DMEA Form 9

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE

DMEA NO. 7567

Application (Denied ✓
(~~Withdrawn~~
(After disposition, delete items not applicable)

Contract (Terminated - not Certified
(Cancelled
(Terminated - Certified
(Royalty Agreement

This is the official contract file containing all official records of the project. The records contained in the files are checked and are arranged in this order:

Left Side

Interim Royalty Audits
Reports of Royalty Review
Certification of Discovery
Certificate of Audit (Final)
Interim Audit(s)
Report of Review
Termination Notice or Agreement
Recision Notice
Assignment of Contract
Contract Amendments (latest on top)
Contract with all exhibits and annexes
✓ Owner's Consent to Lien
Subordination Agreement
✓ Leases and assignments of leases, bids
✓ Application and attachments
(3) Envelope for maps

Right Side

Project summary
Work completed analysis
All other material is filed in chronological order with correspondence including the following reports as checked:

Final Field Team Report (Tab)
Operator's Final Report
(2R) Interim Reports
(2R) Operator's monthly reports and all attachments (latest on top)
✓ On-site Exam Report(s) (Tab)
(4) Settlement Sheets

When the volume of records is expected to warrant additional folders, or when convenience of reference warrants separate folders for certain records, they should be set up in this order:

Left Side

Folder No. 2: (In chron. order)
Interim Summary Reports by W. O. Engineers

Right Side

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

Folder No. 3: Maps (Use pocket folder or envelope. Fold maps with title block out and show reference to related document or correspondence.)

Folder No. 4: Settlement Sheets

Folder No. 5: Drill Logs

MF-205
(Combines and supercedes MF-201 and MF-203)
June 1956

F Government's Use Only
EXPLORATION PROJECT CONTRACT
Operator
Docket No. DMEA-
Contract No. Idm-E
Contract Date

CONSENT TO LIEN
and
SUBORDINATION AGREEMENT 1/

To the United States of America:

Referring to that certain land in the County of ORANGE COUNTY, State of NEW YORK, described ~~as follows:~~

in deed dated January 11, 1951, from Joseph L. Dotto, recorded in the land records in Volume 1185 Page 416, to George D. McCloud and Wilma McCloud, his wife; filed in the Office of the County Clerk of Orange County; Lease Agreement to Ramapo Uranium Corporation, dated the 23d day of June 1956, and recorded in the Officeof the County Clerk of Orange County on the 13th day of July 1956, in Liber 1393 Page 211, in the Book of Deeds.

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.)

N O N E

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 _____, and recorded in Book _____, Page _____, 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 or 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 11th day of April, 1957.

George E. McCloud [Seal] Warwick, New York [Address]

Wilma J. McCloud [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.

_____

[Corporate Seal]

MF-205
(Combines and supercedes MF-201 and MF-203)
June 1956

For Government's Use Only
EXPLORATION PROJECT CONTRACT
Operator_____
Docket No. DMEA-_____
Contract No. Idm-E_____
Contract Date_____

CONSENT TO LIEN
and
SUBORDINATION AGREEMENT 1/

To the United States of America:

Referring to that certain land in the County of ORANGE, State of NEW YORK, described ~~as follows~~ 2/

in deed dated November 5, 1955, from James J. McGuigan to William P. Mania, recorded in the land records, November 10, 1955, in Volume 1368 Page 13, in the Office of the County Clerk of Orange County; Lease agreement from William P. Mania to Sidney Lieberman, dated the 30th day of April, 1956, said lease agreement from William P. Mania to Sidney Lieberman, having been recorded in the Office of the Clerk of the County of Orange, on the 14th day of May, 1956 in Liber 1386 Page 114 of deeds. Assignment of Lease by Sidney Lieberman to Ramapo Uranium Corporation July 20, 1956.

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.)

Chester National Bank of Chester, New York holds a first Mortgage in the sum of $3,247.10, unpaid balance of this date.

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 _____, and recorded in Book _____, Page _____, 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 11th day of April, 195 7.

Arthur B. Warner [Seal] 489-E 25th St Paterson, N.J. [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.

_____

[Corporate Seal]

ASSIGNMENT

KNOW ALL MEN, That I, SIDNEY LIEBERMAN, of 295 Madison Avenue, New York, New York, for value received, have granted, bargained, sold, assigned, transferred and set over, and by these presents to grant, bargain, sell, assign, transfer and set over unto RAMAPO URANIUM CORPORATION, a corporation organized and existing under and by virtue of the laws of the State of Delaware, all of my right, title and interest in and to certain Leases, between WILLIAM P. MANIA AND SIDNEY LIEBERMAN, dated April 30, 1956, and July 19, 1956, forty nine (49) acres and twenty three (23) acres respectively, copies of which are hereto annexed and made a part hereof, and also all my right, title and interest in and to the premises in said Leases described, said Ramapo Uranium Corporation, as part of the consideration hereof, hereby covenanting and agreeing to assume and fulfill all the conditions and obligations, and to assume all liabilities and responsibilities under the terms of said Leases.

IN WITNESS WHEREOF, I have hereunto set my hand and seal this 20th day of July, 1956.

Sidney Lieberman L.S.

STATE OF NEW YORK)
COUNTY OF NEW YORK) SS

New York

July 20th, A.D. 1956

On this 20th day of July, Nineteen Hundred and fifty-six, before me personally appeared SIDNEY LIEBERMAN, to me personally known and known to me to be the same person described in and who executed the foregoing instrument, and he duly acknowledged to me that he executed the same.

Notary Public

ACCEPTANCE OF ASSIGNMENT

The said RAMAPO URANIUM CORPORATION, acting herein by Sidney Lieberman, President and George W. Hurlbutt, its Secretary, does hereby accept the foregoing Assignment of Leases dated July 20th, 1956, between Sidney Lieberman as Lessee and William P. Mania as Lessor, and does hereby covenant and agree to assume and fulfill all the conditions and obligations therein contained on the part of Sidney Lieberman therein to be fulfilled, without the right of recourse against Sidney Lieberman under any circumstances whatever.

IN WITNESS WHEREOF, Ramapo Uranium Corporation, Sidney Lieberman, President and George W. Hurlbutt, its Secretary, has hereunto set its corporate name and affixed its corporate seal, this 20th day of July, 1956.

RAMAPO URANIUM CORPORATION

By _____
Sidney Lieberman, President

By _____
Secretary

SPRAGUE & HENWOOD, Inc.
Contractors for DIAMOND DRILLING
MINERAL EXPLORATION • SOIL SAMPLING • PRESSURE GROUTING

EXECUTIVE OFFICES & PLANT
221 WEST OLIVE STREET
SCRANTON, PENNSYLVANIA
Telephone Diamond 4-8507

October 12, 1956

(Air Mail)

Mr. George W. Hurlbutt,
248 Greenwich Avenue,
Greenwich, Connecticut

RE:- Ramapo Uranium Corporation

Dear Mr. Hurlbutt:-

We wish to acknowledge receipt of your letter of October 4th in reference to quoting you on drilling in the vicinity of Warwick, New York. We can give you an approximate quotation for drilling, but we could not quote you on driving tunnels with dimensions of 5 x 7 x 1,000 feet as we do not do any tunnel work and if the one contract tied up both, it would be necessary to get a local contractor to figure on this work.

> For an approximate price for drilling AX holes, recovering a core approximately 1-1/8" in diameter, providing water was within 1,000 feet of the maximum distance of any one hole, our price would be approximately FIVE DOLLARS - ($5.00) per lin.ft.

We would be pleased to have one of our representatives meet with you or your engineer to look over the locations of the proposed work and possibly we could quote you a more definite price.

Waiting to hear from you further, we are

Very truly yours,

SPRAGUE & HENWOOD, INC.,

Wm. J. Schank,
Vice President

WJS:GT

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

November 10, 1956

Ramapo Uranium Corporation
Warwick, New York

Attention: Mr. George W. Hurlbutt

EXPLORATORY DRILLING PROGRAM - WARWICK, NEW YORK

Gentlemen:

1. We are pleased to submit below proposal for your contemplated exploratory drilling program which is to be carried out in the vicinity of Warwick, New York.

2. We understand that the work as now planned will consist of a series of AX-size vertical core borings to a maximum depth of 500 feet, with a minimum aggregate footage of approximately 10,000 feet; and that the formations to be drilled will consist of gneiss. We further understand that all of the drill sites are accessible by truck transportation and that you will supply at each drill site the water required for the drilling operations at no expense to the Longyear Company.

3. For this work we propose to furnish one complete Longyear truck-mounted diamond core drill, together with the necessary accessory equipment required to complete the work as now planned. We further propose to operate the drill on either a single or double shift basis, depending upon the availability of competent drill operators.

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) Diamond Drilling

0 to 500 feet in depth -
AX-size, recovering core 1-3/16" in diameter...$5.75 per ft.
BX-size, recovering core 1-5/8" in diameter....$6.25 per ft.

b) Cementing, waiting for cement to set and drilling out cement.....$7.50 per hr., plus cost of cement

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

d) Mobilization and demobilization of personnel and drilling equipment.....$500.00 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 receptacles furnished by you.

8. Statements covering the work performed will be rendered as promptly as possible after the first of each month and will be payable within 20 days after date of submission.

9. We thank you for the opportunity to consider this program, and trust that you will find our proposal acceptable. Providing satisfactory financial arrangements could be worked out, we estimate that we would be in a position to commence the drilling within two weeks after receipt of official notice to proceed.

Sincerely,

F. J. LONGYEAR COMPANY

A. J. Gleason, Manager
Contract Drilling Division

ACCEPTED:

RAMAPO URANIUM COMPANY

By:_____

Date:_____

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 1 POST OFFICE BLDG.
WASHINGTON 25, D.C.
KNOXVILLE 2, TENNESSEE

December 6, 1956

Memorandum

To: Operating Committee, DMEA -- Washington

From: Acting Executive Officer, DMEA - Region V

Subject: Application - Ramapo Uranium Corporation (a Deleware Corp) 295 Madison Ave., N.Y. (Uranium) Miles Standish Mine, Orange County, New York.

Enclosed are three copies of the subject application, received in this office today. Also enclosed are 3 copies of the mining lease,
3 copies of a map of the leased area
3 copies of a map of the Miles Standish Mine, and
3 copies of the proposed exploration work.

The fourth copy of the application has been retained by this office.

V. J. Lynch

RECEIVED
DEC 10 1956
DMEA

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved.
Budget Bureau No. 42-R1035.2.

APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

Not to be filled in by applicant

Docket No. 4567
Metal or Mineral Uranium
Date Received 12-10-56
Estimated Cost $25,000
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: RAMAPO URANIUM CORPORATION (Deleware Corp) 295 Madison Ave.N.Y.N.Y
President Sidney Lieberman, 295 Madison Ave., N.Y., N.Y.
Vice President G.Wallace Jarman, 110 E. 42nd St., N. Y., N.Y.
Sec.-Treasurer George W. Hurlbutt, 248 Greenwich Ave.Greenwich,Ct.

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers.

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract See attached description

(*b*) State any mine name by which the property is known. Miles k Standish Mine

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Lessee

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property. Copies attached

(*e*) If you own the land, describe any liens or encumbrances on it

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. Attached leases or notices thereof recorded in Land Records at Goshen, New York.

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades.

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.

16—66551-1

RECEIVED DEC 10 1956 D.M.E.A.

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore Uranium

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc.

(*c*) The work will start within 60 days and be completed within 12 months from the date of an exploration project contract.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project:

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.).

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel.

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be.

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project.

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project.

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes.

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above.

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*) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)?

(*b*) How do you propose to furnish your share of the costs?

[X] Money [X] Use of equipment owned by you [ ] Other

Explain in detail on acompanying paper.

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.

Dated November 23, 1956

Ramapo Uranium Corporation
(Applicant)

By George W. Hurlbutt
Secretary

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

U. S. GOVERNMENT PRINTING OFFICE 16—66551-1

APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

4. (a) The applicant began early this year selecting properties surrounding its original holding, the Miles Standish Mine, and presently controls in excess of 5,000 feet along the Northeast-Southwest extention of the structure carrying uranium mineralization. Thus far three definite mineralization shear zones responding consistantly to the scintillator have been exposed by extensive exposure of the hard rock surface, by bulldozing and washing, supplimented by trenching in the hard rock. Several more radio active zones have been indicated by surface prospecting.

The most extensive work has been done along the outcrop of a zone located a few feet to the West of the old Miles Standish iron ore stopes.

The trenching along this zone shows consistent radio-activity over a length of fully 1,500 feet as of September 1st. All of the exposures respond vigorously to the Geiger Counter and Scintillator.

Trench samples, sent for chemical assay, have shown values up to 0.14% U_3O_8 over a width of 4 feet or more.

From the waste dump of the 60 foot vertical shaft on the Miles Standish mine, several tons of ore have been sorted out (by color alone) which is definitely high-grade uranium ore - 1% to 2% U_3O_8. Pieces of this ore weigh up to 30 - 40 pounds showing that it is not of hand picked "specimen" variety. All of the high-grade pieces are covered with sooty-black iron oxide.

Just to the West of the old iron ore stope adjoining the collar of the vertical shaft, 8 to 10 feet distant, the hard rock surface shows high radio-activity.

The properties are accessible for examination at any time.

4. (b) There has been no past production. Ore reserves are unknown but high grade uranium minerals are known to be present.

(c) The geological structure is as follows:

The former old sea bottom, which covered the area, has been upraised and broken up by a long wide intrusion of granite. This intrusion shows on the surface as a triple but broken line of "hog-back" hills all of the same pattern but varying in height and length. Between these hills are valleys containing lakes (e.g. Greenwood) and swamps showing plentiful remnants of the old sea-bottom sedimentaries along their sides.

The State geological maps show this granite intrusion as a solid upthrust, 10 - 15 miles wide, partly covered along its top by remnants of the old sea-bottom, but to the local prospector its appearance is that of a series of granite ridges separated by valleys containing farms, orchards, lakes and swamps. Only the ridges are of interest to the prospector.

The most noteworthy feature of this intrusive rock is that it is now a very typical example of "GNEISS", compressed granite, with steep dipping foliation running very regularly North 30° East, very strongly developed. Where broken into this rock approaches schist in its physical structure.

This feature is of importance in connection with the occurrence, in it, of uranium mineral, recently discovered, for such intensive shearing usually extends to great depth and would give access to the deep-seated sources of that element.

This shearing is very strongly developed throughout the gneiss. It strikes consistently North 30° East, following the direction of the long

4. (c) continued

mountain range containing it and dips steeply 70° to 80° to the Ease. The width of solid rock, between the foliation, is rarely over 2 inches and generally less, down to "Book-Leaf" thickness.

Generally, the color of this gneiss is bright grey, a clean mixture of black and white particles (quartz, mica, hornblende and felspar) but whereever it is mineralized, which is frequent, it becomes a striking mixture of black, brown, red and yellow. kThese recurrent zones of mineralization carry the ore values which were actively worked, in former days, for iron but are now the objective of the search for commercial uranium ore.

The mineralized zones carry no intrusive rock apart from the gneiss itself, but the mineralizing solutions have solidified the schistose gneiss into solid rock, no longer recognizable as such. The zones vary in width from a few inches to several feet. Most of the mineralization is in the form of oxides but there are quite large areas carrying sulphides, mainly pyrite.

Not all of these mineralized zones show radio-activity but most of them do, and in many places the reaction is strong.

Along the crests and upper flanks of these ridges of gneiss there are plenty of hard-rock exposures displaying generously its typical and consistent strike and dip.

The reasons for wishing to explore are to increase the known reserves of uranium.

(d)(e)The Corporation's lease-holdings are centered around Warwick Mountain, located in the State of New York, just north of the New Jersey-New York State Line, about 25 miles, airline, due West of the Hudson River.

The Corporation's present active operations lie a short 3 miles' drive from the Town of Warwick, a prosperous center of some 3,000 inhabitants, served by the Lehigh & Hudson Railway Company and the Rockland County Electric Company. Hard-top roads connect Warwick with settlement in all directions and it is an easy two hours' drive, by bus or car, into New York City.

The country around Warwick is covered by farms (mostly dairy) and orchards, except on the high ridges where rocky outcrops have prevented cultivation and are still covered with a healthy growth of hardwood.

There are accessible roads directly to work locations, and shipping supply and residence points are within three miles of the properties. Water is available from nearby sources. No electric supply is presently available.

5. (b) There is presently a vertical shaft approximately 60 feet in depth which was develope;d by Miles Standish Mining Company management over 100 years ago. It is intended to drive a tunnel to meet said shaft about 600 feet in from the tunnel mouth. Said shaft can then be used for ventilation ? and the tunnel extended Northward completely through the hill, the tunnel openings being approximately 2,500 feet apart. Said work is proposed on the property under lease from William P. Mania. How much back? fgm

It is also intended to drive a tunnel under the hill on the property under lease from McCloud, approximately 500 feet South of the aforementioned tunnel at the same level, which second tunnel will be about 600 feet in length. The latter tunnel will be approximately 120 feet beneath the old mine workings on the McCloud property where the rock on the mine dump shows very strong radio-activity. This work will be along the same ore zone as

5. (b) continued

that to be explored on the Mania property.

In the event that the aforementioned tunneling program brings the expected results, a second stage in the operation is contemplated by means of diamond core drilling. It is presently intended to drill by means of diamond core drilling, which program as presently contemplated will be done in two steps as follows:

(1) One hundred 50 foot holes on 50 foot centers along the radio-active strike using a 7/8 inch core at a cost of $5.00 per foot

(2) Twenty 500 foot holes on 200 foot centers (BX size) at a cost of $6.25 per foot.

It is believed by the applicant that BX size holes will furnish a far better sample than AX size would do and would therefore promote the interests of both the Government and the applicant.

The area designated for tunnel exploration has been chosen because this area is believed to present the best target.

5. (d) The applicant will employ an experienced engineer to superintend operations under a DMEA contract.

6. (a) The applicant has received a bid for drilling from E. J. Longyear Co. for diamond drilling at $6.25 per foot (BX size) to a maximum of 500 feet in depth and has also received a bid from Michael Finn, Contractor, of Bancroft, Ontario for tunneling at the following rates:

(1) 15 to 500 feet at $31.00 per foot.
(2) 500 to 1,500 feet at $34.00 per foot.
(3) 1,500 to 2,500 at $37.00 per foot with the use of equipment to be furnished by the applicant of a value of approximately $25,000.

7. (b) The applicant as present owns the following equipment which will be used in the exploration project:

One caterpillar D-4 bulldozer
One teratrack front end loader - Model 600
Two 105 CPM compressors Atlas Copco
Jack hammers and rock drilling equipment
One Pack rack diamond drill and related equipment
One 16 ton dumptruck
One Jeep (1944)
One Jeep (1946)
One Jeep Station Wagon on rental

In addition to the foregoing the applicant presently has eleven men on its payroll on a full time basis whose services will be provided by the applicant on a prorata basis.

Form 103

MINERAL LEASE

THIS AGREEMENT OF LEASE, made and entered into June 23rd 1956, by and between George D. McCloud and Wilma J. McCloud, his wife, residing at no street or number, Town of Warwick, Orange County, New York

party of the first part, hereinafter referred to as "Lessor(s)", and Ramapo Uranium Corporation, a foreign corporation, organized and existing under the Laws of the State of Delaware, with a place of business at 295 Madison Avenue, New York, New York

party of the second part, hereinafter referred to as "Lessee".

WITNESSETH:

1. That for and in consideration of the sum of ONE DOLLAR ($1.00) cash in hand paid to Lessor(s) by Lessee, and other good and valuable consideration, the receipt of which is hereby acknowledged, and in consideration of the several terms and conditions hereinafter contained, Lessor(s) has leased and by these presents does lease and let unto Lessee:

All those certain lands situate in Township of Warwick,

County of Orange, State of New York,

included within either or both of the following descriptions:

A. Bounded substantially by the following lands:

On the north by land now or formerly of Peter and Anna Giangrande

On the east by lands now or formerly of Bruno and Anna Kupfer

On the south by lands now or formerly of Cascade Park Road

On the west by lands now or formerly of Richard Damarest Howell and Stella C. Howell

B. Being the same premises described in a certain deed

dated January 11, 1951

from Joseph L. Dotto to Lessor(s)

recorded in the land records of Orange County

in Volume 1185 Page 416; together with 2.33 acres, more or less, conveyed by Richard D. Howell and Stella C. Howell to lessors

2. It is the Lessor(s)'s intention to lease and Lessor(s) does hereby grant, lease and let unto Lessee, in addition to the land above described, all of the land and interest in land owned or claimed by Lessor(s) in and/or adjoining the aforesaid description, and Lessor(s) agrees to execute and deliver to Lessee any supplemental instrument requested by Lessee for a more complete or accurate description of the leased premises. For the purpose of this lease, this lease shall be considered to comprise 8.35 acres of land, more or less.

3. Together with the right of ingress and egress over and across any existing or future rights of way leading thereto or therefrom.

4. Lessee shall have the sole and exclusive right and privilege of entering into and upon the premises and of prospecting, exploring, searching for, mining, drilling, storing, removing, transporting, hauling, milling, refining, shipping, processing and selling any and all kinds of minerals, including but not limited to oil, gas, and all solid, liquid, gaseous, or mixed substances and/or radioactive minerals, located in or upon the premises herein demised; and of stockpiling, transporting, milling, processing, refining, and shipping minerals from any other lands over, under or through the premises herein demised; together with such other rights and privileges as may be necessary or incident to Lessee's operations hereunder. Lessee shall also have the sole and exclusive right to place structures, equipment, and machinery of every nature and description, upon the premises from time to time and to remove same therefrom at its discretion. Lessee agrees to dismantle and remove any or all structures, equipment and machinery which it may construct or place on the premises during the term of this lease within sixty (60) days after the termination of said lease or any extensions thereof, and Lessor(s) expressly agrees that Lessee may remove any such structures, equipment or machinery from the premises within said period whether the same be of a permanent nature or not.

5. Nothing herein contained shall in any way permit Lessee to interfere with or impair the rights which have heretofore been granted to others. Lessor(s) hereby covenants that he is seized of an indefeasable fee simple estate in the land hereinbefore described, together with all the minerals underlying the same, and that he will forever warrant and defend the leasehold estate hereby demised unto the Lessee against the claims and demands of all persons whomsoever, and the Lessee shall have the exclusive, full, free and quiet possession of said described premises for the purposes and during the term herein set forth. Lessor further agrees that the Lessee at its continuing option may, from time to time, pay and discharge as and when the same may become due any taxes, mortgages or other liens existing, levied or assessed on or against the above described lands, and, in the event it exercises said option, it shall be subrogated to the rights of any holder or holders thereof and may reimburse itself by applying to the discharge of any such mortgage, tax or other lien, any royalty or payment accruing hereunder.

6. This lease shall remain in force for the term of three years from the date hereof, and so long thereafter as the said land or any other lands within ~~five~~ two miles of the premises herein described are operated by the Lessee in the search, exploration, assaying, evaluation, production or processing of any minerals, including gas, oil and radioactive substances. It being expressly understood that Lessee enters into this agreement for the purpose of ascertaining the presence of minerals of commercial grade and tonnage, therefore Lessee shall have the unrestricted right to abandon and terminate this lease at any time when its sole discretion indicates unfavorable possibilities for commercial production of minerals from the property being leased hereunder, and upon such abandonment or termination Lessee shall so notify Lessor, whereupon this lease shall in all respects cease and terminate.

7. Lessee hereby covenants and agrees to pay to Lessor(s), his heirs and assigns, during the continuance of this lease, a 10% (ten percent) royalty derived from the sale of all minerals, including oil, gas and radioactive substances, which Lessee may remove from the premises. All accountings and payments shall be made quarterly.

8. In the event of any breach of the terms of this lease Lessor(s) shall give Lessee written notice of said alleged breach, and if said default has not been corrected within 90 days after receipt of said written notice, this lease shall thereupon cease and terminate.

9. Lessee shall have the unrestricted right at any time to assign or sublease this lease, in whole or in part to any person, firm or corporation whatsoever, without the consent of the Lessor(s), and upon such assignment or sublease Lessee shall be relieved of any obligations hereunder provided that such assignee or sublessee assume any obligations hereunder.

(a) Anything heretofore to the contrary notwithstanding, Lessee agrees to make a payment of One Thousand Dollars to the Lessors at the time Lessee proves up a commercial body of uranium ore on said leased premises, said One Thousand Dollars to be an advance on account of royalties as described in paragraph 7 hereof.

10. IN WITNESS WHEREOF, Lessor(s) has hereunto set his hand and seal and Lessee has hereunto set his hand and seal, as of the day and year first above written.

Witness:

Lessor:

George D. McCloud (Seal)
George D. McCloud

Wilma J. McCloud (Seal)
Wilma J. McCloud

(Seal)

(Seal)

Lessee:

Ramapo Uranium Corporation
By: Sidney Lieberman, President (Seal)

STATE OF NEW YORK)
COUNTY OF Orange) ss.:

On this 23rd day of June nineteen hundred and fifty six before me personally came George D. McCloud, to me known and known to me to be the person (or persons) described in and who executed the foregoing certificate and he (or they) duly acknowledged to me that he (or they) executed the same.

My Commission Expires _____ Douglas Stage
Notary Public

DOUGLAS STAGE
NOTARY PUBLIC, STATE OF NEW YORK
Qualified in Orange County
Term expires March 30, 1958

(SEAL)

STATE OF NEW YORK)
COUNTY OF Orange) ss.:

On this 23rd day of June nineteen hundred and fifty six before me personally came Wilma J. McCloud, to me known and known to me to be the person (or persons) described in and who executed the foregoing certificate and she (or they) duly acknowledged to me that she (or they) executed the same.

My Commission Expires _____ Douglas Stage
Notary Public

DOUGLAS STAGE
NOTARY PUBLIC, STATE OF NEW YORK
Qualified in Orange County
Term expires March 30, 1958

(SEAL)

STATE OF NEW YORK)
COUNTY OF) ss.:

On this ____ day of _____ nineteen hundred and fifty ____ before me personally came _____, to me known and known to me to be the person (or persons) described in and who executed the foregoing certificate and he (or they) duly acknowledged to me that he (or they) executed the same.

My Commission Expires _____ _____
Notary Public

(SEAL)

STATE OF NEW YORK)
COUNTY OF) ss.:

On this ____ day of _____ nineteen hundred and fifty ____ before me personally came _____, to me known and known to me to be the person (or persons) described in and who executed the foregoing certificate and he (or they) duly acknowledged to me that (he or they) executed the same.

My Commission Expires _____ _____
Notary Public

(SEAL)

214

STATE OF NEW YORK)
COUNTY OF Orange) ss.:

On the 23rd day of June nineteen hundred and fifty six before me personally came Sidney Lieberman, to me known, who, being by me duly sworn, did depose and say: That he resides in the City of New York; that he is President (President or other Officer) of Ramapo Uranium Corporation (name of corporation), the corporation described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the board of directors of said corporation, and that he signed his name thereto by like order.

My Commission Expires _____ Douglas Stage
Notary Public

(SEAL)

DOUGLAS STAGE
NOTARY PUBLIC, STATE OF NEW YORK
Qualified in Orange County
Term expires March 30, 1958

DOUGLAS STAGE NOTARY PUBLIC STATE OF NEW YORK

Form 103

MINERAL LEASE

THIS AGREEMENT OF LEASE, made and entered into August 16 ~~June~~ ,1956, by and between Peter Giangrande and Anna Giangrande, his wife, residing at 2506 Summit Avenue, Union City, New Jersey

party of the first part, hereinafter referred to as "Lessor(s)", and

Ramapo Uranium Corporation, a foreign corporation, organized and existing under the Laws of the State of Delaware, with a place of business at 295 Madison Avenue, New York, New York

party of the second part, hereinafter referred to as "Lessee".

WITNESSETH:

1. That for and in consideration of the sum of ONE DOLLAR ($1.00) cash in hand paid to Lessor(s) by Lessee, and other good and valuable consideration, the receipt of which is hereby acknowledged, and in consideration of the several terms and conditions hereinafter contained, Lessor(s) has leased and by these presents does lease and let unto Lessee:

All those certain lands situate in Township of Warwick,

County of Orange, State of New York,

included within either or both of the following descriptions:

A. Bounded substantially by the following lands:

On the north by land now or formerly of William P. Mania and J.V. Dolan

On the east by lands now or formerly of Bruno Kupfer and Anna Kupfer, his wife

On the south by lands now or formerly of George D. and Wilma J. McCloud, Richard D. Howell and Stella C. Howell and Vincent Melomo

On the west by lands now or formerly of _____

B. Being the same premises described in a certain deed

dated December 9, 1950

from Joseph L. Datte to Lessor(s)

recorded in the land records of Orange County

in Volume 1182 Page 144.

2. It is the Lessor(s)'s intention to lease and Lessor(s) does hereby grant, lease and let unto Lessee, in addition to the land above described, all of the land and interest in land owned or claimed by Lessor(s) in and/or adjoining the aforesaid description, and Lessor(s) agrees to execute and deliver to Lessee any supplemental instrument requested by Lessee for a more complete or accurate description of the leased premises. For the purpose of this lease, this lease shall be considered to comprise 23 acres of land, more or less.

3. Together with the right of ingress and egress over and across any existing or future rights of way leading thereto or therefrom.

P G a.G.

4. Lessee shall have the sole and exclusive right and privilege of entering into and upon the premises and of prospecting, exploring, searching for, mining, drilling, storing, removing, transporting, hauling, milling, refining, shipping, processing and selling any and all kinds of minerals, including but not limited to oil, gas, and all solid, liquid, gaseous, or mixed substances and/or radioactive minerals, located in or upon the premises herein demised; and of stockpiling, transporting, milling, processing, refining, and shipping minerals from any other lands over, under or through the premises herein demised; together with such other rights and privileges as may be necessary or incident to Lessee's operations hereunder. Lessee shall also have the sole and exclusive right to place structures, equipment, and machinery of every nature and description, upon the premises from time to time and to remove same therefrom at its discretion. Lessee agrees to dismantle and remove any or all structures, equipment and machinery which it may construct or place on the premises during the term of this lease within sixty (60) days after the termination of said lease or any extensions thereof, and Lessor(s) expressly agrees that Lessee may remove any such structures, equipment or machinery from the premises within said period whether the same be of a permanent nature or not.

