Box-27

Return to
Code 400 - DMEA
Rm. 3538

DA 2261
O. L. SATERS

DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip Manganese

CONTROLLED DOCUMENT

DMEA ~~DMA~~ Docket No. 2261

DO NOT DETACH THIS SLIP

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

This document has been recorded as

EXPLORATION PROJECT

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

Routing Slip [redacted]

To: IRON & FERRO-ALLOYS Date 11-28-51

To: _____ Date _____

To: _____ Date _____

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CONTROLLED DOCUMENT

NOTE FOR FILE DMEA 2261 - O. E. SAYERS

The applicant also submitted application to GSA for a production loan - DMA 413, which was denied.

Subsequently DMPA 2388, an application for a purchase contract, was also denied this same applicant.

JAN 29 1952

Mr. O. M. Sayers
Marion,
Virginia

Re: Docket No. DMEA 2261 (Manganese)
The Unberger Mine
Smyth County, Virginia

Dear Mr. Sayers:

Defense Minerals Exploration Administration has completed a study of your application for aid for an exploration project and other data relating to your proposal.

The proposed work is principally rehabilitation of an old pit, after which the property would be ready for production, at least for a certain period. The rehabilitation essentially is work that would be prosecuted primarily for mining or preparation for mining. Work of this nature is not permissible under Mineral Order 5, Regulations Governing Government Aid in Exploration Projects.

Under the circumstances, we regret to inform you that your application is denied.

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

Sincerely yours,

C. O. Mittendorf

Acting Administrator
Defense Minerals Exploration
Administration

GCSelfridge/FEJohnson/ls/kih
1/28/52
cc to: Admr's. Reading File
Docket
Messrs. M.B.Melcher, USBM
M.D. Crittenden, USGS
G.C.Selfridge
Field Team, Region VIII (2)

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

January 22, 1952

Memorandum

To: Acting Administrator, Defense Minerals Exploration Administration

From: Iron and Ferro-Alloy Division, Defense Minerals Exploration Administration

Subject: Denial of exploration project in the amount of $10,300.00
Docket No. DMEA 2261 - Manganese
The Umbarger Mine
Smyth County, Virginia

The applicant proposes to clear away the remaining approximately 10,000 cu. yds. of slide material that filled the pit in 1919 and cut the banks back to prevent further sloughing by stripping an additional 20,000 cu. yds. After clearing the pit he intends to test the ore zone by a limited amount of trenching, drilling and sampling.

The lack of sufficient data pertaining specifically to the deposit makes it difficult to either approve or deny the application. A past production of 1,300 tons of high grade ore and 7,500 tons of ore averaging 25 to 35 percent manganese is reported. Seemingly ore was left at the walls, especially to the south. No figures are available giving the ratio of ore recovered to ground removed. During World War II a nearby deposit of a similar geologic nature was mined by some preliminary stripping and then removal of 1,000,000 cu. yds. of ore-bearing clay which yielded, after beneficiation, 15,000 tons of ore averaging 42 percent manganese. Possibly a somewhat similar ratio could be expected at the Umbarger Mine but under poor operating conditions. In all, a denial seems justified for the following reasons:

1. The low ratio of recovered ore to volume of clay moved.

2. The relative low grade of the manganese nodules.

3. The excessive stripping necessary to uncover the manganese-bearing clay.

4. Although ore is reported at a depth of 75 feet in a hole drilled from the pit floor, neither footage nor grade of ore is known and it would be beyond mining limits.

5. The amount or grade of ore left is unknown but seemingly it was not sufficiently high to warrant continuance of the operation after the sloughing in 1919.

6. The pit must be made self draining, thereby adding to cost.

7. Danger of further sloughing or filling during periods of heavy rains.

8. It would be an intermittent operation.

G. C. Selfridge

G. C. Selfridge, Acting Chief
Iron and Ferro-Alloy Division

FILE COPY
SURNAME:

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

Selfridge.

n.s in R.v.R.

January 22, 1952

Memorandum

To: Acting Administrator, Defense Minerals Exploration Administration

From: Iron and Ferro-Alloy Division, Defense Minerals Exploration Administration

Subject: Denial of exploration project in the amount of $10,300.00
Docket No. DMEA 2261 - Manganese
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The lack of sufficient data pertaining specifically to the deposit makes it difficult to either approve or deny the application. A past production of 1,300 tons of high grade ore and 7,500 tons of ore averaging 25 to 35 percent manganese is reported. Seemingly ore was left at the walls, especially to the south. No figures are available giving the ratio of ore recovered to ground removed. During World War II a nearby deposit of a similar geologic nature was mined by some preliminary stripping and then removal of 1,000,000 cu. yds. of ore-bearing clay which yielded, after beneficiation, 15,000 tons of ore averaging 42 percent manganese. Possibly a somewhat similar ratio could be expected at the Umbarger Mine but under poor operating conditions. In all, a denial seems justified for the following reasons:

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8. It would be an intermittent operation.

1/29/52

G. C. Selfridge, Acting Chief
Iron and Ferro-Alloy Division

Copy to: Admn. Reading File
Docket
G. C. Selfridge

GCSelfridge:ls
Typed 1/22/52

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

January 9, 1952

Memorandum

To: George C. Selfridge

From: Norwood B. Melcher

Subject: DMEA-2261 - Manganese, O. E. Sayers

The applicant has produced manganese intermittently for many years and has cooperated with the Bureau of Mines in reporting his production.

Due to Mr. Sayers' experience and the likelihood of the discovery of additional manganese ore, it is recommended that the application be approved.

Norwood B. Melcher

IN REPLY REFER TO:

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

George C. Selfridge

December 28, 1951

M. D. Crittenden, Jr.,

DMEA-2261 Manganese, O. E. Sayers

The applicant proposes to spend $10,300 to explore the Umbarger Manganese Mine in Smyth County Virginia.

The area surrounding the Umbarger mine was studied during World War II by R. L. Miller of the Geological Survey. The ore in that district occurs as nodules of hard high-grade manganese oxide enclosed in residual clay derived from the Shady dolomite. When released from the clay, the nodules are barely high enough in grade to meet p-30 specifications, but they should be readily marketable in such places as the National Paint and Mn Co. in Lynchburg, if not elsewhere. Miller reports that this property has produced a total of 1300 tons of high grade ore and 7500 tons of ore averaging 25-35 percent manganese. When Miller studied the area in 1942, only parts of the main pit had been stripped, and relatively little ore was exposed. However, Mr. Sayers reports that ore was left beneath the high bank at the South edge of the cut, and Miller described a drill hole in the pit that penetrated a good grade of ore at about 75 feet. Although there is no prospect of mining to that depth, it does strengthen somewhat the hope of making a discovery. In conclusion, the prospects for this property are at least fair, and in view of the small amount of money involved, I am inclined to favor it. Mr. Sayers is in the contracting business and will use machinery already available. Although he has a large share of the optomism which characterizes manganese mines in Virginia, Mr. Sayers apprears to be thoroughly honest, and I believe the Government will get its moneys worth from his work.

Max. D. Crittenden:bbk
G 12/28/51

DMEA 2261

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

November 27, 1951

Memorandum

To: Tom Lyon, Chairman
Coordinating Committee

From: Executive Officer
Bureau-Survey Field Team
Region VIII

Subject: O. E. Sayers - Umbarger Mine
Manganese deposit, Smyth County, Va.

Attached in quadruplicate are forms MF-100 and MF-103 executed by subject applicant.

W. T. Millar

W. T. Millar for
McHenry Mosier

Attachments

DEFENSE MINERALS ADMINISTRATION WASHINGTON, D.C.
NOV 27 2 00 PM '51

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

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

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

DO NOT FILL IN THIS BLOCK

Docket No. D.M.E.A. 2261

Date received 11-27-51

Participation

O. F. Sayers
Marion,
Virginia

Name and address of applicant

Date

DEFENSE MINERALS ADMINISTRATION WASHINGTON, D.C. NOV 27 2 01 PM '51

FILL IN THIS BLOCK

Date of application 9-27-51

Estimated cost $10,300.00

Mineral or metal Manganese

Percentage of Government participation 75% or $7725.

Location of mine Smyth County
Virginia

Date of filing MF-100 9-27-51

DMA Docket Number, if available

INSTRUCTIONS

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

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation?
*2. If a partnership, state names and addresses of partners.
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.
*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property?
6. If owner, state what claims, liens, or encumbrances, if any, are against the property. Not owner
7. If lessee, attach a copy of the lease and state if it is in good standing. Copy of lease attached-Goodstanding.

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

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement. Ans. on separate sh.
9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)? No cash needed. Applicant's share covered by equipment, depreciation and salary as supervisor.

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

16—64067-1

($1,375. + $1,200. = $2,575.)

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property. Described in lease.

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

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

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

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

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

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

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

*16. History:

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

    (*b*) State briefly the known history and production of adjoining and neighboring properties.

    (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

*17. Production:

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

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

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

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

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

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

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

THE EXPLORATION

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

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

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

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

THE REQUIREMENTS AND COSTS

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

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

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

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

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

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

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

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

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

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

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

CERTIFICATION

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

(Name of company)	By [signature] (Signature of authorized official)
Nov 6, 1951 (Date)	Lessee (Title)

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

*Same as footnote on page 1.

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

Form MF 103

Current Financial Statement

Current Assets		
Cash	None	
Notes Receivable	None	
Fixed Assets		
Machinery and equipment	27,500.00	
Value of lease	4,711.00	
Total Assets		$ 32,311.00
Current Liabilities		
Notes payable	None	
Other indebtedness	None	
Total Liabilities		None

COPY

Form MF 103

Profit and Loss Statement

Receipts

Ore sold	None

- - - - - -

Expenditures

Exploration

Moving 10,000 cu. yds. slide material @ 20¢ per cu. yd.	2,000.00
Depreciation on machinery and equipment - 5 months 3/60 of 27,500.00	1,375.00
Obtaining lease rental in lieu of royalty	36.00
Deposit for restoration of mined territory - .100.00 per acre	400.00
Expenditures	3,811.00

- - - - - -

Expenditures	3,811.00
Assets	00.00
Investment	3,811.00

COPY

15. Log washing to get rid of enclosing clay is sufficient processing. Ore to be hauled by truck from pit to log washers and from washing plant to railroad at Marion, 12.5 miles.

20. Manganese ore - open pit mine.

21.

(a) Slide material, which caused shut down in 1919, must be removed to gain access to the quarry faces being worked at that time. There is approximately 10,000 cu. yds. of this material still to be removed. This will require 3 weeks work.

(b) Slope should be cut back below angle of repose to prevent recurrence of sloughing. Also a drainage system should be installed to keep water out of working places. Amount of material to be moved 20,000 cu. yds. Time required 6 weeks.

(c) A dip needle or magnetometer survey to aid in exploration for ore. Time required 2 weeks. This ore shows strong reaction with a dip needle.

(d) Drilling of exposures of hard manganese to aid in determining extent. Time required 1 week.

(e) Trenching across the two benches then crushing and log washing the ore. Sampling and analysis of samples. Time required 3 weeks.

The total project should be completed in 90 days.

22. The record of past production and an examination of the ore exposed in the zone where the slide has been cleaned away should be sufficient evidence to suspect a future production.

23.

(a)

	Hourly Rate	Earnings per week	Earnings for Project
Shovel Operator	2.00	80.00	960.00
Bulldozer Operator	2.00	80.00	960.00
Truck Drivers (2)	1.75	140.00	1680.00
Drilling) Operators above can handle this Log Washing) work.			
Foreman	2.50	100.00	1200.00

(b)

Repairs to log washer and crusher	200.00
Test cuts 2 - 20' x 50' x 20' 1600 cu. yds. @ 25¢ per cu. yd.	400.00

COPY

Test run through crusher and log washer	200.00
Geophysical Survey 2 Engineers 2 weeks @ 25.00 per day	500.00
Construction field office & toilet	600.00
	1900.00

(c) Repairs to log washer and crusher 200.00

(d) Field office (10x12x8) 500.00 ; toilet 100.00

(e) None

(f) None

(g)

Log washer and crusher	1,000.00	
1/2 cu. yd. diesel shovel	15,000.00	90 days depreciation
Int. TD 14 bulldozer (diesel)	12,000.00	5/60 of 27,500.00 =
2 1/2 ton dump trucks @ 4000.00	8,000.00	
Jack hammer & accessories	500.00	1,375.00
Air compressor - gasoline 165 cu. ft.	3,000.00	
	$ 27,500.00	

(h)

	Day	Week	Project
Fuel oil	40 Gal. @ 15¢	30.00	360.00
Gasoline	40 Gal. @ 25¢	50.00	600.00
Lub. oil) grease)	1.00	5.00	60.00
			1020.00

(i) None

24. Preparing 200 yd. approach from present pit entrance to slope above pit.

One week	500.00
Cutting back the slope - 20,000 cu. yds. 20¢ per cu. yd - loose material - 6 weeks	4000.00
Cleaning old slide from present pit - 10,000 cu. yds at 20¢ per cu. yd - loose material 3 weeks	2000.00
Test cuts into east and west banks - 1600 cu. yds @ 25¢ per cu. yd - material -3wks.	400.00
Test drilling pit floor and ore exposed in pit face - 2 weeks	400.00
Sampling and analyses - 50 samples @ $20. each	1000.00
	8300.00

COPY

Form MF-100
(May 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

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

NOT TO BE FILLED IN BY APPLICANT

Docket No. D.M.E.A. 2261

Date received 11-27-51

DEFENSE MINERALS ADMINISTRATION WASHINGTON, D. C.
NOV 27 2 00 PM '51

Name and address of applicant

Date

INSTRUCTIONS

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

GENERAL TECHNICAL DATA

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

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

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

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

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

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

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

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

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

*Indicate period covered.

10. Production:

Item	Kind of Product (a)	1948 Total (b)	1949 Total (c)	1950 Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (Short, long, metric tons; barrels, pounds, etc.)	manganese ore	none	none	none	none
2. Quantity of product processed (specify unit of measure and type of process)	washed	0	0	0	0
3. Quantity and grade of product sold or shipped (specify units of measure)		0	0	0	0

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

12. Ore or Mineral Reserves:

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

C. T. Sayers
Marion, Virginia

General Technical Data

1.
(a) Metallurgical grade - lump manganese ore.
(b) Metallurgical grade - fines manganese ore.

2. Umbarger or Green Mine - Open pit
(a) None
(b) None
(c) None
(d) 2 benches 20 ft. vertical interval (see sketch)
Some seepage and run from springs - gravity drain.

3.
(a) 2 1/2 miles from Sugar Grove, 12 1/2 miles from Marion, Virginia, shipping point.
(b) None
(c) Land management, tract 820
(d) Smyth County, Virginia

4.
(a) Preparing for operation
(b) Lessee

5. Probably 3 years, 1916-1919.
March 1952

6. Applicant is the manager, has had 40 years experience on ground-moving with heavy equipment. Also has had wide experience in operation at business concerns.

7.
(a) Mine was first opened around 1880 - small production worked sporadically until 1916 on account of variable market. Probable production 1916-1919, 200 cars or 10,000 L. tons. Operation ceased when bank sloughed into pit. Probably 25,000 cu. yds. slid down into the mining area. Approximately 15,000 cu. yds. has been cleaned out since May 1951 by applicant.

(b) A deposit exists about 200 yards west of present pit. Apparently smaller and lower grade, also more inaccessible than present pit. Approximately 300 tons were shipped from this deposit in 1942 by applicant.

(c) Described in Bulletin 61 of Virginia Geological Survey pp. 132-137 by Ralph V. Miller.

11. On completion of removal of slide material production will start at 500 tons per month.

12. (a)

Apparently 2 types of ore (1) wad or gouge ore (2) hard ore; both occur as boulders or masses in the clay. The deposit has an east-west trend.

So far as present excavation has proceeded the ore bearing zone has an apparent width (N & S) of over 100 feet and ore is still in evidence on the south. The present quarry face is approximately 150 feet long and shows inclusions of ore along the toe of the slide throughout that distance and on both bench levels. The west bench is approximately 20 feet below the east bench. The west or lower bench is 50 feet wide across the trend from east to west and the east or upper bench is 100 feet wide across the trend. With the ore showing on the east bench it would be a fair assumption to believe it continues to at least the depth of the west bench. How far above either bench level the ore occurred originally is not known, but must have been considerable to justify production figures of over 10,000 long tons. Extent of ore below west (lower) bench hasn't yet been determined. Neither has it been proven that the ore zone stops at the west or east walls of the present cut. In fact ore is evident in both. Until more of the slide has been removed and the present quarry floor has been drilled or tested there is insufficient data on which to base any ore estimate.

17. 1 - 1/2 cu. yd. Diesel shovel; 1 - TD 14 Diesel bulldozer; 2 - 1 1/2 ton dump trucks; 1 - 165 cu. ft. gasoline compressor; jackhammer, drills, bit and miscellaneous equipment.

