to be conducted by him in or upon the demised premises, or from licensing or subletting the demised area to others for the purpose of conducting mineral operations thereon.

3. The rental hereinbefore referred to shall be payable to the Lessor in or within sixty (60) days after the end of each lease year, except that Lessee's rights hereunder shall automatically terminate upon the occurrence of any of the following conditions:

(a) if within one month from date hereof Lessor shall fail to receive the minimum sum of Two Thousand ($2,000.00) Dollars either as his share of a participation arrangement which Lessee contemplates entering into, or as a payment from Lessee directly;

(b) if within twelve months from date hereof, Lessor shall fail to receive the additional minimum sum of Two Thousand ($2,000.00) Dollars, either as his share of the net profit derived by Lessee, as set forth in Paragraph 2 above, or as a payment from Lessee directly;

(c) if within twenty-six months from date hereof, Lessor shall fail to receive an additional sum of Sixteen Thousand ($16,000.00) Dollars, either as his share of the net profit derived by Lessee, as set forth in Paragraph 2 above, or as a payment from Lessee directly.

4. Lessee shall be under no obligation to make the payments referred to in Paragraph 3 (a), (b) and (c) hereof, and the sole effect of his failure to do so shall be the automatic termination of his rights hereunder. If this lease shall terminate by virtue of any provision contained in Paragraph 3 of this agreement, Lessee shall forthwith release Lessor from any claims hereunder and file in the Land Records of Torrington a release of this agreement.

5. Lessee shall be in full and complete charge of mining developments or rental or licensing arrangements to be entered into in connection with said land, or its sale, lease or other disposition thereof, and prior to the determination of net profits to be payable to Lessor hereunder, Lessee shall be entitled to the payment to him of reasonable compensation for his services in accordance with established standards for said services.

6. Upon receipt of the sum of Twenty Thousand ($20,000.00) Dollars pursuant to the provisions of Paragraph 3 hereof, James Copley agrees to convey, or to cause to be conveyed to said William Knight Moore, or his nominee, the land herein demised, free and clear of any and all liens and encumbrances, except any recorded lease or caveat filed on records in Torrington, or attachments made by Levine and Citelli, in the event that suit is begun for breach of option to lease. Said conveyance shall also include the right of way referred to in Paragraph 1 hereof; and

as further consideration for said conveyance, Moore covenants and agrees to pay to said Copley, on or before March 1 of each year, a sum equal to one-half the net profit derived by said Moore from the sale, lease, license, or other use or disposition of said land during the prior calendar year.

7. Lessee expressly covenants and agrees to indemnify, reimburse and save harmless the Lessor of and from any and all claims of whatsoever nature arising out of the conduct of mining operations on the demised premises, including any and all claims arising, or which may arise, out of water pollution in the creek as a result of the mining operations, said coverage to include damage to realty and personalty, and injury to individuals.

8. Lessee further covenants and agrees to indemnify, reimburse, and save harmless the said Lessor of and from any and all claims for damage to personal property or for personal injury, which may arise by reason of any blasting operations conducted on the demised premises by the Lessee, or his heirs, executors, administrators, assigns, or licensees.

9. It is expressly understood and agreed that Lessor is not to share in any losses which Lessee may sustain in the operation or management of said demised premises.

10. Lessee shall be entitled to assign his interest hereunder subject to the terms, covenants and conditions of this agreement; but Lessee may, in any event, sublet the premises, or license others to conduct mineral operations on said premises upon such terms and conditions as Lessee shall deem reasonable and proper, provided that said arrangements are made in good faith.

11. Wherever the context so admits, the words "Lessor" and "Lessee" shall be interpreted to include heirs, administrators, executors, representatives, successors and assigns of those

6a. <u>ADDENDUM TO PARAGRAPH 6</u>

The said William Knight Moore, and/or his nominee, shall, on or before the first day of February of each year, submit to the said James Copley an itemized accounting of all mining or other operations conducted on the land hereinbefore laid out and specified. Said accounting shall be signed by a certified public accountant or accounting firm representing the said Moore and/or his nominee.

WKM J.C

designated herein.

IN WITNESS WHEREOF, James Copley and William Knight Moore have hereunto set their hands and seals the day and year first above written.

James Copley

William K Moore
William Knight Moore

I, Helen Copley, wife of James Copley, assent to the foregoing and agree to release to William Knight Moore my dower and/or any other rights in and to said demised premises, in the event that Paragraph 6 hereof shall become operative.