5. Nothing herein contained shall in any way permit Lessee to interfere with or impair the rights which have heretofore been granted to others. Lessor(s) hereby covenants that he is seized of an indefeasable fee simple estate in the land hereinbefore described, together with all the minerals underlying the same, and that he will forever warrant and defend the leasehold estate hereby demised unto the Lessee against the claims and demands of all persons whomsoever, and the Lessee shall have the exclusive, full, free and quiet possession of said described premises for the purposes and during the term herein set forth. Lessor further agrees that the Lessee at its continuing option may, from time to time, pay and discharge as and when the same may become due any taxes, mortgages or other liens existing, levied or assessed on or against the above described lands, and, in the event it exercises said option, it shall be subrogated to the rights of any holder or holders thereof and may reimburse itself by applying to the discharge of any such mortgage, tax or other lien, any royalty or payment accruing hereunder.

6. This lease shall remain in force for the term of three years from the date hereof, and so long thereafter as the said land or any other lands within five miles of the premises herein described are operated by the Lessee in the search, exploration, assaying, evaluation, production or processing of any minerals, including gas, oil and radioactive substances. It being expressly understood that Lessee enters into this agreement for the purpose of ascertaining the presence of minerals of commercial grade and tonnage, therefore Lessee shall have the unrestricted right to abandon and terminate this lease at any time when its sole discretion indicates unfavorable possibilities for commercial production of minerals from the property being leased hereunder, and upon such abandonment or termination Lessee shall so notify Lessor, whereupon this lease shall in all respects cease and terminate.

7. Lessee hereby covenants and agrees to pay to Lessor(s), his heirs and assigns, during the continuance of this lease, a 10% (ten percent) royalty derived from the sale of all minerals, including oil, gas and radioactive substances, which Lessee may remove from the premises. All accountings and payments shall be made quarterly.

8. In the event of any breach of the terms of this lease Lessor(s) shall give Lessee written notice of said alleged breach, and if said default has not been corrected within 90 days after receipt of said written notice, this lease shall thereupon cease and terminate.

9. Lessee shall have the unrestricted right at any time to assign or sublease this lease, in whole or in part to any person, firm or corporation whatsoever, without the consent of the Lessor(s), and upon such assignment or sublease Lessee shall be relieved of any obligations hereunder provided that such assignee or sublessee assume any obligations hereunder.

(a) The Lessors shall have the right, personally or through representatives, to inspect any and all records of the Lessee for the sole purpose of ascertaining the correctness of the royalty payments to which the Lessors are entitled. Said inspection shall be at any reasonable time and upon reasonable notice and at the sole expense of the Lessors.

(b) In the event that the Lessee abandons this lease without engaging in mining operations, the Lessee agrees to refill any and all excavations made in its exploratory work.

(c) This lease shall terminate unless, after three years, lessor shall receive as royalties or advance royalties the sum of at least ONE THOUSAND DOLLARS per annum thereafter.

10. IN WITNESS WHEREOF, Lessor(s) has hereunto set his hand and seal and Lessee has hereunto set his hand and seal, as of the day and year first above written.

Witness:

Lessor:

Peter Giangrande (Seal)
Peter Giangrande

Anna Giangrande (Seal)
Anna Giangrande

(Seal)

(Seal)

Lessee: Ramapo Uranium Corporation

By: Sidney Liebermah (Seal)
Sidney Liebermah, President

STATE OF NEW YORK)
COUNTY OF Orange) ss.:

On this 16 day of ~~June~~ August nineteen hundred and fifty six before me personally came Peter Giangrande, to me known and known to me to be the person (or persons) described in and who executed the foregoing certificate and he (or they) duly acknowledged to me that he (or they) executed the same.

My Commission Expires _____ Douglas Stage
Notary Public

(SEAL)

DOUGLAS STAGE
NOTARY PUBLIC, STATE OF NEW YORK
Qualified in Orange County
Term expires March 30, 1958

STATE OF NEW YORK)
COUNTY OF ORANGE) ss.:

On this 16th day of ~~June~~ August nineteen hundred and fifty six before me personally came Anna Giangrande, to me known and known to me to be the person (or persons) described in and who executed the foregoing certificate and she (or they) duly acknowledged to me that she (or they) executed the same.

My Commission Expires _____ Douglas Stage
Notary Public

(SEAL)

DOUGLAS STAGE
NOTARY PUBLIC, STATE OF NEW YORK
Qualified in Orange County
Term expires March 30, 1958

P G

STATE OF NEW YORK)
COUNTY OF) ss.:

On this ____ day of _____ nineteen hundred and fifty ____ before me personally came _____, to me known and known to me to be the person (or persons) described in and who executed the foregoing certificate and he (or they) duly acknowledged to me that he (or they) executed the same.

My Commission Expires _____ _____
Notary Public

(SEAL)

STATE OF NEW YORK)
COUNTY OF) ss.:

On this ____ day of _____ nineteen hundred and fifty ____ before me personally came _____, to me known and known to me to be the person (or persons) described in and who executed the foregoing certificate and he (or they) duly acknowledged to me that (he or they) executed the same.

My Commission Expires _____ _____
Notary Public

(SEAL)

534

STATE OF NEW YORK)
COUNTY OF Orange) ss.:

On the 16th day of ~~June~~ August nineteen hundred and fifty ~~six~~ before me personally came Sidney Lieberman, to me known, who, being by me duly sworn, did depose and say: That he resides ~~at~~ 295 Madison Avenue, the City of New York; that he is President (President or other Officer) of Ramapo Uranium Corporation (name of corporation), the corporation described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the board of directors of said corporation, and that he signed his name thereto by like order.

My Commission Expires _____ Douglas Stage
Notary Public

(SEAL)

DOUGLAS STAGE
NOTARY PUBLIC, STATE OF NEW YORK
Qualified in Orange County
Term expires March 30, 1958

DOUGLAS STAGE NOTARY PUBLIC STATE OF NEW YORK

P. G.

a. y.

LEASE AGREEMENT

THIS AGREEMENT, made April 30, 1956 between

WILLIAM P. MANIA of 489 East 25th Street, Paterson, County of Passaic and State of New Jersey, hereinafter referred to as the "Lessor";

AND

SIDNEY LIEBERMAN, of 295 Madison Avenue, New York 17, New York hereinafter referred to as the "Lessee";

1. WITNESSETH: That the Lessor for and in consideration of the sum of One Hundred ($100.00) Dollars in hand well and truly paid by the Lessee, the receipt of which is hereby acknowledged, and in consideration of the covenants and agreements herein contained, hereby leases and lets and by these presents does lease and let unto the said Lessee, his successors and assigns the following described land and premises situate in the County of Orange and State of New York.

THAT LOT, PIECE OR PARCEL OF LAND, situate in the Town of Warwick, County of Orange and State of New York, bounded and described as follows: BEGINNING at an intersection of stone fences; said intersection being the southeasterly corner of Samuel Rogovin's land and the northeasterly corner of Joseph L. Dotto's land and runs thence along said Dotto S41° 48' E, 1302.77 feet to a stone heap 11.40 feet northwesterly from a large white oak tree and in line of the lands of Frank E. Syracuse; thence along said Syracuse N. 43° 23' E, 381.90 feet to a corner of a stone wall; thence along the same N 46° 00' W, 178.20 feet to a heap of stones at a corner of a rail fence; thence along the same N 40° 30' E, 330.00 feet to a stone heap about one foot southerly from a marked maple tree about 6" in diameter, said tree standing on a steep side hill; thence along the same S 85° 44' E 171.60 feet to a marked hickory tree; thence along the same N 33° 19' E 1132.32 feet to a stone heap on the southerly side of a stone fence and in the line of lands of Harlo J. Fiske, party of the first part; thence through the lands of Harlo J. Fiske, party of the first part, and along the lands of O. Masker, N. 45° 42' W, 973.50 feet to a stone heap; thence through the lands of Harlo J. Fiske, party of the first part, S 44° 55' W, 1267.13 feet to a marked hickory tree; thence through the lands of Harlo J. Fiske, party of the first part, S 46° 32' W, 577.40 feet to the place of beginning and containing 49 acres of land more or less.

Together with the right of ingress and egress over and across any existing or future rights of way leading thereto or therefrom. Being the same premises conveyed to the Lessor November 5, 1955 by James J. McGuigan by deed recorded in the Orange County land records in Book 1368, Page 13.

2. The Lessor further agrees and covenants that he will at any time upon request execute any and/or all documents that may be necessary for the perfection of the within leasehold interest of the Lessee herein.

3. The Lessee shall have the right and privilege of removing, mining, digging, or in any way taking out any ore or ores that may be found in and upon the said premises in such quantities as the Lessee may in its own discretion deem best.

4. The Lessee may open, use and work the any and all mines or workings on the said premises in such manner, way and operation that it may deem just and proper and the Lessor herein shall at no time interfere with the Lessee.

5. The Lessee shall comply with all laws, ordinances, rules and regulations of the United States, the State of New York, County of Orange and the Town of Warwick, and shall obtain any necessary permits or licenses and pay for same and save the Lessor harmless from all fines, penalties and costs for violation of or non-compliance with same and shall at all times indemnify the Lessor during the operation of the said property.

6. The within lease is hereby made subject to any existing mortgages, easements, and/or restrictions of record presently on the premises.

7. The Lessee shall have the sole and exclusive right and privilege of entering into and upon the premises for the purpose of prospecting, exploring, searching for, mining, drilling, storing, removing, transporting, hauling, milling, refining, shipping, processing and selling any and all kinds of minerals, including but not limited to oil, gas and all solid, liquid, gaseous or mixed substances and/or radioactive minerals located

in, under or upon the premises herein demise; and of stockpiling, transporting, milling, processing, refining, and shipping minerals from any other lands on, under, over or through the leased premises. The Lessee shall also have the sole and exclusive right to use the buildings, located on leased premises, as well as to place structures, equipment and machinery of every nature and description, upon the leased premises from time to time and to remove same therefrom at his discretion. The Lessee agrees to dismantle and remove any or all structures or buildings which it may construct on the premises during the term of this lease within sixty days after termination of the said lease or the termination of any extensions thereof, and Lessor expressly agrees that Lessee may remove any such structures or buildings on the premises within the said period whether the same be of a permanent nature or not, provided however, that same have been constructed and erected by the Lessee.

8. The Lessor hereby covenants and warrants to the Lessee that he is the sole owner in fee of the premises described herein and all minerals contained therein by virtue of a deed dated November 5, 1955 and recorded in the Public Land records of the County of Orange and State of New York in Book 1368, Page 13. subject, however, to the interest of JOHN NICOLINI and SALVATRICE NICOLINI, by virtue of a Declaration of Trust dated November 9, 1955 and recorded in said Public Land records and Lessor does hereby and will forever warrant and defend the leasehold estate hereby created unto the said Lessee against any and all claims and demands of any and all persons whomsoever, except as above stated. and that the said Lessee herein shall have the exclusive, full, free and quiet possession of the above described premises for the purposes and during the term herein.

9. This lease shall remain in force for the term of three years from the date hereof, and so long thereafter as the said land or any other lands within five miles of the premises

herein described are operated by the Lessee in the search, exploration, assaying, evaluation, production or processing of any minerals, including gas, oil and radioactive substances. It being expressly understood that Lessee enters into this agreement for the purpose of ascertaining the presence of minerals of commercial grade and tonnage, therefore Lessee shall have the unrestricted right to abandon and terminate this lease at any time when its sole discretion indicates unfavorable possibilities for commercial production of minerals from the property being leased hereunder, and upon such abandonment or termination Lessee shall so notify Lessor, whereupon this lease shall in all respects cease and terminate.

10. As soon as practicable after the execution of this lease, weather permitting, the Lessee shall commence to prospect, explore, investigate, survey, test, exploit, and perform any and all acts in preparation for mining any minerals, ores, gases, and/or radioactive substances which may be contained in, on or under the premises hereinbefore described and shall thereafter when justified in its discretion commence operation for the production and extraction from the said premises of such minerals, ores, gases and/or radioactive substances, as the Lessee may determine. The Lessee shall, upon demand give to the Lessor periodic summaries of its activities and findings relating to the demised premises.

11. In the event that the Lessee shall at any time hereafter discontinue, cease or abandon exploration, prospecting, assaying, metallurgical research, development or production on the said property for a period of more than ninety consecutive days, or in event of any other alleged breach or default, except as otherwise mentioned hereafter, then Lessor may at its election give to the Lessee notice by registered mail at the address mentioned hereinbefore of its intention to terminate the within lease, and the Lessee shall then have a period of ninety days after

notice within which to resume activity on the said premises or to correct any alleged breach, and upon its failure to do so the Lessor herein may at its option terminate the within lease. The Lessee herein agrees to faithfully perform and observe any and all conditions, covenants, agreements and stipulations contained in the lease.

12. The Lessee herein agrees to carry public liability insurance and other insurance necessary for the protection of the Lessor. Public liability insurance shall be not less than $50,000.00 for one person and/or $100,000.00 for any one accident. The Lessee herein shall further comply with the laws of the State of New York relating to Workman's Compensation insurance.

13. The Lessee agrees that any and all minerals, ore and/or ore products that are extracted from, in or under the grounds of the leased premises shall be milled, processed and concentrated into its end product by the use of the Jarman Process.

14. The Lessee further agrees to pay to the Lessor, his heirs, administrators and/or assigns a royalty of 12 3/4% (Twelve and 75/100 percent) of any gross amounts received by the Lessee for the milled, processed and concentrated or end product of the said ore, mineral and/or substance removed and/or extracted from, in or on the said leased property or premises. In the event that the said ore, mineral and/or substance is not milled, processed and concentrated into its end product but sold and/or disposed of in its natural form as extracted from the ground, the Lessee agrees to pay to the Lessor a royalty of 50% (Fifty per cent). The royalty due to the Lessor in either event shall be paid to the Lessor by the Lessee within ten (10) days after receipt of any gross amount or amounts by the Lessee by depositing same in a bank account at a bank to be designated by the Lessor. This condition shall be strictly performed by the Lessee and failure to so do shall constitute a violation of the within lease and the Lessor shall at his option terminate the within lease by giving to the

Lessee three (3) days notice by registered mail at his office at the address herein mentioned.

15. The Lessee shall at his own expense obtain the consent, approval and/or permission if necessary of and/or from JOHN and SALVATRICE NICOLINI for any and all interest they may have in and to the premises described herein by virtue of and as a result of their Declaration of Trust as hereinbefore mentioned and as is on record.

16. The Lessee shall not assign, sublet, or underlet the within lease or any part without the written consent of the Lessor, except, however, that Lessee may assign this lease to a corporation of which he and G. Wallace Jarman are the principal stockholders.

17. The Lessor herein shall have the right of inspection of the books of the Lessee at any reasonable time during the term of the within lease for the sole purpose of determining the correctness or royalty payments except, however, that said inspection shall be made reasonably and upon giving thirty (30) days notice to the Lessee and at the sole expense of the Lessor.

18. All the grants, covenants, stipulations, and conditions herein contained shall apply to and bind the heirs, executors, administrators, successors, and/or assigns, of the respective parties hereto.

19. The Lessee shall pay Eighty-Five (85%) percent of the property taxes levied against the property herein described in excess of the current assessed valuation.

IN WITNESS WHEREOF, the parties have hereunto set their hands and seals the day and year first above written.

Witness:

William Maria (L.S.)
WILLIAM MARIA

Sidney Lieberman (L.S.)
SIDNEY LIEBERMAN

STATE OF NEW YORK)
COUNTY OF NEW YORK) ss.:

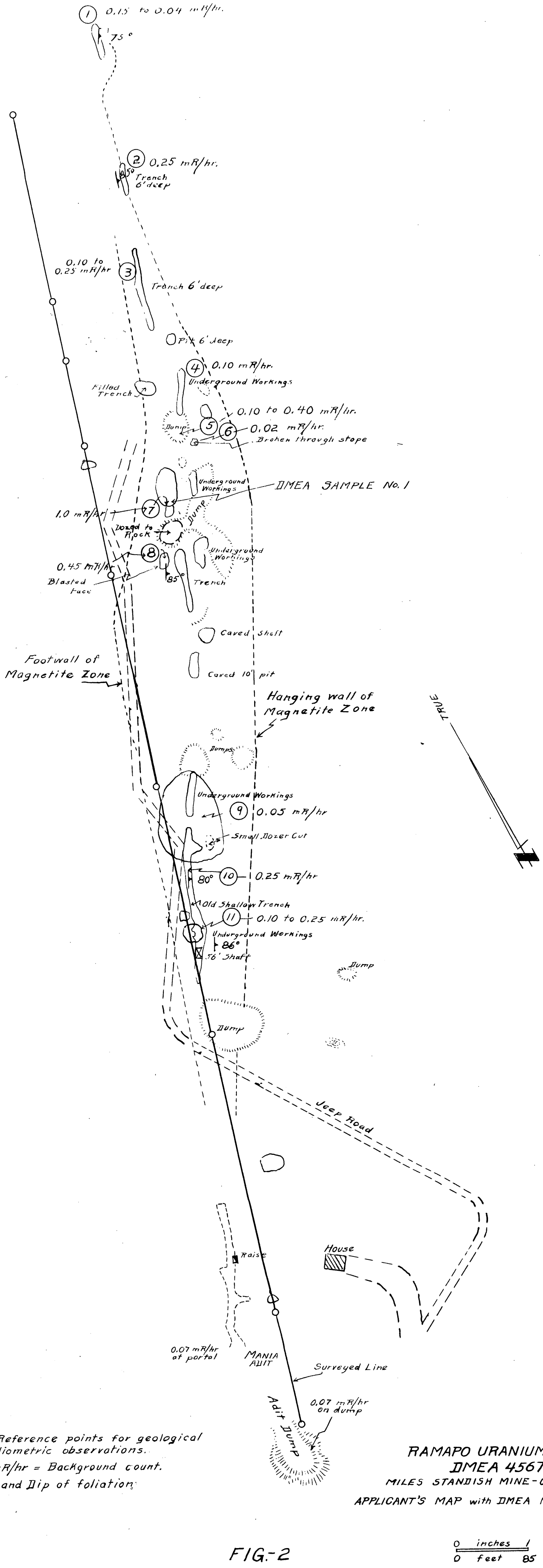
On this day of April, nineteen hundred and fifty-six before me personally came WILLIAM P. MANIA, to me known and known to me to be the person described in and who executed the foregoing certificate and he duly acknowledged to me that he executed the same.

My Commission Expires _____ _____
Notary Public

STATE OF NEW YORK)
COUNTY OF NEW YORK) ss.:

On this day of April, nineteen hundred and fifty-six before me personally came SIDNEY LIEBERMAN to me known and known to me to be the person described in and who executed the foregoing certificate and he duly acknowledged to me that he executed the same.

My Commission Expires _____ _____
Notary Public



1 to 11 DMEA Reference points for geological and radiometric observations.

0.015 mR/hr = Background count.

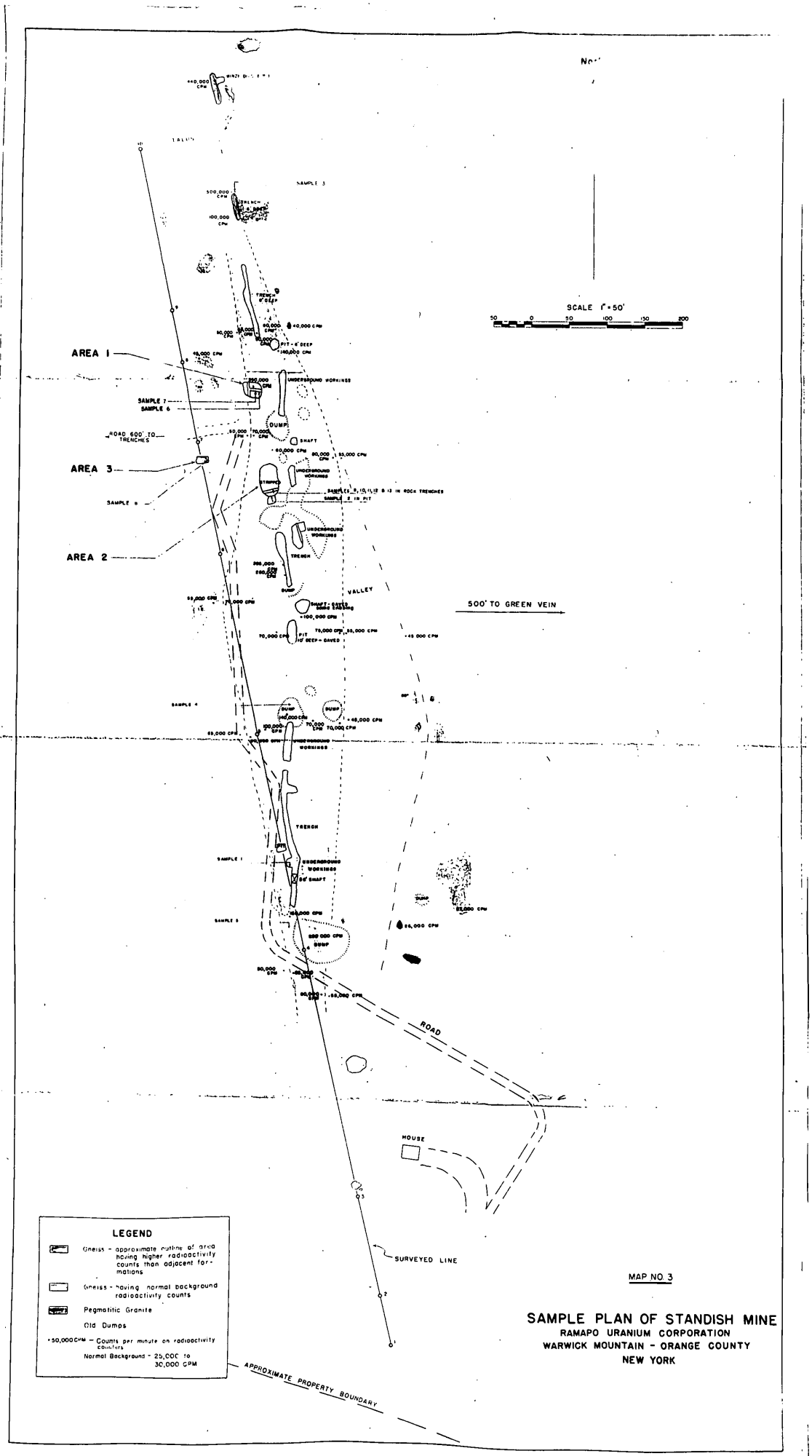
80° Strike and Dip of foliation.

RAMAPO URANIUM CORP.
DMEA 4567
MILES STANDISH MINE - ORANGE CO. N.Y.
APPLICANT'S MAP with DMEA MODIFICATIONS

FIG.-2

0 inches 1
0 feet 85

MAY 1957



MAP NO. 3

SAMPLE PLAN OF STANDISH MINE

RAMAPO URANIUM CORPORATION
WARWICK MOUNTAIN - ORANGE COUNTY
NEW YORK

⑦ — Sample-1

Mania Adit

OFFICIAL FILE COPY
DMEA
RECEIVED JAN 14 1958

DATE	INITIALS	CODE
1/14	C	220
		700
		225

January 10, 1958

Mr. George W. Hurlbutt
248 Greenwich Avenue
Greenwich, Connecticut

Re: Ramapo Uranium Corporation

Dear Mr. Hurlbutt:

This is in reply to your letter of January 2, 1958, in which you state that Mr. Sidney Lieberman is no longer associated in any capacity with the subject corporation and also requesting my opinion regarding the advisibility of filing a new application for DMEA assistanc on the Ramapo property.

File → Without doubt you realize that the denial of application DMEA 4567 on July 22, 1957 was final for that application. This was made clear in a meeting held July 30, 1957 in the Washington Office and attended by Mr. Lieberman, Mr. G. W. Jarman and Mr. Brown, representing the Ramapo Uranium Corporation and Mr. Thor H. Kiilsgaard, Mr. Fred Murphy and myself representing the Defense Minerals Exploration Administration.

If the Ramapo Uranium Corporation now wishes to file a completely new application they may of course to do. It must be understood however, that consideration of such an application will depend upon the Corporation furnishing additional data for consideration. You understand, I am sure, that such additional data would include numerous authenticated assay returns and maps which indicate the exact location and length of each sample so that if an examination was conducted these samples could be duplicated.

In the event that a new application was filed it would probably be necessary to have some of your leases and other documents redrawn because Mr. Lieberman is no longer an officer of the Corporation.

I hope that I have been able to adequately answer your questions.

Sincerely yours,

H. L. Burmeister
Mine Examination and Exploration Engr.

cc: VJLynch
RALaurence PMAMbrose W. Station Files
WPWilliamMining
FMMurphy DMEA

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
	Murphy	

September 6, 1957

Memorandum

To: The File

From: Ernest Wm. Ellis, Director
Div. of Rare & Misc. Metals

Subject: Phone call from Mr. Benjamin Adelstein of S.E.C., re Docket DMEA-4567 (Uranium)
Ramapo Uranium Corp.
Miles Standish Mine
Orange County, New York

Mr. Adelstein asked whether we denied the subject application solely on the uranium potentialities or did we also consider the magnetite production possibilities, ~~also~~. I replied that we considered only the uranium phase which showed up poorly in our field examination. I explained, of course, that any proposed project that resulted in a contract followed by a certification of discovery or development, the Government exacted royalties on production on all the metals or minerals whether they were on the strategic and critical list or not. Mr. Adelstein seemed satisfied with my answers.

Evidently the subject Applicant has applied to the S.E.C. for permission to sell stock for the purpose of installing a beneficiation plant.

(LATER)

On September 4, Mr. Adelstein (S.E.C.) visited the office of the Division of Rare and Miscellaneous Metals to ask more questions about the proposed subject project. F. Murphy and the undersigned were present. Mr. Adelstein was told that the information in our file was for Government use only. He assured us the information would be treated as "For Goverment Use Only." He said the S.E.C. had an application from Ramapo for permission to sell stock; the proceeds of which were to build a mill. He furthermore stated that the Prospectus filed with the Ramapo application did not cite any substantial tonnage of ore, (Magnetite).

Ernest Wm. Ellis

Ernest Wm. Ellis

EWE/izm 9-6-57

8623

file: DMEA-4567

Excerpt from Mr. Mittendorf's diary, 7/25/57:

Congresswoman Katherine St.George (NY) phoned late in the day regarding docket 4567, Ramapo Uranium. She said Lieberman had been in to see her this morning.

I told her of my telephone conversations with him and that we had set up a meeting for next Tuesday morning.

Apparently Lieberman sold her on the idea that DMEA was "all wet" in its evaluation of his property. She felt that it must have merit, else AEC would not have entered into an ore purchase contract. I told her I did not believe the AEC transaction had any bearing whatsoever on the merits of this exploration proposal.

She said Lieberman considers our denial letter very damaging to his property and that it will wreck his plans for financing, both through private sources and the SEC. I told her we do not make denials public information.

I availed myself of the opportunity to tell her that two of her colleagues, Moss and Denton, believe we should reveal the identity of applicants who have been denied. She said that anything Moss and Denton are for, she is against.

July 31, 1957

Memorandum

To: The Files

From: Thor H. Kiilsgaard, Staff Assistant for DMEA

Subject: DMEA 4567, Ramapo Uranium Corporation, Orange County, New York

On July 30, I attended a conference in the DMEA conference room along with Mr. Fred Murphy of DMEA, Harry Burmeister, Bureau of Mines, and Messrs. Sidney Lieberman, G. W. Jarman, Brown, and another whose name I don't recall, all of the Ramapo Uranium Corporation.

The meeting was called by Mr. Lieberman, who complained of the recent denial he had received of his DMEA application. Mr. Lieberman stated that his party believed their property contained significant deposits of uranium which warranted further exploration. He brought two large pieces of ore, both over 10 inches in elongation, which he said assayed more than 1% U_3O_8. He stated that the property was currently being explored by bulldozing and that plans were to resume driving the Mania adit within the near future. Mr. Lieberman stated that the ore could be concentrated readily with iron and a uranium concentrate be produced and that the tailings from the mill could be sold. He stated that the denial letter had a depressing affect on the sale of Ramapo stock, and he requested that it be rescinded.

Mr. Burmeister, Murphy, and myself argued with the Ramapo representatives, pointing out that on the basis of the evidence we had compiled, their property did not warrant Government participation in the proposed exploration program. We stated that assays we had taken did not measure up to those they had taken, and that in our opinion, the deposit was too small and scattered to be profitably mined. We furthermore stated that there was no geologic evidence to indicate that the deposit would increase in size or in grade at a greater depth. We suggested that for their own information, they conduct a series of mill tests to determine what the heads might sample and what the concentrate ratio might be. We also suggested that further bulldoze their outcrop and that they take a series of

channel samples across the better parts of their radioactive zone. We suggested that in that way they might better evaluate their property and decide whether further development expenditures were warranted. We told them that if there were uncovered new evidence that might put their property in a better light, we would be glad to consider another application.

At the conclusion of the conference, Mr. Lieberman stated that he would write DMEA, informing them of the additional exploration work which the company would do at its own expense, and that if this work proved favorable, he might submit another application. This could result in another field examination, although it is hoped that this will not be necessary as work to date indicates that the Ramapo property does not warrant the attention it is receiving.

T. N. Kiilsgaard

cc: F. M. Murphy, DMEA
H. L. Burmeister, USBM
R. A. Laurence, USGS

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
7/31	Murphy	70C
"	Ellis	"

July 30, 1957

Memorandum

To: The Files

From: F. M. Murphy, Mining Engineer
Div. of Rare & Misc. Metals

Subject: Visit to Washington office by:
DMEA-4567
Mr. Sidney Lieberman, President of Ramapo Uran. Corp.
Mr. Brown, Attorney for Ramapo
G. Wallace Jarman, Separations Engineering Corporation - who presumably are doing the metallurgical work for the corporation; and a fourth gentleman ~~whose name was not given.~~ Mr. Failing.

DMEA personnel attending conference with above:

Harry Burmiester, USBM, College Park
Thor Kiilsgaard, USGS, Washington office
F. M. Murphy, DMEA, Washington office

Mr. Lieberman and his associates submitted a number of photographs, samples of rock which showed radioactivity, and a map showing the location of a new cut now being opened up on the property.