COPY

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

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

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

TOTAL ORE OR MINERAL RESERVES

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

(*c*) If placer:

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

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

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

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

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

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

13. Access Roads:

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

14. Water Supply:

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

15. Power:

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

16. Labor:

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

17. Equipment and Facilities:

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

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

CERTIFICATION

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

(Name of company)

By O. E. Sayers
(Signature of authorized official)

Nov 6 1957
(Date)

Owner
(Title)

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

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

Form 4-1100
(May, 1949)

RECEIVED
BUREAU LAND MANAGEMENT
WASHINGTON, D.C.
MAY 7 10 28 AM 1951

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management
Washington 25, D. C.

Serial No. BLM-A-022092

Commonwealth of Virginia
(State)

Jefferson National Forest

MANGANESE
MINERAL LEASE - ACQUIRED LANDS

This mineral lease entered into in quintuplicate this 1st day of May, 1951, by and between the United States of America, the lessor, through the Bureau of Land Management, and O. E. Sayers, the lessee, of Marion, Virginia, pursuant to Section 402 of the President's Reorganization Plan No. 3 of 1946, and regulations thereunder (43 CFR 200.31 et seq.); witnesseth:

SECTION 1. Rights of Lessee. In consideration of the rents and royalties to be paid and conditions and covenants to be observed as herein set forth the lessor grants to the lessee, subject to all privileges and uses heretofore duly authorized and prior valid claims, for a period of 10 years from the date hereof, the exclusive right to mine, remove and dispose of all the manganese and associated minerals in, upon, or under the following-described tracts:

Beginning at a point which is S. 80 degrees E., 17 chains from corner 19 of Lincoln Investment Corporation tract 52c.

Thence N. 55 degrees E. 4 chains to a point
Thence S. 35 degrees E. 10 chains to a point
Thence S. 55 degrees W. 4 chains to a point
Thence N. 35 degrees W. 10 chains to a point and place of beginning, containing 4 acres, being a part of tract 52f.

containing 4 acres, more or less, together with the right to construct and maintain thereupon such structures and other facilities as may be necessary for the mining, preparation and removal of said minerals.

SECTION 2. In consideration of the foregoing, the lessee agrees:

(a) Production. To begin production within 12 months and to continue production thereafter unless operations are interrupted by strikes, the elements or casualties not attributable to the lessee. The lessor may grant reasonable extensions of time for the commencement of production, and may authorize suspensions of production for reasonable periods of time in the interest of conservation or when the lease cannot be successfully operated at a profit, or for other reasons when such action does not adversely affect the interest of the United States.

(b) Rental. To pay to the lessor annually in advance, beginning with the date of this lease, rental of $5.00 for each acre or fraction thereof for each lease year until production commences, the rental payment for the year in which production commences to be credited on royalties that accrue during that lease year.

(c) Royalty. To pay the lessor within 30 days after the end of each period prescribed in subsection (f) of this section a royalty of 5 per cent but not less than 25 cents a ton of the gross value of the minerals mined hereunder at the point of shipment to market, such point of shipment to be the mine or preparation plant, as the case may be. The lessee agrees that the Secretary of the Interior, for the purpose of determining the royalties due hereunder, may establish reasonable minimum values for the minerals mined, due consideration being given to the highest price paid for a part or a majority of the production of minerals of like quality produced from the same general area, the price received by the lessee, posted prices, and other relevant matters.

(d) Minimum Royalty. If there is no production or if royalties under subsection (c) of this section total less than $20.00 in any lease year, to pay the lessor a sum equal to the difference between such royalties and $20.00, such minimum royalty obligation to become effective the first lease year commencing after production begins, and to be payable within 30 days following the end of the lease year for which due. Lessor may, in its discretion, suspend the minimum royalty requirement when production is interrupted or suspended as provided in subsection (a).

(e) Bond. To furnish and maintain a bond in the sum of $1000.00 conditioned upon compliance with the terms and conditions of this lease.

(f) Statement. To furnish for each month or such other period as may be designated by the District Mining Supervisor of the Geological Survey, statements in detail, in such form as may be

Room 3227 General Services Administration Building, Washington 25, D. C.

prescribed by him, 1/ of the amount and value of output from the leasehold during such period for use in determining royalties, such statements to be furnished within 30 days from the close of the month or period so designated. Falsification of such statements shall be grounds for cancellation of the lease. 2/

(g) Inspection. To permit at all reasonable times: (1) inspection by any duly authorized officer of the supervising agencies, of the leased premises and all surface and underground improvements, works, machinery, equipment, and all books and records pertaining to operations and surveys or investigations under this lease; and (2) the lessor to make copies of and extracts from any or all books and records pertaining to operations under this lease.

(h) Maps - Reports. To furnish in duplicate to the District Mining Supervisor, at such times as he may require, a plat in the manner and form prescribed by him 1/ showing prospecting and development work and improvements on the lease land and other related information, with a report as to all buildings, structures, and other works or equipment, situated elsewhere and owned or operated in conjunction with, or as a part of the operations conducted hereunder.

(i) Operations. To conduct operations in compliance with all Federal and State laws and the operating regulations of the Department of the Interior (30 CFR, Chap. II, Part 231), which are made a part hereof, and to exercise reasonable diligence, skill and care in the operation of the property, and to carry on all operations in accordance with approved methods and practices, having due regard for the prevention of damage to mineral deposits, water horizons and property, injury to life and health, and economic waste.

(j) Taxes. To pay when due all taxes lawfully assessed and levied under the laws of the State or the United States upon improvements, output of mines, and other rights, property and assets of the lessee.

(k) Deliver Premises. To deliver up to the lessor in good order and condition and subject to the provisions of Section 9 hereof on the termination of this lease as a result of forfeiture thereof the lands covered thereby, including all underground timbering and such other supports and structures as are necessary for the preservation of the mine.

(l) Assignment. Not to assign this lease, or any interest therein, whether by direct assignment, operating agreement, working or royalty interest, or otherwise, nor sublet any portion of the leased premises, except with the approval in writing of the lessor. All such assignments or subleases must be submitted in triplicate within 90 days from the date of execution and must contain all of the terms and conditions agreed upon by the parties thereto. No overriding royalties or payments out of production shall be created which would exceed 1/2 the royalties payable under this lease to the lessor. An assignment of all or part of the record title to a portion of the acreage in the lease shall separate the lease into separate leaseholds and the terms hereof shall apply separately to the segregated portions. Advance annual rental payments if previously terminated shall be resumed as to an undeveloped segregated portion on the next anniversary date of the lease, the minimum royalty payment herein specified shall apply separately to the segregated portions and the time allowed within which to commence operations on an undeveloped segregated portion shall be such reasonable period as shall be prescribed by the lessor at the time the assignment is approved.

(m) Non-discrimination. Not to discriminate against any employee or applicant for employment because of race, creed, color, or national origin, and to require an identical provision to be included in all subcontracts.

(n) Payments. To make all payments to the lessor under this section as directed, such payments to be made to the order of the Treasurer of the United States.

SECTION 3. In further consideration of the foregoing, the lessee also agrees:

(a) Protection of Property. To conduct all operations authorized by this lease with due regard for good land management; not to cut or destroy timber without first obtaining permission from the authorized representative of the Secretary of Agriculture, and to pay for all such timber cut or destroyed at rates prescribed by such representative; to avoid unnecessary damage to improvements, timber, crops, or other cover; whenever practicable, to control soil erosion resulting from the operation; to prevent pollution of soil and water resources; unless otherwise authorized by the representative of the Secretary of Agriculture, not to carry on operations, make excavations, construct tunnels, drill, or otherwise disturb the surface of the leased land within 200 feet of any building standing on the leased land; whenever required in writing by the authorized representative of the Secretary of Agriculture, to fence all sump holes and other excavations made by lessee.

(b) Forest, Brush and Grass Fire Precautions. To do all in his power to prevent and suppress forest, brush and grass fires on the leased land and in its vicinity, and to require his employees, contractors, subcontractors, and employees of contractors or subcontractors to do likewise. Unless prevented by circumstances over which he has no control, the lessee shall place his employees, contractors, subcontractors, and employees of contractors and subcontractors employed on the leased land at the disposal of any authorized officer of the Department of Agriculture

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1/ All forms herein required are subject to approval by the Bureau of the Budget in accordance with the Federal Reports Act of 1942.

2/ 18 U.S.C. sec. 1001 makes it a crime for any person knowingly and wilfully to submit or cause to be submitted to any agency of the United States any false or fraudulent statement as to any matter within its jurisdiction.

for the purpose of fighting forest, brush, or grass fires, with the understanding that payment for such services shall be made at rates to be determined by the authorized representative of the Secretary of Agriculture, which rates shall not be less than the current rates of pay prevailing in the vicinity for services of a similar character; except that if the lessee, his employees, contractors, subcontractors, or employees of contractors or subcontractors caused or could have prevented the origin or spread of said fire or fires, no payment shall be made for services so rendered.

During periods of serious fire danger to forest, brush, or grass, as may be specified by the authorized representative of the Secretary of Agriculture, the lessee shall prohibit smoking and the building of camp and lunch fires by his employees, contractors, subcontractors, and employees of contractors or subcontractors, within the leased area except at established camps, and shall enforce this prohibition by all means within his power. However, the authorized representative of the Secretary of Agriculture may designate safe places where, after all inflammable material has been cleared away, camp fires may be built for the purpose of heating lunches and where, at the option of the lessee, smoking may be permitted.

The lessee shall not burn rubbish, trash, or other inflammable material except with the consent of the authorized representative of the Secretary of Agriculture and shall not use explosives in such manner as to scatter inflammable materials on the surface of the land during the forest, brush or grass fire season, except as authorized to do so or on areas approved by such representative.

The lessee shall build or construct such fire lines or do such clearing on the leased land as the authorized representative of the Secretary of Agriculture decides is necessary for forest, brush, and grass fire prevention and shall maintain such fire tools at his headquarters on the leased land as are deemed necessary by such representative.

(c) Damage to Property. To pay the lessor or its tenant, as the case may be, for any and all damage to or destruction of property caused by the lessee's operations hereunder; to save and hold the lessor or its tenant harmless from all damage or claims for damage to persons or property resulting from the lessee's operations under this lease; and where the surface of the leased land is owned by other than the lessor, to pay such owner, or his tenant, as the case may be, for damage or injury to livestock, crops, trees, pipe lines, buildings, and other improvements on the leased land.

(d) Restoration of Surface of Land. Upon any partial or total relinquishment, cancellation or expiration of this lease, as to that part of the leased land as to which the lessee's rights have terminated and to the extent deemed necessary by the authorized representative of the Secretary of Agriculture, to fill all sump holes, ditches and other excavations, remove or cover all debris, and, so far as reasonably possible, restore the surface of the leased land to its former condition, including the removal of structures as and if required.

(e) Department of Agriculture Regulations. To comply with all the rules and regulations of the Secretary of Agriculture governing the national forests or other lands under his jurisdiction which are embraced in this lease.

(f) Special Stipulations.

Stipulations attached

(g) Appropriate Agency Official. To address all matters relating to this section to Regional Forester, Jefferson Nat. Forest at Walnut & Juniper Street, Philadelphia 7, Pa. Bankers Securities Building, who is the authorized representative of the Secretary of Agriculture, or to such other representative as may, from time to time, be designated provided that such designation shall be in writing and be delivered to the lessee or his agent as provided by Section 4 hereof.

SECTION 4. Lessee-Agent. Prior to the beginning of operations the lessee shall appoint and maintain at all times during the term of this lease a local agent upon whom may be served written orders or notices respecting matters contained in this lease, and shall inform the authorized representative of the Secretary of Agriculture, and the District Mining Supervisor of the United States Geological Survey, in writing, of the name and address of such agent. If a substitute agent is appointed, the lessee shall immediately so inform the said representatives.

SECTION 5. Renewal of Lease. If, upon the expiration of this lease, the issuance for an ensuing period of a lease of similar character is determined to be in the public interest, and all of the terms hereof have been satisfactorily complied with, and the lessee is then qualified, he shall be accorded a preference in the issuance of said ensuing lease upon such reasonable terms and considerations as may be prescribed by the Secretary of the Interior, unless otherwise provided by law. The exercise of such preference right shall be in accordance with regulations prescribed by the Secretary of the Interior.

SECTION 6. The lessor expressly reserves:

(a) Rights Reserved. The right to permit for joint or several use easements or rights-of-way, including easements in tunnels upon, through, or in the land leased, occupied, or used as may be necessary or appropriate to the working of the same or other lands, and the preparation and shipment of the products thereof by or under authority of the Government, its lessees or permittees, and for other public purposes.

(b) Monopoly and Fair Prices. Full power and authority to promulgate and enforce all orders necessary to insure the sale of the production of the leased lands to the United States and to the public at reasonable prices, to protect the interest of the United States, to prevent monopoly, and to safeguard the public welfare.

(c) Fissionable materials. All fissionable source materials, together with the right, at any and all times, to enter upon the lands and prospect for, mine and remove such materials, pursuant to Executive Order No. 9908 (12 F. R. 8223).

(d) Waiver of Conditions. The right to waive any breach of the covenants and conditions contained herein, but any such waiver shall extend only to the particular breach so waived and shall not limit the rights of the lessor with respect to any future breach; nor shall the waiver of a particular cause of forfeiture prevent cancellation of this lease for any other cause, or for the same cause occurring at another time.

SECTION 7. It is mutually agreed:

(a) Strip Mining. That this lease does not authorize mining or removal of minerals by stripping or contour mining unless otherwise specifically authorized herein.

(b) Reduction or Smelting of Ores. That the reduction or smelting of ores on the leased land is expressly prohibited in the absence of an agreement between the lessee and the designated representative of the Secretary of Agriculture authorizing such use of the surface of the land and providing for the necessary protection of life and property. Such agreement shall contain all of the terms and conditions under which the reduction or smelting of ores may be carried on and any violation of that agreement shall be considered a violation of the terms of this lease for the purpose of Section 9.

(c) Uses and Disposition of Surface. That the leased land shall be subject at all times to any other lawful uses or sale by the United States, its lessees, permittees, licensees, and assigns; provided that such uses or sale shall not prevent, obstruct, or unduly interfere with any privilege granted under this lease.

(d) Granting Leases for Other Minerals. That the granting of this lease will not preclude the issuance of other leases of the same land for the mining of other minerals with suitable stipulations as to joint operations, in order that full development of the mineral resources may be obtained.

SECTION 8. Relinquishment of Lease. Upon payment of all rentals, royalties and other debts due and payable to the lessor and upon payment of all wages or moneys due and payable to the workmen employed by the lessee, the lessee may, upon a satisfactory showing that the public interest will not be impaired, surrender all or any subdivision or subdivisions of the area included in the lease. In no case will the lease be terminated in whole or in part until and unless the lessee shall have made provision for the preservation of any mines and mineral deposits or productive works or permanent improvements on the lands covered thereby and complied with Section 3(d) hereof. A surrender must be by a relinquishment filed, in triplicate, with the Director, Bureau of Land Management. A relinquishment upon its approval shall take effect as of the date it is filed.

SECTION 9. Removal of Equipment, etc., on Termination of Lease. On termination of this lease, by surrender, forfeiture, or otherwise the lessee shall have the privilege at any time within a period of 90 days thereafter of removing from the premises all machinery, equipment, tools and materials, other than underground timbering placed by the lessee in or on the leased lands, which are not necessary for the preservation of the mine. Any materials, tools, appliances, machinery, structures and equipment, subject to removal as above provided, which are allowed to remain on the leased land shall become the property of the lessor on expiration of the 90-day period or such extension thereof as may be granted by the lessor, but the lessee shall remove any or all of such property when so directed by the lessor.

SECTION 10. Proceedings in case of default. If the lessee does not comply with the applicable regulations made a part hereof or the terms of this lease and such default continues for a period of 30 days after service of written notice thereof by the lessor, the lease may be canceled by the Director, Bureau of Land Management. However, if production has commenced on the

lease, it may be canceled only by appropriate proceedings in a court of competent jurisdiction; but this provision does not apply to leases issued for a period of five years or less which may be canceled in the manner stated above. Furthermore, if the lessee fails to take prompt and necessary steps to prevent loss or damage to the mine, property, or premises, or danger to the employees, the lessor may enter on the premises and take such measures as may be deemed necessary to prevent such loss or damage or to correct the dangerous or unsafe condition of the mine or works thereof, which shall be at the expense of the lessee, but the lessee shall not be held responsible for delays or casualties occasioned by causes beyond the lessee's control.

SECTION 11. Heirs and successors-in-interest. It is further agreed that each obligation hereunder shall extend to and be binding upon, and every benefit hereof shall inure to, the heirs, executors, administrators, successors, or assigns of the respective parties hereto.