WITNESS my hand and seal this 26th day of April, 1957.

Witness to Signature

Robert Guiheen Helen Copley

Torrington, Connecticut April 26, 1957.

Then personally appeared before me the above named James Copley and acknowledged the foregoing to be his free act and deed, before me,

Hymor Silva
Notary Public
My commission expires
4-1-58

Docket 4871 - Nickel

SUMMARY OF EXPLORATION WORK TO DATE ON MOORE OPTION - TORRINGTON, CONNECTICUT

The first exploration work consisted of a brief magnetometer survey on the section close to the mine shaft. Large magnetic anomalies up to 4,000 gammas were recorded on areas underlain by peridotite.

Members of the Geophysical Department of Massachusetts Institute of Technology ran a geophysical survey which included self potential apparent resistivity and induced polarization (see enclosed map for profile lines run). Large anomalies were recorded on line 1+ 00 west, indicating a highly conductive zone. On line 3 + 00 west a large anomaly was also registered but the conductive zone appears to lie at depth. Further to the west the topography takes a steep rise and we decided that further geophysical work to the west would not be feasible as the ore would probably be too deep to be within range of our instruments. I am not enclosing a copy of this geophysical report as I have only one copy and the report is rather lengthy. I shall be glad to show it to the field engineer or anyone else interested.

The main value of this survey was in giving us an idea as to what happened to the ore at depth (down to an approximate 300 feet). This was accomplished by changing the spacings between the sending and receiving electrodes. The wider spacings sample the ore at a greater depth than the shallow spacings. The results indicate that the ore zone is close to vertical with good continuity with depth. Pacsack drilling was done along the line 1 00 west in order to test the geophysical anomaly. The holes were spaced as follows on line 1 00 west: hole #1 at 3 75 north; hole #2 at 4 02 north; hole #3 at 3 24 north; hole #4 at 3 59 north.

Hole #1 encountered the mineralized peroxenite at a depth of 26 feet and a 15-foot sample was taken to 41 feet. The 15-foot sample assayed 1.41% nickel and 1.23% copper. Hole #4 encountered the ore at a depth of 19 feet and a 15-foot sample was taken to 34 feet. This 15-foot sample assayed .77% nickel and .82% copper. Hole #3 encountered mineralization but not of ore grade. The mineralized dike ranges from 10 to 50% sulphides by visual estimate.

Logs of the holes are as follows: hole #1 - fine-grained peroxenite; hole #2 - coarse-grained diorite; hole #3 - mica schist (probably altered fault gouge); hole #4 - fine-grained peroxenite.

An EM survey was run by the New Jersey Zinc Company. The crossovers are shown on the geophysical map. This survey traced out the ore zone for a length of 1,200 feet, open at one end.

In conclusion, our results to date indicate that the mineralized dike has a width of between 16 and 77 feet and continues for a minimum of 1,200 feet.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
2-27	Holt	400
2-27	Martin	400
3/3	Martin	120
"	Johnson	110
"	Rattenbury	100
3/4	C	~~200~~ 220
/		400

MAR 3 1958

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

Re: Docket No. DMEA 4871 - Nickel, Copper
William Knight Moore
Hodges Nickel Prospect
Litchfield County, Connecticut

Dear Mr. Laurence:

The letter of James Copley, with the prospecting permit to Citelli and Levine, copies of which you forwarded with your letter of February 10, 1958, apparently answer the questions in our letter of November 25, 1957.

When the examiners make their field examination of the subject property, it would be well for them to check at the county courthouse of Litchfield County to determine whether or not any suit has been filed, or judgment entered, in any action by Citelli and Levine versus James Copley.

Sincerely yours,

W. S. Martin

ACTING Chairman, Operating Committee (HB)

APPROVED:

Frank D. Lamb (HB)
Member, Bureau of Mines

Thor H. Kiilsgaard (HB)
Member, Geological Survey

SPHOLT/dlm 2-27-58
cc to: Code 400
Admr. R. File
Oper. Comm.
FT. REG. V.
Messrs. Gilbert DeHuff, Jr. USBM
T. H. Kiilsgaard, USGS

8623

Docket 4871- Nickel

W. L. Moore-

Harry Burmeister called on phone, said Mr. Moore was in office with him, and he found his copy of application was incomplete, lacked the two geological maps, the legend for same, and summary of exploration.

Mr. Moore agreed to leave with him copies of the two geological maps, and legend for same.