Questions asked by Mr. Burmiester disclosed that the new cut is only a few feet from the trench where one sample taken by the DMEA examiners assayed 0.009% U. Lieberman stated that selected material from the new cut assayed 1 to 2% U_3O_8. Mr. Burmiester stated that might be possible, but he did not believe that a representative sample of the material over a normal mining width would run anywhere near ore-grade.

After considerable discussion on mining, grade of possible mill heads, and the economics of exploiting the subject property, Mr. Kiilsgaard summed up the DMEA position in regard to the application, concluding that from the evidence available we could not justify a recommendation to grant aid to explore the subject property.

Contrary to the data submitted in Mr. Lieberman's letter of July 23, 1957, the meeting disclosed that other than the one new open cut, no mill has been erected, and the Mania adit has only been advanced a few feet since the DMEA examiners visited the property on April 30 and May 1, 1957. The adit work was stopped early in May as the State Mine Inspector would not allow the use of diesel motor equipment underground.

Mr. Lieberman stated that their present plan was to cut a series of trenches at intervals of 100-feet across the magnetite vein; dewater the old Standish shaft; and then take large samples from these openings for mill tests. In view of this promise he wanted us to withdraw our denial letter, or write him stating that the denial was based on insufficient evidence of mineralization. He was advised that we could not agree to either of these requests. However, we said that if he wrote DMEA stating these plans, we would then write him advising that if the results of the proposed work disclosed favorable evidence that could materially alter our previous opinion, a new application would receive consideration. He was also advised that material such as leases, etc., in docket-4567 could be transferred and made part of the new application.

F. M. Murphy

F. M. Murphy

FMMurphy/izm 7-31-57
cc to: Mr. Murphy

DMEA 4567 - Ramapo

Excerpt from Mr. Mittendorf's diary, 7/24/57:

During the middle of the afternoon, while we were involved in the preparation of the statement, a call came from Congresswoman Katherine St. George. I suggested that Frank accept the call in my behalf. We made a check on her State and found it to be New York. I sensed immediately that she was calling in regard to Lieberman's call of yesterday (docket 4567).

Frank later informed me that the call was for that purpose. He talked to a lady but did not know whether it was the Congresswoman or her assistant. She asked that I call back before the close of the day.

This I did, and talked to a Miss Buist. She said the Congresswoman was on the floor at the moment. She wanted to know if I could come to their office at 3 p.m. tomorrow. I told her it would be physically impossible for me to do that because I had received some urgent assignments from the Secretary's office.

I asked if her call was in connection with Lieberman and she said it was. I learned that he visited his Congresswoman's office today and showed them our recent letter of denial. Obviously he enlisted their support in his attempt to get the language of the letter changed. He felt the letter as written would injure his financial plans for the development of his property.

From the way Miss Buist talked it was obvious that Lieberman had convinced them that our action in denying the case was out of order because the AEC had given him a contract for the purchase of uranium oxide. I told her the AEC contract has no relation whatsoever to the merits of the property from the standpoint of exploration.

She said Mrs. St.George would phone me tomorrow, either at 9 or 12 o'clock.

Shortly before 5 p.m. I called Charlie Tulley, of AEC, for the purpose of finding out a little more about this Lieberman contract. He said about March 15, 1957 they entered into a one-year contract which obligated AEC to purchase 50,000 pounds of uranium oxide at $8 per pound. Of course, it had to meet the stated specifications. AEC usually enters into contracts of much longer duration and at negotiated prices, which may be less than the $8 open price schedule. In this case they entered into a relatively short-term contract in order to allow Lieberman to demonstrate the feasibility of his milling methods. Charlie said he felt that Lieberman had a unique process and that the awarding of the contract would give him added incentive to develop it.

I asked Charlie about RFC's methods of determining the ability of an applicant to finance his proposed project. He recalled that in DMA days it was necessary for the applicant to be turned down by RFC as a requisite for applying for a loan under the Defense Production Act. RFC required the applicant to certify that he was unable to finance his proposed project and to furnish proof that he had applied to three lending institutions, submitting

copies of their letters declining the granting of a loan. He said RFC usually required a copy of the applicant's financial statement in order to determine whether or not the banks were acting properly by turning down the loan.

Excerpt from Mr. Mittendorf's diary, 7/25/57:

DMEA-4567 - Ramapo

Murphy informs me that Lieberman called on AEC this morning. He talked with Kratchman, who is going to visit the property on Monday.

Kratchman came over to see us after lunch and told me briefly of his discussion with Lieberman. It seems that the principal issue is the changing of the language in the denial letter. Lieberman does not appear so much interested in financial assistance from DMEA as in the letter denying his application.

Kratchman says his evaluation of the merits of the property, from the standpoint of a uranium producer, coincides with the opinions of our men. He knew this property long before Lieberman became interested in it. As a matter of fact, he visited the ground before Mania, the lessor, acquired possession. The party who first brought the property to the attention of AEC lost his interest after Kratchman made his first visit. Kratchman's trip on Monday has no particular significance. He has been in Peru for six months and now having returned is resuming his regular inspection trips throughout the east.

COPY

COMPANY CONFIDENTIAL

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
U. S. Geological Survey Bldg.
Agricultural Research Center
Beltsville, Maryland

July 15, 1957

Memorandum

To: Quentin Singewald

From: Harry Klemic

Subject: Ramapo Uranium Corporation's uranium prospect near Warwick, N. Y.

On July 3, 1957, enroute to Penna. from Peekskill, N. Y., Fred Fitch, III and I visited a property near Warwick, Orange County, N. Y. where the Ramapo Uranium Corporation is doing some development work. An application for a D.M.E.A. loan had been made for exploration of this property and Bill Williams and Harry Burmeister have visited the property, so D.M.E.A. probably has fairly complete details about the extent of the property and the ownership of mining rights.

The prospect is at the site of the old "Miles Standish" magnetite mine about 3 miles east of Warwick, N. Y. on land owned by a Mr. Fred Mania (spelling?) and leased by Ramapo Uranium Corp. An adjacent piece of land referred to as the McCloud property is also being developed as part of the prospect. The Ramapo Uranium Corp. is currently active in attempting to develope the property. About 13 or 14 men were around the place when we were there and are presumably employed by the company. The mine superintendent, a Mr. Richard Howell, assigned one of the men - Peter Richardson to conduct us on a tour of the property. Richardson is a mineral collector who does the mineralogic work on the property and miscellaneous other jobs.

The workings we saw on the "Mania" property consist of (1) an adit about 8 feet by 8 feet in cross section and 100+ feet long that has been reopened and enlarged. (2) some old test pits and shallow trenches. (3) a stripped area about 150 feet square in which the rock face is exposed in an area about 30 feet by 75 feet. (4) dumps from the adit and old workings. (5) a cleared site on which a mill is to be erected. (6) access roads. On the McCloud property we saw a cleared area about 30 feet wide and 200+ feet long, an old cut about 8 feet wide, 12 feet deep and 30 feet long, from which extends an adit about 30 feet long and about 8 feet by 8 feet in cross section.

The magnetite ore is in hornblende gneiss and the radioactive rock is part of the gneiss adjacent to the magnetite-rich zones. The radioactive zones and the magnetite-rich zones in the gneiss appear to parallel the foliation in the gneiss. Foliation in the gneiss trends about NNE and dips 80° NW to vertical in many places. Some pegmatitic rock is present on the dumps and a hornblende-rich pegmatite is explored in the stripped area on the "Mania" property. Some thin zones of magnetite-rich rock, less than 2 feet thick, were seen, and some magnetite-rich rock with abundant hornblende and pyrrhotite and pyrite were found on the dumps. Background radioactivity in the area is about 0.02 mr/hr. No strongly radioactive rock was found by us on the dumps or in the workings. A rust-stained surface on a block of gneiss in the stripped area on the "Mania" property gave readings of 0.15 mr/hr on the scintillation counter. This was in a zone about 10 feet wide in which the radioactivity averages about 0.06 mr/hr. This zone "reportedly" extends for about 7,500 feet along a slope with a relief of a few hundred feet. In both adits the radioactivity averages between 0.08 and 0.13 mr/hr, with a maximum of about 0.15 mr/hr in the long adit on the "Mania" property, and a maximum of about 0.02 mr/hr in the short adit on the McCloud property.

Some of the magnetite ore and some of the pegmatite and gneiss resemble rock at the Phillips mine near Peekskill, N. Y., particularly the pyrrhotite-rich rock. Specimens of radioactive rock and sulfide-rich rock in the mine headquarters building resemble material from the Phillips mine. Uraninite is reported to be the only radioactive mineral found in significant quantity in the rock that was milled. Samples from the dumps and from various places on the property were said to contain uraninite.

Mr. Howell stated that about 38 tons of material from the dumps and from fresh rock on the property were milled and that 37 pounds of uraninite concentrates were shipped. The grade of the concentrates was not stated. A mill feed containing 0.05 percent U_3O_8 was said to be needed for commercial operation of the mine and mill.

Dr. Broughton of the N. Y. State Geological Survey visited the property while we were there. He mentioned that about 240,000 dollars had been spent in the venture to date. He also mentioned that a mill feed containing 0.05 percent uranium was considered to be necessary for successful operation of the prospect, and said that no core drilling had been done on the property.

Mr. Howell stated that the Ramapo Corp. had a contract to sell some magnetite concentrates and that some of the development work was being done for magnetite.

It is my opinion that the rock we saw on the property does not contain sufficient material with 0.05 percent uranium to make it worth while to set up a mining and milling operation for uranium if a 0.05 percent U_3O_8 mill feed is required.

(The hottest rock sample we got ran 0.009% U see assay attached to Field Team report)

W.P.W.

see letter of July 23 by applicant.

Excerpt from Mr. Mittendorf's diary, 7/23/57:

Lieberman phoned from New York to discuss docket 4567, Ramapo Uranium Corp. Before accepting the call I reviewed the docket. I found that we mailed our denial letter only yesterday, and it seemed apparent to me that the letter had reached Lieberman this morning. From my review of the field team reports and the commodity member comments, I feel that we were on solid ground in denying the application.

I returned Lieberman's call. He was quite disturbed over the language used in our denial. Contrary to the language in our denial letter, he felt that his property could produce significant quantities of material of acceptable grade which would contribute to our overall national defense picture, and furthermore, he felt that his property presents the geologic probability of containing significant ore deposits. He felt that our letter would be very damaging to him when disclosed to his partners and backers.

He said he has accomplished a great deal of work since Burmeister and Williams visited the property. At one point he said he had 15 men employed, and a little while later he mentioned 20 men. He said independent geologists have estimated that he has 50,000 tons of proven ore.

When I asked him where this orebody was found, he said by continuing the tunnel level and by doing some surface work on the hill which had developed into a quarry having a 30 ft. face of magnetite and uranium ore. He said they are milling 30 tons per hour after having constructed a 300-ton-per-day mill. Furthermore, the mill is making a product which meets AEC specifications.

I asked him if he was delivering concentrate to AEC, and he said he had made only two small shipments for testing purposes.

He dwelt on the merits of his new process for milling this type of ore and the extent to which it will revolutionize uranium mining in the East. With this new process he says ores in the East can be successfully milled at grades which would be considered uneconomic by Western standards.

He wanted to come to Washington tomorrow to have a meeting with Burmeister, Williams, and Murphy. I set up a tentative appointment for 10 o'clock Wednesday morning, subject to confirmation after I determined if these men would be available. I learned that Burmeister and Williams are in North Carolina. I therefore called Lieberman back and set up the meeting for 10 o'clock Tuesday, July 30.

I apprised Ellis, Murphy, and Kiilsgaard of this arrangement.

Lieberman pleaded for a reconsideration of his case and mentioned that it might be made on the basis of an alternate program. He said we need not approve the $261,000 he requested; it could be $100,000, or maybe some lesser figure, and as I recall, he mentioned $25,000.

It seemed apparent to me that he was primarily interested in getting (1) some kind of contract from DMEA, and (2) withdrawal of our denial letter.

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 24 1957

DATE	INITIALS	CODE
7/25	C	220
	[illegible]	700

RAMAPO URANIUM CORPORATION
295 MADISON AVENUE
NEW YORK 17, N. Y.

MURRAY HILL 3-5570

July 23, 1957

Mr. C. O. Mittendorf, Administrator
United States Department of the Interior
Defense Minerals Exploration Administration
Washington 25, D. C.

RE: Docket No. DMEA-4567 (Uranium)
Miles Standish Mine
Orange County, New York

Dear Mr. Mittendorf:

This will acknowledge receipt of your letter of July 22, 1957, in reference to the above matter.

The Company application has been before your department since November 23, 1956, and your Mr. Williams and Mr. Burmeister inspected our company's properties and pilot mill last winter and again last spring.

After their last inspection, discussions were held with our Mr. Atwater and Mr. Jarman, and a future exploration program was agreed upon with Mr. Burmeister.

At that time, our company had progressed its Mania tunnel to a point 100 feet in from the portal. This tunnel was being directed towards the crest of the hill where discovery of high uranium material (1% to 2%) had taken place. This was a distance of 300 feet from the face of the tunnel.

Mr. Burmeister's suggestion of continuing the Mania tunnel has been followed and found to be a good and proper suggestion. The tunnel has now been extended in excess of 200 feet further and the radioactivity has improved substantially.

Considerable time has elapsed since the last visit of your Mr. Williams and Mr. Burmeister, during which time our picture has improved considerably.

In the last 14 months our company has expended over $250,000 in equipment and mine development expenditures and for the past six months has employed an average of fourteen men on the very exploration program which was the subject of our application in November, 1956.

In view of our continued and extended progress, we request a reconsideration of your determination of July 22, 1957. We further confirm that we will attend a personal conference with you in Washington at your office on Tuesday, July 30, 1957, at 10:00 A.M.

Very truly yours,

RAMAPO URANIUM CORPORATION

Sidney Lieberman,
President

SL:lc

We herewith submit the following data in support of our request for reconsideration of your previous determination.

1. MINE DEVELOPMENTS SINCE MR. BURMEISTER'S VISIT

The position of this Company has changed substantially since the visit of Mr. Burmeister and Mr. Williams to the properties in Warwick, New York. Since that time the Mania tunnel has been extended into the hillside for a distance of over 200 feet. The geiger counter has shown striking and positive increases with the extension of the tunnel to intercept the mineralized zone at depth. This tunnel development had been approved by your Mr. Burmeister during his visit, and our recent progress has demonstrated the wisdom of this belief. The interception of commercial uranium values has occurred well below the weathered zone, where the Uraninite has remained in its primary nature, in form suitable for concentration by our gravity-magnetic process.

When Mr. Burmeister was visiting the mine, the only evidence available was the surface materials which had been weathered. Petrographic studies have shown that the Uraninite in the surface material has been subject to considerable leaching.

When your Mr. Burmeister was present on the property, there was little to show except the weathered structure with the resultant low uranium content. However, with the work that has progressed without the aid and assistance of the D.M.E.A., we have been able to demonstrate the fact that the Uraninite continues on our property at increasing depth.

Another important fact is that our ore values are never properly evidenced by geiger readings in the rock prior to crushing. The basic structure includes 25% to 65% Magnetite in the ore. Though the magnetite is a source of earnings as a by-product, this is a hindrance in the determination of the uranium values of ore prior to mining and crushing. The gamma ray shielding by the magnetite causes unusually low geiger counter readings which in turn has caused our chemical assays to show much more favorable results than the radiometric equivalents. not so - see Field Team Report assays - WPW

Entirely apart from the tunneling now in process, we have developed a 50 foot wide quarry face 25 feet high which has shown once more that the readings that occur on the surface understate substantially underground uranium values. In the instance of the quarry, we took an area 50 feet east of the main zone of uranium mineralization. This area was selected solely for its dip needle attraction to obtain a source for magnetite for the shielding of reactors. Here surface indications of Uranium were completely absent. Readings taken as the work progressed resulted in discovery of a band of Uraninite bearing ore some four foot in width, and extending back into the hillside on the footwall of the magnetite. In depth, we have exposed nearly fifteen feet of such material which exceeds that which had been judged to be of good value on the trenches.

In view of the results of our own work, and the fact that surface material has consistently been lower in uranium content than depth material, we believe that any decisions reached on surface indications only would be highly prejudicial to the proper evalua-

tion of our property.

2. MILL DEVELOPMENTS SINCE MR. BURMEISTER'S VISIT

In addition to the continued progress on the ground, the following significant developments have taken place at the mill:

1. We have installed a primary and secondary crushing plant with a capacity of 30 tons per hour down to 5/8".
2. We have installed a magnetic separator to follow this crushing plant to extract the magnetite for immediate sale as a byproduct, saving the non-magnetic residue for further processing to recover uranium values when the balance of the mill is completed.
3. We have retained as metallurgical consultant Mr. John Myers (consultant to Denver Equipment Co., formerly with New Jersey Zinc and Tennessee Copper, and winner of the Richards Award of the AIME in 1952). His report recently received confirms the mill design by Mr. G. Wallace Jarman, company metallurgist, and further confirms the estimate of $2.50 per ton for milling costs.
4. We have already installed a 30 kw electric plant on the property, and have ordered some, and plan to shortly order the balance of equipment needed to complete the 300 ton per day pilot plant, in order to start deliveries under the present $400,000 A.E.C. pilot contract.

3. LOWER GRADES OF ORE CAN BE PROFITABLY MILLED

The question of whether an ore is commercial or not hinges around the economy of the mill itself. At present, the uranium milling processes employed out west are of a chemical nature. Due to the extensive plant facilities required, the complicated flow sheet, the chemicals consumed and man-power, the typical western mill demands ore that averages .25% U_3O_8 (five pounds per ton). Contrary to the western type leaching mill, our operation can profitably handle ore as lean as .05% U_3O_8 (1 lb. per ton). Note: DMEA sampling indicates 0.002% U_3O_8 (chemical) as the average of best rock.

Reports by our consulting metallurgists agree that the overall cost of crushing, screening and mechanically separating the ore will not be in excess of $2.50 per ton. This cost estimate is based on a depreciation rate of 10%, using 200 HP in the mill, a 5-day work week, 50-week year, using 8 men on each of 3 shifts at $2.20 per hour (including pay-roll taxes and compensation insurance), handling 75,000 tons a year.

Our consulting mining engineer forecasts mining costs of $4.50 per ton. Adding $1.00 per ton for overhead, we forsee a total mining and milling cost of about $8.00 per ton. The leanest of our ore, .05% U_3O_8 would yield sales value of $2.00 for the magnetite and $6.40 for the Uraninite (80% recovery of 1 lb. at $8.00 per pound).

This does not establish the basis for great profits, but definitely illustrates that the system can handle a lower grade of

ore than any other mill we know of. Obviously, it can handle higher grades of ore at no additional operating cost.

4. WHAT THIS MINE WILL DO FOR THE EAST

We feel that the development of this uranium deposit will be of great benefit to the Eastern States as well as the National Defense. Prior to the development of our deposit, there was only sporadic and meager uranium prospecting efforts in the eastern area. Since the opening of our mine and the receipt of our A.E.C. license to buy crude ore, there has been an increase of independent prospecting and uranium exploration in the entire Eastern area.

Since the primary uranium ore we are mining is totally different from the secondary ores of the Colorado Plateau, the people of this Eastern area have been in need of guidance in the matter of proper handling of their deposits and look to us for guidance and encouragement. Our work in the mine, and the developments of the pilot plant mill have indicated the feasibility of making a uranium concentration from Eastern Ore which would be acceptable to the A.E.C.

Entirely apart from our own consideration, without the incentive of an operating plant in the area there is less likelihood of concerted efforts to develop mine potentials. We are aware of at least 50 prospects within 100 miles at our mill. These of themselves may become significant sources of uranium.

5. PROJECT DIVISIBLE INTO SUCCESSIVE STAGES

We ask that our request be amended to subdivide the program into several stages of development.

We have made the suggestion that this item be handled in stages in order to permit the DMEA to have full check on the progress, and thus assure that the expenditure of funds is made upon proven potentials.

We would be pleased to review our proposed program to determin e how it would best be divisible into separate stages.

PRESIDENT Sidney Lieberman and mine superintendent "Red" Howell discuss a problem at the new mine adit.

DISCOVERER William Mania (right) found radioactivity first on old iron mine dumps. Walter S. Newman is at the left.

Eastern Uranium Mine Prepares to Ship Product

THE ONLY URANIUM MINE east of the Mississippi River with an Atomic Energy Commission contract to purchase concentrates is moving toward shipment.

Ramapo Uranium Corp., whose offices are in New York City, is mining magnetite and uraninite from some old iron mines near Warwick, N. Y., about 60 miles northwest of New York City. The discovery lies in an area 2½ miles long by one mile wide, with three nearly-parallel radioactive zones in evidence.

Radioactivity is found in lean magnetite on the footwall side of the contact between granite rock and magnetite veins. Uraninite occurs in and around pyrite. The magnetite outcrops or lies shallow in the overburden, runs 5 to 15 ft in width.

First discovery was made by William Mania, a prospector from New Jersey who "likes to walk." Mania tramped over the hills around Warwick with a counter for many months before he encountered a spot where the machine "acted like something was broken."

While radioactivity is extensive in the old iron seams, Ramapo's president, Sidney Lieberman, is the first to say that his company has a lot to learn about the deposit. His company is probing the old iron mine shafts and cavings where Mania made his original discovery and driving an adit toward the footwall contact in one mine. It was in the dump of this property, the Miles Standish mine, that Mania found samples which assayed up to 1% U_3O_8.

Uranium-bearing lean magnetite reportedly runs 0.05 to 0.15% uranium oxide, with assays of up to 1% occurring in pockets. Some 25,000 tons of ore has been proven by mine superintendent Richard Howell and his crew. Miners were recruited from New Jersey and New York.

To date, some $250,000 has been expended by the company on the 580-acre claim and the pilot plant at Warwick. The pilot plant has been in operation for several months, turning out a concentrate averaging from 50 to 86% U_3O_8. So far, no concentrate has been delivered under the AEC contract which provides for purchase of up to 50,000 lb at $8 per lb.

OUTCROPS all along the strike of magnetite show uranium content.

Pilot plant uses a dry grinding technique, followed by air separation and magnetic cleaning which yields a barren sand, an almost barren high grade fine iron ore (plus 40 mesh) and a high grade uraninite and pyrite concentrate.

Ramapo Uranium will have a new mill operating in August to handle some 300 tpd ore. Mill is located on the mine site and will differ from the pilot plant procedure in that crushing will be wet, as will jigging. Final concentrate will be a product of air separation. Crushing will be by one jaw crusher and one roll. Magnetic separators are being installed.

Separation of magnetite from uraninite and pyrite is done simply and Ramapo is basing a good part of its future on the sale of by-products. So far, according to Lieberman, the company has found good markets for the magnetite and sand.

The company has progressed rapidly from the date when it leased Mania's discovery. The adit into the old iron mine which was the site of the first find is now in some 300 ft and two raises will be completed shortly. Testing and assaying go on constantly in what Lieberman calls "a slow, but steady" move toward capacity. The front end loader which was mucking in the adit will soon be replaced by an air locomotive and track.

Concentrate produced for the AEC will be shipped to the plant at Fernald, Ohio operated by National Lead Co.

Reprinted from ENGINEERING AND MINING JOURNAL May 1957

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Date	Surname	Code
7-18	Murphy	700
7-18	Ellis	700
7/22	Martin	130
7/22	Lamb	130
7/22	Kiilsgaard	130
"	Johnson	110
	Mittendorf	100
7/23	P.K.	220
		225

JUL 22 1957

Mr. Sidney Lieberman, President
Ramapo Uranium Corporation
295 Madison Avenue
New York, New York

Re: Docket No. DMEA-4567 (Uranium)
Miles Standish Mine
Orange County, New York

Dear Mr. Lieberman:

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

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

Careful study of all our information, although noting some minor uranium mineralization on your property, indicates that the probability of disclosing significant ore reserves is not sufficiently promising to justify Government participation. We regret to advise you that, under these circumstances, your application for exploration assistance is denied.

We wish to thank you for your interest in the Defense Minerals Exploration Program and for bringing your property to our attention.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

FMMurphy/izm 7-18-57
cc to: Mr. Murphy
Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224
DMEA FT Reg. V (2)

8623

Docket

Murphy
Ellis

July 18, 1957

Summary of Proposed Project

Object: Denial of application for exploration aid.

Docket No.: DMEA-4567

Commodity: Uranium

Applicant: Ramapo Uranium Corporation (Delaware)
Sidney Lieberman, President
295 Madison Ave., N.Y.N.Y.

Amount of Application: $25,000 (original). On May 16, 1957 Applicant amended amount to $261,329.00.

Property: Lessee of the following land: William P. Mania leases 74 acres; John Vincent Dolan leases 12 acres; Peter Giangrande leases 23 acres; Richard D. Howell leases 5.42 acres; George McCloud leases 8.36 acres. In the amended application the Giangrande and McCloud leases were deleted. The property is referred to as the "Miles Standish Mine," and is situated in Orange County, New York, on the southwest end of Warwick Mountain and about 2 miles southeast from the Village of Warwick.

Date of Application: November 23, 1956

Referred to Reg. V: December 28, 1956

Field Examination: January 16-17, 1957, however an appraisal of the merits of the proposed project could not be made because a thick capping of snow covered the property. The field examiners requested that data on the pilot mill operation be forwarded by the Applicant. A report of this examination was submitted to Washington. A second field examination was made April 30 and May 1, 1957.

Report of 2nd Examination received: July 5, 1957

Work Proposed and Costs: (Amended application):

Mania tunnel, 2,300 ft. @ $70/ft.	$161,000.00	
Crosscuts, 575 ft. @ $40/ft.	23,000.00	
Raises, 120 ft. @ $40/ft.	4,800.00	
Crosscut tunnel, 500 ft. @ $70/ft.	35,000.00	
Labor, supervision, consultants	25,120.00	
House for Pilot Mill	5,000.00	
Assays for U_3O_8, 280 @ $15/each	4,200.00	
Miscellaneous	3,209.00	
TOTAL		$261,329.00

Excerpts from Field Team Report: (second):

Uraninite and possibly minute amounts of secondary uranium minerals are sparsely disseminated in Precambrian granite-gneiss in conjunction with concentrations of pyrite and magnetite.

The Applicant has expended considerable sums in bulldozing and trenching, to little purpose. Only one trench was in condition to be sampled, the balance having been backfilled. The Applicant claimed that previous to backfilling the trenches had exposed very good uranium values. The only underground work done by the Applicant consists of the Mania adit, 164 feet in length, and the McCloud adit, 10 feet in length.

A small pilot mill in Warwick, owned by the Applicant, was used to concentrate some selected "ore." According to the Applicant 38 tons of mineralized rock has been partially processed. Only about 10 tons have been passed over the air table, the final concentration phase. Of the material processed, the Applicant stated that 40 to 50 pounds of concentrate that ranged in grade from 20 to 80% U_3O_8 was recovered. The Applicant further stated that total production of concentrates up to May 1, 1957, had a total contained U_3O_8 content of 10 to 15 pounds. Using the AEC purchase price of $8 per pound, the maximum value of the concentrates is $120.

All "ore" processed in the pilot mill has consisted of carefully selected pieces from the old Miles Standish Mine dumps. The examiners scintillometer survey of these dumps indicates that this source of ore has been completely depleted and that no reserves remain.

The Miles Standish mine is now caved, flooded, and inaccessible. It appears from old caved stope areas that break through to the surface, to have been along a 4 to 5 foot thick magnetite vein accordant with the attitude of the gneiss foliation. There is no known record available of production from this mine which was operated over a century ago.

Three samples were taken during the first examination and 29 during the second. The highest assay (0.12% U_3O_8) was a mill head sample of the high grade pieces that had been picked from the old magnetit dumps with the aid of scintillation counters. The best rock sample taken by the examining team assayed 0.009% U_3O_8, this sample was from the only open trench. Samples from the Mania adit and dump all assayed 0.002% U(chemical), or about 0.0023% U_3O_8. This would indicate that the "ore" from this opening would have a gross value of $0.37 per ton.

In view of the results of the field examination, the Field Team concurred in the examiner's recommendation that the subject application should be denied.

Commodity Member's Comments:

USGS, N. E. Nelson, July 10, 1957:

Mr. Nelson reviews the field examiner's report and notes that because there is no evidence of uranium deposits on the property, he concurs in the Field Team's recommendation to deny the application.

USBM, James Paone, July 17, 1957:

Mr. Paone concurs in the Field Team's recommendation that the application be denied.

Div. of Rare & Misc. Metals, F. M. Murphy, July 18, 1957:

Pages relating to the subject proposed project, taken from the June 1957 issue of the E. and M. Journal have been placed in the docket.

Judging from the report of examination the Applicant is very mistaken in regard to the uranium potentiality of the subject property. The report on the property in the E. & M. Journal is very surprising as it could be used to advantage by an unethical mine-stock promoter.

Conclusions and Recommendations:

This Division concurs in the Field Team's recommendation that application DMEA-4567 should be denied.

Ernest Wm. Ellis

Ernest Wm. Ellis, Director
Div. of Rare & Misc. Metals

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DMEA
RECEIVED JUL 18 1957

DATE	INITIALS	CODE
7/19	C	220
"	FMM	700

UNITED STATES
DEFENSE MINERALS ADMINISTRATION
BUREAU OF MINES
Washington 25, D. C.

Date July 17, 1957

DMEA Docket No. 4567
DMEA Contract No.
Commodity Uranium
Name of applicant Ramapo Uranium Corp
Name of property New York Miles Standish Mine
Location of property Orange County, New York
Estimated cost of project

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee
From: James Paone, Bureau of Mines Member
Uranium Commodity Committee
Subject: Review of Field Team report
(Application, Field Team report, etc.)