SECTION 12. Unlawful Interests. It is also further agreed that no Member of, or Delegate to Congress, or Resident Commissioner, after his election or appointment, or either before or after he has qualified, and during his continuance in office, and that no officer, agent, or employee of the Department of the Interior or of the Department of Agriculture shall be admitted to any share or part of this lease, or derive any benefit that may arise therefrom, and the provisions of Section 3741 of the Revised Statutes, as amended, and 18 U.S.C. 431, 432, and 433, relating to contracts, enter into and form a part of this lease so far as the same may be applicable.

THE UNITED STATES OF AMERICA

By William Zimmerman Jr.
[redacted]
Director, Bureau of Land Management.

WITNESSES TO SIGNATURE OF LESSEE

Frances M. Hoze

O. L. Sayers

Lessee.

(The reporting requirements contained in this lease have been approved by the Bureau of the Budget in accordance with the Federal Reports Act of 1942. If this lease is executed by a corporation, it must bear the corporate seal.)

Special Terms and Conditions

A. The permitted shall conduct the operation with respect to the disposal of spoil or waste material in such a manner that silt, rock, debris, dirt, clay and other deleterious matter shall not be washed, conveyed or otherwise deposited into any stream.

B. The permittee shall backfill and grade any spoil banks so as to restore the land to as near its former position as may be practicable as determined by the forest officer in charge.

All exposed beds of rock except those in the high-wall shall be covered at least three (3) feet with earth or spoil.

Regrading shall be done with a view to obliterating the high-wall in so far as it is practicable to do so.

It shall be in compliance with the backfilling and regrading requirements of this section if all exposed earth surfaces are reduced to the angle of repose. In this permit the angle shall be slopes not greater than 66-2/3% or one and one-half ($1\frac{1}{2}$) horizontal to one (1) vertical, unless otherwise directed by the forest officer in charge.

In so far as practicable surface restoration shall be carried on progressively, following immediately after mining operations. It shall be completed within one year from the time mining operations authorized by this permit are completed.

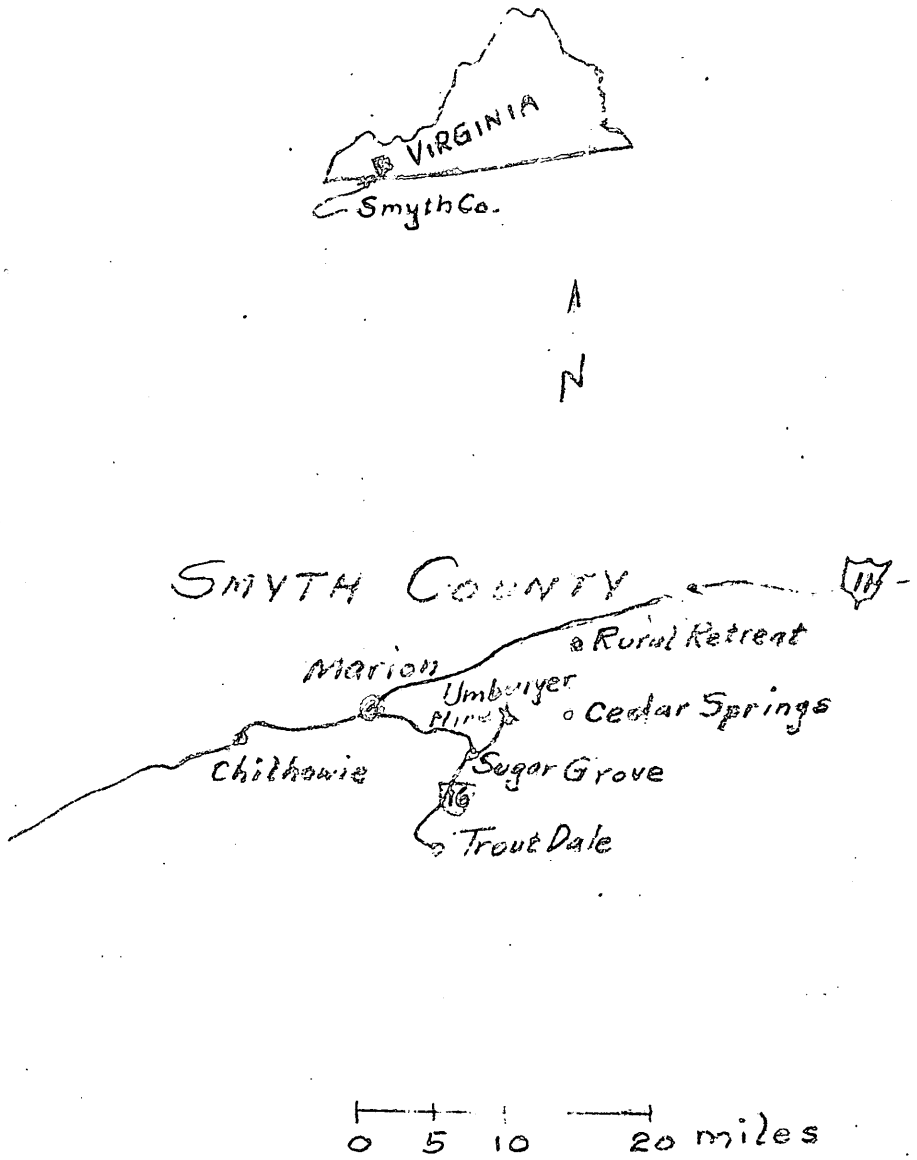
C. As soon as practicable after mining or stripping operations on any portion of said land have been completed, the permittee shall, in cooperation with the Forest Service, United States Department of Agriculture, and as required by the forest officer in charge restore a vegetative cover by planting trees, shrubs, or other plants and seeds, the species, methods, and frequencies of planting to be determined by the forest officer. The permitted shall furnish materials, equipment and labor, including foremanship, and the Forest Services shall furnish general supervision.

D. As a guaranty of faithful performance of the conditions of this lease with respect to the restoration of the surface and revegetation and reforestation of the land, as set forth in paragraphs B and C above, the permittee shall deliver to the Regional Fiscal Agent, U. S. Forest Service, Bankers Securities Building, Philadelphia 7, Pennsylvania, a surety bond, executed by an approved corporate surety, in the sum of $250.00 per acre for each acre or fraction thereof to be mined. Should the surety on the bond delivered or on any bond delivered thereafter for the same purpose become unsatisfactory to the Forest Service, the permittee will within 30 days of receipt of demand from the Forest Service, furnish a new bond with satisfactory surety. In lieu of

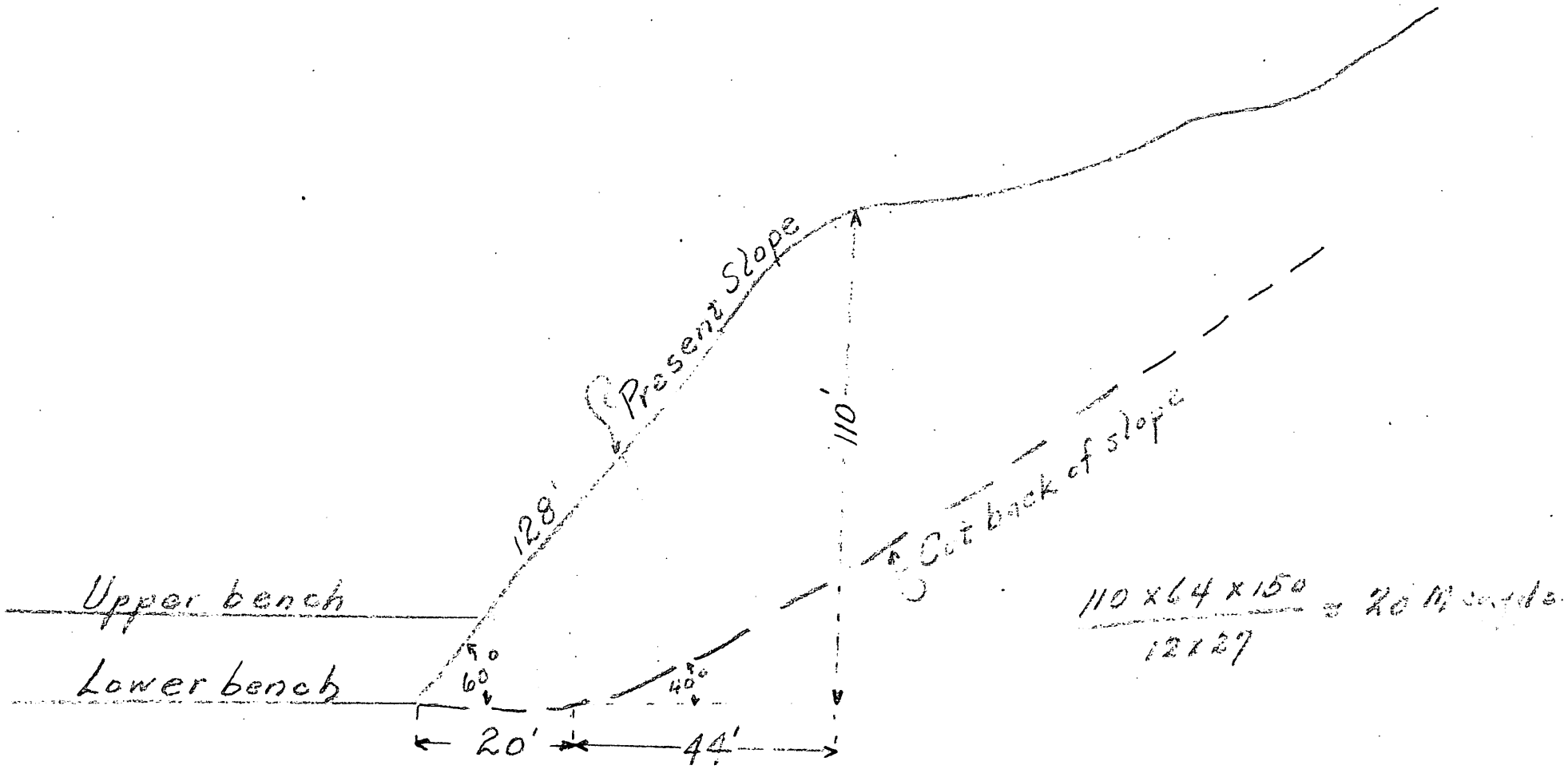
surety bond, the permittee may deposit into a Federal depository, through the Regional Fiscal Agent specified above, cash in the sum of $250 per acre for each acre or fraction thereof to be mined; or he may deposit through the Regional Fiscal Agent with the Treasurer of the United States, a Federal Reserve Bank or branch thereof, certain types of United States bonds or Treasury notes in a sum equal at their par value to the amount of the surety bond or cash deposit otherwise required. As soon as security for the performance of the restoration or revegetation and reforestation or both is no longer necessary, deposits in lieu of surety bond applicable to restoration or revegetation and reforestation or both will be returned to the permittee. The bond of any surety company approved by the Secretary of the Treasury will be acceptable.

E. In lieu of the performance of the obligation under paragraph C as hereinbefore provided, the permittee, at his option, and if satisfactory to the Forest Service, may enter into a cooperative agreement with the Forest Service to accomplish the revegetation and reforestation for which the permittee is liable, in which event bond as provided in the preceding paragraph will be required in the amount of $150.00 per acre for each acre or fraction thereof to be mined as a guarantee of the performance of the surface restoration work required under paragraph B hereof. Such cooperative agreement shall provide that the permittee will deposit into the Forest Service cooperative work fund an amount estimated to be sufficient to cover the cost of the work as stated in paragraph C, including a charge of 10% for overhead; the amount (or amounts) to be deposited shall be computed at the rate of $100 per acre for each acre or fraction thereof to be mined, which represents the estimated cost of the work of revegetation and reforestation. Funds so deposited shall be available to and shall be used to the extent necessary by the Forest Service for paying the permittee's share of the expense as defined under paragraph C, it being understood that any amount remaining after all such revegetation and reforestation are accomplished to the satisfaction of the forest officer in charge, shall be refunded to the permittee within a reasonable period after termination of the permit.

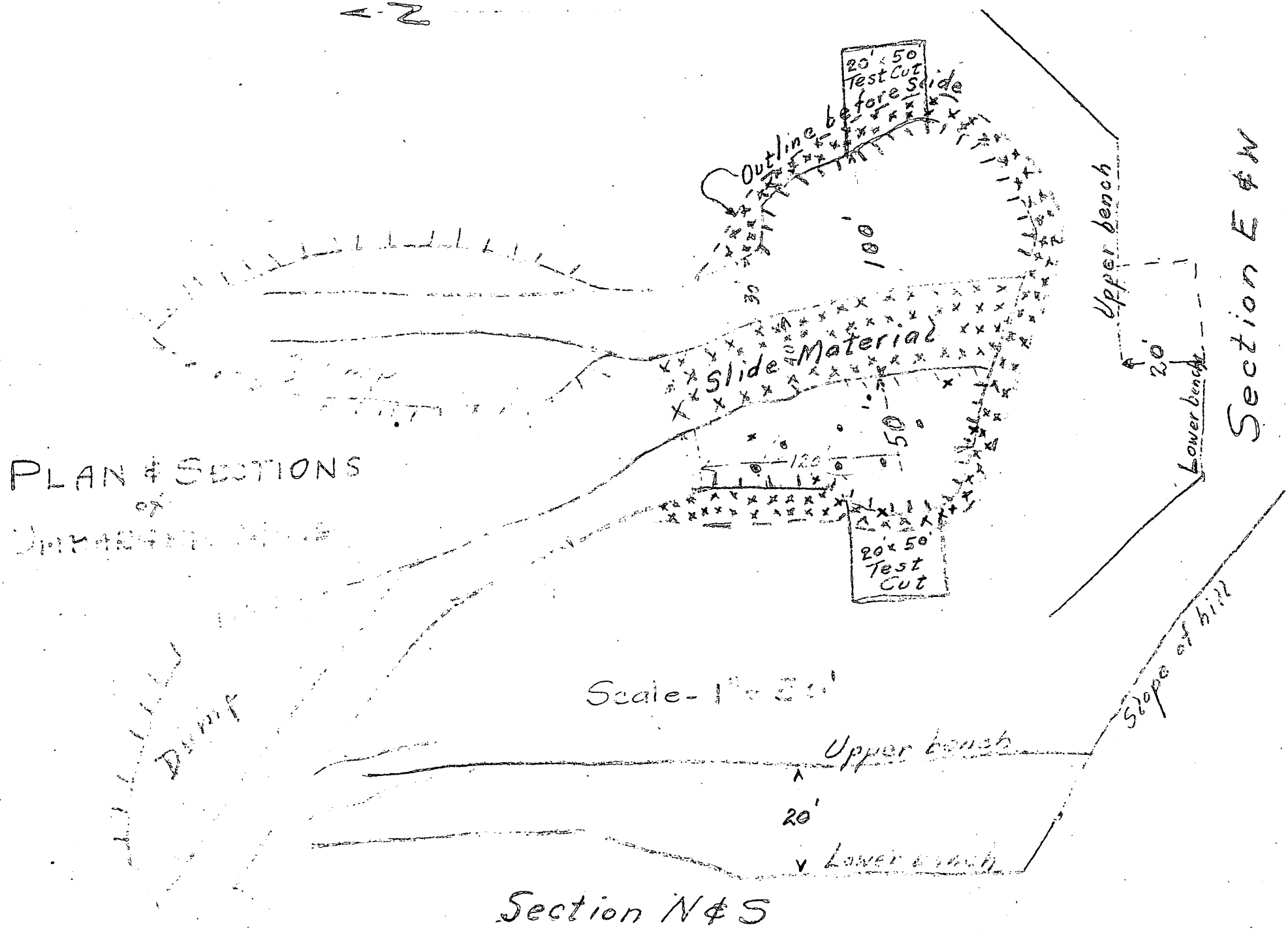
F. Operations under this permit shall not begin until satisfactory bond has been delivered or until such bond has been delivered and cooperative agreement entered into with the Forest Service as hereinbefore provided.



Location of Umbarger Mine
Smyth County, Va.



N & S Section - Showing Slope Cut-back


PLAN & SECTIONS
of
Dump
Outline before Slide
20' x 50' Test Cut
Slide Material
100'
50'
120'
20' x 50' Test Cut
Upper bench
20'
Lower bench
Section E & W
Slope of hill
Scale- 1" = 20'
Upper bench
20'
Lower bench
Section N & S

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

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

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

DO NOT FILL IN THIS BLOCK

Docket No. D.M.E.A. 2261

Date received 11-27-51

Participation

DEFENSE MINERALS ADMINISTRATION WASHINGTON, D.C.
NOV 27 2 01 PM '51

O. E. Sayers
Marion,
Virginia

Name and address of applicant

Date

FILL IN THIS BLOCK

Date of application 9-27-51

Estimated cost $10,300.00

Mineral or metal Manganese

Percentage of Government participation 75% or $7725.