I said I would send him Thermofax copies of Summary of Exploration Work - Which I did -

S.P.H.
2/26/58

Option to Lease does not seem to have the annex mentioned

Long says Copley's letter, saying no lease was executed to Levings & Lilly, should satisfy question, but T. T. Lemmon's search of records at the courthouse of Lickfield County to date sure gives not has been filed or filed in other county in case of Levings & Lilly vs James Copley

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 13 POST OFFICE BLDG.
KNOXVILLE 2, TENN.

RECEIVED FEB 12 1958

DATE	INITIALS	CODE
2/12	C	220
1	WSM	400

February 10, 1958

Memorandum

To: Operating Committee, DMEA, Washington, D. C.

From: Field Team, DMEA, Region V, Knoxville, Tennessee

Subject: Docket No. DMEA-4871 (Nickel, Copper)
William Knight Moore, Brookline, Massachusetts
Hodges nickel prospect, Litchfield County, Connecticut

Reference is made to the last paragraph of your letter of November 25, 1957:

Enclosed are the original and two copies of a letter from the landowner explaining this situation, and three copies of the prospecting permit of Citelli and Levine. Also enclosed are three copies of the Applicant's letter transmitting these documents.

Enclosures filed on left side of this docket with agreements

Field examination of this application has been delayed, awaiting receipt of additional data from the Applicant, and because of snow. An examination will be made as soon after all essential data, including drilling bids, have been received, as favorable weather conditions will permit.

Robert A. Laurence
Robert A. Laurence
Executive Officer

V. J. Lynch
V. J. Lynch, Member
Bureau of Mines

RECEIVED FEB 12 1958

DATE	INITIALS	CODE

February 10, 1958

Memorandum

To: Operating Committee, DMEA, Washington, D. C.

From: Field Team, DMEA, Region V, Knoxville, Tennessee

Subject: Docket No. DMEA-4071 (Nickel, Copper)
William Knight Moore, Brookline, Massachusetts
Hodges nickel prospect, Litchfield County, Connecticut

Reference is made to the last paragraph of your letter of November 25, 1957:

Enclosed are the original and two copies of a letter from the landowner explaining this situation, and three copies of the prospecting permit of Citelli and Levine. Also enclosed are three copies of the Applicant's letter transmitting these documents.

Field examination of this application has been delayed, awaiting receipt of additional data from the Applicant, and because of snow. An examination will be made as soon after all essential data, including drilling bids, have been received, as favorable weather conditions will permit.

Robert A. Laurence
Executive Officer

V. J. Lynch, Member
Bureau of Mines

HAL/mg
cc - Operating Committee (2)
Mr. V. J. Lynch
Mr. H. L. Burmeister
Mr. William P. Williams
File

EXTRA COPY
DMEA
RECEIVED FEB 10 1958

DATE	INITIALS	CODE

February 10, 1958

Memorandum

To: Operating Committee, DMEA, Washington, D. C.

From: Field Team, DMEA, Region V, Knoxville, Tennessee

Subject: Docket No. DMEA-4871 (Nickel, Copper)
William Knight Moore, Brooklina, Massachusetts
Hodges nickel prospect, Litchfield County, Connecticut

Reference is made to the last paragraph of your letter of November 25, 1957:

Enclosed are the original and two copies of a letter from the landowner explaining this situation, and three copies of the prospecting permit of Citelli and Levine. Also enclosed are three copies of the Applicant's letter transmitting these documents.

Field examination of this application has been delayed, awaiting receipt of additional data from the Applicant, and because of snow. An examination will be made as soon after all essential data, including drilling bids, have been received, as favorable weather conditions will permit.

Robert A. Laurence
Executive Officer

V. J. Lynch, Member
Bureau of Mines

RAL/mg
cc - Operating Committee (2)
Mr. V. J. Lynch
Mr. H. L. Burmeister
Mr. William P. Williams
File

Docket 4871
Moore Nickel
Connecticut

Feb. 7, 1958 -

Burmeister called on phone from College Park, said examination had been held up because of 1. Bad weather
2. Flaw in title
3. Lack of beds for diamond drilling

2. He had recently received documents apparently showing change of title, copied them, sent copies to Lawrence, which would be forwarded to us soon.

3. Joy had written letter, which applicant quoted, giving high bid, and Longyear had not bid, as he did not have equipment in district. Burmeister is writing applicant telling him at least two bids, better three, however high, should be

2

submitted, and advising operator to get and submit Jay and Longyear bids in writing.