1. Date of project description: 7/2/57 2. Date received by reviewer: 7/16/57
3. Field reports on this property known to reviewer: Yes ☐ No ☐
4. Reports on nearby properties known to reviewer: Yes ☐ No ☐
5. Information available on past production: Yes ☐ No ☐
6. Other pertinent factors known to reviewer: Yes ☐ No ☐
7. Explain items marked yes above:

8. Factors meriting special consideration:
a. Location ☐
b. Ownership ☐
c. Evidence of mineralization ☐
d. Geology ☐
e. Proposed exploration method ☐
f. Alternate exploration method ☐
g. Costs ☐
h. _____ ☐

9. Action advised:
a. Obtain information from applicant ☐
b. Refer to Field Team ☐
c. Denial ☒
d. Agree with Field Team ☒
e. Disagree with Field Team ☐
f. Suggest alternate plan ☐
g. Request another examination ☐
h. Approval ☐
i. Consult with Mr. _____ at _____ AEC office.

10. Remarks: (Use back of page if necessary) The addendum supplied with DMEA 4567 provides factual data that was misrepresented in an article that appeared in E & MJ. It is evident that the entire project by Ramapo is promotional in nature.

IN REPLY REFER TO:

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DMEA
RECEIVED JUL 11 1957

DATE	INITIALS	CODE
7/11	P.K.	220
	Murphy	700
Memorandum		

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

July 10, 1957
Re: DMEA 4567
Ramapo Uranium Corp.
Miles Standish Mine
Orange County, New York
$261,329.00 - Uranium

To: E. W. Ellis, Defense Minerals Exploration Administration

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

Subject: Review of Field Team Report

The applicant requested assistance in exploring a long band of granite gneiss (Precambrian) which the applicant asserted showed a continuous field of anomalous radioactivity.

The examiners visited the prospect twice. As their observations and instrument readings were not in agreement with most of the assertions of the applicant, all openings were subjected to close and repeated scrutiny.

The close examination shows that uraninite and possibly extremely minute amounts of secondary uranium minerals are sparsely disseminated in the granite-gneiss. Uraninite appears to be more abundant near and within areas where pyrite and magnetite, especially pyrite, are most abundant.

Some small concentrations of radioactive minerals appear to have occurred along fractures in the granite-gneiss country rock, but no large, strongly developed geologic structure such as would serve to localize ore deposits was observed. Even picking of the magnetite containing dump material from the magnetite mine failed to yield a significant quantity of material fit to process in the pilot mill.

No uraninite "veins" as such were observed.

In summary, after careful examination and extensive sampling there is no geologic evidence of uranium ore deposits on the property.

The examiners and the Field Team recommend that the application be denied. I concur with that recommendation.

N. E. Nelson

N. E. Nelson

Return to E.M. Murphy
Rm. 4447

Murph:

I've been hearing so much about the Ramapo magazine article that I wrote a blurb to attach to our report. (See attached).

Also; here are some assays from the property. If any questions buzz me.

B. Williams

Note: Field Team report of examination will be submitted shortly. It will recommend denial.

DMEA 456.7

ADDENDUM

Considerable interest has been aroused in many quarters by the article about Ramapo Uranium Corporation that recently appeared in Engineering and Mining Journal, June 1957, p. 81. This addendum is occasioned by the fact that much of the information published in the magazine article is at wide variance with the findings of the DMEA examining team.

In order to make a critical appraisal of the E. & M.J. article it is necessary to establish the approximate date upon which the facts were obtained by E. & M.J. - a bit of information the article leaves open to conjecture. The DMEA examining team made their second visit to the Ramapo property on May 1, 1957. On that date the DMEA team was informed by Ramapo principals that their geologist, Walter S. Newman, had previously left the employ of the company after a disagreement with the president. E. & M.J. exhibits a photograph of Newman on the Ramapo property. It is thus established that the information in E. & M.J. predates the facts ascertained by the DMEA examiners.

Inquiry of AEC personnel reveals that although the Ramapo Company has, in fact, a contract to sell uranium concentrates to the Government, the contract is of a trial nature and full cognizance was taken of the experimental nature of Ramapo's separating and concentrating process when the contract was awarded. Furthermore, the AEC contract entailed no detailed analysis of either the operator's ore reserves or the practicability of his ore concentrating procedure.

The following items in E. & M.J.'s article were not verified by the DMEA team:

1. Ramapo Company was not "mining magnetite and uraninite from some old iron mines". The old magnetite mine was flooded to the shaft collar with water and the workings were caved and inaccessible.

2. "Three nearly-parallel radioactive zones" were not found by careful search of the property with radiation detection instruments and such "zones" were not shown the DMEA examiners by Ramapo's president.

3. Radioactivity is not "extensive". It is confined to small, scattered, extremely local patches. The highest grade hand-specimen sample (2" x 2" x 3") found by the DMEA examiners did not "assay up to 1% U_3O_8" — it assayed 0.025 percent U, (sample no. R1).

4. If "25,000 tons of ore has been proven", it must be measurable. All the material that could even be remotely construed as 'ore' that was seen or shown the DMEA examiners was measurable in pounds or, at most, a few tons.

5. The pilot plant has not "been in operation for several months". It was never demonstrated to the DMEA team that the pilot plant could function continuously as a complete, coordinated process.

6. A mill site had not even been cleared of timber on May 1. As a matter of fact on that date the applicant was still speculating on a possible mill site with regard to water supply, tailings disposal, etc.

7. The adit was not "in some 300 ft." By tape measurement the adit was in 163.5 feet, portal to face.

8. "Outcrops all along the strike of magnetite show uranium content", (caption under picture). The trench shown in the picture is the exact site of DMEA sample no. 1. That sample assayed 0.009 percent U. The trench was the most radioactive place that could be found on the surface of the whole property by the DMEA team.

The AEC informed the ~~writers~~ DMEA team that E. & M.J. contacted persons in the AEC for suggestions prior to publishing the article. E. & M.J. was advised to proceed with caution, as there were many problems involved. The published report in E. & M.J. has a 'sensational' aspect and contains many assertions that the DMEA examiners could not substantiate through careful field investigation.

9-011

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Report No. TMC-5569 For W. S. Williams Date June 10, 1957

Requested by

Lot No. 2030

Gaelus samples from Warwick, New York

Sample No.	Lab. No.	% U	% Eq. U
The following samples are 60 m.			
1	151157	.009	.015
A	151158	.002	.006
B	151159	.002	.006
Adit Dump	151160	.002	.005
Adit Face	151161	.003	.010
The following samples are -75 m.			
Heads - mag.	151162	.015	.014
Heads - non-mag.	151163	.12	.16
Conc. - mag.	151164	.018	.025
Conc. - non-mag.	151165	.2	5.5, 5.9
Mids - mag.	151166	.007	.007
Mids - non-mag.	151167	.16	.10
Tails - mag.	151168	.008	.012
Tails - non-mag.	151169	.019	.025

By

Continued on next page

Hugh H. Bracher

Geochemistry and Petrology Branch
Liaison Officer
Atomic Energy Commission Program
Geochemistry and Petrology Branch

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9-011

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Report No. [illegible]-5909 For W. F. Williams Date June 10, 1957

Requested by

Lot No. 2030 (Page 2)

Sample No.	Lab. No.	[illegible]	[illegible]
The following samples are +40 -20 m.			
Heads - mag.	151170	.008	.011
Heads - non-mag.	151171	.027	.028
Conc. - mag.	151172	.007	.008
Conc. - non-mag.	151173	1.2	1.6
Mids - mag.	151174	.005	.007, .008
Mids - non-mag.	151175	.024	.030
Tails - mag.	151176	.012	.013
Tails - non-mag.	151177	.007	.010
The following samples are +70 -40 m.			
Heads - mag.	151178	.007	.011
Heads - non-mag.	151179	.11	.13
Conc. - mag.	151180	.034	.040
Conc. - non-mag.	151181	4.8	5.1
Mids - mag.	151182	.016	.013
Mids - non-mag.	151183	.031	.036
Tails - mag.	151184	.010	.012
Tails - non-mag.	151185	.006	.007

Note: Results telephoned to Mr. Williams [illegible]

By Analysis of All Raw Materials (Washington)
Joseph Rudinsky and Benjamin McCall
Project Leader: Irving May

Hugh H. Lovering
Geochemistry and Petrology Branch
Liaison Officer
Atomic Energy Commission Program
Geochemistry and Petrology Branch

Irving May

bam

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DMEA 4567

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Report No. TWC-5414
TWP-3286

For W. P. Williams

Requested by

Date March 20, 1957

Lot No. 5030

Refer: TWM-717

Samples from Warwick Mountain, Orange County, New York

Sample No.	Lab. No.	% U	% Eq. U	Description	
R 1	150515	.025, .025	.038, .035	Granite with uraninite	Mania Adit
R 2	150516	.012	.014	Gneiss	McCloud Adit
R 3	150517	48	~ 35	Concentrate of uraninite and pyrite	Pilot Mill

B 1344

By Analysis of AEC Raw Materials (Washington)
Analysts: Roosevelt Meade and
Benjamin A. McCall
Project Leader: Irving May

Geochemistry and Petrology Branch

bam

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Behind the By-Lines...

G. P. Lutjen

We're as pleased as a hard rock miner with a pay boost, to welcome back John Allingham whose article "How to Reduce Gold Losses in Cyanide Mills" appears on p 101. Mr. Allingham has been a long time gone; his previous contribution to *E&MJ* was in September 1916 when he wrote the article, "Treating Amalgamation Tailings." Mr. Allingham has retired as a metallurgist and is living in Fontana, Calif. It's awfully nice to have his by-line again.

One of the most sought after men in the early 1957 Eat & Speak Circuit (Mining Division), was Phil Jenney, geologic consultant, currently operating out of Toronto.

Phil has done an outstanding job of sorting out what's going on in the fabulous New Brunswick mining area. His talk before the pros in the exploration game at the Canadian Prospectors Association early in March was one of the most articulate roundups on a booming mining camp that we have seen. So enthusiastic were reports by the audience that the New York Section of AIME persuaded Mr. Jenney to give a repeat performance at its April meeting. The house was packed and *E&MJ* editors felt that their 20,000 subscribers ought to be cut in on the story. With Mr. Jenney's permission we are presenting a condensed version of his talk on p 95.

DMEA-4567

This month we're plugging for a uranium miner up in the Ramapo Mts. His name is Sidney Lieberman and he's building a mill to be ready in August for the crushing, grinding and air separation of his ore. His big problem is that he has to sell the magnetite and crushed rock that comes with the U_3O_8 to make a profit. So far he's overcoming these and other obstacles like mild skepticism on the part of old hands in the uranium business.

To get a first hand report on how Sid is doing, a couple of *E&MJ* editors packed a picnic basket a while back, selected a delightful spring day and motored up to Warwick, N. Y. Their report, submitted with a leftover peanut butter and jelly sandwich, is being published on p 81 of this issue.

Not in this issue, although we said it would be, is Part II of the May article, "How to Select Your Conveyor Belt." The standard story in cases like this usually involves, "circumstances beyond our control." While it's true that circumstances get pretty uncontrollable when you're putting out two issues as we do in June, we can't really offer it as an excuse. Instead we can only assure you that Part II is in the works for July.

We Told You So Department. The following is a verbatim Associated Press dispatch which we have been saving for some time.

"Ipswich, England, Jan. 14—A mental patient at an Ipswich hospital today won £30,000 ($84,000) for a two pence stake in a football pool."

This substantiates an observation we made here several years ago: "You don't have to be crazy to bet on football games, but it helps."

A new record for candor among movie stars was established in another A. P. dispatch. The lead paragraph, word for word, follows.

"Rome, Jan. 3—Gina Lollobrigida is going to have a baby. She announced today: 'I must confirm that I am expecting a child. It has become too difficult to say *no* all the time'."

The next paragraph straightened the situation out but not before it had given us quite a turn. It seems Miss L. and her husband had been saying "no" to stork rumors for some time.

Two good stories were among the minor benefits derived from attendance at the Coal Show, an awesome display of coal mining equipment that played in Cleveland last month under the auspices of the American Mining Congress. Both stories, oddly enough, are on the pachydermal side, a subconscious reflection perhaps of the size of the show.

The first concerns a well traveled geologist who was about to order a meal in a new restaurant when he noticed a sign on the wall offering $1,000 to anyone who could order a dinner, no matter how bizarre, that the restaurant could not furnish.

"An easy thousand," thought the geologist, and when the waiter came for his order, he casually asked for fried elephant ears on a bun.

Without batting an eye, the waiter inquired whether the gentleman would prefer African or Indian elephant.

With equal aplomb our geologist friend tossed off, "African, of course."

The waiter disappeared but after six or seven minutes returned with a big grin on his face. "Well, sir, you win the $1,000," he said with a laugh. "We're all out of buns."

The second story concerns the commuter who sat in the first car of the Chicago-Milwaukee rapid transit cannonball each day and carefully tore his newspaper to bits, trickling the scraps out of the window.

The conductor watched this performance for several days. When his curiosity got the better of him he finally inquired politely into the passenger's motives. "What's the big idea of tearing up the paper and throwing the pieces out the window?"

"To keep the elephants off the track," replied the commuter with poorly concealed disdain over the stupidity of the question.

"Look, chum, there are no elephants for miles around here."

"I know," said the commuter with a self-satisfied smile. "Effective, isn't it?"

June 1957

conduct research work on iron ores. A pilot plant, constructed in 1954 at Republic's Spaulding Mine near Birmingham, Ala., has been producing high metallic iron stock in quantities sufficient for commercial testing purposes.

Mining Calendar

Idaho Mining Assn., Sun Valley Idaho. July 15-16

American Mining Congress, 1957 Metal Mining and Industrial Metals Convention, Salt Lake City, Utah. Sept. 9-12

International Mineral Dressing Congress, Stockholm, Sweden. Sept. 18-21

Exploration Drilling Symposium, University of Minnesota, Minneapolis, Minn. Oct. 3-5

Southeastern Mining Society Conference, AIME, Hillsboro Hotel, Tampa, Fla. Oct. 15-18

Rocky Mountain Minerals Conference, AIME, Denver, Colo. Oct. 30-Nov. 1

Longyear Will Drill in Grants-Ambrosia District

EXPLORATION DRILLING in the biggest block of land in the Grants-Ambrosia Lake area of McKinley County, N.M. will be undertaken by E. J. Longyear Co. shortly. Contract was signed last month with Yucca Mining & Petroleum Co., Inc. and a limited partnership of investors operating under the name of Mineral Project-Venture B. Ltd.

Longyear will manage the exploration program over a 16,000-acre area, located some 6 miles east of Ambrosia Lake. The so-called San Mateo dome structure reportedly is uplifted, with hilly, rough terrain. Financing for the San Mateo project will come from Lisbon Uranium Corp., controlled by Atlas Corp., and from Mineral Project-Venture B.

Kermac Nuclear Signs For Third Ambrosia Mill

ATOMIC ENERGY COMMISSION and Kermac Nuclear Fuels Corp. have signed a contract under which Kermac will construct a 3,300-tpd mill in McKinley County, N.M. Construction is underway with completion set for July 1958. Site of the mill, Kerr-McGee's second in the area, is 25 miles north of Bluewater: first mill was constructed at Shiprock.

Cominco Plans Pig Iron Plant for Kimberley, B.C.

CONSOLIDATED MINING & Smelting Co. of Canada Ltd. announced recently that it is planning an iron plant at Kimberly, British Columbia.

At the annual meeting in Montreal, Cominco president R. E. Stavert said, "We are now considering the production of pig iron and steel from the pyrrhotite tailings from the Sullivan Mine.

According to the *Canadian Press,* initial costs of the proposed plant will run about $5-million.

As We Went to Press . . .

A dissatisfied mining industry voiced objections to the final, and submitted draft of the Administration's long-range mining doctrine, pieced together after more than three years of haggling between the various Government agencies—Interior, State, Treasury, Agriculture, Commerce and Office of Defense Mobilization.

The five-point plan Interior Secretary Fred A. Seaton sent to Capitol Hill May 27 proposes sliding-scale import excise taxes on foreign produced lead and zinc (aimed at stabilizing domestic prices at 16c and 13½c, respectively), a stepped-up technical research and mineral development aid program, specific production bonuses for beryl, chromite and columbium-tantalum, a review of mining tax laws, and a recommendation for continued stockpiling of the four metals and minerals in PL 733.

Producers of other metals are asking, "What about us?" Their drive to liberalize the doctrine revolves around Senate support led by Interior Committee chairman James E. Murray (D-Mont.), who immediately called for hearings for June 4. The Administration doctrine faces a hard fight even as it is now written. Liberalizing amendments will slow final passage even more, with the result that nothing will be enacted before next year. Murray may press for an outright domestic price subsidy in place of the doctrine, but this move stands even less chance of acceptance by a budget-minded Congress.

In a sudden switch from suspension of the barter program (see p118) the Government has authorized a program which permits barter of domestic farm surpluses for foreign strategic metals and minerals on a sharply curtailed basis. Revised program set up by the Department of Agriculture tightens responsibility of brokers who handle the actual trading.

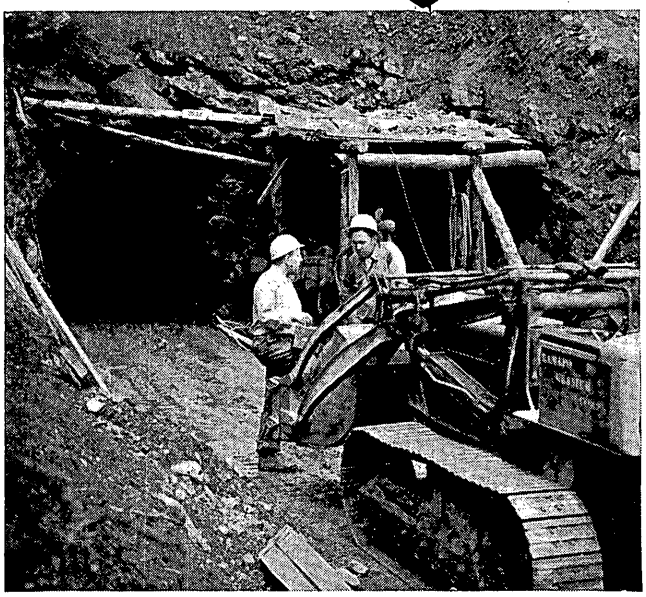
Some of the new restrictions include: (1) burden of proof that any given deal will result in a net increase of U. S. farm crop export; (2) a new requirement that metals and minerals acquired in barter must be both mined and processed overseas; (3) an interest charge on money the broker may get from sale of the crop before purchase of the metal; (4) tighter designations of what crops are to be bartered for what minerals, and the origins of the foreign minerals; (5) bans on unauthorized three-way trades and deals.

There are also special restrictions on the barter of wheat, cotton and feed grains (primarily corn)—which cannot be bartered in specific countries without special approval. Object of the restrictions is to prevent barter deals from cutting into cash sales of domestic crop surpluses.

Copper has been added to the list of materials ODM will accept in barter deals for stockpiles.

Agriculture officials admit that the reinstatement of barter came hurriedly as a result of pressure from the farm bloc and export-import traders. There is talk that the whole program may be in for still further review, and that the new restrictions may be loosened somewhat.

Domestic mining opposition to many aspects of the barter program also played a part in its suspension and revision—although the requirement that all bartered materials must be both produced and processed abroad dims domestic producers hopes that the program might be liberalized to allow trade of domestic metals and minerals for farm crops.



PRESIDENT Sidney Lieberman and mine superintendent "Red" Howell discuss a problem at the new mine adit.

DISCOVERER William Mania (right) found radioactivity first on old iron mine dumps. Walter S. Newman is at the left.

DMEA-4567

Eastern Uranium Mine Prepares to Ship Product

THE ONLY URANIUM MINE east of the Mississippi River with an Atomic Energy Commission contract to purchase concentrates is moving toward shipment.

Ramapo Uranium Corp., whose offices are in New York City, is mining magnetite and uraninite from some old iron mines near Warwick, N. Y., about 60 miles northwest of New York City. The discovery lies in an area 2½ miles long by one mile wide, with three nearly-parallel radioactive zones in evidence.

Radioactivity is found in lean magnetite on the footwall side of the contact between granite rock and magnetite veins. Uraninite occurs in and around pyrite. The magnetite outcrops or lies shallow in the overburden, runs 5 to 15 ft in width.

First discovery was made by William Mania, a prospector from New Jersey who "likes to walk." Mania tramped over the hills around Warwick with a counter for many months before he encountered a spot where the machine "acted like something was broken."

While radioactivity is extensive in the old iron seams, Ramapo's president, Sidney Lieberman, is the first to say that his company has a lot to learn about the deposit. His company is probing the old iron mine shafts and cavings where Mania made his original discovery and driving an adit toward the footwall contact in one mine. It was in the dump of this property, the Miles Standish mine, that Mania found samples which assayed up to 1% U_3O_8.

Uranium-bearing lean magnetite reportedly runs 0.05 to 0.15% uranium oxide, with assays of up to 1% occurring in pockets. Some 25,000 tons of ore has been proven by mine superintendent Richard Howell and his crew. Miners were recruited from New Jersey and New York.

To date, some $250,000 has been expended by the company on the 580-acre claim and the pilot plant at Warwick. The pilot plant has been in operation for several months, turning out a concentrate averaging from 50 to 86% U_3O_8. So far, no concentrate has been delivered under the AEC contract which provides for purchase of up to 50,000 lb at $8 per lb.

OUTCROPS all along the strike of magnetite show uranium content.

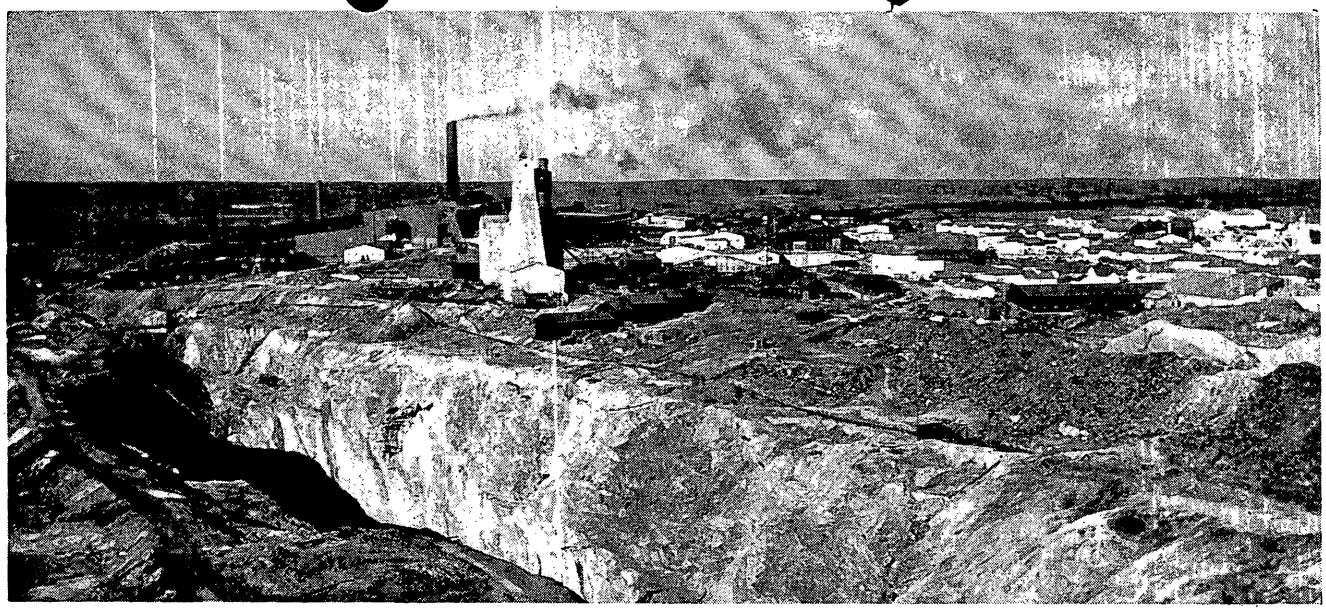
Pilot plant uses a dry grinding technique, followed by air separation and magnetic cleaning which yields a barren sand, an almost barren high grade fine iron ore (plus 40 mesh) and a high grade uraninite and pyrite concentrate.

Ramapo Uranium will have a new mill operating in August to handle some 300 tpd ore. Mill is located on the mine site and will differ from the pilot plant procedure in that crushing will be wet, as will jigging. Final concentrate will be a product of air separation. Crushing will be by one jaw crusher and one roll. Magnetic separators are being installed.

Separation of magnetite from uraninite and pyrite is done simply and Ramapo is basing a good part of its future on the sale of by-products. So far, according to Lieberman, the company has found good markets for the magnetite and sand.

The company has progressed rapidly from the date when it leased Mania's discovery. The adit into the old iron mine which was the site of the first find is now in some 300 ft and two raises will be completed shortly. Testing and assaying go on constantly in what Lieberman calls "a slow, but steady" move toward capacity. The front end loader which was mucking in the adit will soon be replaced by an air locomotive and track.

Concentrate produced for the AEC will be shipped to the plant at Fernald, Ohio operated by National Lead Co.



FLIN FLON, Manitoba, where Hudson Bay Mining & Smelting Co. smelts 880 tons of copper concentrate, necessary silica flux and about 280 tons of zinc plant residue a day. Hudson Bay treats all the reverberatory slag to recover the zinc.

How Hudson Bay Fumes Reverb Slag

R. E. MAST
G. H. KENT

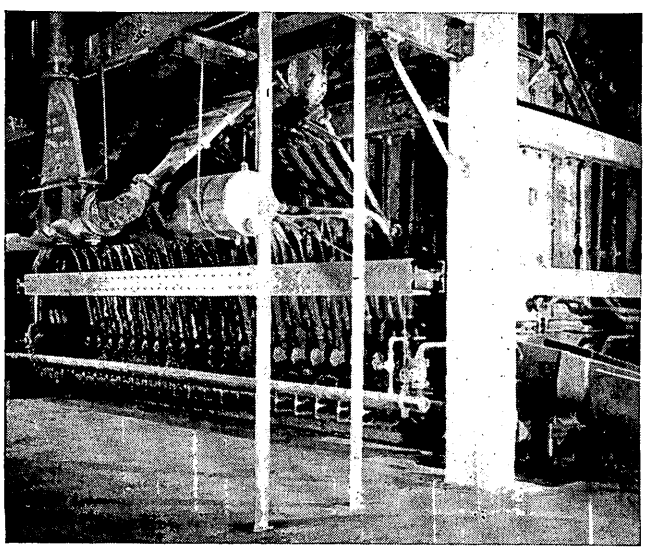
SINCE 1951, the world's first copper reverberatory-slag fuming plant has been recovering zinc successfully from copper reverb slag at the rate of 82 tpd. Starting from slag, running about 8% Zn, Hudson Bay Mining & Smelting Co., Ltd., (HBM&S) recovers better than 88% of the zinc as oxide fume which is treated in the electrolytic zinc plant for recovery of slab zinc.

Mr. Mast is smelter superintendent and Mr. Kent is assistant smelter superintendent, Hudson Bay Mining & Smelting Co., Ltd., Flin Flon, Manitoba.

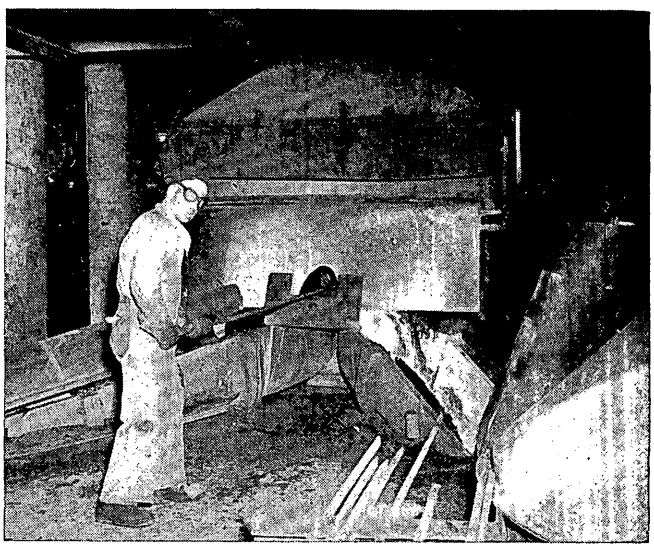
In addition, considerable matte is reclaimed by settling before fuming this slag. Furthermore, slag fuming has indirectly increased ore reserves at Flin Flon, Manitoba, by allowing the company to recover more metal per ton mined. Reserves now stand at approx 15-million tons within trucking distance of the smelter. And, Hudson Bay is steadily building reserves in the Snow Lake area.

This fuming plant was designed on basis of experience gained at Flin Flon; Consolidated Mining & Smelting Co., Trail, B. C.; Bunker Hill Co., Kellogg, Idaho; and American Smelting & Refining Co., El Paso, Tex.—an outstanding example of industry cooperation. Exchange of ideas and data between these companies played an important part in Hudson Bay's success.

The method was proposed, piloted, developed and put into practice at Flin Flon. HBM&S handles all the daily slag production in a plant that will be described in detail below. It includes two holding furnaces (from which matte is recovered), two fuming furnaces, waste heat boilers, fume cool-



FUMING FURNACES are 8 ft wide by 21 ft long with three water-cooled tuyeres in each bottom side jacket.



FUMING FURNACES are tapped into two slag trains. Operator switches movable launder section to fill each pot.

UNITED STATES OFFICIAL - COPY
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 1325 FED. BLDG.
KNOXVILLE 2, TENN.

DMEA
RECEIVED JUL 5 1957

DATE	INITIALS	CODE
7/5	C	220
		130
7-9	C	220
"	Murphy	700

July 2, 1957

Memorandum

To: Operating Committee, DMEA - Washington

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

Subject: DMEA-4567(uranium) Ramapo Uranium Corp., New York
Miles Standish Mine, Orange County, New York

There are enclosed three copies of the subject examination report with maps and pictures attached.

The Field Team concurs with the Field Examiners that this application should be denied.