Location of mine Smyth County
Virginia

Date of filing MF-100 9-27-51

DMA Docket Number, if available

INSTRUCTIONS

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

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation?
*2. If a partnership, state names and addresses of partners.
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.
*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property?
6. If owner, state what claims, liens, or encumbrances, if any, are against the property. Not owner
7. If lessee, attach a copy of the lease and state if it is in good standing. Copy of lease attached-Goodstanding.
NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.
8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement. Ans. on separate sh.
9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)? No cash needed. Applicant's share covered by equipment, depreciation and salary as supervisor.

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

16—64067-1

($1,375. + $1,200. = $2,575.)

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property. Described in lease.

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

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

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

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

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

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

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

*16. History:

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

(*b*) State briefly the known history and production of adjoining and neighboring properties.

(*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

*17. Production:

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

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

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

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

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

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

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

THE EXPLORATION

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

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

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

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

THE REQUIREMENTS AND COSTS

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

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

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

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

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

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

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

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

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

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

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

CERTIFICATION

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

(Name of company)

By O. E. Sayler
(Signature of authorized official)

Nov 6 1957
(Date)

Lessee
(Title)

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

*Same as footnote on page 1.

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

Form MF 103

Current Financial Statement

Current Assets		
Cash	None	
Notes Receivable	None	
Fixed Assets		
Machinery and equipment	$27,500.00	
Value of lease	4,811.00	
Total Assets		$32,311.00
Current Liabilities		
Notes payable	None	
Other Indebtedness	None	
Total Liabilities		None

COPY

Form MF 103

Profit and Loss Statement

Receipts

Ore sold	None

- - - - - -

Expenditures

Exploration	
Moving 15,000 cu. yds. slide material @ 20¢ per cu. yd.	3,000.00
Depreciation on machinery and equipment - 3 months 3/60 of 27,500.00	1,375.00
Obtaining lease rental in lieu of royalty	36.00
Deposit for restoration of mined territory - $100.00 per acre	400.00
Expenditures	4,811.00

- - - - - -

Expenditures	4,811.00
Receipts	00.00
Investment	4,811.00

COPY

15. Log washing to get rid of enclosing clay is sufficient processing. Ore to be hauled by truck from pit to log washers and from washing plant to railroad at Marion, 12.5 miles.

20. Manganese ore - open pit mine.

21.

(a) Slide material, which caused shut down in 1919, must be removed to gain access to the quarry faces being worked at that time. There is approximately 10,000 cu. yds. of this material still to be removed. This will require 3 weeks work.

(b) Slope should be cut back below angle of repose to prevent recurrence of sloughing. Also a drainage system should be installed to keep water out of working places. Amount of material to be moved 20,000 cu. yds. Time required 6 weeks.

(c) A dip needle or magnetometer survey to aid in exploration for ore. Time required 2 weeks. This ore shows strong reaction with a dip needle.

(d) Drilling of exposures of hard manganese to aid in determining extent. Time required 1 week.

(e) Trenching across the two benches then crushing and log washing the ore. Sampling and analysis of samples. Time required 3 weeks.

The total project should be completed in 90 days.

22. The record of past production and an examination of the ore exposed in the zone where the slide has been cleaned away should be sufficient evidence to suspect a future production.

23.

(a)

	Hourly Rate	Earnings per week	Earnings for Project
Shovel Operator	2.00	80.00	960.00
Bulldozer Operator	2.00	80.00	960.00
Truck Drivers (2)	1.75	140.00	1680.00
Drilling) Operators above can handle this Log Washing) work.			
Foreman	2.50	100.00	1200.00

(b)

Repairs to log washer and crusher	200.00
Test cuts 2 - 20' x 50' x 20' 1600 cu. yds. @ 25¢ per cu. yd.	400.00

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Test run through crusher and log washer	200.00
Geophysical Survey 2 Engineers 2 weeks @ 25.00 per day	500.00
Construction field office & toilet	600.00
	1900.00

(c) Repairs to log washer and crusher 200.00

(d) Field office (10x12x8) 500.00 ; toilet 100.00

(e) None

(f) None

(g)

Log washer and crusher	1,000.00	
1/2 cu. yd. diesel shovel	15,000.00	90 days depreciation
Int. TD 14 bulldozer (diesel)	12,000.00	3/60 of 27,500.00 =
2 1/2 ton dump trucks @ 4000.00	6,000.00	$1,375.00
Jack hammer & accessories	500.00	
Air compressor - gasoline 165 cu. ft.	3,000.00	
	27,500.00	

(h)

	Day	Week	Project
Fuel Oil	40 Gal. @ 15¢	30.00	360.00
Gasoline	40 Gal. @ 25¢	50.00	600.00
Lub. oil) grease)	1.00	5.00	60.00
			1020.00

(i) None

24. Preparing 200 yd. approach from present pit entrance to slope above pit.

One week	500.00
Cutting back the slope - 20,000 cu. yds. 20¢ per cu. yd - loose material - 6 weeks	4000.00
Cleaning old slide from present pit - 10,000 cu. yds at 20¢ per cu. yd - loose material 3 weeks	2000.00
Test cuts into east and west banks - 1600 cu. yds @ 25¢ per cu. yd - material -3wks.	400.00
Test drilling pit floor and ore exposed in pit face - 2 weeks	400.00
Sampling and analyses - 50 samples @ 20. each	1000.00
	8300.00

COPY

Form MF-100
(May 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

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

NOT TO BE FILLED IN BY APPLICANT

Docket No. D.M.E.A. 2261

Date received 11-27-51

Mr. O. E. Sayers
Marion,
Virginia

DEFENSE MINERALS ADMINISTRATION WASHINGTON, D.C. NOV 27 2 00 PM '51

Name and address of applicant

Date ~~September 27, 1951~~

INSTRUCTIONS

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

GENERAL TECHNICAL DATA

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

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

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

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

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

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

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

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

*Indicate period covered.

10. Production:

Item	Kind of Product (a)	1948 Total (b)	1949 Total (c)	1950 Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (~~Short,~~ long, ~~metric~~ tons; ~~barrels; pounds; etc.~~)	manganese ore	none	none	none	none
2. Quantity of product processed (specify unit of measure and type of process)	washed	"	"	"	"
3. Quantity and grade of product sold or shipped (specify units of measure)		"	"	"	"

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

12. Ore or Mineral Reserves:

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

D. E. Sayers
Marion, Virginia

General Technical Data

1.
(a) Metallurgical grade - lump manganese ore.
(b) Metallurgical grade - fines manganese ore.

2. Umbarger or Green Mine - Open pit
(a) None
(b) None
(c) None
(d) 2 benches 20 ft. vertical interval (see sketch)
Some seepage and run from springs - gravity drain.

3.
(a) 2 1/2 miles from Sugar Grove, 12 1/2 miles from Marion, Virginia, shipping point.
(b) None
(c) Land management, tract 520
(d) Smyth County, Virginia

4.
(a) Preparing for operation
(b) Lessee

5. Probably 3 years, 1918-1919.
March 1952

6. Applicant is the manager, has had 40 years experience on ground-moving with heavy equipment. Also has had wide experience in operation at business concerns.

7.
(a) Mine was first opened around 1880 - small production worked sporadically until 1918 on account of variable market. Probable production 1916-1919, 200 cars or 10,000 L. tons. Operation ceased when bank sloughed into pit. Probably 25,000 cu. yds. slid down into the mining area. Approximately 15,000 cu. yds. has been cleaned out since May 1951 by applicant.

(b) A deposit exists about 200 yards west of present pit. Apparently smaller and lower grade, also more inaccessible than present pit. Approximately 300 tons were shipped from this deposit in 1942 by applicant.

(c) Described in Bulletin 61 of Virginia Geological Survey pp. 132-137 by Ralph L. Miller.

COPY

11. On completion of removal of slide material production will start at 500 tons per month.

12. (a)

Apparently 2 types of ore (1) wad or gouge ore (2) hard ore; both occur as boulders or masses in the clay. The deposit has an east-west trend.

So far as present excavation has proceeded the ore bearing zone has an apparent width (E & S) of over 100 feet and ore is still in evidence on the south. The present quarry face is approximately 150 feet long and shows inclusions of ore along the toe of the slide throughout that distance and on both bench levels. The west bench is approximately 20 feet below the east bench. The west or lower bench is 50 feet wide across the trend from east to west and the east or upper bench is 100 feet wide across the trend. With the ore showing on the east bench it would be a fair assumption to believe it continues to at least the depth of the west bench. How far above either bench level the ore occurred originally is not known, but must have been considerable to justify production figures of over 10,000 long tons. Extent of ore below west (lower) bench hasn't yet been determined. Neither has it been proven that the ore zone stops at the west or east walls of the present cut. In fact ore is evident in both. Until more of the slide has been removed and the present quarry floor has been drilled or tested there is insufficient data on which to base any ore estimate.

17. 1 - 1/2 cu. yd. Diesel shovel; 1 - TD 14 Diesel bulldozer; 2 - 1 1/2 ton dump trucks; 1 - 165 cu. ft. gasoline compressor; jackhammer, drills, bit and miscellaneous equipment.

COPY

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

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

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

TOTAL ORE OR MINERAL RESERVES

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

(*c*) If placer:

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

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

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

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

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

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

13. Access Roads:

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

14. Water Supply:

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

15. Power:

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

16. Labor:

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

Shovel operator, bulldozer operator, 2 truck drivers.

17. Equipment and Facilities:

No buildings

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

See fly sheet

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

None

CERTIFICATION

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

(Name of company)

By O. G. Sayers
(Signature of authorized official)

Nov 6 1951
(Date)

Owner
(Title)

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

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

Form 4-1100
(May, 1949)

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management
Washington 25, D. C.

Serial No. BLM-A-022092

Commonwealth of Virginia
(State)

Jefferson National Forest

MANGANESE
MINERAL LEASE - ACQUIRED LANDS

This mineral lease entered into in quintuplicate this 1st day of May, 1951, by and between the United States of America, the lessor, through the Bureau of Land Management, and O. E. Sayers, the lessee, of Marion, Virginia, pursuant to Section 402 of the President's Reorganization Plan No. 3 of 1946, and regulations thereunder (43 CFR 200.31 et seq.); witnesseth:

SECTION 1. Rights of Lessee. In consideration of the rents and royalties to be paid and conditions and covenants to be observed as herein set forth the lessor grants to the lessee, subject to all privileges and uses heretofore duly authorized and prior valid claims, for a period of 10 years from the date hereof, the exclusive right to mine, remove and dispose of all the manganese and associated minerals in, upon, or under the following-described tracts:

Beginning at a point which is S. 80 degrees E., 17 chains from corner 19 of Lincoln Investment Corporation tract 52c.

Thence N. 55 degrees E. 4 chains to a point
Thence S. 35 degrees E. 10 chains to a point
Thence S. 55 degrees W. 4 chains to a point
Thence N. 35 degrees W. 10 chains to a point and place of beginning, containing 4 acres, being a part of tract 52f.

containing 4 acres, more or less, together with the right to construct and maintain thereupon such structures and other facilities as may be necessary for the mining, preparation and removal of said minerals.

SECTION 2. In consideration of the foregoing, the lessee agrees:

(a) Production. To begin production within 12 months and to continue production thereafter unless operations are interrupted by strikes, the elements or casualties not attributable to the lessee. The lessor may grant reasonable extensions of time for the commencement of production, and may authorize suspensions of production for reasonable periods of time in the interest of conservation or when the lease cannot be successfully operated at a profit, or for other reasons when such action does not adversely affect the interest of the United States.

(b) Rental. To pay to the lessor annually in advance, beginning with the date of this lease, rental of $5.00 for each acre or fraction thereof for each lease year until production commences, the rental payment for the year in which production commences to be credited on royalties that accrue during that lease year.

(c) Royalty. To pay the lessor within 30 days after the end of each period prescribed in subsection (f) of this section a royalty of 5 per cent, but not less than 25 cents a ton, of the gross value of the minerals mined hereunder at the point of shipment to market, such point of shipment to be the mine or preparation plant, as the case may be. The lessee agrees that the Secretary of the Interior, for the purpose of determining the royalties due hereunder, may establish reasonable minimum values for the minerals mined, due consideration being given to the highest price paid for a part or a majority of the production of minerals of like quality produced from the same general area, the price received by the lessee, posted prices, and other relevant matters.

(d) Minimum Royalty. If there is no production or if royalties under subsection (c) of this section total less than $20.00 in any lease year, to pay the lessor a sum equal to the difference between such royalties and $20.00, such minimum royalty obligation to become effective the first lease year commencing after production begins, and to be payable within 30 days following the end of the lease year for which due. Lessor may, in its discretion, suspend the minimum royalty requirement when production is interrupted or suspended as provided in subsection (a).

(e) Bond. To furnish and maintain a bond in the sum of $1000.00 conditioned upon compliance with the terms and conditions of this lease.

(f) Statement. To furnish for each month or such other period as may be designated by the District Mining Supervisor of the Geological Survey, statements in detail, in such form as may be
Room 3227 General Services Administration Building, Washington 25, D. C.

prescribed by him, 1/ of the amount and value of output from the leasehold during such period for use in determining royalties, such statements to be furnished within 30 days from the close of the month or period so designated. Falsification of such statements shall be grounds for cancellation of the lease. 2/

(g) Inspection. To permit at all reasonable times: (1) inspection by any duly authorized officer of the supervising agencies, of the leased premises and all surface and underground improvements, works, machinery, equipment, and all books and records pertaining to operations and surveys or investigations under this lease; and (2) the lessor to make copies of and extracts from any or all books and records pertaining to operations under this lease.

(h) Maps - Reports. To furnish in duplicate to the District Mining Supervisor, at such times as he may require, a plat in the manner and form prescribed by him 1/ showing prospecting and development work and improvements on the lease land and other related information, with a report as to all buildings, structures, and other works or equipment, situated elsewhere and owned or operated in conjunction with, or as a part of the operations conducted hereunder.

(i) Operations. To conduct operations in compliance with all Federal and State laws and the operating regulations of the Department of the Interior (30 CFR, Chap. II, Part 231), which are made a part hereof, and to exercise reasonable diligence, skill and care in the operation of the property, and to carry on all operations in accordance with approved methods and practices, having due regard for the prevention of damage to mineral deposits, water horizons and property, injury to life and health, and economic waste.

(j) Taxes. To pay when due all taxes lawfully assessed and levied under the laws of the State or the United States upon improvements, output of mines, and other rights, property and assets of the lessee.

(k) Deliver Premises. To deliver up to the lessor in good order and condition and subject to the provisions of Section 9 hereof on the termination of this lease as a result of forfeiture thereof the lands covered thereby, including all underground timbering and such other supports and structures as are necessary for the preservation of the mine.

(l) Assignment. Not to assign this lease, or any interest therein, whether by direct assignment, operating agreement, working or royalty interest, or otherwise, nor sublet any portion of the leased premises, except with the approval in writing of the lessor. All such assignments or subleases must be submitted in triplicate within 90 days from the date of execution and must contain all of the terms and conditions agreed upon by the parties thereto. No overriding royalties or payments out of production shall be created which would exceed 1/2 the royalties payable under this lease to the lessor. An assignment of all or part of the record title to a portion of the acreage in the lease shall separate the lease into separate leaseholds and the terms hereof shall apply separately to the segregated portions. Advance annual rental payments if previously terminated shall be resumed as to an undeveloped segregated portion on the next anniversary date of the lease, the minimum royalty payment herein specified shall apply separately to the segregated portions and the time allowed within which to commence operations on an undeveloped segregated portion shall be such reasonable period as shall be prescribed by the lessor at the time the assignment is approved.

(m) Non-discrimination. Not to discriminate against any employee or applicant for employment because of race, creed, color, or national origin, and to require an identical provision to be included in all subcontracts.

(n) Payments. To make all payments to the lessor under this section as directed, such payments to be made to the order of the Treasurer of the United States.

SECTION 3. In further consideration of the foregoing, the lessee also agrees:

(a) Protection of Property. To conduct all operations authorized by this lease with due regard for good land management; not to cut or destroy timber without first obtaining permission from the authorized representative of the Secretary of Agriculture, and to pay for all such timber cut or destroyed at rates prescribed by such representative; to avoid unnecessary damage to improvements, timber, crops, or other cover; whenever practicable, to control soil erosion resulting from the operation; to prevent pollution of soil and water resources; unless otherwise authorized by the representative of the Secretary of Agriculture, not to carry on operations, make excavations, construct tunnels, drill, or otherwise disturb the surface of the leased land within 200 feet of any building standing on the leased land; whenever required in writing by the authorized representative of the Secretary of Agriculture, to fence all sump holes and other excavations made by lessee.

(b) Forest, Brush and Grass Fire Precautions. To do all in his power to prevent and suppress forest, brush and grass fires on the leased land and in its vicinity, and to require his employees, contractors, subcontractors, and employees of contractors or subcontractors to do likewise. Unless prevented by circumstances over which he has no control, the lessee shall place his employees, contractors, subcontractors, and employees of contractors and subcontractors employed on the leased land at the disposal of any authorized officer of the Department of Agriculture

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1/ All forms herein required are subject to approval by the Bureau of the Budget in accordance with the Federal Reports Act of 1942.