1. GS says examination will involve airscrew, so one will be to examine with snow on ground. Burnside plans to complete exam, with GS representative, as soon as weather permits

S. P. H.
2.7.58

Mr. Arthur R. Maupin in GSA, (Rm.7021, Reg.Off. Bldg?), Code 181, ext. 4342 called on behalf of a friend of his, Mr. Greene, who is an associate of Mr. Moore, to ask about status of application. Told him that we had asked Lawrence for a field exam. by letter of Nov. 25.

11/27/57 WSMartin

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
11-21	Holt	400
11-21	Martin	400
11/21	Grauold	500
11/21	Martin	130 R
"	Olmer	110
22	[illegible]	109
11/25	C	220
		400

NOV 25 1957

Mr. Robert A. Laurence
DMEA Field Team, Region V
Room 13, Post Office Building
Knoxville 2, Tennessee

Re: Docket No. DMEA 4871 - Nickel, Copper
William Knight Moore
Hodges Nickel prospect
Litchfield County, Connecticut

Dear Mr. Laurence:

The above-docketed application for exploration assistance is being referred to your office for a field examination of the property.

Copies of memoranda dated November 14 and 18, 1957, by H. W. Davis, Bureau of Mines, and W. P. Williams, Geological Survey, respectively, relating to the application, are enclosed. Also enclosed is an extra copy of the application for the use of the Field Team.

We note that this property is not far from that covered by Docket No. DMEA 4634 - Nickel, which was denied, and that Levine and Citelli, the applicants in that case, are mentioned in the lease attached to this docket as possible claimants under a former option. It should be called to Mr. Moore's attention that under DMEA Order 1 Revised each applicant must possess a sufficient interest in the land for the purpose of the project. If any such option is still in force this application may not qualify for DMEA aid.

Sincerely yours,

APPROVED:

Frank D. Lamb (24B)
Member, Bureau of Mines

W. S. Martin
ACTING Chairman, Operating Committee (24B)

W. P. Williams (24B)
Member, Geological Survey

Enclosures

SPHOLT/dlm 11-21-57
cc to: Code 400
Admr. R. File
Oper. Comm.
FT. REG. V
Messrs. Gilbert DeHuff, Jr. USBM
T. H. Kiilsgaard, USGS

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
11-21	Holt	400
11-21	Martin	400
11/21	Bisnett	500
11/21	Myatt	130
11/21	Lamb	130
11/21	Williams	130
"	Johnson	110
22	Mittendorf	100
		220

NOV 25 1957

Mr. William Knight Moore
12 Alton Place
Brookline, Massachusetts

Re: Docket No. DMEA 4871 - Nickel, Copper
Hodges Nickel prospect
Litchfield County, Connecticut

Dear Mr. Moore:

The above-docketed application for exploration assistance for nickel ores has been reviewed by the Division of Iron and Ferro-Alloys of the Defense Minerals Exploration Administration and referred to Mr. Robert A. Laurence, Executive Officer, DMEA Field Team, Region V, Room 13, Post Office Building, Knoxville 2, Tennessee, for a field examination of the property.

Any assistance that you can give the members of the Field Team will be appreciated.

Sincerely yours,

C. O. Mittendorf

Administrator

SPHOLT/dlm 11-21-57
cc to: Code 400
Admr. R. File
Oper. Comm.
FT. REG. V
Messrs. Gilbert DeHuff, Jr. USBM
T. H. Kiilsgaard, USGS

8623

DI-28
(Feb. 1950)

UNITED STATES
DEPARTMENT OF THE INTERIOR

OFFICE DIRECTORY

NAME _____
(Surname first)

DIVISION, BRANCH, SECTION, OR UNIT _____

OFFICIAL DESIGNATION _____

ROOM NO. _____ OFFICE TELEPHONE _____

HOUSE ADDRESS _____

HOUSE TELEPHONE _____

_____, 19____

The Chief Clerk MUST be kept informed of addresses, and this form should be filled out as often as is necessary for that purpose.

One name only should be written on a card.

16—30661-3 U. S. GOVERNMENT PRINTING OFFICE

11-18-57

Copy of each map goes to:

Mr. Williams, GSA

also thermofax copies of Lithology map
& Summary of Exploration Work to date
on Moore option.

Sent - 11/21/57
S. Pft.