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

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

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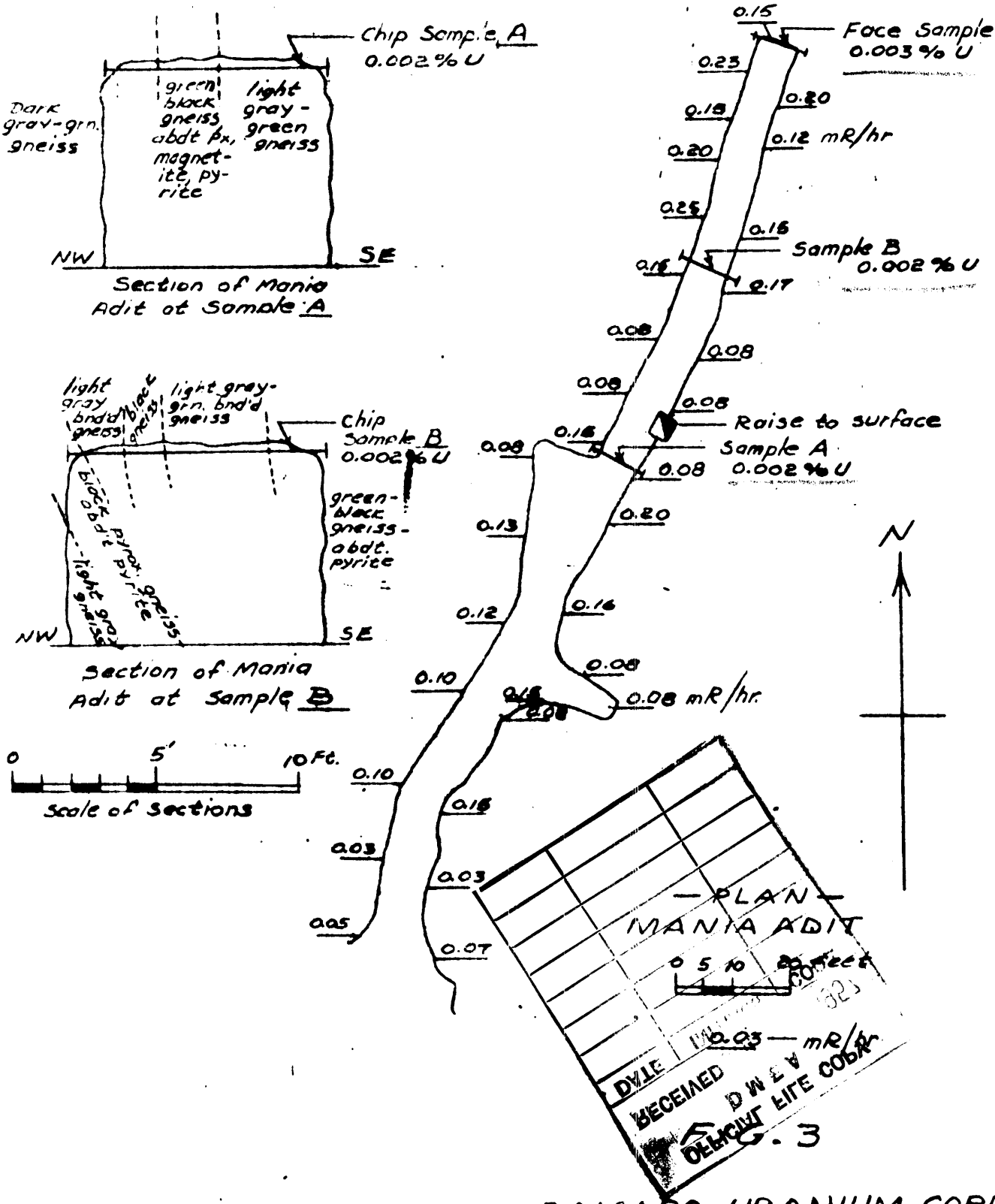
Reviewed by
DMEA OPERATING COMMITTEE
7-8-57
(date)

ON-SITE EXAM

DMEA 4567



RAMAPO URANIUM CORP.

ORANGE COUNTY, N.Y.

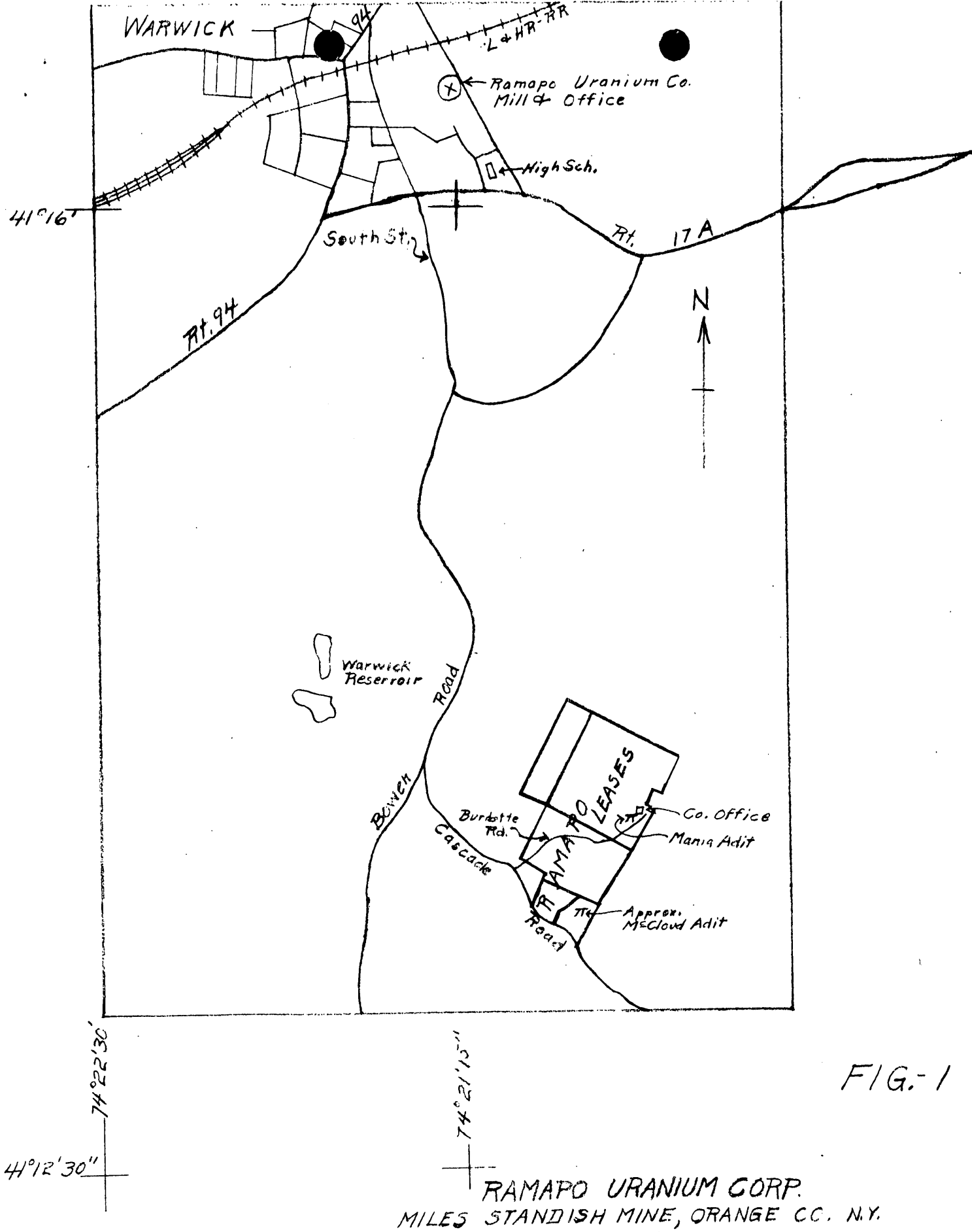


FIG.-1

RAMAPO URANIUM CORP.
MILES STANDISH MINE, ORANGE CO. N.Y.
DMEA-4567
[illegible] ARMY [illegible] U.S. ARMY GREENWOOD LAKE, [illegible] QUADS
[illegible] FIG. 1

Field Team Report on Examination of Property
by
W. P. Williams and H. L. Burmeister

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 5 1957

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DMEA Docket No. 4567 (uranium)

Applicant: Ramapo Uranium Corporation
295 Madison Ave., New York, N. Y.

Property: Miles Standish Mine, Orange County, New York

Summary

On January 16 and 17, 1957 an attempt was made to conduct an examination of this property. Very little could be accomplished, due to severe weather conditions. A report on this visit was submitted February 15, 1957. This report is largely concerned with a second examination made April 30 and May 1, 1957.

Reference to the report on the January visit reveals that the examiners requested the Applicant to furnish or attend to seven specific items necessary to complete this application. Most of these items were complied with under a cover dated April 12, 1957. The additions received were transmitted to Knoxville to supplement the application.

The Applicant has expended considerable sums in bulldozing and trenching, to little purpose. Only one trench was in condition to be sampled, the balance having been backfilled, although the Applicant claims that previous to backfilling they had exposed very good uranium values (picture sample 1).

1/ W. P. Williams, geologist, U. S. Geological Survey
H. L. Burmeister, engineer, U. S. Bureau of Mines

Reviewed by —
DMEA OPERATING COMMITTEE
7-8-57
(date)

The only underground work done by the Applicant consists of the Mania adit drift (fig. 3) which is presently 164 feet in length and the McCloud adit, which is 10 feet long. Results of sampling both underground and on the surface are contained in this report.

Results obtained by a scintillator survey indicate that the uranium mineralization occurs in small segregations both along the strike and across a possible width of 8 to 10 feet.

The small pilot mill in Warwick has in no way been improved since it was described in the report of the January visit. Data on mill heads and products obtained from a run made at the time of this examination are a part of this report.

The Applicant in his latest supplement to the application and cost structure estimates total costs for drifting, crosscutting, raising, pilot plant operation, and technical assistance to be $261,329.00.

Conclusions and Recommendations

Examination of the Applicant's property shows that uraninite, and possibly extremely minute amounts of secondary uranium minerals are sparsely disseminated in Precambrian granite-gneiss. Uraninite appears to be more abundant near and within areas where pyrite and magnetite are most abundant. This is especially true with pyrite as evidenced by the fact that assays of the non-magnetic mill products are higher in uranium than are the magnetic fractions.

In the country rocks some degree of concentration of radioactive minerals appears to have occurred along fractures in the granite-gneiss. Such

concentrations are small, a few inches across at most; are confined to the immediate vicinity of the tight fractures; and are widely and sporadically scattered. The Applicant's assertions that a broad, continuous trend of anomalous radioactivity exists on the property could not be substantiated by careful survey with radiation detection instruments.

There was not observed on the property a single large, strongy developed geologic structure or condition such as a major fault or shear zone, area of brecciation, or marked lithologic change which would serve to localize significant ore deposits. The old, presumably worked out, Miles Standish magnetite ore body could conceivably provide such a structure. However, careful hand picking of many hundred tons of old dump material by the Applicant has afforded only a few tons of material deemed fit to process through the pilot mill.

Contrary to other reports, no uraninite "veins" as such were observed at any place on the property.

The Applicant has never demonstrated that he has perfected a practicable, economic method of milling and concentrating the mineralized material from his property. Regardless of that, samples from the property indicate that the expected grade of the rock would be far below that required to pay for even the cheapest mining costs.

Although small amounts of what may be termed anomalous radioactivity may be found on the property there is no geologic evidence present that would indicate that uranium ore deposits are present. It is the opinion of the examining team that the proposed exploration work would not result in the discovery of significant uranium ore reserves. Furthermore, considering the grade of the

material present with regard to present mining and milling costs and technology it is not believed that any alternative exploration would result in a significant discovery. For the reasons outlined above it is recommended that this application for DMEA assistance be denied.

Time Spent on Property and Party Accompanying Examiners

This property was visited for the second time on April 30 and May 1, 1957 by an examining team consisting of W. P. Williams, U. S. Geological Survey, and H. L. Burmeister, U. S. Bureau of Mines. The examiners were accompanied by Messrs. Sidney Lieberman, President, and George W. Hurlbutt, Secretary-Treasurer of the Applicant Corporation, W. P. Mania, one of the lessors, Richard Howell, mine superintendent, and R. M Atwater, a mining engineer with some interest in the corporation. Some friend of Mr. Lieberman appeared occasionally with a movie camera. The examiners were on the property all day April 30 and 5 hours on May 1. Four hours were spent at the pilot plant on May 1.

Name and Location of Property

The locating map and manner of reaching the Miles Standish property is found in the report of the preliminary examination made in January 1957 by the same examiners, and also figure 1 in this report.

Competency of Applicant and Personnel

Observations in the field indicate that of the officers and personnel contacted by the examiners, only Richard Howell and R. M. Atwater have had any experience in mining. Mr. Howell has been a miner at the New Jersey

Zinc Company, Franklin mine, and Mr. Atwater states that he has practiced mining engineering for years. Mr. Atwater's exact connection with the corporation is not clear. The financial responsibility of the Applicant was not investigated but Mr. Hurlbutt frequently mentioned the lack of funds necessary to continue for more than a short time without assistance.

Applicant's Property Rights

Since the previous report of examination in January 1957, the Applicant has submitted a larger exploration area map, "Consent to Lien," on the George D. and Wilma J. McCloud property, "Consent to Lien," on the William P. Mania property and an assignment of the Mania lease by Sidney Lieberman to the Ramapo Uranium Corporation.

A letter from Mr. Lieberman to the engineer, dated May 6, 1957, stated that there was enclosed a lease covering the Bruno Kupfer property which adjoins the Mania property on the east. This lease was not enclosed. In the same letter the Applicant requested permission to delete the McCloud and the Giangrande properties from the application. Four copies of all these additions were transmitted to Knoxville to be added to the application files. Any southern extension of the slight uranium mineralization found on the Mania property would surely enter the Giangrande property and possibly the McCloud property. Such mineralization might very well enter the Kupfer property also. The Operator's original property rights are described in the report of the visit made in January 1957. (Attached Property Map.)

Geology and Ore Deposits

The Applicant's property is located in the Appalachian Highlands physiographic province, which is a relatively small province situated between the large Appalachian Valley and Piedmont Plateau provinces. The region is characterized by long rounded ridges separated by wide fertile valleys. Topographic relief in the vicinity of the property is about 750 feet. The flanks of the ridges are steep, which might cause some inconvenience in moving drilling and mining equipment about. The major portion of the land surface, even on the ridges, is covered with soil, underbrush, and forest cover; and outcrops are not numerous. Cover over bedrock probably ranges from a few inches to about 10 feet.

The country rock in the area consists of Precambrian gneiss. The gneiss is widely variable within short distances in texture, composition, and color. The dark colored gneisses owe their color to hornblende, pyroxene or biotite. Light colored minerals in this type are plagioclase feldspar and quartz. A brown-gray, bronzy, and pinkish variety of gneiss is distinguished from other varieties by the presence of much orthoclase. A third main variety of gneiss is light colored, often nearly white, and contains a high percentage of plagioclase feldspar. All of these varieties are commonly found intermingled with each other. On the Applicant's property medium gray to dark brown and nearly black varieties predominate. The texture of the gneiss ranges from medium to coarse grained and from strongly gneissic with well developed foliation to granitic with little or lineation or banding of mineral components. The principal accessory mineral is magnetite which may occur locally in such abundant amounts as to form

stringers and layers of massive magnetite. At small, scattered places pyrite and pyrrhotite may be found disseminated in the gneiss.

In general, the gneissic foliation, the main structure in the gneiss, strikes northeast and dips steeply to the southeast. Measurements of attitudes of foliation on the Ramapo property give an average strike of N 25°-30° E and dip of 75° SE to vertical.

Judging from the old Miles Standish mine openings, many of which break through to surface, the magnetite ore body was accordant with the attitude of the gneiss foliation. From the old caved stope openings it appears that the average thickness of the magnetite ore was only 4 to 5 feet. There seems to be no record of how much magnetite ore was taken from the Standish mine, as the work was done well over a century ago. All mine workings are now caved, flooded and inaccessible; and it is not possible to determine how much ore-reserves, if any, remain in the mine.

From samples taken from the property on the initial visit, it has been determined by the laboratories of the Geochemistry and Petrology Branch of the Geological Survey that the mineral responsible for anomalous radioactivity is uraninite. Tests also showed that no appreciable amounts of thorium were present. (Assay sheet 1).

Anomalous radioactivity appears to be principally confined to an elongated zone along the footwall of the magnetite zone. Anomalous radioactivity is also found within the magnetite ore as evidenced by radioactive pieces of ore from the old dumps.

The following annotations apply to the observation points shown by encircled numbers on figure 2: Background radiometric count was considered to be 0.015 mR/hr using a model 111 Scintillator, made by Precision Radiation Instruments, Inc. Radiometric values are shown on figure 2.

1. A small dozer cut that breaks into an old magnetite stope. Coarse grained dark greenish gray granite-gneiss with much magnetite, poorly foliated.
2. Medium grained granite gneiss from old magnetite stope. Dip of foliation is near vertical. Hanging wall of stope is gray-white, fine grained, quartz-rich, granitic gneiss.
3. Old iron ore pit. Medium to coarse-grained, ferruginous, gossanous gneiss.
4. Deep, narrow, open magnetite stope. Site of one of Banfield's samples.
5. Magnetite shaft dump. Material consists mostly of dark gray to black gneiss with much magnetite. Isolated scattered pieces show anomalous radioactivity. This dump furnished the major portion of the 'high-grade' uranium 'ore' that has been processed through the Ramapo pilot mill.
6. A magnetite stope, surface break-through. Greenish gray, magnetite-rich gneiss on dump.
7. A narrow trench about 18 feet long, about 5 feet deep and 6-8 feet wide cut normal to the foliation. Rusty brown somewhat ferruginous gneiss, poorly foliated. This trench constitutes the best 'show' on

the entire property in terms of country rock in place. Anomalous radioactivity is confined to a 2-3 inch wide zone on each side of a horizontal fracture that traverses the north face of the trench. The lateral extent of the fracture is about 8 to 10 feet. At each end the fracture becomes tighter and appears to become lost in the enclosing unaltered and unfractured granite gneiss. Because the surrounding rocks are fresh, unaltered, and unfractured it may be expected that the radioactive fracture will pinch out in a direction perpendicular to the trench face within a distance of probably no more than the 8-10 feet exposed in the face. Under those conditions the total amount of radioactive rock present at that location is probably no more than 3 to 5 tons. The trench is the site of DMEA sample No. 1. Sample No. 1 gave a radiometric assay of 0.015 percent eU and a chemical assay of 0.009 percent U.

8. Green-gray, locally brown, granitic gneiss exposed at the south end of a long dozer cut about 60 feet long. Foliation is near vertical. Anomalous radioactivity here is localized in blebs and pod-shaped masses, up to 6 inches in diameter. The radioactive areas are confined to a near-vertical, north trending joint plane and along a flat-lying joint plane that dips about 10° southeast. The joints are clean, sharp fractures, knife-edge in thickness. There is no 'shear zone' as such. The radioactive mineral is localized in spots and patches on the joint planes. Because of the nature of its occurrence it is difficult to make an accurate estimate

as to how much radioactive rock is present but there are certainly no more than a few tens of pounds in place.

9. An old magnetite stope break-through. Thickness of the magnetite ore appears to have been 4 to 5 feet. Wall rocks are brown to gray, medium-grained gneiss.

10. Old magnetite stope opening about 30 feet long and 3 feet wide. The magnetite ore at this spot dipped 80° SE. The best radiometric count was obtained on the footwall side of the stope. Radioactivity is confined to irregular patches a few inches in diameter on joint planes. The rock is gray, medium grained, well-foliated, magnetite-rich gneiss. The gneiss is much fractured along nearly horizontal planes. A few tons of magnetite ore are stockpiled nearby. The ore consists of magnetite, pyrite, and very sparse chalcopyrite.

11. An old mine opening showing medium-grained magnetite-rich, white to rusty brown gneiss. Radioactivity appears to be confined to fracture planes that dip about 10° to the south. This location contains the most highly fractured gneiss on the property, but the fracturing does not have great lateral extent into the surrounding rocks.

The Mania adit, in 164 feet from portal on May 1, 1957, shows medium grained light gray to dark greenish black granite-gneiss. The majority of the rock is light colored with the darker facies forming veins and veinlets. The

widest dark colored vein observed was 2 feet wide. The lighter colored rock is composed mostly of plagioclase feldspar and quartz, with very small amounts of biotite and magnetite. The dark colored gneiss has much amphibole, biotite, pyrite and magnetite, and a much smaller proportion of quartz and feldspar. All the rock in the adit is poorly foliated. Wherever foliation is discernible it is either vertical or dips steeply woutheast. The adit has a northeasterly bearing and follows the strike of the gneissic foliation. The rock in the adit is fresh, unaltered, and relatively unfractured. There is some wide spaced jointing but no shearing or faulting.

Figure 3 shows a plan and cross sections of the Mania adit and radiometric values as obtained with a Model 111 Scintillator, Precision Instruments Company. Radioactivity in the adit is not continuous and does not appear to be associated with the magnetite and pyrite which is most abundant in the darker colored gneiss facies. In a very general way the best radiometric counts seemed to come from the upper part of the southeast rib and the lower part of the northwest rib of the adit. A single radioactive zone extending between the two areas would have a northwest dip contrary to the attitude of the gneissic structure; so a better interpretation is that there are two thin, discontinuous zones trending along the adit with a steep southeast dip. The applicant stated that in driving the adit the attempt is made to keep one rib of the adit in a zone of anomalous radioactivity. That is difficult to do, as evidenced by the configuration of the adit, figure 3. The average radiometric count in the adit appeared to be about 0.15 mR/hr. The adit dump, however, counted only half as much, or

about 0.07 mR/hr. According to the scintillator the dump material is fairly uniform in radiometric count, and no individual piece or area of the dump could be found that varied greatly in count from 0.07 mR/hr.

The small size of the scattered mineralized patches (a few inches across) on joint planes and the extremely limited lateral extent of mineralized areas along flat-dipping fractures present an exceedingly difficult exploration problem. Surface trenching and stripping would, at best, show a few more widely separated mineralized blebs and fractures. Diamond core drilling would have a poor chance of finding the tiny mineralized spots and fractures. The Mania adit has already demonstrated the type of rock that is to be found at depth; and there appears to be no geologic evidence to show that ore conditions will improve if the Mania adit is extended.

At least a fair share of the uranium concentrations is associated with wide-spaced, tight fractures. It is not expected that the fracturing will become either more pronounced or more open with depth -- the reverse is expected.

Samples

On the first visit to the property in January 1957, three samples were collected and assayed. A grab sample picked by high radiometric count was taken from each of the two adit portals, the Mania adit and the McCloud adit. The third sample consisted of a crushed and sized pilot-mill concentrate. A copy of the assay certificate showing percentages of uranium in the samples is appended to this report (Assay sheet 1).

On the second visit 29 samples were taken. Sample 1 was a chip sample taken in the prospect trench at site No. 7, figure 2. This is a sample of the most radioactive rock found on the surface of the property. Samples A and B are chip samples taken across the back of the Mania adit. The locations of those samples are shown on figure 3. One sample each was taken of the adit face and the adit dump. The adit face sample was an 8-foot chip sample cut across the face and across the gneissic foliation about 4 feet above the adit floor. The adit dump sample was a grab sample, but every effort was made to make the sample representative of the dump material.

The rest of the samples were taken from the pilot mill. All were crushed and sized in the mill. Sizes were plus 48 mesh, minus 28 mesh; plus 76, minus 48 mesh; and minus 76 mesh. Each mesh size sample was passed over an air concentrating table from which 3 products were recovered: concentrate, middling, and tails. Each product was then separated into magnetic and non-magnetic fractions. The air table separation was done in the company plant and the low intensity magnetic separation was done in the Bureau of Mines laboratories at College Park.

Results obtained by concentration are attached to this report (Table I).

Copies of assay certificates showing percentages of equivalent uranium and chemical uranium are attached to this report (Assay sheets 2 and 3). Considering the second group of samples, we wish to direct attention to the fact that of all the rock samples and the mill head feed samples the highest assay obtained was 0.12 percent uranium. Here it must be pointed out that up to the time of the second field examination all the 'ore' for the mill feed consisted of 'high grade'

pieces that had been laboriously hand picked from the old magnetite dumps with the aid of scintillation counters. The best rock sample taken by the examining team is sample No. 1 which afforded an assay of only 0.009 percent uranium. The samples taken from the adit portals on the first visit (labelled R1 and R2), (Assay sheet 1), were picked hand specimens, chosen because of high radiometric count; and they are far from representative.

Production and Ore Reserves

According to the applicant only about 38 tons of mineralized rock have been partially processed through the pilot mill at Warwick. Only about 10 tons have been passed over the air table, the final concentration phase. Of the material processed, the applicant stated that 40 to 50 pounds of concentrate and pre-concentrate had been produced that ranged in grade from 20 to 80 percent U_3O_8. The applicant further stated that total production of concentrates up to May 1, 1957 had a total contained U_3O_8 content of 10 to 15 pounds U_3O_8.

The gross value of the total production of Ramapo Uranium Corporation is, therefore, a maximum of $120, using the AEC's purchase price of $8.00 per pound of contained U_3O_8 in concentrates.

All 'ore' processed by the pilot mill has consisted of carefully selected pieces from the old magnetite dumps. Survey of those dumps with scintillometer indicates that this source of ore has been completely depleted and that no reserves remain.

The areas of what may be called anomalous radioactivity in the country rocks on the property are so small and so erratically scattered that it is not possible to estimate any ore reserves of economic grade at this time. The Mania

adit dump seems to be representative of the rock to be found in the interior of Warwick Mountain. Samples from the adit and from the adit dump all assayed 0.002 percent U (chemical), or about 0.0023 percent U_3O_8. At that grade the rock from the adit contains only about 0.046 pounds of U_3O_8 per ton. At $8.00 per pound of U_3O_8, rock from the Mania adit has a gross value before mining of only about 37 cents per ton, assuming 100 percent recovery which, of course, is now impossible. It seems, then, that the grade of the 'ore' expected on the applicant's property is of too low grade to be exploitable either now or for some years to come.

Availability of Manpower, Supplies, etc.

Manpower and supplies could be easily secured from New York City, which is two hours by car from the property. Per hour labor rates were stated to be: labor $1.25, bulldozer operator $1.75 to $2.00, driller $2.25, mucker $1.50.

Applicant's Revised Proposal

An inclusion in the previously mentioned letter from Mr. Sidney Lieberman, dated May 16, 1957, contained a revised Applicant's exploration program. This program included driving 2300' of 8'x10' adit drift, 500' of 8'x10' adit crosscut, and 575' of 5'x7' crosscut from the 2300' drift. The revised plan was accompanied by 3 bids from contractors, ranging in quoted price from $108.00 to $166.00 per foot for 5'x7' crosscut and from $108.00 to $166.00 per foot for 8'x10' crosscut or drift.

The Applicant also submitted his own costs for doing the work, which included the following:

2300' - 8'x10' drift at $70.00 per ft.

120' - 4'x6' raise at $40.00 per ft.

575' - 5'x7' crosscut at $40.00 per ft.

500' - 8'x10' crosscut at $70.00 per ft.

To this was added $25,000.00 for supervision and consultants, $12,409.00 for a building, assays, accounting, and payroll taxes. The total cost of exploration by the Applicant was submitted as $261,329.00. All of these cost estimates are completely unrealistic, as are sizes of the main tunnels.

Alternate Proposal

Due to the recommendations made in this report, no alternate proposal is made.

June 1957

H. L. Burmeister
Mine Examination and Exploration Engr.
U. S. Bureau of Mines

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

TABLE I

Product	Weight percent	Analyses percent U	Distribution percent of U
-28 +48 mesh			
Air table conc.			
magnetic	10.4	0.007	5.2
non-magnetic	0.4	1.2	34.6
Air table middling			
magnetic	21.1	0.005	7.6
non-magnetic	8.9	0.024	15.4
Air table tailing			
magnetic	20.6	0.012	17.8
non-magnetic	38.6	0.007	19.4
Calc. Head	100.0	0.0139	100.0
-48 +76 mesh			
Air table conc.			
magnetic	11.41	0.034	4.8
non-magnetic	1.01	4.8	59.5
Air table middling			
magnetic	29.02	0.016	5.7
non-magnetic	27.84	0.081	27.7
Air table tailing			
magnetic	1.78	0.010	0.2
non-magnetic	28.94	0.006	2.1
Calc. Head	100.00	0.0815	100.0
Minus 76 mesh			
Air table conc.			
magnetic	8.67	0.018	4.2
non-magnetic	1.26	0.62	21.0
Air table middling			
magnetic	15.29	0.007	2.9
non-magnetic	9.71	0.160	41.8
Air table tailing			
magnetic	10.49	0.008	2.2
non-magnetic	54.58	0.019	27.9
Calc. Head	100.00	0.037	100.00

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ADDENDUM (DMEA 4567)

Considerable interest has been aroused in many quarters by the article about Ramapo Uranium Corporation that recently appeared in Engineering and Mining Journal, June 1957, p. 81. This addendum is occasioned by the fact that much of the information published in the magazine article is at wide variance with the findings of the DMEA examining team.

In order to make a critical appraisal of the E. and M. J. article it is necessary to establish the approximate date upon which the facts were obtained by E. and M. J. - a bit of information the article leaves open to conjecture. The DMEA examining team made their second visit to the Ramapo property on May 1, 1957. On that date the DMEA team was informed by Ramapo principals that their geologist, Walter S. Newman, had previously left the employ of the company after a disagreement with the president. E. and M. J. exhibits a photograph of Newman on the Ramapo property. It is thus established that the information in E. and M. J. predates the facts ascertained by the DMEA examiners.

Inquiry of AEC personnel reveals that although the Ramapo Company has, in fact, a contract to sell uranium concentrates to the Government, the contract is of a trial nature and full cognizance was taken of the experimental nature of Ramapo's separating and concentrating process when the contract was awarded. Furthermore, the AEC contract entailed no detailed analysis of either the operator's ore reserves or the practicability of his ore concentrating procedure.

The following items in E. and M. J. 's article were not verified by the DMEA team:

1. Ramapo Company was not "mining magnetite and uraninite from some old iron mines." The old magnetite mine was flooded to the shaft collar with water and the workings were caved and inaccessible.
2. "Three nearly-parallel radioactive zones" were not found by careful search of the property with radiation detection instruments and such "zones" were not shown the DMEA examiners by Ramapo's president.
3. Radioactivity is not "extensive." It is confined to small, scattered, extremely local patches. The highest grade hand-specimen sample (2" x 2" x 3") found by the DMEA examiners did not "assay up to 1% U_3O_8" -- it assayed 0.025 percent U, (sample no. R1).
4. If "25,000 tons of ore has been proven", it must be measurable. All the material that could even be remotely construed as 'ore' that was seen or shown the DMEA examiners was measurable in pounds or, at most, a few tons.
5. The pilot plant has not "been in operation for several months." It was never demonstrated to the DMEA team that the pilot plant could function continuously as a complete, coordinated process.