2/ 18 U.S.C. sec. 1001 makes it a crime for any person knowingly and wilfully to submit or cause to be submitted to any agency of the United States any false or fraudulent statement as to any matter within its jurisdiction.

for the purpose of fighting forest, brush, or grass fires, with the understanding that payment for such services shall be made at rates to be determined by the authorized representative of the Secretary of Agriculture, which rates shall not be less than the current rates of pay prevailing in the vicinity for services of a similar character; except that if the lessee, his employees, contractors, subcontractors, or employees of contractors or subcontractors caused or could have prevented the origin or spread of said fire or fires, no payment shall be made for services so rendered.

During periods of serious fire danger to forest, brush, or grass, as may be specified by the authorized representative of the Secretary of Agriculture, the lessee shall prohibit smoking and the building of camp and lunch fires by his employees, contractors, subcontractors, and employees of contractors or subcontractors, within the leased area except at established camps, and shall enforce this prohibition by all means within his power. However, the authorized representative of the Secretary of Agriculture may designate safe places where, after all inflammable material has been cleared away, camp fires may be built for the purpose of heating lunches and where, at the option of the lessee, smoking may be permitted.

The lessee shall not burn rubbish, trash, or other inflammable material except with the consent of the authorized representative of the Secretary of Agriculture and shall not use explosives in such manner as to scatter inflammable materials on the surface of the land during the forest, brush or grass fire season, except as authorized to do so or on areas approved by such representative.

The lessee shall build or construct such fire lines or do such clearing on the leased land as the authorized representative of the Secretary of Agriculture decides is necessary for forest, brush, and grass fire prevention and shall maintain such fire tools at his headquarters on the leased land as are deemed necessary by such representative.

(c) Damage to Property. To pay the lessor or its tenant, as the case may be, for any and all damage to or destruction of property caused by the lessee's operations hereunder; to save and hold the lessor or its tenant harmless from all damage or claims for damage to persons or property resulting from the lessee's operations under this lease; and where the surface of the leased land is owned by other than the lessor, to pay such owner, or his tenant, as the case may be, for damage or injury to livestock, crops, trees, pipe lines, buildings, and other improvements on the leased land.

(d) Restoration of Surface of Land. Upon any partial or total relinquishment, cancellation or expiration of this lease, as to that part of the leased land as to which the lessee's rights have terminated and to the extent deemed necessary by the authorized representative of the Secretary of Agriculture, to fill all sump holes, ditches and other excavations, remove or cover all debris, and, so far as reasonably possible, restore the surface of the leased land to its former condition, including the removal of structures as and if required.

(e) Department of Agriculture Regulations. To comply with all the rules and regulations of the Secretary of Agriculture governing the national forests or other lands under his jurisdiction which are embraced in this lease.

(f) Special Stipulations.

Stipulations attached

(g) Appropriate Agency Official. To address all matters relating to this section to Walnut & Juniper Street, Philadelphia 7, Pa. Regional Forester, Jefferson Nat. Forest at Bankers Securities Building, who is the authorized representative of the Secretary of Agriculture, or to such other representative as may, from time to time, be designated provided that such designation shall be in writing and be delivered to the lessee or his agent as provided by Section 4 hereof.

SECTION 4. Lessee-Agent. Prior to the beginning of operations the lessee shall appoint and maintain at all times during the term of this lease a local agent upon whom may be served written orders or notices respecting matters contained in this lease, and shall inform the authorized representative of the Secretary of Agriculture, and the District Mining Supervisor of the United States Geological Survey, in writing, of the name and address of such agent. If a substitute agent is appointed, the lessee shall immediately so inform the said representatives.

SECTION 5. Renewal of Lease. If, upon the expiration of this lease, the issuance for an ensuing period of a lease of similar character is determined to be in the public interest, and all of the terms hereof have been satisfactorily complied with, and the lessee is then qualified, he shall be accorded a preference in the issuance of said ensuing lease upon such reasonable terms and considerations as may be prescribed by the Secretary of the Interior, unless otherwise provided by law. The exercise of such preference right shall be in accordance with regulations prescribed by the Secretary of the Interior.

SECTION 6. The lessor expressly reserves:

(a) Rights Reserved. The right to permit for joint or several use easements or rights-of-way, including easements in tunnels upon, through, or in the land leased, occupied, or used as may be necessary or appropriate to the working of the same or other lands, and the preparation and shipment of the products thereof by or under authority of the Government, its lessees or permittees, and for other public purposes.

(b) Monopoly and Fair Prices. Full power and authority to promulgate and enforce all orders necessary to insure the sale of the production of the leased lands to the United States and to the public at reasonable prices, to protect the interest of the United States, to prevent monopoly, and to safeguard the public welfare.

(c) Fissionable materials. All fissionable source materials, together with the right, at any and all times, to enter upon the lands and prospect for, mine and remove such materials, pursuant to Executive Order No. 9908 (12 F. R. 8223).

(d) Waiver of Conditions. The right to waive any breach of the covenants and conditions contained herein, but any such waiver shall extend only to the particular breach so waived and shall not limit the rights of the lessor with respect to any future breach; nor shall the waiver of a particular cause of forfeiture prevent cancellation of this lease for any other cause, or for the same cause occurring at another time.

SECTION 7. It is mutually agreed:

(a) Strip Mining. That this lease does not authorize mining or removal of minerals by stripping or contour mining unless otherwise specifically authorized herein.

(b) Reduction or Smelting of Ores. That the reduction or smelting of ores on the leased land is expressly prohibited in the absence of an agreement between the lessee and the designated representative of the Secretary of Agriculture authorizing such use of the surface of the land and providing for the necessary protection of life and property. Such agreement shall contain all of the terms and conditions under which the reduction or smelting of ores may be carried on and any violation of that agreement shall be considered a violation of the terms of this lease for the purpose of Section 9.

(c) Uses and Disposition of Surface. That the leased land shall be subject at all times to any other lawful uses or sale by the United States, its lessees, permittees, licensees, and assigns; provided that such uses or sale shall not prevent, obstruct, or unduly interfere with any privilege granted under this lease.

(d) Granting Leases for Other Minerals. That the granting of this lease will not preclude the issuance of other leases of the same land for the mining of other minerals with suitable stipulations as to joint operations, in order that full development of the mineral resources may be obtained.

SECTION 8. Relinquishment of Lease. Upon payment of all rentals, royalties and other debts due and payable to the lessor and upon payment of all wages or moneys due and payable to the workmen employed by the lessee, the lessee may, upon a satisfactory showing that the public interest will not be impaired, surrender all or any subdivision or subdivisions of the area included in the lease. In no case will the lease be terminated in whole or in part until and unless the lessee shall have made provision for the preservation of any mines and mineral deposits or productive works or permanent improvements on the lands covered thereby and complied with Section 3(d) hereof. A surrender must be by a relinquishment filed, in triplicate, with the Director, Bureau of Land Management. A relinquishment upon its approval shall take effect as of the date it is filed.

SECTION 9. Removal of Equipment, etc., on Termination of Lease. On termination of this lease, by surrender, forfeiture, or otherwise the lessee shall have the privilege at any time within a period of 90 days thereafter of removing from the premises all machinery, equipment, tools and materials, other than underground timbering placed by the lessee in or on the leased lands, which are not necessary for the preservation of the mine. Any materials, tools, appliances, machinery, structures and equipment, subject to removal as above provided, which are allowed to remain on the leased land shall become the property of the lessor on expiration of the 90-day period or such extension thereof as may be granted by the lessor, but the lessee shall remove any or all of such property when so directed by the lessor.

SECTION 10. Proceedings in case of default. If the lessee does not comply with the applicable regulations made a part hereof or the terms of this lease and such default continues for a period of 30 days after service of written notice thereof by the lessor, the lease may be canceled by the Director, Bureau of Land Management. However, if production has commenced on the

Form 4-1100

lease, it may be canceled only by appropriate proceedings in a court of competent jurisdiction; but this provision does not apply to leases issued for a period of five years or less which may be canceled in the manner stated above. Furthermore, if the lessee fails to take prompt and necessary steps to prevent loss or damage to the mine, property, or premises, or danger to the employees, the lessor may enter on the premises and take such measures as may be deemed necessary to prevent such loss or damage or to correct the dangerous or unsafe condition of the mine or works thereof, which shall be at the expense of the lessee, but the lessee shall not be held responsible for delays or casualties occasioned by causes beyond the lessee's control.

SECTION 11. Heirs and successors-in-interest. It is further agreed that each obligation hereunder shall extend to and be binding upon, and every benefit hereof shall inure to, the heirs, executors, administrators, successors, or assigns of the respective parties hereto.

SECTION 12. Unlawful Interests. It is also further agreed that no Member of, or Delegate to Congress, or Resident Commissioner, after his election or appointment, or either before or after he has qualified, and during his continuance in office, and that no officer, agent, or employee of the Department of the Interior or of the Department of Agriculture shall be admitted to any share or part of this lease, or derive any benefit that may arise therefrom, and the provisions of Section 3741 of the Revised Statutes, as amended, and 18 U.S.C. 431, 432, and 433, relating to contracts, enter into and form a part of this lease so far as the same may be applicable.

THE UNITED STATES OF AMERICA

By William Zimmerman Jr.
[redacted]
Director, Bureau of Land Management.

WITNESSES TO SIGNATURE OF LESSEE

Lowell M. Hoze

O. L. Sayers

Lessee.

(The reporting requirements contained in this lease have been approved by the Bureau of the Budget in accordance with the Federal Reports Act of 1942. If this lease is executed by a corporation, it must bear the corporate seal.)

Special Terms and Conditions

A. The permitted shall conduct the operation with respect to the disposal of spoil or waste material in such a manner that silt, rock, debris, dirt, clay and other deleterious matter shall not be washed, conveyed or otherwise deposited into any stream.

B. The permittee shall backfill and grade any spoil banks so as to restore the land to as near its former position as may be practicable as determined by the forest officer in charge.

All exposed beds of rock except those in the high-wall shall be covered at least three (3) feet with earth or spoil.

Regrading shall be done with a view to obliterating the high-wall in so far as it is practicable to do so.

It shall be in compliance with the backfilling and regrading requirements of this section if all exposed earth surfaces are reduced to the angle of repose. In this permit the angle shall be slopes not greater than 66-2/3% or one and one-half ($1\frac{1}{2}$) horizontal to one (1) vertical, unless otherwise directed by the forest officer in charge.

In so far as practicable surface restoration shall be carried on progressively, following immediately after mining operations. It shall be completed within one year from the time mining operations authorized by this permit are completed.

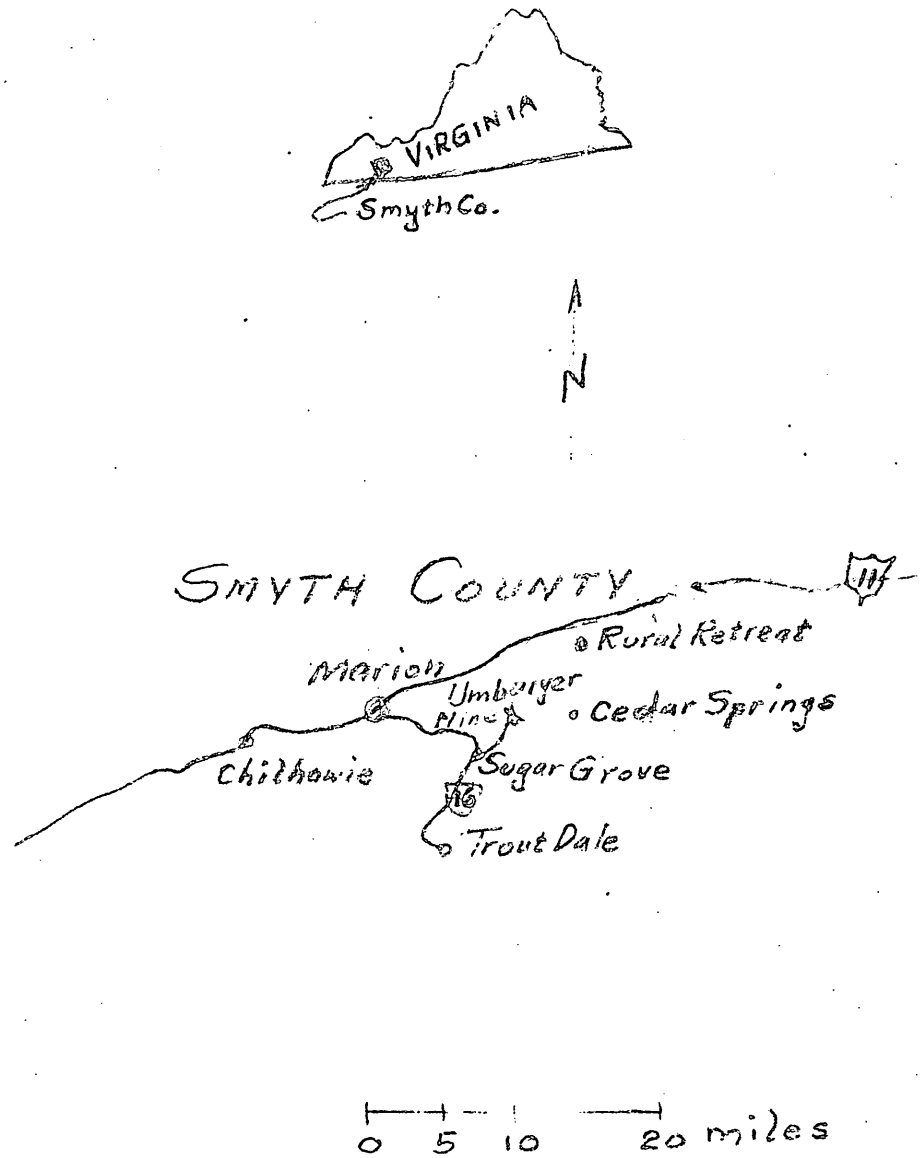
C. As soon as practicable after mining or stripping operations on any portion of said land have been completed, the permittee shall, in cooperation with the Forest Service, United States Department of Agriculture, and as required by the forest officer in charge restore a vegetative cover by planting trees, shrubs, or other plants and seeds, the species, methods, and frequencies of planting to be determined by the forest officer. The permitted shall furnish materials, equipment and labor, including foremanship, and the Forest Services shall furnish general supervision.