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

November 18, 1957

OFFICIAL FILE COPY
IN REPLY REFER TO:
DMEA
RECEIVED NOV 19 1957

DATE	INITIALS	CODE
11/19	C	220
11/19	WSM	400

Memorandum

To: W. S. Martin, Defense Minerals Exploration Administration

From: W. P. Williams, U. S. Geological Survey

Subject: Review of application, DMEA 4871 (nickel and copper), W. K. Moore, Copley Farm, Litchfield, Connecticut

The applicant proposes to explore for nickel-copper ore deposits at the site of an old mine shaft near Torrington, Connecticut.

The application is brief and undetailed. It is gathered that the proposed work would consist of a first phase of 1,000 feet of core drilling to be followed by 10,000 more feet of drilling, should the first phase prove encouraging.

Past work on the property consists, in addition to a very old mine shaft, of magnetometer, self-potential, resistivity, and induced polarization surveys. Part of this work appears to have been done by the geophysical department of M.I.T. The applicant also mentions an electromagnetic survey that was run by the New Jersey Zinc Company. Four shallow holes were then drilled with a Packsack drill. The best assay from the drill holes ran 1.41 percent nickel and 1.23 percent copper.

The geophysical map submitted by the applicant is not complete in view of the several different types of surveys that have been completed on the property. The map shows only relative magnetic values. The applicant states, "all enclosed exploration data was instigated by myself." If that is true, he should be asked to furnished complete results of all geophysical work to date.

A search of geologic literature revealed very little about the deposit. J. F. Schairer, in State Geological and Natural History Survey of Connecticut, Bulletin No. 51, page 108, states only that a "nickel mine near West Torrington" is similar to the mines on Prospect Mountain. DMEA 4634 was located on Prospect Mountain which is about 8 miles airline from the applicant's property.

The nickel deposits of Connecticut have long been held to be uneconomic. Strong geophysical anomalies could, however, be cause for reappraisal of the nickel ore potentialities on a property. I recommend that the application be referred to the Field Team for evaluation. In the meantime the applicant might be asked to supplement his application.

W. P. Williams

W. P. Williams

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

OFFICIAL FILE COPY
DMEA
RECEIVED NOV 15 1957

DATE	INITIALS	CODE
11/15	C	220
11/15	WSM	400

November 14, 1957

Re: DMEA 4871
William Knight Moore
Hodges Nickel Prospect
Litchfield County, Conn.
$7,000 - Nickel and Copper

Memorandum

To: W. S. Martin, Director, Division of Iron and Ferro-Alloys, Defense Minerals Exploration Administration

From: H. W. Davis, Branch of Ferrous Metals and Ferroalloys

Subject: Review of Application

The applicant's proposal pertains to a loan of $7,000 to explore a property known as the Hodges nickel prospect, located about 3 miles northwest of Torrington, Connecticut.

Inasmuch as applicant has furnished insufficient information on which to base an opinion concerning the loan, it is recommended that the application be referred to the Field Team for its review and recommendation.

H. W. Davis
H. W. Davis

Attachments 5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D.C.
KNOXVILLE 2, TENN.

DMEA
RECEIVED NOV 12 1957

November 7, 1957

Mr. William Knight Moore
12 Alton Place
Brookline, Massachusetts

Dear Mr. Moore:

Your application for aid in exploring for nickel and copper on the Copley farm in Litchfield County, Connecticut, has been forwarded to our Washington office in accordance with established procedure.

I am returning the five copies of the Consent to Lien and Subordination Agreement, as they are unsigned. Please have all of them signed by the lessor, Mr. James Copley, and return them to me. Be sure to indicate the date of signing and Mr. Copley's mailing address in the appropriate places on the forms.

Very truly yours,

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

RAL/mg
Enclosures 5
cc - Operating Committee (2)
Mr. W. T. Millar
Mr. V. J. Lynch
File

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

November 13, 1957

Mr. William Knight Moore
12 Alton Place
Brookline, Massachusetts

Subject: DMEA-4671

Dear Mr. Moore:

Your application for exploration assistance, dated November 4, 1957 submitted to our office at Knoxville, Tennessee has been assigned Docket Number DMEA-4671 and referred to the Iron and Ferro Alloys Division in the Washington office. Kindly identify all future correspondence relating to your application by this Docket Number.