6. A mill site had not even been cleared of timber on May 1. As a matter of fact on that date the applicant was still speculating on a possible mill site with regard to water supply, tailings disposal, etc.

7. The adit was not "in some 300 ft." By tape measurement the adit was in 163.5 feet, portal to face.

8. "Outcrops all along the strike of magnetite show uranium content", (caption under picture). The trench shown in the picture is the exact site of DMEA sample no. 1. That sample assayed 0.009 percent U. The trench was the most radioactive place that could be found on the surface of the whole property by the DMEA team.

The AEC informed the DMEA team that E. and M. J. contacted persons in the AEC for suggestions prior to publishing the article. E. and M. J. was advised to proceed with caution, as there were many problems involved. The published report in E. and M. J. has a 'sensational' aspect and contains many assertions that the DMEA examiners could not substantiate through careful field investigation.

DMEA 4567

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Report No. TWC-5414
TWP-3286

For W. P. Williams

Date March 20, 1957

Requested by

Lot No. [illegible]

Refer: TWM-717

Samples from Warwick Mountain, Orange County, New York.

Sample No.	Lab. No.	U	% P_2O_5	Description	
R 1	150515	.025, .025	.038; .039	Granite with uraninite	Mon'c Adit
R 2	150516	.012	.01[illegible]	Gneiss	McCloud Adit
R 3	150517	48	~ [illegible]	Concentrate of uraninite and pyrite	Pilot mill

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DATE	INITIALS	CODE

R 1344

By Analysis of AEC Raw Materials (Washington
Analysts: Roosevelt Moore and
Benjamin A. McCall
Project Leader: Irving May

Geochemistry and Petrology Branch

☆ U. S. GOVERNMENT PRINTING OFFICE 1955—931700

Assay sheet - 1

9-011

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Report No. TWO-5509 For W. P. Williams Date June 10, 1957

Requested by

Lot No. 5030

Gamma Samples from Warwick, New York

Sample No.	Lab. No.	% U	% Eq. U
The following samples are 60 m.			
1	151157	.009	.015
A	151158	.002	.008
B	151159	.002	.006
Adit Dump	151160	.002	.005
Adit Face	151161	.005	.010
The following samples are -76 m.			
Heads - mag.	151162	.015	.014
Heads - non-mag.	151163	.18	.16
Conc. - mag.	151164	.008	.005
Conc. - non-mag.	151165	.62	3.8, 5.9 re-run
Mids - mag.	151166	.007	.007
Mids - non-mag.	151167	.16	.18
Tails - mag.	151168	.008	.012
Tails - non-mag.	151169	.019	.025

By Continued on next page

Geochemistry and Petrology Branch

Assay Sheet - 2

☆ U. S. GOVERNMENT PRINTING OFFICE: 1956-O-416

9-011

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Report No. TWG-5509 For W. P. Williams Date June 10, 1957

Requested by

Lot No. 5030 (Page 2)

Sample No.	Lab. No.	% U	% Eq. U
The following samples are +48 -28 m.			
Heads - mag.	151170	.008	.011
Heads - non-mag.	151171	.027	.028
Conc. - mag.	151172	.007	.008
Conc. - non-mag.	151173	1.2	1.6
Mids - mag.	151174	.005	.007, .008 ✓ re-run
Mids - non-mag.	151175	.024	.036
Tails - mag.	151176	.012	.013
Tails - non-mag.	151177	.007	.010
The following samples are +76 -48 m.			
Heads - mag.	151178	.007	.011
Heads - non-mag.	151179	.11	.13
Conc. - mag.	151180	.034	.040
Conc. - non-mag.	151181	4.8	5.1
Mids - mag.	151182	.016	.013
Mids - non-mag.	151183	.081	.086
Tails - mag.	151184	.010	.012
Tails - non-mag.	151185	.006	.007

Note: Results telephoned to Mr. Williams 6/4/57. 3383

By Analysis of AEC Raw Materials (Washington)
Joseph Rosinsky and Benjamin Stoall
Project Leader: Irving May

Geochemistry and Petrology Branch

bam

☆ U. S. GOVERNMENT PRINTING OFFICE: 1956-O-

Assay Sheet - 3

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 1500 POST OFFICE BLDG.
KNOXVILLE 2, TENN.

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D M E A
RECEIVED JUN 10 1957

DATE	INITIALS	CODE
6/10	C	220
6/11	PMM	700

June 6, 1957

Memorandum

To: Operating Committee, DMEA- Washington

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

Subject: DMEA-4567 (uranium) Ramapo Uranium Corporation, New York, N.Y. Miles Standish Mine, Orange County, New York

Enclosed are three copies of an additional contractor's bid for the proposed underground work at the Miles Standish mine, with 3 copies of the Applicant's letter of transmittal.

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

V. J. Lynch
V. J. Lynch, Member
DMEA Field Team
Bureau of Mines

RAMAPO URANIUM CORPORATION
295 MADISON AVENUE
NEW YORK 17, N. Y.

MURRAY HILL 3-5570

May 28, 1957

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DMEA
RECEIVED JUN 10 1957

DATE	INITIALS	CODE

Mr. Harry Burmeister
Defense Minerals Exploration
Administration
College Park, Maryland

Dear Mr. Burmeister:

Supplementing our letter to you of May 16, 1957, we enclose herewith five copies of a bid from an independent contractor for running the tunnels contemplated in our application.

You will note that this bid is at a base price of $95.00 per foot plus certain extras which will probably bring it into the $100.00 per foot price range which will be very similar to the other bids previously sent to you.

We are still prepared to undertake the program at the price quoted in our previous letter to you.

If there is any further information you require, please do not hesitate to advise.

Very truly yours,

RAMAPO URANIUM CORPORATION

Sidney Lieberman,
President

SL:lc
ENCLS.

TELEPHONE:
BUTLER 8-3993

MAIL ADDRESS
P. O. BOX 1175
KINGSTON, PENN

GATTI ENGINEERING CO.

- McCARTHY COAL RECOVERY DRILLS -

- The Gat Feed -

Specialists in Drill Feed Mechanisms

2001 WYOMING AVENUE

FORTY FORT, PENNSYLVANIA

May 24, 1957

Ramapo Uranium Corp.
295 Madison Ave.
New York 17, N. Y.

Attention Mr. Sidney Lieberman

Dear Mr. Lieberman:

We wish to submit the following bid on contract work to be done at your mine near Warwick, N. Y.

1. 2300 ft. of main tunnel and 500 ft. of cross tunnel, approximately 8'x 10', water level — $95.00 per lineal ft.

2. 28 exploratory wings each 25 ft. long approximately 5' x 7' water level- total approximately 700 ft. — $78.00 " " "

3. Mobilization cost, not included in bid - to be paid after first week of work — $2000.00

4. Payments: Payment for each week's contract work to be paid in full on the following Friday, or sooner.

5. Thirty days notice to be given in writing in the event work is to be stopped by either party.

6. A maximum advance of 15 ft. per day and a minimum advance of 6 ft. per day as directed by Ramapo Uranium Corp.

7. Any timbering, or roof bolting and labor necessary for permanent roof support shall be paid for by Ramapo at cost plus 10 %.

8. All material such as rails, ties, wire, piping, tubing shall be available for purchase by Ramapo from Gatti Engineering Co. at 50% of original cost.

TELEPHONE:
BUTLER 8-3993

MAIL ADDRESS:
P. O. BOX 1175
KINGSTON, PENNA.

GATTI ENGINEERING CO.

- McCARTHY COAL RECOVERY DRILLS -

- The Gat Feed -

Specialists in Drill Feed Mechanisms

2001 WYOMING AVENUE

FORTY FORT, PENNSYLVANIA

9. Gatti Engineering Co. will furnish all equipment, materials, labor and supervision to drive the main tunnel, cross tunnel, and exploratory wings and will deliver muck to muck bank not more than 200 ft. from main tunnel portal.

10. Ramapo Uranium Corp. will daily set direction of tunnel.

11. Gatti Engineering Co. is prepared to start this work on two week's notice (dependent upon issuance of workmen's compensation).

12. Prices for all other work such as test holes, sumps, raises, etc. shall be negotiated.

Gatti Engineering Co.

G. A. Gatti

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

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D M E A
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DATE	INITIALS	CODE
5/27	C	220

May 24, 1957

Memorandum

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

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

Subject: Docket No. DMEA-4567 (Uranium)
Ramapo Uranium Corporation, New York, New York
Miles Standish Mine, Orange County, New York

Enclosed are the original and two copies of a letter from the Applicant with attachments which are to supplement the application.

Robert A. Laurence
Robert A. Laurence
Executive Officer

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

Enclosures 3

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DATE	INITIALS	CODE

RECEIVED
MAY 24
U.S. BUREAU OF MINES
DEF. MIN ADM
Knoxville, Tennessee

RAMAPO URANIUM CORPORATION
295 MADISON AVENUE
NEW YORK 17, N. Y.
MURRAY HILL 3-5570

May 16, 1957

Mr. H. L. Burmeister
Defense Minerals Exploration Administration
U. S. Department of the Interior
College Park, Maryland

RE: Docket D.M.E.A. 4567 (uranium)
Miles Standish Mine
Orange County, N. Y.

Dear Mr. Burmeister:

Confirming our discussion with you and Mr. Williams at our mine in Warwick, New York, we submit herewith the following information to supplement our previous application for D.M.E.A. assistance:

1. Our application is amended to add the Bruno Kupfer property of 150 acres for the reason that it adjoins the Mania 49 acre parcel on the east, and the crosscut tunnel goes under the Kupfer land.

   Attached hereto are photostats of the lease on the Kupfer property, together with the executed copies of your Form #MF-205 (consent to lien).

2. We request permission to amend our application to delete therefrom the Peter Giangrande 23 acres and the George McCloud 7 acres for the reason that no exploratory work is proposed on said properties under this D.M.E.A. program.

3. I include herewith photostatic copies of bids from independent contractors for running the tunnels and crosscuts provided for in our application.

RECEIVED
MAY 24 1957
Knoxville, Tenn.

We feel that we are equipped to handle this operation through our regular employees and are prepared to take the contract at the prices stated in our accompanying bid. You will note that our bid is considerably lower than any outside contractors.

Attached hereto is our bid to perform the necessary work.

4. When you were at the pilot mill, you collected samples that were run off the small air table. We wish to point out that these samples will be typical of the high specific gravity minerals (such as magnetite, pyrite and uraninite) and the low specific gravity minerals (such as quartz, and hornblende). However, you should bear in mind that this equipment was being run by Red Howell, who is not the mill superintendent, solely to demonstrate the principle and was being run too fast to indicate the high quality separation that can be made. We further point out that the "semi-concentrate" so made was not run over the magnet to eliminate the magnetite, so that it should only be taken to indicate the principle and not the actual performance.

You were given several tubes of high-grade concentrate in various screen sizes which are typical of the product that we are equipped to make in commercial practice.

Very truly yours,

RAMAPO URANIUM CORPORATION

Sidney Lieberman

Sidney Lieberman,
President

SL:lc

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DATE	INITIALS	CODE

PROPOSED EXPLORATION PROGRAM
RAMAPO URANIUM CORPORATION
MANIA PROPERTY

The objective of the exploration program is:

1. To extend the present 8' by 10' Mania tunnel northwards, following the mineralized zone, to daylight at the far northern end, for a total distance of approximately 2500'. Since the tunnel is now approximately 200' in, the remaining distance is approximately 2300'.

2. At the point where the tunnel passes underneath the existing 60' deep shaft alongside of the old dump, to put in a 4' x 6' upraise to connect such vertical shaft with the Mania tunnel. At the present time, the tunnel face is approximately 200' south of the point at which the upraise would have to be put in to connect with the Mania shaft. This upraise would have to be approximately 120' vertical since the tunnel level will be approximately 120' below the bottom of the old vertical shaft.

3. At every 100' of tunnel to run a 25' crosscut 5' x 7' cross section at right angles to the tunnel on alternate sides, to explore the width of the mineralized zone. In running the remaining 2300' of tunnel there would thus be 23 crosscuts of 25' each, totaling approximately 575' of crosscuts.

4. At a point underneath the highest point on the Mania hill, which corresponds approximately to the trench identified on your map as Trench #7 to run a crosscut tunnel starting at a low point on the east flank of the hill east of the Green Vein and corresponding to the same elevation as the Mania tunnel. This crosscut tunnel would start on the Kupfer property and in going west would cut the Green Vein to explore its uranium content and in turn might cross additional mineralized zones between the Green Vein and the main Mania development which would be explored through the major tunnel proposed in Item 1 above. This tunnel to be 8' x 10' cross section. It would intersect the Mania tunnel at a point approximately 1200' north of the portal of the present Mania tunnel. This crosscut tunnel would have a total length of approximately 500' from its starting point to a point approximately 50' west of the Mania tunnel.

The objective of this crosscut tunnel would be:

a. To intersect the Green Vein on the waste dumps of which we have found evidence of radioactivity.

b. To intersect at depth some outcrops of radioactive rock which are found at the surface 150' west of the Green Vein.

c. To explore the zone 50' west of the Mania tunnel on the surface of which we have a number of trenches and pits disclosing worthwhile radioactive outcrops.

d. To provide ventilation for the central portion of the tunnel.

e. To provide an emergency exit for the main Mania tunnel.

RAMAPO URANIUM CORPORATION
D.M.E.A. LOAN APPLICATION
ITEM 6
ESTIMATE OF COSTS

6.A Independent Contractors (To be performed by Ramapo Uranium Corp.)

Mania Tunnel	2300' x $70 per foot	$161,000	
Crosscuts	575 x $40 " "	23,000	
Raises	120 x $40 " "	4,800	
Crosscut Tunnel	500 x $70 " "	35,000	
			$223,800

6.B Labor, Supervision, Consultants

Superintendent 1 man at $110 weekly x 52 weeks	5,720	
Office Manager - Payroll clerk - Timekeeper 1 man at $80 weekly x 52 weeks	4,100	
Ore testing at pilot plant - Assay Office 1 man at $100 weekly x 52 weeks	5,200	
1 man at $ 80 weekly x 52 weeks	4,100	
Mining Engineering Consultant - Geologist 10 days monthly at $50 per day x 12 months	6,000	
		25,120

6.C None

6.D None

6.E None

6.F Temporary wooden shed-type building to house pilot plant equipment now owned by corporation to be used in uranium concentration and recovery testing of tunnel material 5,000

6.G Assays: 1 each 10 foot of tunnel; or 230 assays in Mania tunnel and 50 assays in crosscut tunnel; 280 assays x $15 each assay 4,200

Compensation Insurance and Payroll Taxes: 8% of Item 6.B ($25,120) 2,009

Accounting 12 months @ $100 per month 1,200 7,409

6.G None

TOTAL..... $261,329

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RAMAPO URANIUM CORPORATION
295 MADISON AVENUE
NEW YORK 17, N. Y.

MURRAY HILL 3-5570

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DATE	INITIALS	CODE

May 16, 1957

Defense Minerals Exploration Administration
Washington, D. C.

Gentlemen:

In connection with our amended application for D.M.E.A. financial assistance as filed under separate cover, we herewith present our own bid to act as our own contractor in driving the various tunnels and raises proposed in said application.

We propose to do the following:

1. Main Mania tunnel, 8 x 10 foot cross section, 2300 feet long, being an extension of the present Mania tunnel, terminating in daylight on the north side of the mountain.

   Cost ..... 2300 feet x $70.00 per foot = $161,000

2. To raise up from the main Mania tunnel to connect with the 120 feet deep shaft, 4 x 6 foot cross section.

   Cost ..... 120 feet x $40.00 per foot = 4,800

3. 575 feet of 25 foot 5 x 7 foot crosscuts at right angles to and on alternate sides of the main Mania tunnel.

   Cost ..... 575 feet x $40.00 per foot = 23,000

4. To drive a major crosscut tunnel from a point on the east slope of the Green Vein to connect with the main Mania tunnel approximately 1200 feet north of the portal, 8 x 10 foot cross section.

   Cost ..... 500 feet x $70.00 per foot = 35,000

TOTAL $223,800

The above estimates are predicated on our furnishing all labor, materials, mining equipment, dynamite, fuel, directly required for the drilling of the above work.

The above quotation does not include any geological or consulting work, any sampling or assay work, any pilot plant operation, nor does it include indirect operating expenses such as supervision, paymaster, or utilities.

Very truly yours,

RAMAPO URANIUM CORPORATION

Sidney Lieberman

Sidney Lieberman,
President

SL:lc

THOMAS ADAIR CONTRACTING CORP.
P. O. Box 70
FLUSHING, N. Y.

May 17, 1957

Ramapo Mining Company
295 Madison Avenue
New York, New York

ATT: Mr. Lieberman

Dear Sir:

At your invitation, we are pleased to quote the following firm linear foot prices for drifts and crosscuts, at your mining operation near Warwick, Orange County, New York.

For 2300' 10' x 8' main drift - 2300 LF in a generally straight line, which I believe to be east and west, the price of $ 108.00/LF.

For the 500' 8' x 10' crosscut - which will run at right angles to the main drift, approximately half way in, the price of $ 108.00/LF.

For the 5' x 7' x 25' long crosscuts (23) $ 108.00/LF.

We have available and will furnish all necessary supervision, labor, materials, equipment and insurances, and will remove same from the site of operations, upon the completion of the work. You will make available for our use, at the site, a change house for our men, with all necessary facilities as required by the Bureau of Mines.

We will dump all excavated materials outside and adjacent to the existing portal. It will be your responsibility to remove same periodically in order to insure us a continuous place to dump same.

THOMAS ADAIR CONTRACTING CORP.
P. O. BOX 70
FLUSHING, N. Y.

It is understood that the work will progress on a two shift per day basis, and will continue until the aforementioned work is accomplished.

Our terms of payment are: monthly estimates on a linear foot basis, which would be due not later than fifteen days after the close of the estimate period.

Thank you for this opportunity to bid.

Yours very truly,

THOMAS ADAIR CONTRACTING CORP.

Thomas Adair, Pres.

Thomas Adair, President

Curly CONSTRUCTION CO., INC.
GENERAL CONTRACTORS
P.O. BOX 4 · CENTRAL AND COLLING AVENUES · ROCHELLE PARK, N.J. · HUBBARD 9-2333-4-5-6

May 13, 1957
Certified # 502369

Sidney Lieberman
295 Madison Avenue
New York, New York

Dear Mr. Lieberman:

In accordance with our telephone conversation we herewith submit our proposal for performing tunnel work at your mine located near Warwick, New York.

Our proposal is based on information that you related during our discussion namely; the following items:

I The construction of 2,300 L.F. of 8 x 10 tunnel
II Construction of 23, 5 x7' cross cuts 25 L.F. each
III Construction of 600 L.F., 8 x 10' cross cut

We shall perform the work pertaining to the above items for the unit price of One hundred sixty six dollars ($166.00) per linear foot based on a total footage of 3,475 L. F. which price includes necessary labor, equipment and material.

It is our intention to provide the following plant and equipment if favored with contract award:

1 Drill Jumbo, Complete

2 6 Ton Diesel Locomotives

10 3 C. Y. Muck Cars

1 Eimco 40 Mucking Machine

2	Car Passers
2	Run Arounds
1	21-1/4" Joy Axivane Fan
nec.	24" Vent Pipe
nec.	6" Air Line
nec.	2" Water Line
2	600 C. F. Diesel Compressors
1	Electric Generator Set If Necessary
1	Change House
1	Compressor House
1	Field Office
1	Repair Shed
nec.	Rail and Ties
nec.	Drill Steel and Bits

At the present time we have experieneed tunnel personnel completing a mine development contract for a prominate eastern steel company in nearby New Jersey, in a position to start this work immediately. We have sucessfully performed similar work throughout northern New York State and New Jersey.

If there is any additional information you may require please contract us at our office.

Thanking you for your attention and the opportunity of this quotation.

Very truly yours,

CURLY CONSTRUCTION CO., INC.

G. A. Peterson

G. A. Peterson

GAP:fm

PLAZA 1-0760

MACLEAN · GROVE & COMPANY
INCORPORATED
GENERAL CONTRACTORS
400 MADISON AVENUE NEW YORK 17

May 17, 1957

Ramapo Uranium Company
295 Madison Avenue
New York, New York

Attention: Mr. Lieberman

Gentlemen:

Pursuant to our telephone conversation of this date, we wish to advise you that the proposed 2300 linear feet of 8'6" by 10'0" drift and additional cross cuts can be excavated for a price within the limits of $100. per linear foot minimum and $150. per linear foot maximum. A precise figure within these limits can be arrived at upon completion of a detailed cost estimate.

The aforementioned prices are based upon the contractor supplying all labor, materials, plant and equipment, supervision and overhead for excavation only.

Our company and its principals have had wide experience in the construction of subways, rock tunnels, soft ground tunnels and other heavy construction projects throughout the United States, Mexico and the Panama Canal zone. We are at present engaged in constructing five miles of rock tunnel for the Board of Water Supply of the City of New York, in Delaware County, State of New York.

Any further information you may require will be gladly forwarded to you.

Very truly yours,

MAC LEAN-GROVE & COMPANY
INCORPORATED

Hugh E. Cronin

Hugh E. Cronin

HEC/ers

~~PHONE WALNUT 8947~~
LINCOLN 6300

GREENWOOD & MAJESTIC CONSTRUCTION ~~INC.~~

~~6081 KANAWHA AVE.~~
~~CHARLESTON 2, WEST VIRGINIA~~
533 WEST UTICA ST. BUFFALO N.Y.

Mr. Sidney Lieberman
Ramapo Uranium Corp.
295 Madison Ave.
New York 17 N.Y.

April 16, 1957.

Dear Mr. Lieberman:

Some time ago, Mr. Majestic called on your mine superintendent, relative to driving a mine drift at Warwick N.Y. After his investigation and inspection of the jobsite, we are pleased to submit the price of $104.00 per lineal foot of 8' x 10' drift. Hoping for an early reply,

Sincerely

A.L. Greenwood

A.L.Greenwood, Pres.
Greenwood & Majestic Construction Co.

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

OFFICIAL FILE COPY
DMEA
RECEIVED APR 22 1957

DATE	INITIALS	CODE
4/22	C	220
		700

April 18, 1957

Memorandum

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

From: Executive Officer, DMEA, Region V, Knoxville, Tennessee

Subject: Docket No. DMEA-4567 (Uranium) Miles Standish Mine, Orange County, New York.

Transmitted are three sets of papers containing information related to the subject application.

The papers are listed in Mr. Lieberman's letter to Mr. Burmeister.

Robert A. Laurence
Robert A. Laurence

Enclosures

*Attached { 2-MF-205 by McClouds
2-MF-205 " Mavis
extra copies

other data
sent to USGS and USBM 4/23/57

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

ORIGINAL FILE COPY
DMEA
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DATE | INITIALS | FILE

April 16, 1957

RECEIVED
APR 18 1957
Knoxville Tenn.

Memorandum

To: V. J. Lynch, Member DMEA Field Team, Region V

From: Mine Examination and Exploration Engineer

Subject: Docket No. DMEA 4567 (uranium)
Ramapo Uranium Corporation
Miles Standish Mine
Orange County, New York

Enclosed are four (4) copies each of the following listed material to supplement the subject application.

(1) Letter of 4/12/57 from Mr. Sidney Lieberman to H.L. Burmeister.

(2) Seven (7) pages of uranium analyses reports.

(3) Two (2) reports of visits to property by a representative of Lucius Pitkin Incorporated.

(4) A property map and a sample plan map. = in map pocket

(5) "Consent to Lien and Subordination Agreement", executed by George D. and Wilma J. McCloud.

(6) "Consent to Lien and Subordination Agreement", executed by William P. Mania.

(7) Assignment by Sidney Lieberman of his lease on the Mania property to the Ramapo Uranium Corporation.

(8) Diamond drilling bids from Sprague and Henwood, Incorporated and E. J. Longyear Company.

The drilling bids were made in October and November 1956. The Sprague & Henwood bid is not firm and Mr. Lieberman was advised on January 16, 1957 to get a firm bid but has apparently not done so.

I am retaining a fifth copy of all of the above material for use in this office.

H. L. Burmeister

H. L. Burmeister

Enclosures

April 12, 1957

OFFICIAL FILE COPY
DMEA
RECEIVED APR 22 1957
DATE CODE

Mr. Harry L. Burmeister
U. S. Bureau of Mines
College Park, Maryland

Re: Docket No. DMEA-4567 (Uranium)
Miles Standish Mine
Orange County, New York

Dear Mr. Burmeister:

In answer to a letter from Mr. Ernest Ellis dated April 9, 1957, we herewith submit five duplicate sets of the following papers:

1. Photostatic copies of assay reports by Lucius Pitkin, Inc., as well as assays taken by representatives of New Jersey Zinc and Miami Copper.

2. Copy of assignment of Mania Lease from Sidney Lieberman to Ramapo Uranium Corporation, and acceptance of assignment by Corporation.

3. Executed "Consent to Lien and Subordination Agreement" from Mania and McCloud. We expect to have the executed copy by Giangrande on Monday and we will mail it to you or if you wish, give it to you when you come up.

4. Large scale map of the property showing old mine workings on the Mania property only.

5. Proposals from Sprague & Henwood and B. F. Longyear Company covering proposed diamond drilling.

We trust that this information will complete your files to enable you to visit our property on your forthcoming eastern trip.

If there is anything else that you require, please let us know.

Very truly yours,

RAMAPO URANIUM CORPORATION

Sidney Lieberman,
President

SL:LC
ENCLS.

Cable Address: Niktip.

Lucius Pitkin, Inc.

ESTABLISHED 1885

METALLURGICAL CHEMISTS AND CONSULTANTS

Weighers - Samplers - Assayers - Analysts

Mineralogists - Metallographers - Spectroscopists

Main Office and Laboratories

47 FULTON STREET PITKIN BUILDING NEW YORK 38, N. Y.

REPORT OF ANALYSIS

Report No. 534141

February 27, 1956

The result as indicated by our analysis of 1 sample(s) of Ore from Sidney Lieberman

and submitted to us, is as follows:

OFFICIAL FILE COPY
DMEA
RECEIVED APR 22 1957

DATE	INITIALS	CODE

Uranium Oxide (U_3O_8) - - - 0.16 %

Thorium - - - - - - - - - - Not Found

Copies: 2- Sidney Lieberman
295 Madison Avenue
New York 17, New York

OPT = Troy Ounces per ton of 2000 lbs.
PPT = Parts per thousand
ts

LUCIUS PITKIN, INC.
By R. H. Bell

This report is rendered upon the condition that it is not to be reproduced wholly or in part for advertising or other purposes over our signature or in connection with our name without special permission in writing.

FORM 105 11-55 5M

Cable Address: Niktip.

Lucius Pitkin, Inc.

ESTABLISHED 1885

METALLURGICAL CHEMISTS AND CONSULTANTS

Weighers - Samplers - Assayers - Analysts

Mineralogists - Metallographers - Spectroscopists

Main Office and Laboratories

47 FULTON STREET PITKIN BUILDING NEW YORK 38, N. Y.

REPORT OF ANALYSIS

Report No. 534494-496 February 27, 1956

The result as indicated by our analysis of 3 sample(s) of Material from Sidney Lieberman

and submitted to us, is as follows:

Sample Identification	Uranium Oxide (U_3O_8)
- 20 + 40	2.9 ∓ %
- 40 + 70	5.5 ∓
- 70	14.5 ∓

Copies: 2- Sidney Lieberman
245 Madison Avenue
New York City

LUCIUS PITKIN, INC.

By R. H. Bell

OPT = Troy Ounces per ton of 2000 lbs.

PPT = Parts per thousand

ts

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FORM 105 11-55 5M

Cable Address: Niktip.

Lucius Pitkin, Inc.

ESTABLISHED 1895

METALLURGICAL CHEMISTS AND CONSULTANTS

Weighers - Samplers - Assayers - Analysts

Mineralogists - Metallographers - Spectroscopists

Main Office and Laboratories

47 FULTON STREET PITKIN BUILDING NEW YORK 38, N. Y.

REPORT OF ANALYSIS

Report No. 534454 March 2, 1956

The result as indicated by our analysis of 1 sample(s) of 5 Rocks
PM-PAT
from Mr. Sidney Lieberman

and submitted to us, is as follows:

Radioactivity by Gieger tube Measurements 10.2 cps above background

This is equivalent to - - - - - - - - - - 0.45 % Uranium

The above conversion is based on comparisons with calibrated pitchblend standards. However, other elements than those regularly associated with uranium may show radioactivity. The above conversion should therefore be viewed with caution.

Copies: 2- Mr. Sidney Lieberman
295 Madison Avenue
New York 17, New York

LUCIUS PITKIN, INC.
By R. H. Bell

OPT = Troy Ounces per ton of 2000 lbs.
PPT = Parts per thousand
ts

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Form 105 6-55 5M

Cable Address: Niktip.

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Weighers - Samplers - Assayers - Analysts

Mineralogists - Metallographers - Spectroscopists

Main Office and Laboratories

47 FULTON STREET PITKIN BUILDING NEW YORK 38, N. Y.

REPORT OF ANALYSIS

Report No. 535595-608 April 3, 1956

The result as indicated by our analysis of 14 sample(s) of Mineral from Sidney Lieberman

and submitted to us, is as follows:

Lot No.	Uranium Oxide (U_3O_8)	Sulfur	Iron	Phosphorus
MP-PAT/3-7-6-1	0.15 %	- -	- -	- -
MP-PAT/3-7-6-2	43.0	- -	- -	- -
MP-PAT/3-7-6-3	0.43	- -	- -	- -
-PAT/3-7-6-4	0.068	- -	- -	- -
-PAT/3-7-6-5	0.080	- -	- -	- -
MP-PAT/3-7-6-6	0.12	- -	- -	- -
MP-PAT/3-7-6-7	64.0	- -	- -	- -
MP-PAT/3-7-6-8	4.9	- -	- -	- -
MP-PAT/3-7-6-9	0.054	- -	- -	- -
MP-PAT/3-7-6-10	0.035	4.48 %	63.89 %	0.06 %
MP-PAT/3-7-6-11	62.0	- -	- -	- -
MP-PAT/3-7-6-12	2.6	- -	- -	- -
MP-PAT/3-7-6-13	0.076	- -	- -	- -
MP-PAT/3-7-6-14	0.21	- -	- -	- -

Note: All values for the U_3O_8 were determined radiometrically employing AEC standard counting samples and ores. The values for samples 3-7-6-2; 3-7-6-7; and 3-7-6-11 can only be considered approximate.