D. As a guaranty of faithful performance of the conditions of this lease with respect to the restoration of the surface and revegetation and reforestation of the land, as set forth in paragraphs B and C above, the permittee shall deliver to the Regional Fiscal Agent, U. S. Forest Service, Bankers Securities Building, Philadelphia 7, Pennsylvania, a surety bond, executed by an approved corporate surety, in the sum of $250.00 per acre for each acre or fraction thereof to be mined. Should the surety on the bond delivered or on any bond delivered thereafter for the same purpose become unsatisfactory to the Forest Service, the permittee will within 30 days of receipt of demand from the Forest Service, furnish a new bond with satisfactory surety. In lieu of

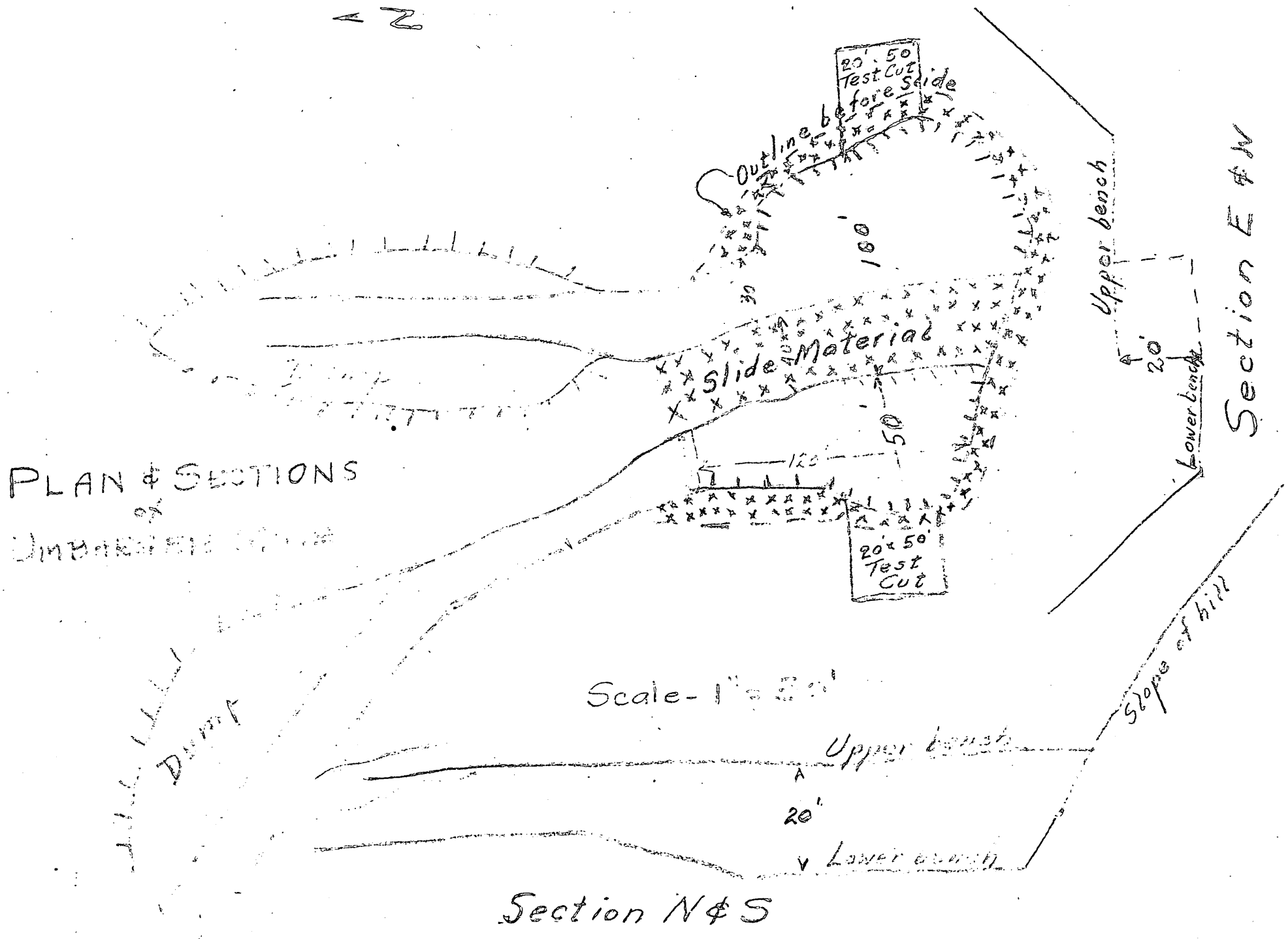
surety bond, the permittee may deposit into a Federal depository, through the Regional Fiscal Agent specified above, cash in the sum of $250 per acre for each acre or fraction thereof to be mined; or he may deposit through the Regional Fiscal Agent with the Treasurer of the United States, a Federal Reserve Bank or branch thereof, certain types of United States bonds or Treasury notes in a sum equal at their par value to the amount of the surety bond or cash deposit otherwise required. As soon as security for the performance of the restoration or revegetation and reforestation or both is no longer necessary, deposits in lieu of surety bond applicable to restoration or revegetation and reforestation or both will be returned to the permittee. The bond of any surety company approved by the Secretary of the Treasury will be acceptable.

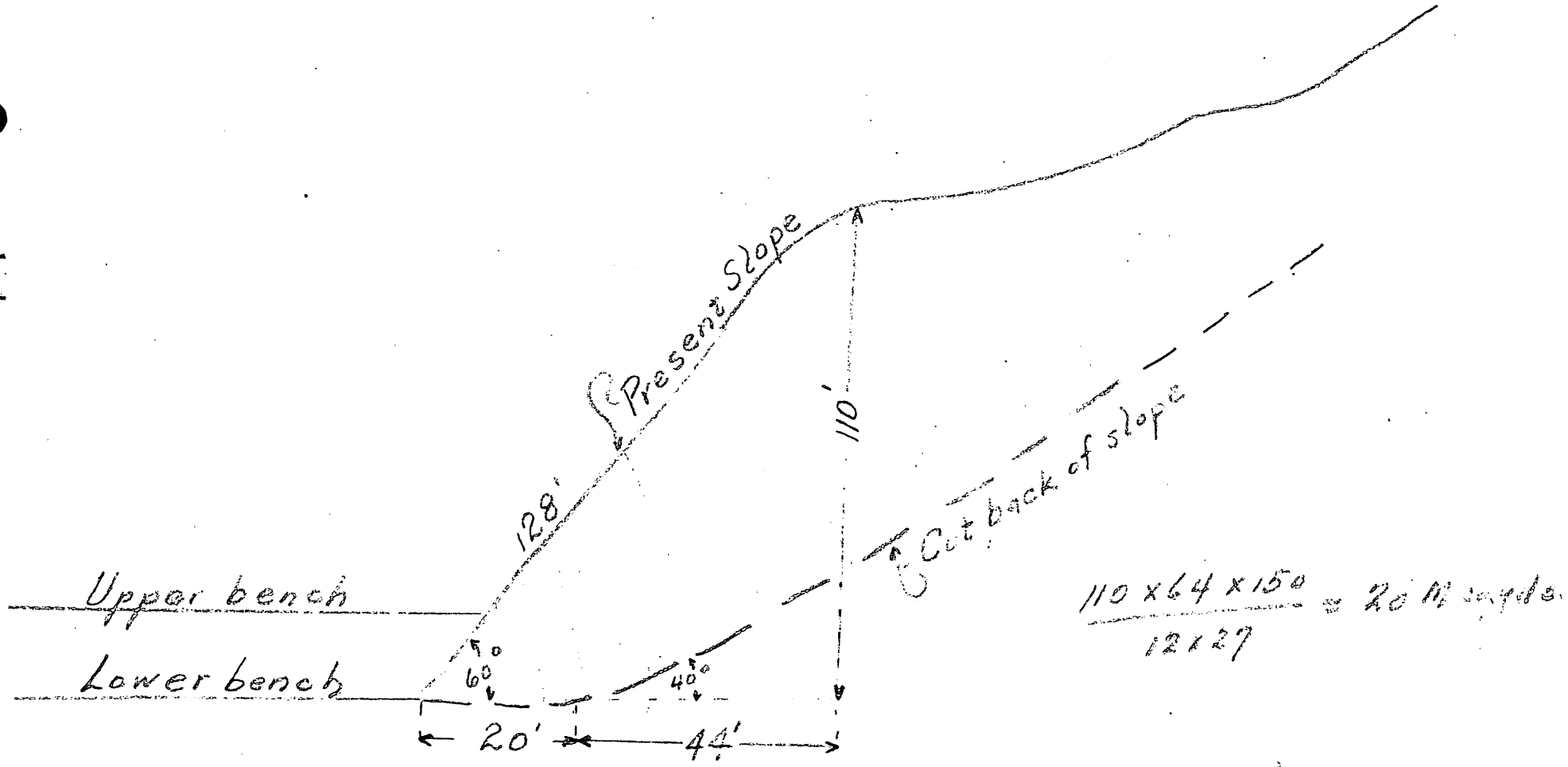
E. In lieu of the performance of the obligation under paragraph C as hereinbefore provided, the permittee, at his option, and if satisfactory to the Forest Service, may enter into a cooperative agreement with the Forest Service to accomplish the revegetation and reforestation for which the permittee is liable, in which event bond as provided in the preceding paragraph will be required in the amount of $150.00 per acre for each acre or fraction thereof to be mined as a guarantee of the performance of the surface restoration work required under paragraph B hereof. Such cooperative agreement shall provide that the permittee will deposit into the Forest Service cooperative work fund an amount estimated to be sufficient to cover the cost of the work as stated in paragraph C, including a charge of 10% for overhead; the amount (or amounts) to be deposited shall be computed at the rate of $100 per acre for each acre or fraction thereof to be mined, which represents the estimated cost of the work of revegetation and reforestation. Funds so deposited shall be available to and shall be used to the extent necessary by the Forest Service for paying the permittee's share of the expense as defined under paragraph C, it being understood that any amount remaining after all such revegetation and reforestation are accomplished to the satisfaction of the forest officer in charge, shall be refunded to the permittee within a reasonable period after termination of the permit.

F. Operations under this permit shall not begin until satisfactory bond has been delivered or until such bond has been delivered and cooperative agreement entered into with the Forest Service as hereinbefore provided.



Location of Umbarger Mine
Smyth County, Va.


N
PLAN & SECTIONS
OF
Dump
20' x 50'
Test Cut
Outline before Slide
100'
Slide Material
50'
120'
20' x 50'
Test
Cut
Upper bench
20'
Lower bench
Section E & W
Slope of hill
Scale-
Upper bench
20'
Lower bench
Section N & S



N & S Section - Showing Slope Cut-back

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

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

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

DO NOT FILL IN THIS BLOCK

Docket No. D.M.E.A. 2261

Date received 11-27-51

Participation

O. E. Sayers
Marion,
Virginia

Name and address of applicant

Date

DEFENSE MINERALS ADMINISTRATION WASHINGTON, D.C. NOV 27 2 01 PM '51

FILL IN THIS BLOCK

Date of application 9-27-51

Estimated cost $10,300.00

Mineral or metal Manganese

Percentage of Government participation 75% or $7725.

Location of mine Smyth County

Virginia

Date of filing MF-100 9-27-51

DMA Docket Number, if available

INSTRUCTIONS

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

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation?
*2. If a partnership, state names and addresses of partners.
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.
*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property?
6. If owner, state what claims, liens, or encumbrances, if any, are against the property. Not owner
7. If lessee, attach a copy of the lease and state if it is in good standing. Copy of lease attached-Goodstanding.

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

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement. Ans. on separate sh.
9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)? No cash needed. Applicant's share covered by equipment, depreciation and salary as supervisor.

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

16—64067-1

($1,375. + $1,200. = $2,575.)

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property. Described in lease.

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

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

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

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

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

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

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

*16. History:

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

(*b*) State briefly the known history and production of adjoining and neighboring properties.

(*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

*17. Production:

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

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

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

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

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

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

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

THE EXPLORATION

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

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

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

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

THE REQUIREMENTS AND COSTS

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

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

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

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

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

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

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

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

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

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

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

CERTIFICATION

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

(Name of company)

By J. E. Sayers
(Signature of authorized official)

Nov 6 1951
(Date)

Lessee
(Title)

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

*Same as footnote on page 1.

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

Form MF 103

Current Financial Statement

Current Assets		
Cash	None	
Notes Receivable	None	
Fixed Assets		
Machinery and equipment	$27,500.00	
Value of lease	4,811.00	
Total Assets		$ 32,311.00
Current Liabilities		
Notes payable	None	
Other indebtedness	None	
Total Liabilities		None

Form MF 103

Profit and Loss Statement

Receipts

Ore sold	None

- - - - - -

Expenditures

Exploration	
Moving 15,000 cu. yds. slide material @ 20¢ per cu. yd.	3,000.00
Depreciation on machinery and equipment - 3 months 3/60 of $27,500.00	1,375.00
Obtaining lease rental in lieu of royalty	36.00
Deposit for restoration of mined territory - $100.00 per acre	400.00
Expenditures	$4,811.00

- - - - - -

Expenditures	$4,811.00
Receipts	00.00
Investment	$4,811.00

15. Log washing to get rid of enclosing clay is sufficient processing. Ore to be hauled by truck from pit to log washers and from washing plant to railroad at Marion, 12.5 miles.

20. Manganese ore - open pit mine.

21.

(a) Slide material, which caused shut down in 1919, must be removed to gain access to the quarry faces being worked at that time. There is approximately 10,000 cu. yds. of this material still to be removed. This will require 3 weeks work.

(b) Slope should be cut back below angle of repose to prevent recurrence of sloughing. Also a drainage system should be installed to keep water out of working places. Amount of material to be moved 20,000 cu. yds. Time required 6 weeks.

(c) A dip needle or magnetometer survey to aid in exploration for ore. Time required 2 weeks. This ore shows strong reaction with a dip needle.

(d) Drilling of exposures of hard manganese to aid in determining extent. Time required 1 week.

(e) Trenching across the two benches then crushing and log washing the ore. Sampling and analysis of samples. Time required 3 weeks.

The total project should be completed in 90 days.

22. The record of past production and an examination of the ore exposed in the zone where the slide has been cleaned away should be sufficient evidence to suspect a future production.

23.

(a)

	Hourly Rate	Earnings per week	Earnings for Project
Shovel Operator	2.00	80.00	960.00
Bulldozer Operator	2.00	80.00	960.00
Truck Drivers (2)	1.75	140.00	1680.00
Drilling) Operators above can handle this Log Washing) work.			
Foreman	2.50	100.00	1200.00

(b)

Repairs to log washer and crusher	200.00
Test cuts 2 - 20' x 50' x 20' 1600 cu. yds. @ 25¢ per cu. yd.	400.00

Test run through crusher and log washer	200.00
Geophysical Survey 2 Engineers 2 weeks @ 25.00 per day	500.00
Construction field office & toilet	600.00
	1900.00

(c) Repairs to log washer and crusher 200.00

(d) Field office (10x12x8) 500.00 ; toilet 100.00

(e) None

(f) None

(g)

Log washer and crusher	1,000.00	
1/2 cu. yd. diesel shovel	15,000.00	90 days depreciation
Int. TD 14 bulldozer (diesel)	12,000.00	3/60 of 27,500.00 =
2 1/2 ton dump trucks @ 4000.00	6,000.00	$1,375.00
Jack hammer & accessories	500.00	
Air compressor - gasoline 165 cu. ft.	3,000.00	
	$ 27,500.00	

(h)

	Day	Week	Project
Fuel Oil	40 Gal. @ 15¢	30.00	360.00
Gasoline	40 Gal. @ 25¢	50.00	600.00
Lub. oil) grease)	1.00	5.00	60.00
			1020.00

(i) None

24. Preparing 200 yd. approach from present pit entrance to slope above pit.

One week	500.00
Cutting back the slope - 20,000 cu. yds. 20¢ per cu. yd - loose material - 6 weeks	4000.00
Cleaning old slide from present pit - 10,000 cu. yds at 20¢ per cu. yd - loose material 3 weeks	2000.00
Test cuts into east and west banks - 1600 cu. yds @ 25¢ per cu. yd - material -3wks.	400.00
Test drilling pit floor and ore exposed in pit face - 2 weeks	400.00
Sampling and analyses - 50 samples @ $20. each	1000.00
	8300.00

Form MF-100
(May 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

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

NOT TO BE FILLED IN BY APPLICANT

Docket No. D.M.E.A. 2261

Date received 11-27-51

DEFENSE MINERALS ADMINISTRATION WASHINGTON, D.C.
Nov 27 2 00 PM '51

Mr. O. E. Sayers
Marion,
Virginia

Name and address of applicant

Date September 27, 1951

INSTRUCTIONS

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

GENERAL TECHNICAL DATA

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

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

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

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

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

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

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

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

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

*Indicate period covered.

10. Production:

Item	Kind of Product (a)	1948 Total (b)	1949 Total (c)	1950 Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (~~Short,~~ long, ~~metric~~ tons; ~~barrels, pounds, etc.~~)	manganese ore	none	none	none	none
2. Quantity of product processed (specify unit of measure and type of process)	washed	"	"	"	"
3. Quantity and grade of product sold or shipped (specify units of measure)		"	"	"	"

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

12. Ore or Mineral Reserves:

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

O. E. Sayers
Marion, Virginia

General Technical Data

1.
(a) Metallurgical grade - lump manganese ore.
(b) Metallurgical grade - fines manganese ore.

2. Umbarger or Green Mine - Open pit
(a) None
(b) None
(c) None
(d) 2 benches 20 ft. vertical interval (see sketch)
Some seepage and run from springs - gravity drain.

3.
(a) 2 1/2 miles from Sugar Grove, 12 1/2 miles from Marion, Virginia, shipping point.
(b) None
(c) Land management, tract 52C
(d) Smyth County, Virginia

4.
(a) Preparing for operation
(b) Lessee

5. Probably 3 years, 1916-1919.
March 1952

6. Applicant is the manager, has had 40 years experience on ground-moving with heavy equipment. Also has had wide experience in operation at business concerns.

7.
(a) Mine was first opened around 1880 - small production worked sporadically until 1916 on account of variable market. Probable production 1916-1919, 200 cars of 10,000 L. tons. Operation ceased when bank sloughed into pit. Probably 25,000 cu. yds. slid down into the mining area. Approximately 15,000 cu. yds. has been cleaned out since May 1951 by applicant.

(b) A deposit exists about 200 yards west of present pit. Apparently smaller and lower grade, also more inaccessible than present pit. Approximately 300 tons were shipped from this deposit in 1942 by applicant.

(c) Described in Bulletin 61 of Virginia Geological Survey pp. 132-137 by Ralph L. Miller.

11. On completion of removal of slide material production will start at 500 tons per month.

12. (a)

Apparently 2 types of ore (1) wad or gouge ore (2) hard ore; both occur as boulders or masses in the clay. The deposit has an east-west trend.