Sincerely yours,

Allen S. Dakan, Director
Operations Control and
Statistics Division

Copy to: Region V

When writing to FT mention that this is not far from 4634 Nickel

~~Levine etc~~

and that Levine & Citelli, the applicants in that case, are mentioned in this lease as possible litigants

WSM
11/14/57

DMEA 4871

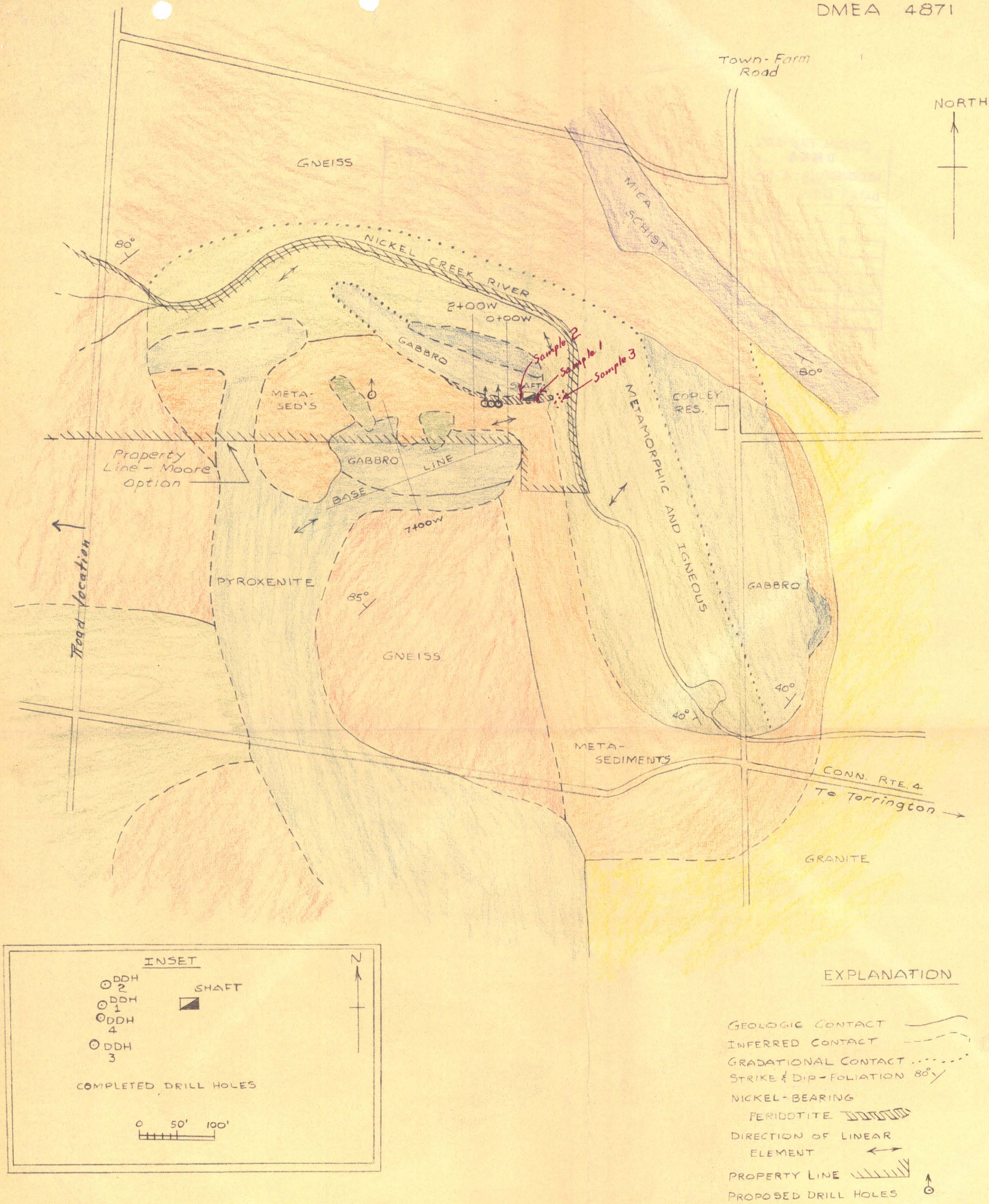


FIG. 2

DMEA 4871

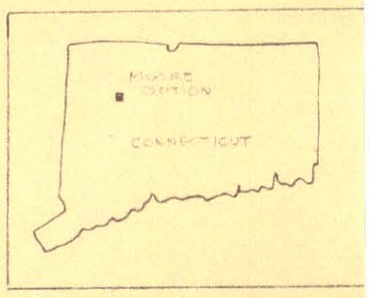
GEOLOGIC MAP, W. K. MOORE OPTION

WEST TORRINGTON, LITCHFIELD COUNTY, CONN.