Copies: 2- Mr. Sidney Lieberman
295 Madison Avenue
New York City

OPT = Troy Ounces per ton of 2000 lbs.
PPT = Parts per thousand

jr

LUCIUS PITKIN, INC.
By R. H. Bell

This report is rendered upon the condition that it is not to be reproduced wholly or in part for advertising or other purposes over our signature or in connection with our name without special permission in writing.

Cable Address: Niktip.

Lucius Pitkin, Inc.

ESTABLISHED 1885

METALLURGICAL CHEMISTS AND CONSULTANTS

Weighers - Samplers - Assayers - Analysts

Mineralogists - Metallographers - Spectroscopists

Main Office and Laboratories

47 FULTON STREET PITKIN BUILDING NEW YORK 38, N. Y.

REPORT OF ANALYSIS

Report No. 535601 - 535603 July 18, 1956

The result as indicated by our analysis of 2 sample(s) of Mineral from Sidney Lieberman

and submitted to us, is as follows:

SUPPLEMENTARY REPORT

By Chemical Analysis	Lot No. MP-Pat-3-7-6-7
Uranium Oxide (U_3O_8)	68.73 %

By Radiometric Analysis	Lot No. MP-Pat-3-7-6-9
Uranium Oxide (U_3O_8)	0.052 %

Copies: 2- Sidney Lieberman
295 Madison Avenue
New York 17, New York

LUCIUS PITKIN, INC.

By [signature]
H. H. Bell

OPT = Troy Ounces per ton of 2000 lbs.
PPT = Parts per thousand

jf

This report is rendered upon the condition that it is not to be reproduced wholly or in part for advertising or other purposes over our signature or in connection with our name without special permission in writing.

THE NEW JERSEY ZINC COMPANY

(ESTABLISHED 1848)

Franklin, New Jersey

October 24, 1956

Mr. Walter S. Newman, Geologist
Ramapo Uranium Corporation
Forester Avenue
Warwick, New York

Uranium Analysis

Dear Mr. Newman:

Analysis of the 60-80 mill feed composite given us at your plant during our recent visit has been received. The uranium equivalent is our own.

Chemical analysis	0.07	U_3O_8
Uranium equivalent	0.024	

Very truly yours,

D. McKechnie

D. McKechnie
Superintendent

JLBaum/kf

cc: Mr. J.L.Baum

61 BROADWAY

NEW YORK 6, N.Y.

January 14, 1957

Mr. Sidney Lieberman
295 Madison Avenue
New York, New York

Dear Mr. Lieberman:

The chemical and radiometric analyses on the three samples taken from the Ramapo Uranium Company property last November are as follows:

	Sample	Chemical U_3O_8	Radiometric U_3O_8
1.	Grab sample from muck pile - McCleod property	.034	.02
2.	Grab sample from blasted pit on Mania property	.038	.02
3.	17' chip sample from pit on Mania property	.051	.03

Again, many thanks for the courtesies extended to Mr. Bernard and me.

Sincerely yours,

J. H. Ffolliott

JHF:as
61B

Lucius Pitkin, Inc.
ESTABLISHED 1885
METALLURGICAL CHEMISTS AND CONSULTANTS
47 FULTON STREET PITKIN BUILDING NEW YORK 38, N. Y.

TECHNICAL REPORT

August 8, 1956

Prepared for: Mr. Sidney Lieberman
295 Madison Avenue
New York, N.Y.

T. R. No. 5057-A
Pro. No. 5015
Your P. O.
L.P. No. 539050-052

Subject: First Field Trip to S. Lieberman's Property

For several months, we have performed analysis for uranium oxide content on samples submitted for the account of Sidney Lieberman which were said to have come from old iron mines in the vicinity of Warwick, New York. The results of our analysis ranged from a low value of less than 0.02 percent to a high of several percent uranium oxide in "hand" samples.

In early March 1956, a large sample identified as PM-PAT, L.P. No. 534954, was submitted for grinding, sampling and analysis. The major part of the sample was crushed to minus 10 mesh and sent to Separations Engineering for concentration. After air table concentration, the various fractions (concentrates and tailings) were resubmitted to us for analysis.

The result of our analysis on the original ore was 0.45 percent uranium oxide. The submitted tailing and concentrate fractions ranged from 0.05 to 68.00 percent uranium oxide as covered by our report 535595-608. This relatively simple concentration technique indicated that further exploratory field work would be worth while to study the extent of the deposit.

On May 29, 1956, a field party consisting of Dr. Wilbur Valentine, Mr. Frederic H. Wright, and Mr. Charles Jedlicka were shown the old iron workings on the Mania property, the Goal property and the old workings of the Continental Iron Mine about a mile south. These properties are located to the south of Warwick, New York. The party was conducted by Mr. Sidney Lieberman, Mr. Chalmers and Mr. Thorpe.

The principal object of this investigation was to study the occurrence of the radioactive minerals associated with the iron ore, the general physical geology, and to take representative samples of the deposit. It was hoped that this might indicate what other exploratory work might be necessary to determine if the deposit could be mined profitably. The field party was unable to obtain a representative sample of the deposit because the veins were not exposed. Several specimens were collected, primarily to identify the mineral and to definitely indicate the presence of uranium.

Sample No. 1, a hand sample of the main dump, consisted of specimens selected for their rather high radioactivity. Sample No. 2 was a hand sample chipped out of the rock four feet below the rim of a round test hole which showed one spot of medium radioactivity. Sample No. 3, a hand sample of an outcrop 30 feet north of road on the Goal property was taken for the purpose of identifying the cause of the radioactivity. The analyses of these samples are tabulated below:

Sample No.	Uranium Oxide	Thorium Oxide
1	0.08 %	Not Found
2	0.07	Not Found
3	Not Found	0.04 %

General Geology:

The region consists of ridges and valleys with gentle to moderate slopes, located in the Ramapo Mountains. These properties are located about half a mile west of the lowland area in which Greenwood Lake is located.

The principal rock formation in the Ramapo Mountains is a streaked granite gneiss. This granite gneiss is Pre-Cambrian and is known as the Ramapo Gneiss or the Highlands Gneiss. It underlies the Paleozoic rocks of the Appalachian region. At many places in the granite gneiss are bodies of granite pegmatite, some of which are large enough to be mapped. The pegmatites sometime contain rare minerals, some of which contain radioactive elements, reported to be thorium in all cases that have been checked.

The rocks in the Greenwood Lake lowland are Lower and Middle Paleozoic formations that have been folded and faulted down against the gneiss to the west. This fault contact is known to extend from NNE to SSW for a considerable distance, and the vertical displacement must be of the order of hundreds or thousands of feet.

The Iron Ore Veins:

The magnetite ore veins seen on the Mania property and at the old Continental Mine were essentially similar structurally. They occupy fractures whose strike is sensibly parallel to the fault between the Pre-Cambrian gneiss and the Paleozoic sediments. The fractures are quite regular in strike. The angle of dip varies from essentially vertical to about 60 degrees to the east, toward the main fault. These fractures are multiple and may be somewhat in echelon.

The fractures have been filled in places with magnetite iron ore veins. The veins have sharp margins, but are tight, the adjacent gneiss often being still attached to the ore after blasting. These two criteria indicate that the veins are essentially filled fractures, but that there was a minor amount of replacement of and intercrystallization with the gneiss along the walls. The mined portions of the Mania veins seen varied in thickness from slightly more than a foot to several feet, probably averaging from three to five feet. The principal vein at the Continental Mine seemed to be thicker.

Such mineralization usually forms at considerable depth in the earth's crust from a still deeper source. If the fractures occupied by the veins were formed at the same time as the main fault, the mineralization was probably injected at that time, the end of the Paleozoic. At that time, the gneiss was covered by Paleozoic formations that were probably a few miles thick.

This type of high temperature vein mineralization can be expected to have thousands of feet of vertical range. The veins are lenticular in the horizontal plane, and can be expected to vary in thickness in the vertical direction also. There may be mineralized fractures in the same general zone that do not outcrop on the present surface. Outcropping veins may pinch out at greater depth.

Minerals in the Veins:

A portion of a few ore specimens collected by Valentine from dumps on the Mania property was crushed, separated magnetically and the non-magnetic fraction studied with a binocular microscope. About 24 percent of the sample was magnetic, 76 percent was non-magnetic. In the non-magnetic portion, the following constituents were seen, in the approximate order of decreasing abundance: quartz, amphibole, feldspar, ilmenite (?), pyrite, uraninite or pitchblende, mica, and zircon (?).

It is obvious that the sample included much of the gneiss adjacent to the ore. From this source doubtless came the quartz, amphibole, feldspar, mica and zircon (?). If these are excluded, the radioactive mineral shows up favorably in relation to other non-metallic minerals from the ore itself.

The radioactive mineral or minerals may occur throughout the entire thickness of the vein, or they may be concentrated in certain portions. The study of pieces of ore from the main dump near the south end of the Mania property favors the second alternative. Some pieces seem highly radioactive, others seem to have little radioactivity. Many of the highly radioactive

Lucius Pitkin, Inc.
METALLURGICAL CHEMISTS & CONSULTANTS
NEW YORK 38, N. Y.

pieces have gneiss attached, suggesting that radioactive minerals are concentrated along one wall of the vein. It is not certain whether this is from the east or the west wall of the vein in all cases, but in some places it appears to be the west wall.

It is the considered opinion of our field party that in view of the rather high radioactivity, the relative ease of concentration and the general geology, it would be advisable to open up the mineral veins. This could be accomplished by using a Geiger or scintillation counter as a guide for bull-dozing.

1. Should the exposed veins measure several hundred feet in length, representative samples could be taken at several points by cutting directly across the deposit at a uniform depth and width of trench. The analytical data obtained from these samples would indicate the approximate amount of minable ore on the surface.

2. Should this analytical data indicate that the concentration is sufficiently high to profitably mine the deposit, it would be advisable to core drill these veins at several points and make analyses of samples from various depths.

The data obtained from Phase 1 and 2 could be used to estimate the mineral reserve so as to determine whether or not the deposit is economically worth developing.

Respectfully submitted,

LUCIUS PITKIN, INC.

C. A. Jedlicka

C. A. Jedlicka

CAJ/ac
2 copies

Lucius Pitkin, Inc.

ESTABLISHED 1885

METALLURGICAL CHEMISTS AND CONSULTANTS

47 FULTON STREET PITKIN BUILDING NEW YORK 38, N. Y.

August 8, 1956

TECHNICAL REPORT

Prepared for: Mr. Sidney Lieberman
295 Madison Avenue
New York, N.Y.

T. R. No. 5057-C
Pro. No. 5015
Your P. O.
L.P. 541157-164

Subject: Third Field Trip to S. Lieberman's Property

On July 13, 1956 our Mr. C. Jedlicka revisited the area and was met by Mr. Walter Newman, an employee of Mr. Sidney Lieberman. This visit was ordered by Mr. Lieberman. Mr. Newman was familiar with the workings and located the various deposits to be sampled.

A considerable amount of bull-dozing and blasting had been carried out on the Mania property which enabled ud to take out several samples. The samples are identified below and correspond to the locations marked on maps furnished by Mr. Newman.

Sample No. 1 - Hand selected sample from dump above house.

Sample No. 2 - Trench about 100 to 200 feet above dump. (Selected hand sample taken in place from side wall by chipping from the rock with a geologist's hammer).

Sample No. 3 - Vein newly opened, approximately 8 feet wide, east side of old workings. (Selected hand sample taken in place as before, from horizontal exposed surface).

Sample No. 4 - Blasted opening perpendicularly across extreme south end of newly trenched out mineral vein approximately 10 feet wide by 500 feet long. (Hand sample chipped from newly blasted wall.

Sample No. 5 - Blasted opening across same vein as above, but approximately 200 feet north of Sample No. 4. An entire section 6" x 6" x 4½' long was cut out horizontally 3 feet below rim of trench.

Lucius Pitkin, Inc.
METALLURGICAL CHEMISTS & CONSULTANTS
NEW YORK 38, N. Y.

Sample No. 6 - Newly blasted opening at surface approximately 75 feet due west of point where Sample No. 5 was removed. (Hand sample taken in place by chipping).

Sample No. 7 - Bull-dozed area with outcrop called Chalmers Chimney. (Hand sample taken in place by chipping from fresh face of outcrop.

Sample No. 8 - North end of stripped vein, about 200 feet north of Sample No. 5, west side of bull-dozed area. (Selected hand sample taken in place by chipping exposed rock).

It should be noted that with the exception of Sample No. 5, hand samples taken in place were selected to determine the cause of radioactivity and the amount of uranium present if any.

Results of Analysis:

Sample No.	Uranium Oxide	Thorium Oxide
1	0.02 %	Not Found
2	Not Found	Not Found
3	Not Found	Not Found
4	Not Found	Not Found
5	0.14	Not Found
6	0.05	0.02 %
7	0.10	Not Found
8	Not Found	Not Found

The samples taken on this trip were selected from points where considerable radioactivity was detected. The absence of both uranium and thorium in some samples from radioactive areas indicates the presence of Radon gas which is probably coming up from below the surface through the natural cracks in the rock. The seepage of Radon gas is an indication that a deposit of radioactive mineral similar to Sample No. 5 might be present at some unknown depth. However, this could only be proven by core drilling as indicated in Report No. 1, Phase 2. Uranium mineralization might extend continuously beneath the radioactive area or might occur in discontinuous lenses. It is our recommendation that the area where Sample No. 7 was taken be investigated further to determine the extent of mineralization.

Lucius Pitkin, Inc.
METALLURGICAL CHEMISTS & CONSULTANTS
NEW YORK 38, N. Y.

On July 24, 1956, Mr. Lieberman submitted two samples identified as No. 1 dump material from property at Warwick, New York and the No. 2 trench material corresponding to our Sample No. 5. These samples were selected, we were told, because of unusually high radioactivity and should represent the higher ranges of uranium content. Our analysis for uranium oxide on No. 1 was 1.98 percent and No. 2 was 1.02 percent, Pitkin Report No. 541829-830.

CONCLUSIONS:

The data thus far obtained shows:

1. The presence of uranium in the rock as shown from the analysis of Samples No. 5, 6 and 7.

2. The indications of Radon gas causing high radioactivity and the possibility of unexposed ore well below the surface.

3. The relatively simple concentration methods devised by Separations Engineering.

4. The general geology indicating that the veins may be several hundreds of feet deep.

It is our considered opinion that further exploratory work should be performed in the nature of core drilling as per our recommendation in Report No. 1, Phase No. 2.

Respectfully submitted,

LUCIUS PITKIN, INC.

C. A. Jedlicka

CAJ/ac
2 copies

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D M E A
RECEIVED APR 22 1957

DATE	INITIALS	CODE

DMEA Form 7
(12-56)

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Date	Surname	Code
4/9	Murphy	700
"	Ellis	700
"	Mathews	100
4/10	C	220
		700

APR 9 - 1957

Mr. Sidney Lieberman, President
Ramapo Uranium Corporation
295 Madison Avenue
New York, New York

Re: Docket No. DMEA-4567 (Uranium)
Miles Standish Mine
Orange County, New York

Dear Mr. Lieberman:

On January 16, 1957, an examination of the subject property was attempted by DMEA field examiners; however, because of bad winter conditions, an adequate appraisal of the property could not be made.

On January 17 you informed our field examiners that the following additional information would be submitted within one week:

1. All sample assay data pertaining to the property;

2. A copy of the assignment of the Mania lease by yourself to the corporation, or a copy of a new lease directly to the corporation;

3. Executed "Consent to Lien and Subordination Agreement" from all lessors;

4. A map of the property on a scale large enough to show in detail all mine openings, pits, trenches, and locations where the samples were procured; and

5. Itemized costs for supervision and labor; also the units and values of company-owned equipment that you plan to use on the proposed project and the operating supplies for same.

Will you please submit the above additional information as soon as possible. Our field men have other examinations scheduled for the northeastern states during the third week of this month, and would like to combine this work and the reexamination of yourproperty providing that the above information is available to them.

FMMurphy/gla 4-9-57
cc to: Admr.'s Reading File
Code 700, Mr. Murphy
DMEA Field Team, Region V (2)
THKiilsgaard, Rm. 5224

Sincerely yours,

Ernest Wm. Ellis, Chief
Rare and Miscellaneous Metals Division

8623

IN REPLY REFER TO:

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

OFFICIAL FILE COPY
DMEA
RECEIVED FEB 27 1957

DATE	INITIALS	CODE
2/27	C	220
~~2/27~~	~~Murphy~~	~~700~~

February 25, 1957

Re: DMEA 4567
Ramapo Uranium Corp.
Miles Standish Mine
Orange County, N. Y.

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

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

Subject: Review of Field Team Preliminary Report

Because of inclement weather, including a heavy snowfall, the examiners were unable to complete the examination of the referenced property.

Another examination is planned. I concur with that expression of intention.

N. E. Nelson

N. E. Nelson

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 25 POST OFFICE BLDG.
KNOXVILLE 2, TENN.

OFFICIAL FILE COPY
DMEA
RECEIVED FEB 19 1957

DATE	INITIALS	CODE
2-19	C	220
		130
2/26	C	220
~~4~~	~~Magill~~	~~700~~

February 18, 1957

Memorandum

TO: Operating Committee, DMEA - Washington

From: DMEA Field Team, Region V - Knoxville, Tenn.

Subject: Examination Report - DMEA-4567 (Uranium)
Ramapo Uranium Corp. New York, N.Y.

Transmitted are 4 copies of the subject examination report. No recommendations can be made until the property is re-examined.

V. J. Lynch, Acting
Executive Officer, DMEA
Region V

Helmuth Wedow, Jr.
Geologist
Geological Survey

ON-SITE EXAM

Reviewed by
DMEA OPERATING COMMITTEE
2-25-57
(date)

Field Team Report on Examination of Property

by

W. P. Williams and H. L. Burmeister [1]

OFFICIAL FILE COPY
DMEA
RECEIVED FEB 19 1957

DATE	INITIALS	CODE
		130
		220

DMEA Docket No. 4567 (uranium)

Applicant: Ramapo Uranium Corporation
295 Madison Avenue, New York, N. Y.

Property: Miles Standish Mine, Orange County, New York

SUMMARY

Upon assurance of the applicant that the ground was bare of snow and the property in condition, the Field Team representatives attempted to conduct an examination of both the property and the experimental mill. Due to snow and zero temperature, field data could not be obtained, although an attempt was made to do so. The applicants tried to operate the small concentrating plant in Warwick, but were unsuccessful in operating all equipment or in making a run from which any conclusions could be drawn.

It is probable that any economic value the deposit may have is closely related to a low cost method of extracting the uranium minerals. It is the opinion of the examiners that another visit will be necessary when the weather moderates and the applicant has complied with requirements detailed in another portion of this report.

1/ W. P. Williams, Geologist, U. S. Geological Survey
H. L. Burmeister, Engineer, U. S. Bureau of Mines

Reviewed by
DMEA OPERATING COMMITTEE
2-25-57
(Date)

CONCLUSIONS AND RECOMMENDATIONS

It was not possible, on January 16, to make an adequate appraisal of the applicant's property or his exploration proposals because of unusually bad winter conditions. The applicant told the examining team that an almost completely continuous area of radioactive rock extended across his property and for a total distance of 8,000 feet along strike with widths ranging from a few feet to as much as a hundred feet. Such allegations could not be checked. As a result, there appears to be no alternative than to re-examine the property at a time when snow has permanently left the ground--possibly early April. It is recommended that the applicant be informed that such a re-examination is indicated but also that the applicant, in the interim, may greatly assist and expedite his application by performing or submitting the following items:

1. Submit to DMEA all assay data pertaining to the property. The applicant stated that many assay samples had been taken on the property.
2. Place the pilot mill in such operating condition as to demonstrate such points as:
   (a) grade of head feed required to make an acceptable product.
   (b) feasibility of introducing a heavy media jig as envisioned by applicant.
   (c) percent of total U_3O_8 recovery from heads.
   (d) increase in recovery through solution of a serious dust and fines problem with resultant loss of values.

(e) efficiency and practicability of pilot size, and larger, air tables.

3. Submit detailed bids from two responsible contractors for core drilling, (AX or larger to allow radiometric probing) and for tunneling (5'x7' drift).

4. Assignment of the Mania lease by Sydney Lieberman to the Ramapo Uranium Corporation, or execution of a new lease directly to the Corporation.

5. Submit executed "Consent to Lien and Subordination Agreement" from all lessors.

6. A map of the property on a scale large enough to show in detail all mine openings, pits, trenches and sample points and upon which can be plotted in clear fashion proposed exploration, including underground openings and drill holes.

7. Furnish itemized superintendance and labor costs as well as depreciation costs for use of company-owned equipment if used, and operating supplies for same.

On January 17, Mr. Lieberman informed the examiners that above listed items 1, 4, 5, 6, 7 would be submitted within one week. To the date of this report, none has been received. All necessary forms and all possible assistance on the above items were given the operator and group accompanying the examiners.

TIME SPENT ON PROPERTY AND PARTY ACCOMPANYING EXAMINERS

The property was visited on January 16 and 17, 1957 by an examining team composed of H. L. Burmeister, U. S. Bureau of Mines and W. P. Williams, U. S. Geological Survey. The examining team was accompanied in the field by Mr. Sydney Lieberman, President, Ramapo Uranium Corporation, George W. Hurlbutt, Secretary-Treasurer of Ramapo Uranium, Walter S. Newman, geologist for the applicant, Dr. Donald Failing, stockholder in the applicant company, and W. P. Mania, lessor to the applicant. The examiners were on the property all day January 16 and at the pilot plant one-half day on January 17, 1957.

LOCATION OF PROPERTY

The property included in this application is located in Orange County, New York on the southwest end of Warwick Mountain and approximately 2 miles southeastward from the village of Warwick. The mine office and the Mania adit are reached by proceeding south from the railroad in Warwick on South Street, which becomes Bowen Road, for a distance of 2.2 miles to the fork of Bowen Road and Cascade Road. Follow Cascade Road southeastward for 0.4 mile to its fork with Burdette Road and follow Burdette Road to the left or northeast for about 2,000 feet to its end. Bowen Road and Cascade Road are kept clear by the County, but Burdette Road must be kept in condition and cleared of snow by the company.

COMPETENCY OF APPLICANT AND PERSONNEL

Observations in the field indicate that the applicant group has little if any experience in mining. The financial responsibility of the Corporation was not investigated.

APPLICANT'S PROPERTY RIGHTS

The land concerned in this application consists of approximately 130 acres held under 2 leases from owners to the Ramapo Uranium Corp., namely, the McCloud and Giangrande leases, and a third, or Mania lease, in the name of Sydney Lieberman, President of the Ramapo Uranium Corp. which has not been transferred to the Corporation. Mr. Lieberman stated that he had no arrangement with the Corporation for an overriding royalty on the Mania lease and that he could and would cancel his lease and secure and submit a new lease from Mania owners to the Corporation. "Consent to Lien and Subordination Agreement" was not furnished on any of the leases. Forms for this purpose were supplied the operator, who stated that they could be executed without difficulty.

DESCRIPTION OF PROPERTY

The applicant's leasehold includes the site of the old Miles Standish magnetite mine which has been inoperative for about the last century. A vertical shaft, about 60 feet deep according to the applicant, exists on the property about 500 feet northeasterly from the Mania adit. The shaft is flooded and inaccessible. Lateral workings are reported to extend from the shaft bottom but their length and direction are unknown. A dump exists near the collar of the shaft.

On the day the property was visited, two miners were engaged in starting a drill round in the Mania adit which is about 8 feet underground. The adit is located on the Mania tract in roughly about the center of the property, as indicated in fig. 1.

The applicant has done a large amount of stripping by bulldozer and trenching by drilling and blasting. The extent and nature of this work could not be ascertained because of heavy snow cover.

At the south end of the applicant's property on the McCloud tract, fig. 1, the applicant has pulled perhaps three adit rounds from the face of an old pre-existing hillside trench. This McCloud adit is 9' long and adit and trench together are about 30 feet long. No work was being done on the site at the time of the visit. On the applicant's leasehold a small, frame, four room, former dwelling serves as the 'mine office.'

CONCENTRATION FACILITIES

On the east side of the village of Warwick, N. Y. and within the city limits, the applicant has leased a cinder block building, about 20 by 60 feet in size, which houses a small office room, a pilot mill for the concentration of the applicant's ore, and shelter space for some of the applicant's earth-moving equipment, fig. 1. The pilot mill was not in operation upon arrival but was put in partial operation in an effort to demonstrate a test run. The test run was inconclusive. The several units were poorly coordinated, and a bothersome conveyor belt kept clogging and sticking, which halted operations much of the time. A 5-foot air table, the element which is meant to make the final, high grade concentrate was not in operation at all. An attempt was made to make a

high grade concentrate using a small (± 10 inch) laboratory size air table. Some degree of concentration was achieved, but the results, as checked with geiger counter, were far inferior to other concentrate samples submitted by the applicant. It seems, however, that the grade of the mill product will be much improved when some of the 'bugs' are taken out of the mill and the air table put in good adjustment.

Mr. Lieberman stated that he would immediately send in a flow sheet of the pilot plant, complete with screen sizes and assays of products at various points. This has not been done, but the following brief outline will serve at this time.

An 8"x10" jaw crusher set at 1/2" delivers to a conveyor belt which discharges on a 1-1/2'x4' vibrating screen. The -30 mesh is held in a storage can as feed to a 60" air concentrating table. The +1/2" returns to the crusher and the -1/2"+30 mesh goes by 6" conveyor belt to a small impact crusher, the -30 mesh product to air table, the oversize returning to the impact machine.

At no time did all parts of the system work at the same time, due to various troubles, with the result that no data could be assembled. The operator stated that the process included a heavy media jig operating on 1/4" to 300 mesh which would eliminate 90 percent of the jig feed which would be taken from the primary screen. He also stated that a laboratory jig had returned satisfactory results and that a full scale jig would be used in a test run during the week following the examiners' visit.

GEOLOGY AND ORE RESERVES

At the time of the field examination it was snowing heavily and there was a 12" layer of snow on the ground. Daytime temperatures were near zero. Outcrops, pits, and trenches could not be seen except where the snow was scraped away. Low temperatures caused several geiger counters and scintillometers to function poorly or not at all. One instrument, a scintillometer, which seemed to function in spite of the cold could not get a radiometric measurement through the ice and snow cover. Under the conditions, it was impossible to complete a geologic appraisal that would be adequate for the purposes of evaluating the applicant's property and of rendering a decision as to the advisability of DMEA participation in exploration on the property.

Good views of the rocks were obtained only in the two adit portals. At those two locations the rock consists of medium to dark gray granite-gneiss of Precambrian age. At both adits the rock was fairly well foliated and possessed well defined gneissic structure. The strike of the foliation is N.25°-30°E., and the dip is about 85° SE. At some places the rock is crystalline and massive, has a granitic texture, and exhibits no gneissic linearity or foliation. The few samples collected appear to be composed of light colored plagioclase feldspars, quartz, and hornblende. Accessory minerals are magnetite, pyrite, chalcopyrite in minute amounts, and biotite. No radioactive minerals could be identified in grab sample specimens although finely disseminated uraninite would seem to be a good possibility. A grab sample has been sent to the Geochemistry and Petrology Branch, U.S.G.S. for determinations of U_3O_8 and thorium content and for radioactive mineral identification.

Magnetite-rich bands of dark minerals are accordant with the gneissic foliation. It is reported that the main magnetite ore body of the Miles Standish mine follows the gneissic structure and that anomalously radioactive rocks are located in the footwall of the magnetite body. This relationship could not be checked in the field.

The radiometric count at the Mania adit seemed only to be about twice background, although the readings might be erroneous under the conditions. At the McCloud adit the radiometric reading at the face was 0.30 mR/hr., which was about five times the background for the vicinity of the adit.

At the present state of development it is not possible to credit the property with any known ore reserves. Production of U_3O_8 concentrate, with a grade of 50-70 percent U_3O_8, is thus far still measurable in ounces, or at best a few pounds.

AVAILABILITY OF MANPOWER, SUPPLIES, ETC°

Securing manpower, equipment and supplies should present no problem. New York City is about 2 hours driving from the property and operating iron mines are only a short distance away.

APPLICANT'S EXPLORATION PROPOSAL

The applicant proposes to explore for uranium ore deposits by driving two drifting adits for a total of 3,100 feet, and diamond core drill 120 holes for a total of 15,000 feet. The entire program would probably total approximately $199,000. The northernmost or Mania drift is intended to intersect the Old Miles Standish workings.

The applicant proposes to divide the exploration into two stages. Stage I would consist of drifting which would be followed by diamond drilling in Stage II. This is a reversal in the usual sequence of exploration methods. Upon inquiry at the time of visit, the applicant stated that he had little interest in preliminary core drilling, but was primarily interested in driving the two adit drifts.

The feasibility and value of the applicant's proposed program will be completely investigated when the property is next visited.