So far as present excavation has proceeded the ore bearing zone has an apparent width (N & S) of over 100 feet and ore is still in evidence on the south. The present quarry face is approximately 150 feet long and shows inclusions of ore along the toe of the slide throughout that distance and on both bench levels. The west bench is approximately 20 feet below the east bench. The west or lower bench is 50 feet wide across the trend from east to west and the east or upper bench is 100 feet wide across the trend. With the ore showing on the east bench it would be a fair assumption to believe it continues to at least the depth of the west bench. How far above either bench level the ore occurred originally is not known, but must have been considerable to justify production figures of over 10,000 long tons. Extent of ore below west (lower) bench hasn't yet been determined. Neither has it been proven that the ore zone stops at the west or east walls of the present cut. In fact ore is evident in both. Until more of the slide has been removed and the present quarry floor has been drilled or tested there is insufficient data on which to base any ore estimate.

17. 1 - 1/2 cu. yd. Diesel shovel; 1 - TD 14 Diesel bulldozer; 2 - 1 1/2 ton dump trucks; 1 - 165 cu. ft. gasoline compressor; jackhammer, drills, bit and miscellaneous equipment.

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

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

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

TOTAL ORE OR MINERAL RESERVES

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

(*c*) If placer:

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

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

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

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

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

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

13. Access Roads:

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

14. Water Supply:

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

15. Power:

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

16. Labor:

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

Shovel operator, bulldozer operator, 2 truck drivers.

17. Equipment and Facilities:

No buildings

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

See fly sheet

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

None

CERTIFICATION

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

(Name of company)

By O. E. Sayers
(Signature of authorized official)

Nov 6 1951
(Date)

Owner
(Title)

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

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

Form 4-1100
(May, 1949)

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management
Washington 25, D. C.

Serial No. BLM-A-022092

Commonwealth of Virginia
(State)

MANGANESE
MINERAL LEASE - ACQUIRED LANDS Jefferson National Forest

This mineral lease entered into in quintuplicate this 1st day of May, 1951, by and between the United States of America, the lessor, through the Bureau of Land Management, and O. E. Sayers, the lessee, of Marion, Virginia, pursuant to Section 402 of the President's Reorganization Plan No. 3 of 1946, and regulations thereunder (43 CFR 200.31 et seq.); witnesseth:

SECTION 1. Rights of Lessee. In consideration of the rents and royalties to be paid and conditions and covenants to be observed as herein set forth the lessor grants to the lessee, subject to all privileges and uses heretofore duly authorized and prior valid claims, for a period of 10 years from the date hereof, the exclusive right to mine, remove and dispose of all the manganese and associated minerals in, upon, or under the following-described tracts

Beginning at a point which is S. 80 degrees E., 17 chains from corner 19 of Lincoln Investment Corporation tract 52c.

Thence N. 55 degrees E. 4 chains to a point
Thence S. 35 degrees E. 10 chains to a point
Thence S. 55 degrees W. 4 chains to a point
Thence N. 35 degrees W. 10 chains to a point and place of beginning, containing 4 acres, being a part of tract 52f.

containing 4 acres, more or less, together with the right to construct and maintain thereupon such structures and other facilities as may be necessary for the mining, preparation and removal of said minerals.

SECTION 2. In consideration of the foregoing, the lessee agrees:

(a) Production. To begin production within 12 months and to continue production thereafter unless operations are interrupted by strikes, the elements or casualties not attributable to the lessee. The lessor may grant reasonable extensions of time for the commencement of production, and may authorize suspensions of production for reasonable periods of time in the interest of conservation or when the lease cannot be successfully operated at a profit, or for other reasons when such action does not adversely affect the interest of the United States.

(b) Rental. To pay to the lessor annually in advance, beginning with the date of this lease, rental of $5.00 for each acre or fraction thereof for each lease year until production commences, the rental payment for the year in which production commences to be credited on royalties that accrue during that lease year.

(c) Royalty. To pay the lessor within 30 days after the end of each period prescribed in subsection (f) of this section a royalty of 5 per cent but not less than 25 cents a ton of the gross value of the minerals mined hereunder at the point of shipment to market, such point of shipment to be the mine or preparation plant, as the case may be. The lessee agrees that the Secretary of the Interior, for the purpose of determining the royalties due hereunder, may establish reasonable minimum values for the minerals mined, due consideration being given to the highest price paid for a part or a majority of the production of minerals of like quality produced from the same general area, the price received by the lessee, posted prices, and other relevant matters.

(d) Minimum Royalty. If there is no production or if royalties under subsection (c) of this section total less than $20.00 in any lease year, to pay the lessor a sum equal to the difference between such royalties and $20.00, such minimum royalty obligation to become effective the first lease year commencing after production begins, and to be payable within 30 days following the end of the lease year for which due. Lessor may, in its discretion, suspend the minimum royalty requirement when production is interrupted or suspended as provided in subsection (a).

(e) Bond. To furnish and maintain a bond in the sum of $1000.00 conditioned upon compliance with the terms and conditions of this lease.

(f) Statement. To furnish for each month or such other period as may be designated by the District Mining Supervisor of the Geological Survey, statements in detail, in such form as may be
Room 3227 General Services Administration Building, Washington 25, D. C.

prescribed by him, 1/ of the amount and value of output from the leasehold during such period for use in determining royalties, such statements to be furnished within 30 days from the close of the month or period so designated. Falsification of such statements shall be grounds for cancellation of the lease. 2/

(g) Inspection. To permit at all reasonable times: (1) inspection by any duly authorized officer of the supervising agencies, of the leased premises and all surface and underground improvements, works, machinery, equipment, and all books and records pertaining to operations and surveys or investigations under this lease; and (2) the lessor to make copies of and extracts from any or all books and records pertaining to operations under this lease.

(h) Maps - Reports. To furnish in duplicate to the District Mining Supervisor, at such times as he may require, a plat in the manner and form prescribed by him 1/ showing prospecting and development work and improvements on the lease land and other related information, with a report as to all buildings, structures, and other works or equipment, situated elsewhere and owned or operated in conjunction with, or as a part of the operations conducted hereunder.

(i) Operations. To conduct operations in compliance with all Federal and State laws and the operating regulations of the Department of the Interior (30 CFR, Chap. II, Part 231), which are made a part hereof, and to exercise reasonable diligence, skill and care in the operation of the property, and to carry on all operations in accordance with approved methods and practices, having due regard for the prevention of damage to mineral deposits, water horizons and property, injury to life and health, and economic waste.

(j) Taxes. To pay when due all taxes lawfully assessed and levied under the laws of the State or the United States upon improvements, output of mines, and other rights, property and assets of the lessee.

(k) Deliver Premises. To deliver up to the lessor in good order and condition and subject to the provisions of Section 9 hereof on the termination of this lease as a result of forfeiture thereof the lands covered thereby, including all underground timbering and such other supports and structures as are necessary for the preservation of the mine.

(l) Assignment. Not to assign this lease, or any interest therein, whether by direct assignment, operating agreement, working or royalty interest, or otherwise, nor sublet any portion of the leased premises, except with the approval in writing of the lessor. All such assignments or subleases must be submitted in triplicate within 90 days from the date of execution and must contain all of the terms and conditions agreed upon by the parties thereto. No overriding royalties or payments out of production shall be created which would exceed 1/2 the royalties payable under this lease to the lessor. An assignment of all or part of the record title to a portion of the acreage in the lease shall separate the lease into separate leaseholds and the terms hereof shall apply separately to the segregated portions. Advance annual rental payments if previously terminated shall be resumed as to an undeveloped segregated portion on the next anniversary date of the lease, the minimum royalty payment herein specified shall apply separately to the segregated portions and the time allowed within which to commence operations on an undeveloped segregated portion shall be such reasonable period as shall be prescribed by the lessor at the time the assignment is approved.

(m) Non-discrimination. Not to discriminate against any employee or applicant for employment because of race, creed, color, or national origin, and to require an identical provision to be included in all subcontracts.

(n) Payments. To make all payments to the lessor under this section as directed, such payments to be made to the order of the Treasurer of the United States.

SECTION 3. In further consideration of the foregoing, the lessee also agrees:

(a) Protection of Property. To conduct all operations authorized by this lease with due regard for good land management; not to cut or destroy timber without first obtaining permission from the authorized representative of the Secretary of Agriculture, and to pay for all such timber cut or destroyed at rates prescribed by such representative; to avoid unnecessary damage to improvements, timber, crops, or other cover; whenever practicable, to control soil erosion resulting from the operation; to prevent pollution of soil and water resources; unless otherwise authorized by the representative of the Secretary of Agriculture, not to carry on operations, make excavations, construct tunnels, drill, or otherwise disturb the surface of the leased land within 200 feet of any building standing on the leased land; whenever required in writing by the authorized representative of the Secretary of Agriculture, to fence all sump holes and other excavations made by lessee.

(b) Forest, Brush and Grass Fire Precautions. To do all in his power to prevent and suppress forest, brush and grass fires on the leased land and in its vicinity, and to require his employees, contractors, subcontractors, and employees of contractors or subcontractors to do likewise. Unless prevented by circumstances over which he has no control, the lessee shall place his employees, contractors, subcontractors, and employees of contractors and subcontractors employed on the leased land at the disposal of any authorized officer of the Department of Agriculture

1/ All forms herein required are subject to approval by the Bureau of the Budget in accordance with the Federal Reports Act of 1942.

2/ 18 U.S.C. sec. 1001 makes it a crime for any person knowingly and wilfully to submit or cause to be submitted to any agency of the United States any false or fraudulent statement as to any matter within its jurisdiction.

for the purpose of fighting forest, brush, or grass fires, with the understanding that payment for such services shall be made at rates to be determined by the authorized representative of the Secretary of Agriculture, which rates shall not be less than the current rates of pay prevailing in the vicinity for services of a similar character; except that if the lessee, his employees, contractors, subcontractors, or employees of contractors or subcontractors caused or could have prevented the origin or spread of said fire or fires, no payment shall be made for services so rendered.

During periods of serious fire danger to forest, brush, or grass, as may be specified by the authorized representative of the Secretary of Agriculture, the lessee shall prohibit smoking and the building of camp and lunch fires by his employees, contractors, subcontractors, and employees of contractors or subcontractors, within the leased area except at established camps, and shall enforce this prohibition by all means within his power. However, the authorized representative of the Secretary of Agriculture may designate safe places where, after all inflammable material has been cleared away, camp fires may be built for the purpose of heating lunches and where, at the option of the lessee, smoking may be permitted.

The lessee shall not burn rubbish, trash, or other inflammable material except with the consent of the authorized representative of the Secretary of Agriculture and shall not use explosives in such manner as to scatter inflammable materials on the surface of the land during the forest, brush or grass fire season, except as authorized to do so or on areas approved by such representative.

The lessee shall build or construct such fire lines or do such clearing on the leased land as the authorized representative of the Secretary of Agriculture decides is necessary for forest, brush, and grass fire prevention and shall maintain such fire tools at his headquarters on the leased land as are deemed necessary by such representative.

(c) Damage to Property. To pay the lessor or its tenant, as the case may be, for any and all damage to or destruction of property caused by the lessee's operations hereunder; to save and hold the lessor or its tenant harmless from all damage or claims for damage to persons or property resulting from the lessee's operations under this lease; and where the surface of the leased land is owned by other than the lessor, to pay such owner, or his tenant, as the case may be, for damage or injury to livestock, crops, trees, pipe lines, buildings, and other improvements on the leased land.

(d) Restoration of Surface of Land. Upon any partial or total relinquishment, cancellation or expiration of this lease, as to that part of the leased land as to which the lessee's rights have terminated and to the extent deemed necessary by the authorized representative of the Secretary of Agriculture, to fill all sump holes, ditches and other excavations, remove or cover all debris, and, so far as reasonably possible, restore the surface of the leased land to its former condition, including the removal of structures as and if required.

(e) Department of Agriculture Regulations. To comply with all the rules and regulations of the Secretary of Agriculture governing the national forests or other lands under his jurisdiction which are embraced in this lease.

(f) Special Stipulations.

Stipulations attached

(g) Appropriate Agency Official. To address all matters relating to this section to Regional Forester, Jefferson Nat. Forest at Bankers Securities Building, Walnut & Juniper Street, Philadelphia 7, Pa., who is the authorized representative of the Secretary of Agriculture, or to such other representative as may, from time to time, be designated provided that such designation shall be in writing and be delivered to the lessee or his agent as provided by Section 4 hereof.

SECTION 4. Lessee-Agent. Prior to the beginning of operations the lessee shall appoint and maintain at all times during the term of this lease a local agent upon whom may be served written orders or notices respecting matters contained in this lease, and shall inform the authorized representative of the Secretary of Agriculture, and the District Mining Supervisor of the United States Geological Survey, in writing, of the name and address of such agent. If a substitute agent is appointed, the lessee shall immediately so inform the said representatives.

SECTION 5. Renewal of Lease. If, upon the expiration of this lease, the issuance for an ensuing period of a lease of similar character is determined to be in the public interest, and all of the terms hereof have been satisfactorily complied with, and the lessee is then qualified, he shall be accorded a preference in the issuance of said ensuing lease upon such reasonable terms and considerations as may be prescribed by the Secretary of the Interior, unless otherwise provided by law. The exercise of such preference right shall be in accordance with regulations prescribed by the Secretary of the Interior.

SECTION 6. The lessor expressly reserves:

(a) Rights Reserved. The right to permit for joint or several use easements or rights-of-way, including easements in tunnels upon, through, or in the land leased, occupied, or used as may be necessary or appropriate to the working of the same or other lands, and the preparation and shipment of the products thereof by or under authority of the Government, its lessees or permittees, and for other public purposes.

(b) Monopoly and Fair Prices. Full power and authority to promulgate and enforce all orders necessary to insure the sale of the production of the leased lands to the United States and to the public at reasonable prices, to protect the interest of the United States, to prevent monopoly, and to safeguard the public welfare.

(c) Fissionable materials. All fissionable source materials, together with the right, at any and all times, to enter upon the lands and prospect for, mine and remove such materials, pursuant to Executive Order No. 9908 (12 F. R. 8223).

(d) Waiver of Conditions. The right to waive any breach of the covenants and conditions contained herein, but any such waiver shall extend only to the particular breach so waived and shall not limit the rights of the lessor with respect to any future breach; nor shall the waiver of a particular cause of forfeiture prevent cancellation of this lease for any other cause, or for the same cause occurring at another time.

SECTION 7. It is mutually agreed:

(a) Strip Mining. That this lease does not authorize mining or removal of minerals by stripping or contour mining unless otherwise specifically authorized herein.

(b) Reduction or Smelting of Ores. That the reduction or smelting of ores on the leased land is expressly prohibited in the absence of an agreement between the lessee and the designated representative of the Secretary of Agriculture authorizing such use of the surface of the land and providing for the necessary protection of life and property. Such agreement shall contain all of the terms and conditions under which the reduction or smelting of ores may be carried on and any violation of that agreement shall be considered a violation of the terms of this lease for the purpose of Section 9.

(c) Uses and Disposition of Surface. That the leased land shall be subject at all times to any other lawful uses or sale by the United States, its lessees, permittees, licensees, and assigns; provided that such uses or sale shall not prevent, obstruct, or unduly interfere with any privilege granted under this lease.

(d) Granting Leases for Other Minerals. That the granting of this lease will not preclude the issuance of other leases of the same land for the mining of other minerals with suitable stipulations as to joint operations, in order that full development of the mineral resources may be obtained.

SECTION 8. Relinquishment of Lease. Upon payment of all rentals, royalties and other debts due and payable to the lessor and upon payment of all wages or moneys due and payable to the workmen employed by the lessee, the lessee may, upon a satisfactory showing that the public interest will not be impaired, surrender all or any subdivision or subdivisions of the area included in the lease. In no case will the lease be terminated in whole or in part until and unless the lessee shall have made provision for the preservation of any mines and mineral deposits or productive works or permanent improvements on the lands covered thereby and complied with Section 3(d) hereof. A surrender must be by a relinquishment filed, in triplicate, with the Director, Bureau of Land Management. A relinquishment upon its approval shall take effect as of the date it is filed.

SECTION 9. Removal of Equipment, etc., on Termination of Lease. On termination of this lease, by surrender, forfeiture, or otherwise the lessee shall have the privilege at any time within a period of 90 days thereafter of removing from the premises all machinery, equipment, tools and materials, other than underground timbering placed by the lessee in or on the leased lands, which are not necessary for the preservation of the mine. Any materials, tools, appliances, machinery, structures and equipment, subject to removal as above provided, which are allowed to remain on the leased land shall become the property of the lessor on expiration of the 90-day period or such extension thereof as may be granted by the lessor, but the lessee shall remove any or all of such property when so directed by the lessor.

SECTION 10. Proceedings in case of default. If the lessee does not comply with the applicable regulations made a part hereof or the terms of this lease and such default continues for a period of 30 days after service of written notice thereof by the lessor, the lease may be canceled by the Director, Bureau of Land Management. However, if production has commenced on the

lease, it may be canceled only by appropriate proceedings in a court of competent jurisdiction; but this provision does not apply to leases issued for a period of five years or less which may be canceled in the manner stated above. Furthermore, if the lessee fails to take prompt and necessary steps to prevent loss or damage to the mine, property, or premises, or danger to the employees, the lessor may enter on the premises and take such measures as may be deemed necessary to prevent such loss or damage or to correct the dangerous or unsafe condition of the mine or works thereof, which shall be at the expense of the lessee, but the lessee shall not be held responsible for delays or casualties occasioned by causes beyond the lessee's control.