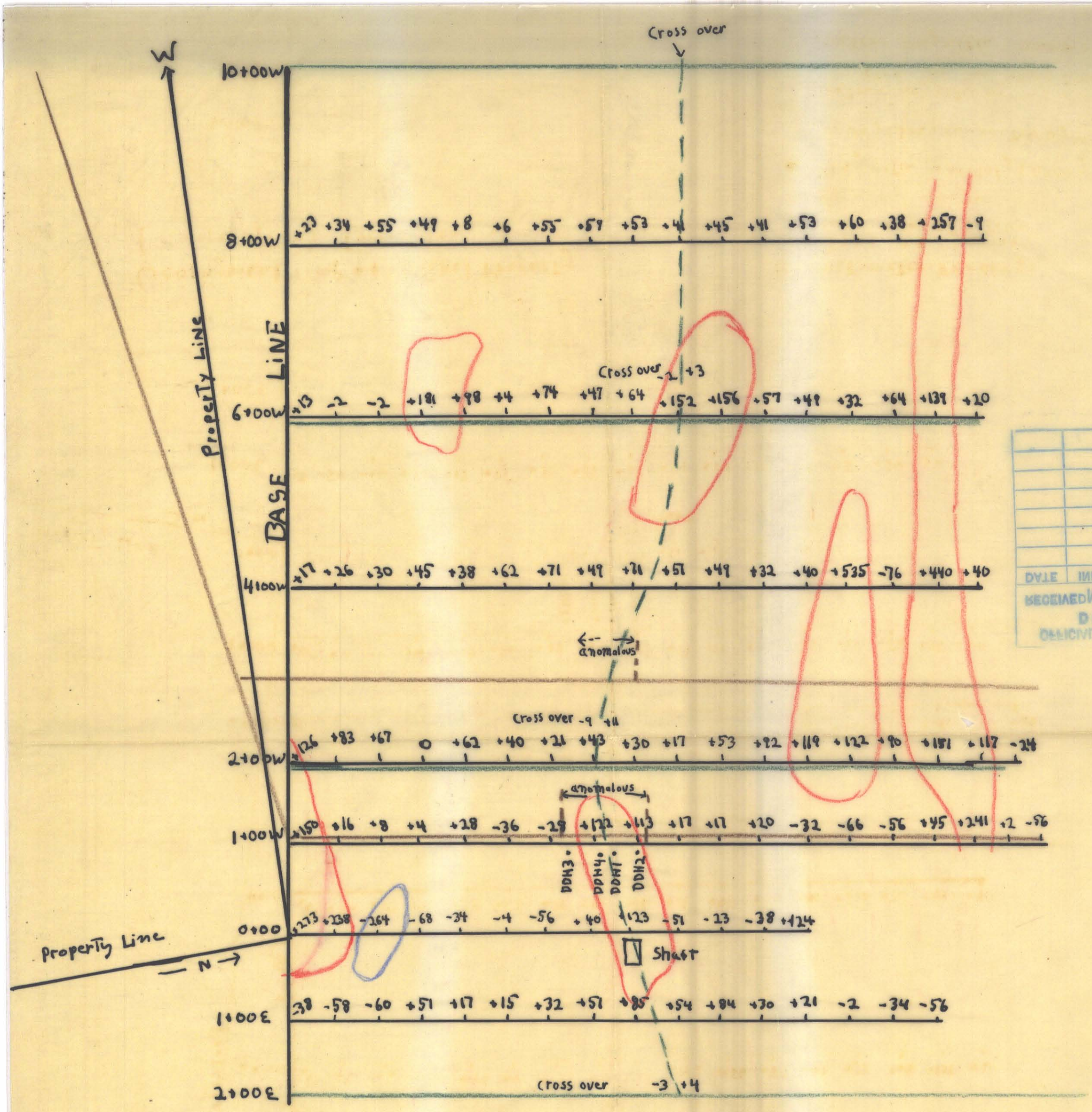
0 500' 1000'