H. L. Burmeister

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

W. P. Williams

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

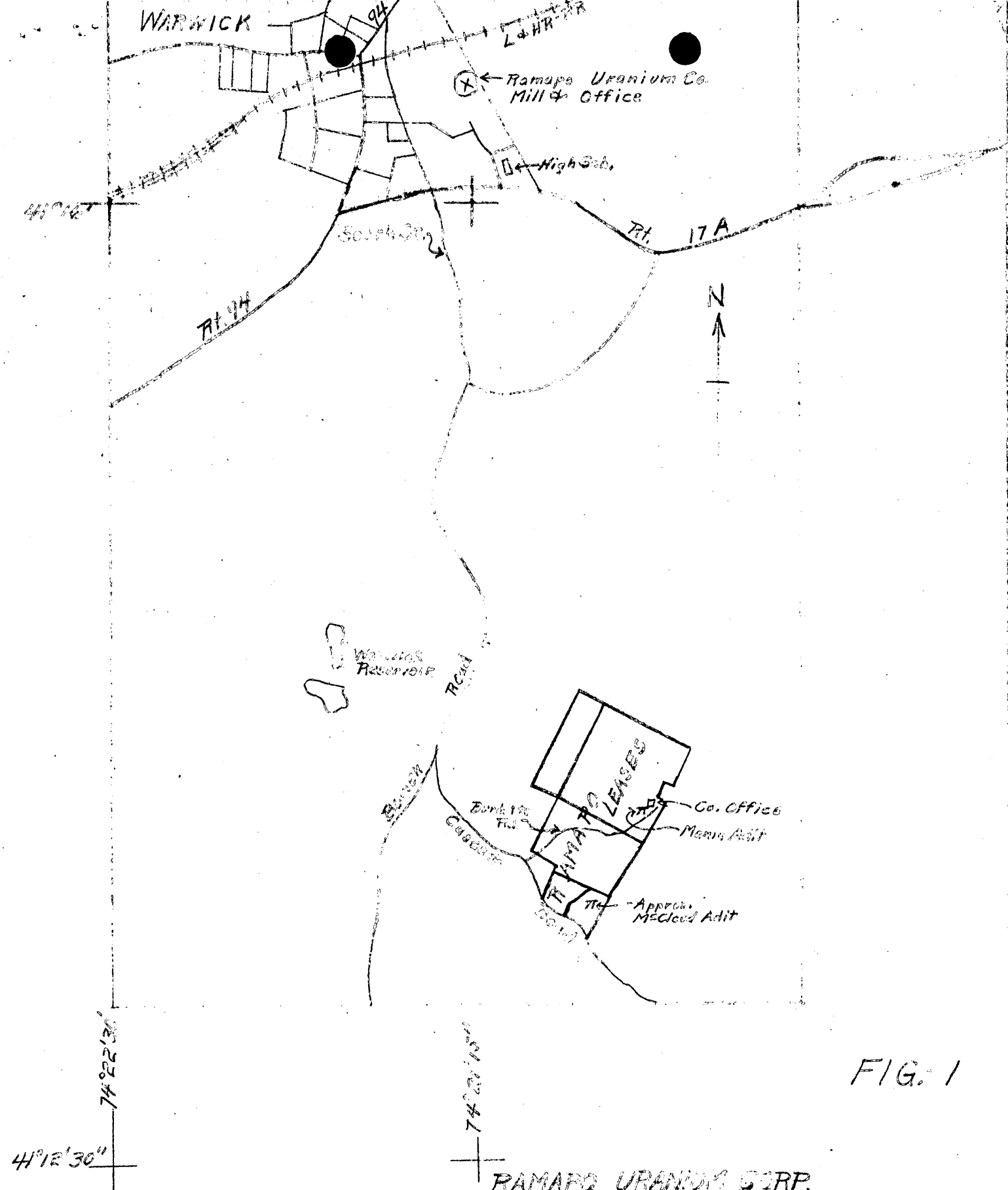


FIG. 1

RAMAPO URANIUM CORP.
MILES STANDISH MINE, ORANGE CO. N.Y.
DMEA-4567
U.S. ARMY WARWICK, N.Y. & U.S. ARMY GREENWOOD LAKE, N.Y.-N.J. QUADS.

0 1000 2000 3000 4000 Feet

700

FILE COPY

Surname:

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

DEC 28 1956

Mr. Sidney Lieberman, President
Ramapo Uranium Corporation
295 Madison Avenue
New York, New York

Re: Docket No. DMEA-4567 (Uranium)
Miles Standish Mine
Orange County, New York

Dear Mr. Lieberman:

The application for assistance in exploring your property, under the captioned docket number, has been reviewed by the Rare and Miscellaneous Metals Division of the Defense Minerals Exploration Administration. It has been referred for a field examination to:

Mr. Robert A. Laurence
Executive Officer
DMEA Field Team, Region V
Rm. #13, P. O. Building
Knoxville 2, Tennessee

The Regional Office will contact you at the earliest opportunity in regard to your project.

Sincerely yours,

C. O. Mittendorf

Administrator

FMMurphy/izm 12-21-56
cc to: Docket
Code 700
Mr. Murphy
Admr.'s Reading File
~~Operating Committee~~
DMEA Field Team, Reg. V (2)

700

FILE COPY
Surname:
Murphy
Selfridge

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

Mr. Robert A. Laurence
Executive Officer
DMEA Field Team, Region V
Rm. #13, P. O. Building
Knoxville 2, Tennessee

DEC 28 1956

Re: Docket No. DMEA-4567 (Uranium)
Ramapo Uranium Corporation
Miles Standish Mine
Orange County, New York

Dear Mr. Laurence:

The captioned application is referred to Region V Field Team for investigation, a field examination, and recommendations.

Enclosed are copies of memoranda, dated December 14 and 19, 1956, by J. E. Crawford, USBM, and W. P. Williams, USGS, respectively, relating to the application. Also enclosed is one copy of the application for Field Team use.

In the event the Field Team recommends a project to explore the subject property, it should advise the Applicant that we will require six executed copies of the owner's Consent to Lien and Subordination Agreement from each of the following groups:

1. George D. McCloud and Wilma J. McCloud, his wife;
2. Peter Giangrande and Anna Giangrande, his wife;
3. William P. Manis, John Nicolini, and Salvatrice Nicolini. It appears, according to the lease, that the Nicolinis hold some interest in the property leased to Sidney Lieberman. Also, in regard to this lease, the Applicant should be requested to submit written proof that Sidney Lieberman has subleased the property to the corporation. If the sublease contains an overriding royalty, we will require a set of the Consent to Lien and Subordination Agreement signed by Mr. Lieberman.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (JHB)

Enclosures

APPROVED:

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

JOHosted, 3210, GSA

N. E. Nelson
Member, Geological Survey (JHB)

FMMurphy/izm 12-21-56
cc to: Docket
Code 700
Mr. Murphy
Admr's Reading File
Operating Committee
Messrs. JECrawford, Rm. 3643
THKiilsgaard, Rm. 5224

12-20-56

IN REPLY REFER TO:

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

RECEIVED DEC 20 1956 DMEA

December 19, 1956

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

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

Subject: Review of application, DMEA 4567, Ramapo Uranium Corporation, Miles Standish mine, Orange County, New York, (uranium).

The applicant proposes to explore for uranium ore deposits in the Appalachian highlands in New York near the town of Warwick not far from the New Jersey state line.

The property appears to be located on the Byram gneiss of Precambrian age. Uranium minerals have been known to exist in the region in very small quantities (mineralogic specimens) for many years. Uranium minerals on the property, if present, are probably associated with the magnetite ore that was formerly mined in the Miles Standish mine.

Mr. G. W. Jarman, Vice President of the applicant company, visited my office several months ago. He brought with him, and showed to me, samples of 'ore', mill middlings, and tailings, all ground to -50, 470 mesh size. The ore and middlings samples gave high scintillator readings; and the concentrate sample gave scintillator readings almost as high as would be the case with an equivalent weight of uraninite. Mr. Jarman showed a copy of an assay certificate from Lucius Pitkin, Inc. which purportedly shows the chemical U_3O_8 content of the concentrate to be 68.73 percent. Mr. Jarman stated that his samples had come from the Miles Standish property and that they were the result of grinding, seiving, separation, and concentration through use of an air table. The work has been done only on laboratory-size equipment. Assuming the foregoing to be the case the air separation process represents a cheap and apparently efficient method of producing, from low grade primary ore, a concentrate of exceptionally high quality.

The presence of ore grade material on the property is not only possible but entirely probable. The main problem seems now to be that of finding and developing enough ore to support a continuing mining and milling operation.

Whether or not the property merits further exploration will be ascertained only by field examination. The applicant proposed to do tunneling and core drilling but does not furnish a map to show exactly where the work is to be done. Chemical assays of samples from the property are mentioned in the application but not furnished.

Any shortcomings in the application can, however, be remedied at the time of the field examination. I recommend that the application be referred to the Field Team for field examination and report.

I am retaining one copy of the application for use during the field examination.

W. P. Williams

W. P. Williams

12-18-56

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

RECEIVED DEC 17 1956 DMEA

Date December 14, 1956

DMEA Docket No. 4567
DMEA Contract No.
Commodity Uranium
Name of applicant Ramapo Uranium Corp.
Name of property Miles Standish Mine
Location of property Orange County, New York
Estimated cost of project $25,000.00

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee

From: John E. Crawford, Bureau of Mines Member
Uranium Commodity Committee

Subject: Review of _____ Application
(Application, Field Team Report, etc.)

1. Date of subject document: 12/6/56. 2. Date received by reviewer: 12/11/56.

3. Prior reports on this property known to reviewer: Yes [ ] No [X]

4. Prior reports on nearby properties known to reviewer: Yes [ ] No [X]

5. Information available on past production: Yes [ ] No [X]

6. Other pertinent factors known to reviewer: Yes [ ] No [X]

7. Explain items marked yes above:

8. Factors meriting special consideration:
a. Location [ ]
b. Ownership [ ]
c. Evidence of mineralization [ ]
d. Geology [ ]
e. Proposed exploration method [ ]
f. Alternate exploration method [ ]
g. Costs [ ]
h. _____ [ ]

9. Action advised:
a. Obtain information from applicant [ ]
b. Refer to Field Team [X]
c. Denial [ ]
d. Agree with Field Team [ ]
e. Disagree with Field Team [ ]
f. Suggest alternate plan [ ]
g. Request another examination [ ]
h. Approval [ ]
i. Consult with Mr. _____ at _____ AEC office.

10. Remarks: (Use back of page if necessary) Mr. J. O. Hosted, Washington representative of the Atomic Energy Commission, assisted in the review.

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

December 10, 1956

Ramapo Uranium Corp.
295 Madison Avenue
New York, N. Y.

Subject: DMEA-4567

Gentlemen

Your application for exploration assistance, dated November 23, 1956 submitted to our office at Knoxville, has been assigned Docket Number DMEA-4567 and referred to the Rare and Miscellaneous Metals Division in the Washington office. Kindly identify all future correspondence relating to your application by this Docket Number.

Sincerely yours,

(Sgd) Allen S. Dakan

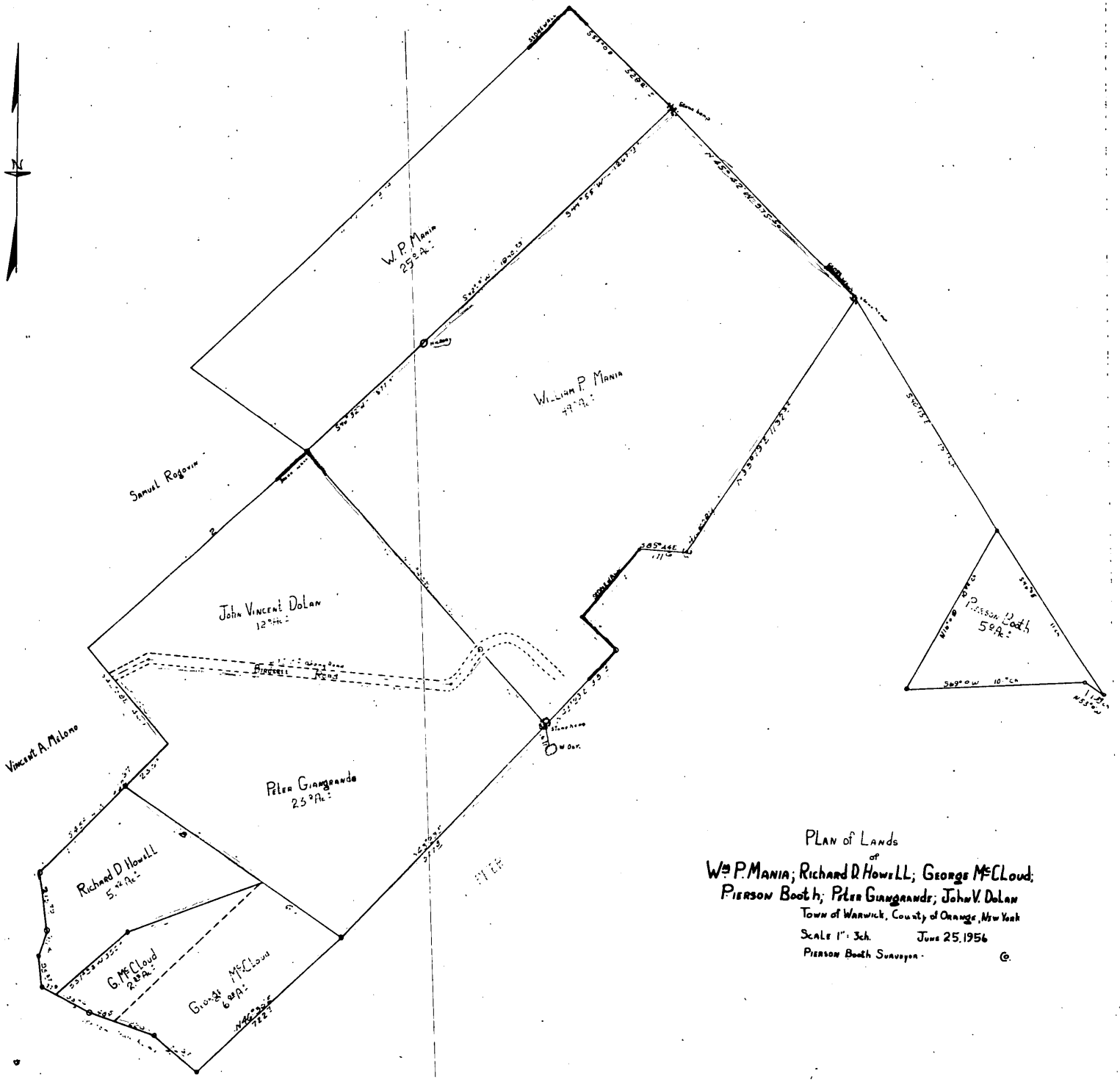
Allen S. Dakan, Director
Operations Control and
Statistics Division

Copy to:

Code 700

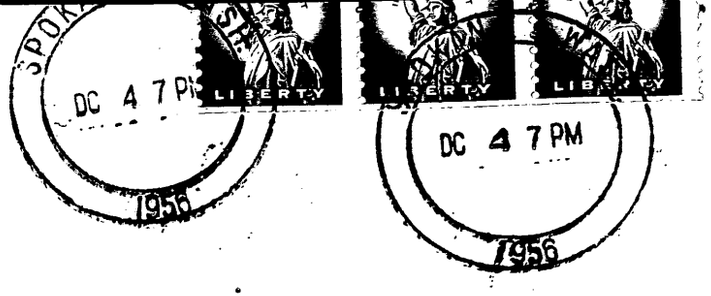
Region V. Knoxville, Tennessee

6816

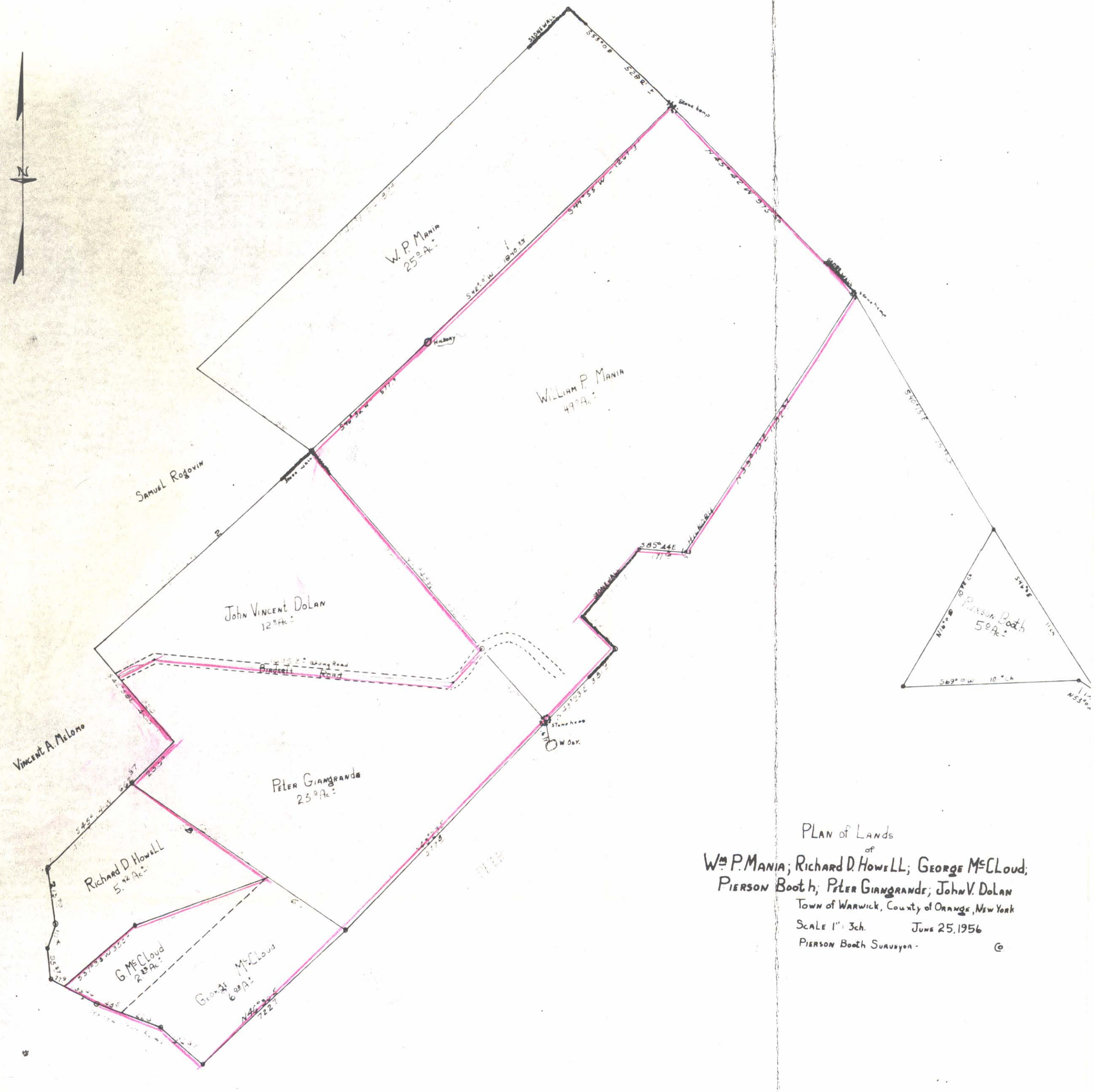

N
W. P. Mania
25 ac.
William P. Mania
79 ac.
Samuel Rogovin
John Vincent DoLan
12 ac.
Vincent A. Melone
Peter Giangrande
23 ac.
Richard D Howell
5.42 ac.
G. McCloud
2.15 ac.
George McCloud
6 ac.
Pierson Booth
5 ac.
Plan of Lands
of
Wm P. Mania; Richard D. Howell; George McCloud;
Pierson Booth; Peter Giangrande; John V. DoLan
Town of Warwick, County of Orange, New York
Scale 1" = 3ch. June 25, 1956
Pierson Booth Surveyor.

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

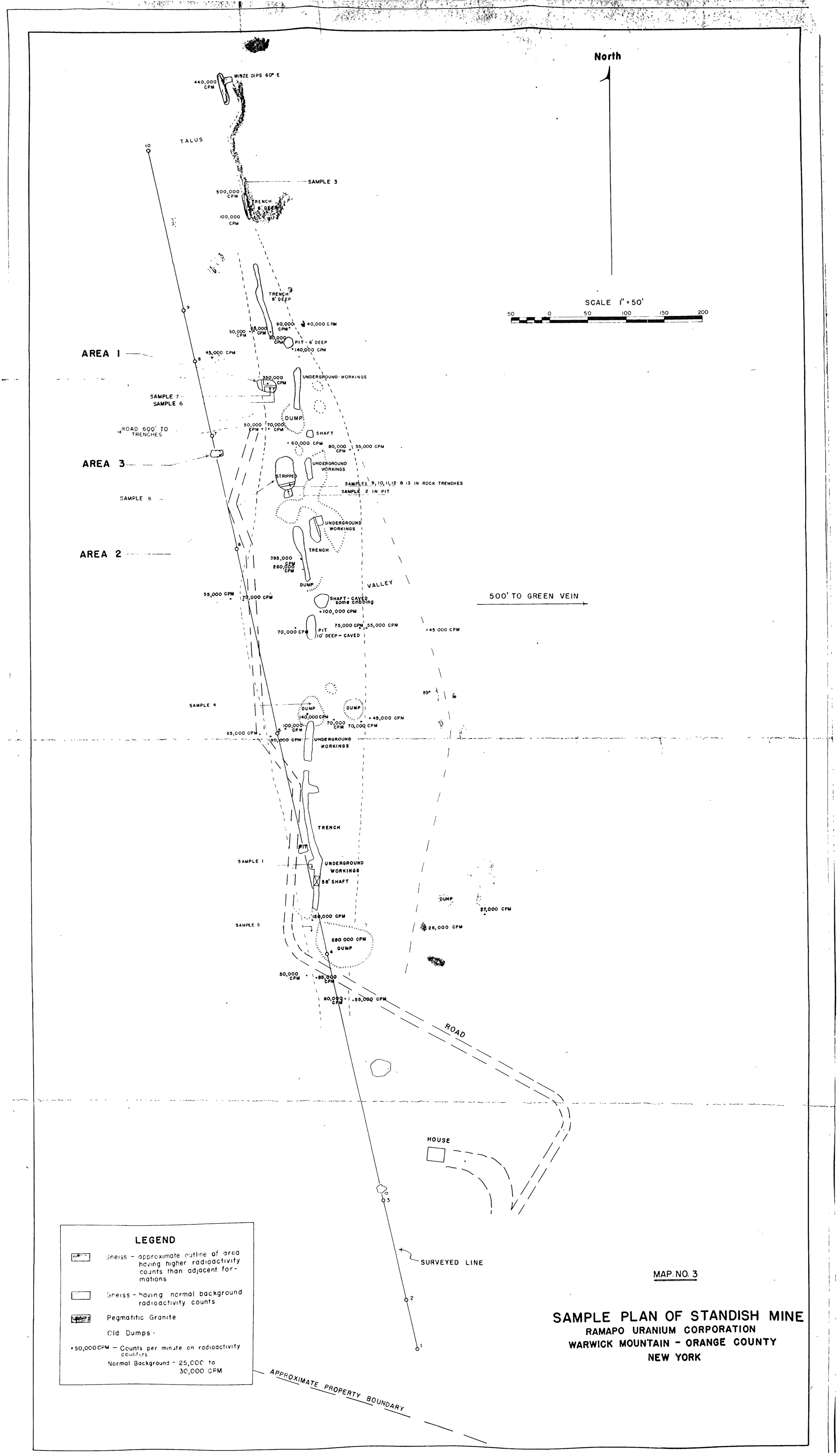
OFFICIAL BUSINESS
U. S. GEOLOGICAL SURVEY
SOUTH 157 HOWARD ST.
SPOKANE 4, WASHINGTON

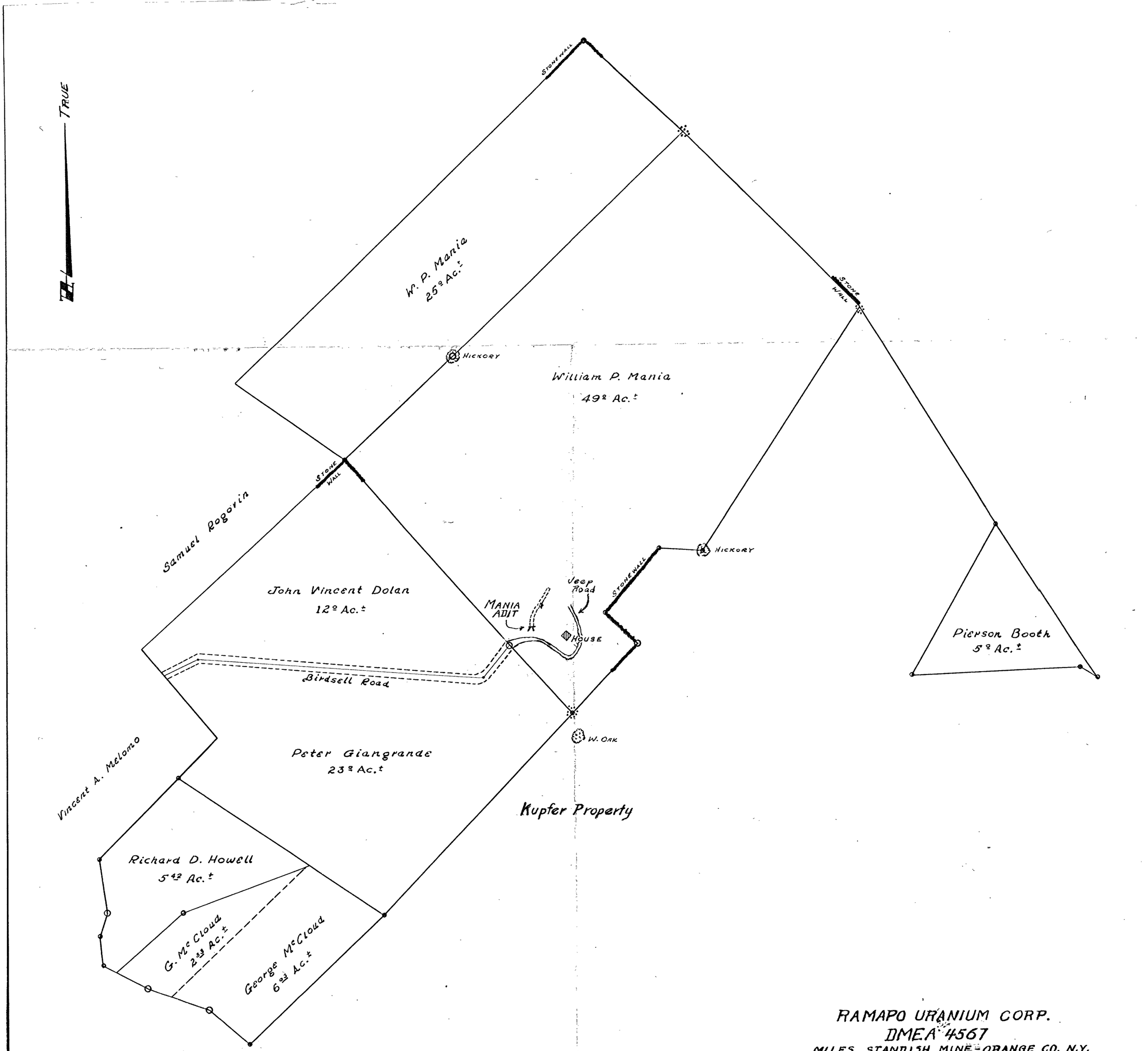


Mr. George C. Selfridge
Chairman, Operating Committee
Defense Minerals Explor. Admin.
Department of the Interior
Washington 25, D. C.



PLAN of LANDS
of
Wm P. MANIA; RICHARD D. HOWELL; GEORGE McCLOUD;
PIERSON BOOTH; PETER GIANGRANDE; JOHN V. DOLAN
TOWN of WARWICK, County of ORANGE, NEW YORK
SCALE 1" = 3ch. JUNE 25, 1956
PIERSON BOOTH SURVEYOR -


North
SCALE 1" = 50'
50 0 50 100 150 200
WINZE DIPS 60° E
440,000 CPM
TALUS
SAMPLE 3
500,000 CPM
TRENCH 6' DEEP
100,000 CPM
TRENCH 6' DEEP
50,000 CPM
65,000 CPM
60,000 CPM
40,000 CPM
90,000 CPM
PIT - 6' DEEP
140,000 CPM
AREA 1
45,000 CPM
350,000 CPM
UNDERGROUND WORKINGS
SAMPLE 7
SAMPLE 6
DUMP
ROAD 600' TO TRENCHES
50,000 CPM
70,000 CPM
SHAFT
60,000 CPM
80,000 CPM
55,000 CPM
AREA 3
UNDERGROUND WORKINGS
STRIPPED
SAMPLES 9, 10, 11, 12 & 13 IN ROCK TRENCHES
SAMPLE 2 IN PIT
SAMPLE 8
UNDERGROUND WORKINGS
AREA 2
TRENCH
395,000 CPM
260,000 CPM
DUMP
VALLEY
55,000 CPM
70,000 CPM
SHAFT - CAVED some cribbing
100,000 CPM
500' TO GREEN VEIN
70,000 CPM
PIT 10' DEEP - CAVED
75,000 CPM
55,000 CPM
45 000 CPM
85°
SAMPLE 4
DUMP
140,000 CPM
DUMP
45,000 CPM
100,000 CPM
70,000 CPM
70,000 CPM
65,000 CPM
90,000 CPM
UNDERGROUND WORKINGS
TRENCH
PIT
SAMPLE 1
UNDERGROUND WORKINGS
58' SHAFT
DUMP
27,000 CPM
150,000 CPM
SAMPLE 5
26,000 CPM
280 000 CPM
DUMP
50,000 CPM
85,000 CPM
60,000 CPM
55,000 CPM
ROAD
HOUSE
SURVEYED LINE
LEGEND
Gneiss - approximate outline of area having higher radioactivity counts than adjacent formations
Gneiss - having normal background radioactivity counts
Pegmatitic Granite
Old Dumps
• 50,000 CPM — Counts per minute on radioactivity counters
Normal Background - 25,000 to 30,000 CPM
APPROXIMATE PROPERTY BOUNDARY
MAP NO. 3
SAMPLE PLAN OF STANDISH MINE
RAMAPO URANIUM CORPORATION
WARWICK MOUNTAIN - ORANGE COUNTY
NEW YORK



RAMAPO URANIUM CORP.
DMEA 4567
MILES STANDISH MINE - ORANGE CO. N.Y.

0 inches 1
0 feet 313

PROPERTY MAP

JUNE 1957