SECTION 11. Heirs and successors-in-interest. It is further agreed that each obligation hereunder shall extend to and be binding upon, and every benefit hereof shall inure to, the heirs, executors, administrators, successors, or assigns of the respective parties hereto.

SECTION 12. Unlawful Interests. It is also further agreed that no Member of, or Delegate to Congress, or Resident Commissioner, after his election or appointment, or either before or after he has qualified, and during his continuance in office, and that no officer, agent, or employee of the Department of the Interior or of the Department of Agriculture shall be admitted to any share or part of this lease, or derive any benefit that may arise therefrom, and the provisions of Section 3741 of the Revised Statutes, as amended, and 18 U.S.C. 431, 432, and 433, relating to contracts, enter into and form a part of this lease so far as the same may be applicable.

THE UNITED STATES OF AMERICA

By William Zimmerman Jr.
Director, Bureau of Land Management.

WITNESSES TO SIGNATURE OF LESSEE

Lawrence M. Hoze

O. E. Sayers

Lessee.

(The reporting requirements contained in this lease have been approved by the Bureau of the Budget in accordance with the Federal Reports Act of 1942. If this lease is executed by a corporation, it must bear the corporate seal.)

Special Terms and Conditions

A. The permitted shall conduct the operation with respect to the disposal of spoil or waste material in such a manner that silt, rock, debris, dirt, clay and other deleterious matter shall not be washed, conveyed or otherwise deposited into any stream.

B. The permittee shall backfill and grade any spoil banks so as to restore the land to as near its former position as may be practicable as determined by the forest officer in charge.

All exposed beds of rock except those in the high-wall shall be covered at least three (3) feet with earth or spoil.

Regrading shall be done with a view to obliterating the high-wall in so far as it is practicable to do so.

It shall be in compliance with the backfilling and regrading requirements of this section if all exposed earth surfaces are reduced to the angle of repose. In this permit the angle shall be slopes not greater than 66-2/3% or one and one-half ($1\frac{1}{2}$) horizontal to one (1) vertical, unless otherwise directed by the forest officer in charge.

In so far as practicable surface restoration shall be carried on progressively, following immediately after mining operations. It shall be completed within one year from the time mining operations authorized by this permit are completed.

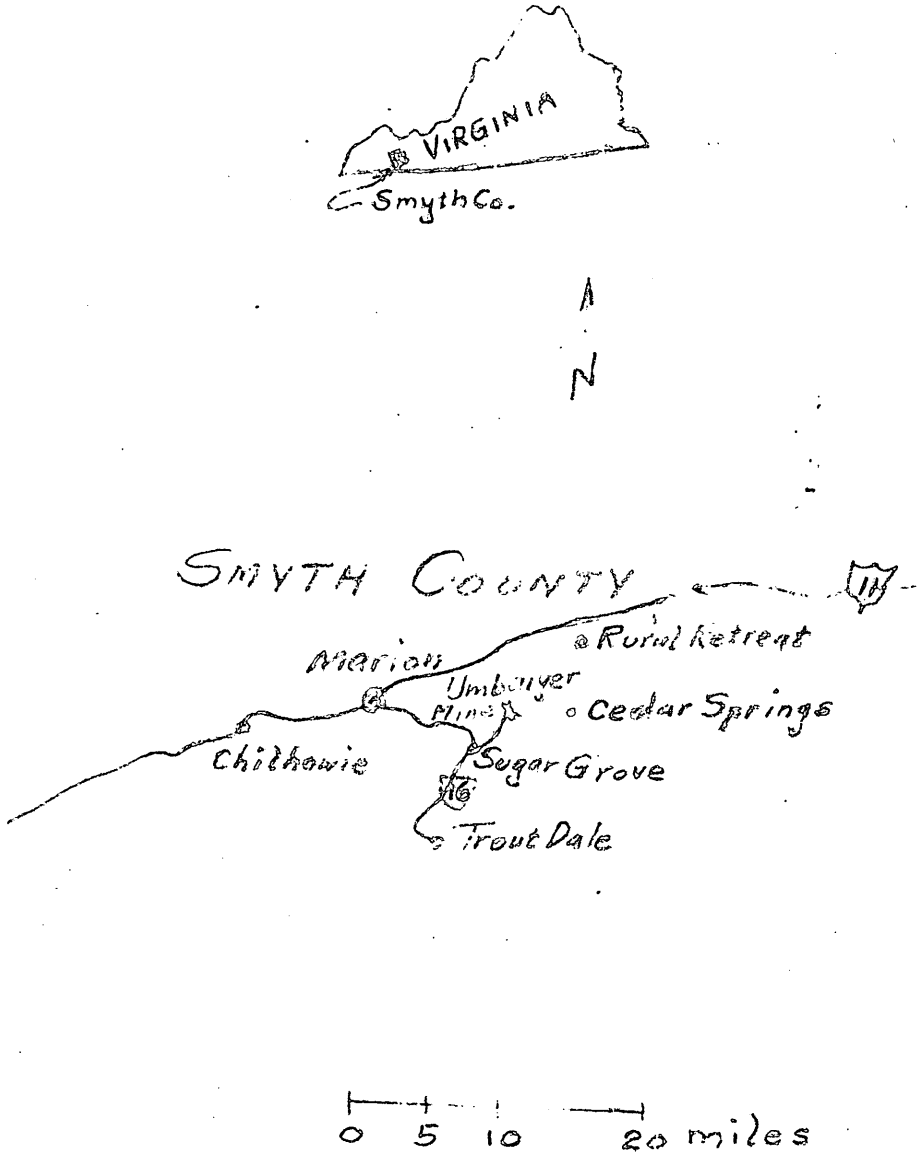
C. As soon as practicable after mining or stripping operations on any portion of said land have been completed, the permittee shall, in cooperation with the Forest Service, United States Department of Agriculture, and as required by the forest officer in charge restore a vegetative cover by planting trees, shrubs, or other plants and seeds, the species, methods, and frequencies of planting to be determined by the forest officer. The permitted shall furnish materials, equipment and labor, including foremanship, and the Forest Services shall furnish general supervision.

D. As a guaranty of faithful performance of the conditions of this lease with respect to the restoration of the surface and revegetation and reforestation of the land, as set forth in paragraphs B and C above, the permittee shall deliver to the Regional Fiscal Agent, U. S. Forest Service, Bankers Securities Building, Philadelphia 7, Pennsylvania, a surety bond, executed by an approved corporate surety, in the sum of $250.00 per acre for each acre or fraction thereof to be mined. Should the surety on the bond delivered or on any bond delivered thereafter for the same purpose become unsatisfactory to the Forest Service, the permittee will within 30 days of receipt of demand from the Forest Service, furnish a new bond with satisfactory surety. In lieu of

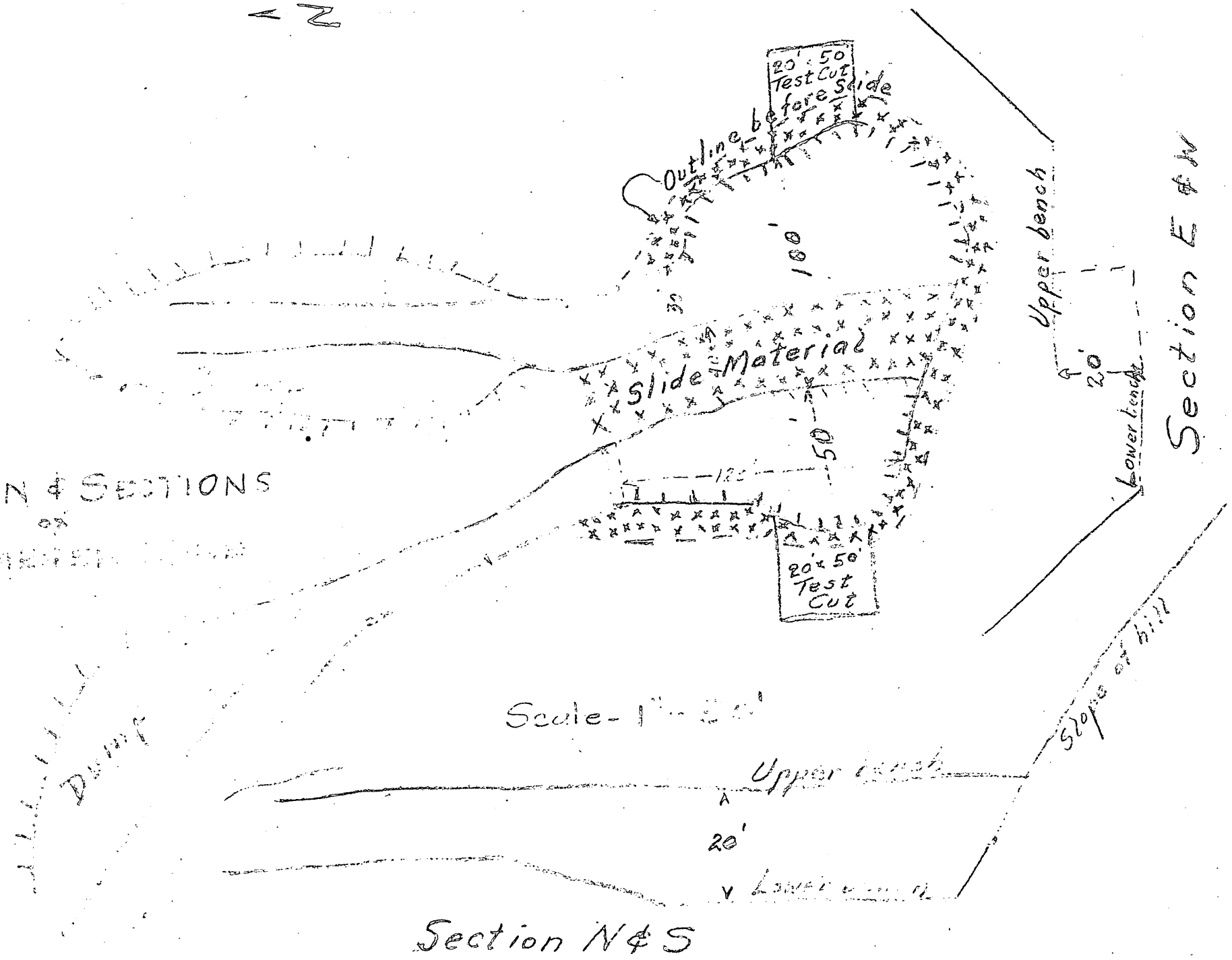
surety bond, the permittee may deposit into a Federal depository, through the Regional Fiscal Agent specified above, cash in the sum of $250 per acre for each acre or fraction thereof to be mined; or he may deposit through the Regional Fiscal Agent with the Treasurer of the United States, a Federal Reserve Bank or branch thereof, certain types of United States bonds or Treasury notes in a sum equal at their par value to the amount of the surety bond or cash deposit otherwise required. As soon as security for the performance of the restoration or revegetation and reforestation or both is no longer necessary, deposits in lieu of surety bond applicable to restoration or revegetation and reforestation or both will be returned to the permittee. The bond of any surety company approved by the Secretary of the Treasury will be acceptable.

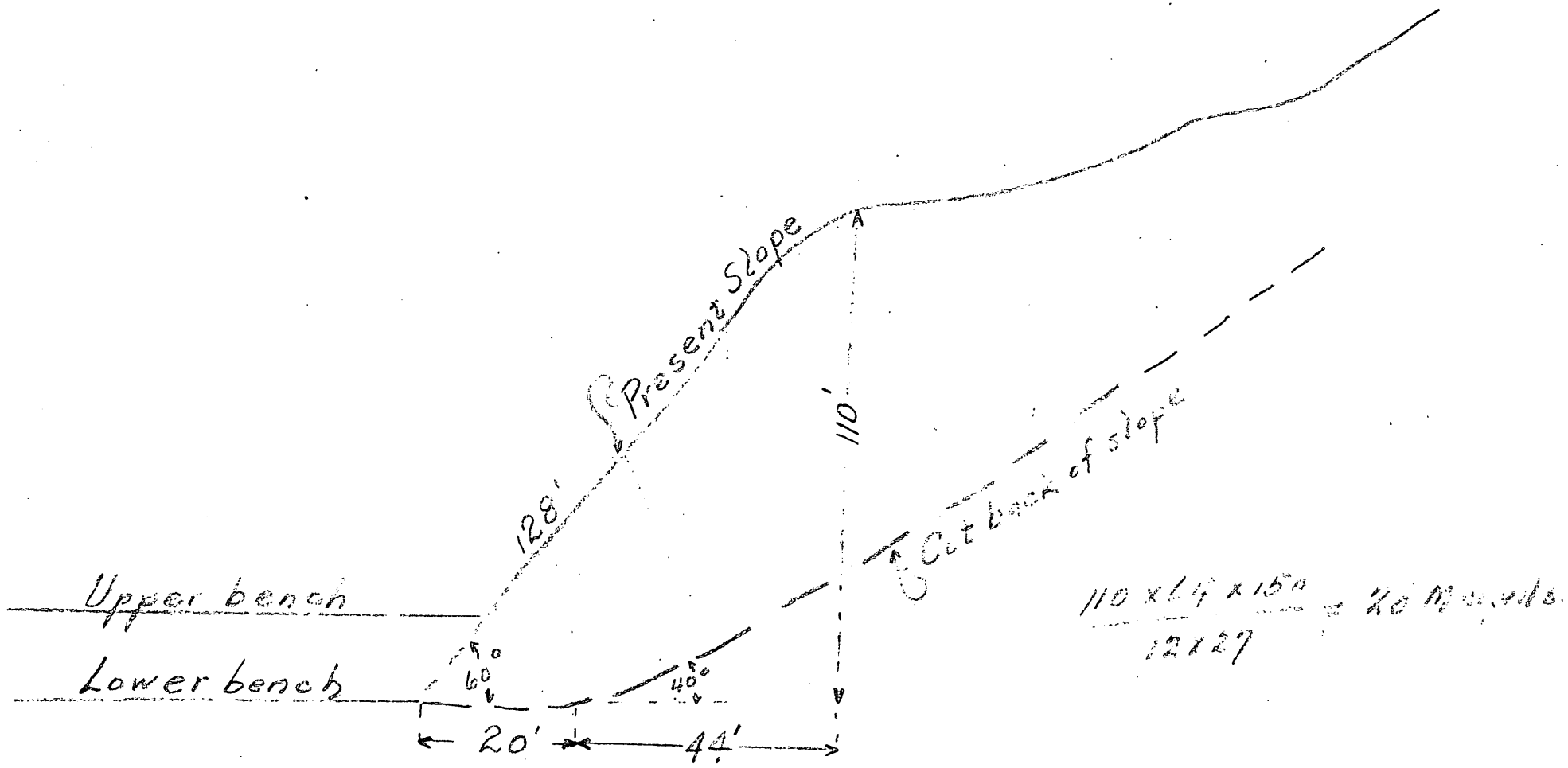
E. In lieu of the performance of the obligation under paragraph C as hereinbefore provided, the permittee, at his option, and if satisfactory to the Forest Service, may enter into a cooperative agreement with the Forest Service to accomplish the revegetation and reforestation for which the permittee is liable, in which event bond as provided in the preceding paragraph will be required in the amount of $150.00 per acre for each acre or fraction thereof to be mined as a guarantee of the performance of the surface restoration work required under paragraph B hereof. Such cooperative agreement shall provide that the permittee will deposit into the Forest Service cooperative work fund an amount estimated to be sufficient to cover the cost of the work as stated in paragraph C, including a charge of 10% for overhead; the amount (or amounts) to be deposited shall be computed at the rate of $100 per acre for each acre or fraction thereof to be mined, which represents the estimated cost of the work of revegetation and reforestation. Funds so deposited shall be available to and shall be used to the extent necessary by the Forest Service for paying the permittee's share of the expense as defined under paragraph C, it being understood that any amount remaining after all such revegetation and reforestation are accomplished to the satisfaction of the forest officer in charge, shall be refunded to the permittee within a reasonable period after termination of the permit.

F. Operations under this permit shall not begin until satisfactory bond has been delivered or until such bond has been delivered and cooperative agreement entered into with the Forest Service as hereinbefore provided.



Location of Umbarger Mine
Smyth County, Va.


N
PLAN & SECTIONS
20' x 50' Test Cut
Outline before Slide
100
Slide Material
50
120
20' x 50' Test Cut
Upper bench
20'
Lower bench
Section E & W
Slope of hill
Dump
Scale-
Upper bench
A
20'
V
Lower bench
Section N & S



N & S Section - Showing Slope Cut-back