SCALE

MAY, 1958



FROM APPLICANT'S MAP



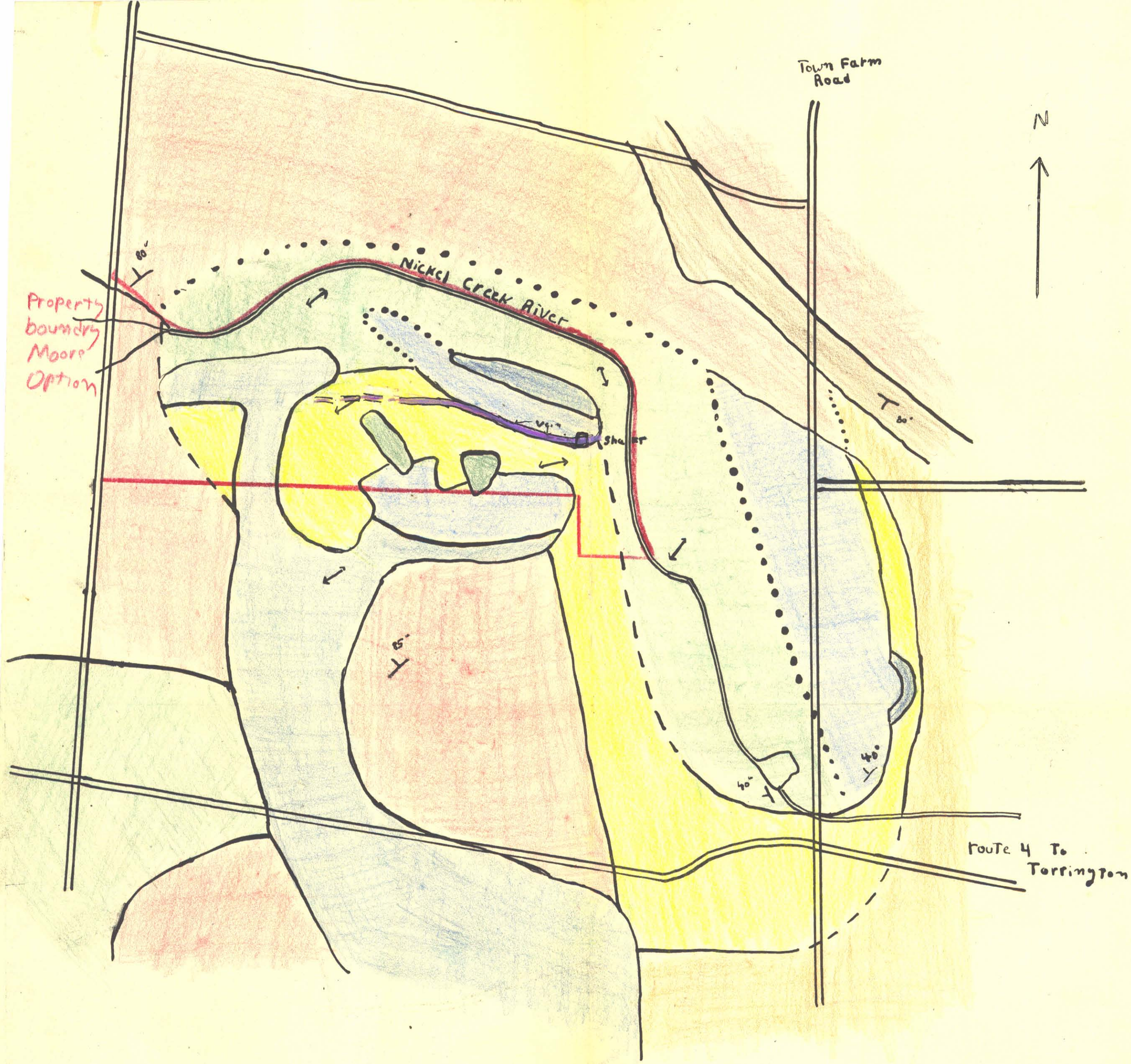
RECEIVED NOV 15 1957
DWEV
OFFICIAL FILE COPY
DATE INITIALS CODE

Geophysical Map of Nickel Property
(Moore Option) Torrington, Conn.

Scale 1" = 100'
10/29/57
W.K.M.

Magnetometer readings
in Tens of gamas
Values are relative

+ Magnetic anomaly (1,000 g a more)
- Magnetic anomaly (1,000 g a more)
Survey Lines Conducted by M.I.T Students
Electro-magnetic survey Lines
Conducted by New Jersey Zinc
Electro-magnetic anomaly



Geologic Map
Basic Intrusive
West Torrington

Scale 1" = 500'
Mapped and Compiled
W Moore 10/21/57

——— Contact known

– – – Contact inferred

• • • • Contact gradational

12BW