DMA Form 1 DMEA-3161

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMA Docket No. DMEA-3161

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 Assistance

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.

1 cy USBM, USGS 1 cy to Region orig. to Docket

Routing Slip

To:	Code 800, Rm. 4640	Date	9-9-53
To:	Oper Comm	Date	9-25-53
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DO NOT DETACH

CONTROLLED DOCUMENT

MD

Office of Minerals Administration
RECEIVED
OCT 1 1953

Sandy, Utah.
September, 25, 1953.

Chief, Operation's Control
and Statistics Division
Defense Minerals Administration
Washington, D.C.

Dear Sir:

Subject: DMEA-3161

In the original application as filed with your office, MF-103 and the supplement thereto, paragraph 3, subsection (f) regarding applicant's property rights, I wish to add the following information so as to complete the record:

Horn Venture No.3 claim is recorded as of 10:45 A.M. on the 31 Aug. 1953, Johnson County courthouse, Buffalo, Wyoming, on page 616 of Book 70.

Horn Venture NO.4 claim is recorded at the same time, the same place, the same book but on page 617, as the Horn Venture No. 3 as listed above.

I am enclosing this missle in quadruplicate so that it may be added to the application DMEA-3161.

Thank you.

Sincerely,

Arlin Davidson

ARLIN DAVIDSON dba
Absoraka Rare Minerals Company
Box 157, Route 2.
Sandy, Utah

Sandy, Utah.
September, 25, 1953.

Chief, Operation's Control
and Statistics Division
Defense Minerals Administration
Washington, D.C.

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Subject: DMEA-3161

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ARLIN DAVIDSON dba
Absoraka Rare Minerals Company
Box 157, Route 2.
Sandy, Utah

Sandy, Utah.
September, 25, 1953.

Chief, Operation's Control
and Statistics Division
Defense Minerals Administration
Washington, D.C.

Dear Sir:

Subject: DMSA-3161

In the original application as filed with your office, MF-103 and the supplement thereto, paragraph 3, subsection (f) regarding applicant's property rights, I wish to add the following information so as to complete the record:

> Horn Venture No.3 claim is recorded as of 10:45 A.M. on the 31 Aug. 1953, Johnson County courthouse, Buffalo, Wyoming, on page 616 of Book 70.
>
> Horn Venture NO.4 claim is recorded at the same time, the same place, the same book but on page 617, as the Horn Venture No. 3 as listed above.

I am enclosing this misle in quadruplicate so that it may be added to the application DMSA-3161.

Thank you.

Sincerely,

Arlin Davidson

ARLIN DAVIDSON dba
Absoraka Rare Minerals Company
Box 157, Route 2.
Sandy, Utah

mea

FILE COPY
SURNAME:

Ching
Ellis
Kubel
~~Hagen~~
Selfridge

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

SEP 25 1953

Arlin Davidson d/b/a
Absaraka Rare Minerals Company
Box 157, Route 2
Sandy, Utah

Re: Docket No. DMA-3161 (Thorium)
Horn Venture Mine
Johnson County, Wyoming

Dear Mr. Davidson:

Your application for aid in an exploration project docketed under the above number has been thoroughly reviewed by this Agency.

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

A careful study of your proposal, together with all information available from other Government sources, indicates to us that the probability of disclosing minable ore reserves of acceptable grade by your proposed exploration program is not sufficiently promising to justify Government participation.

We regret that under these circumstances your application for exploration aid to the extent of 90% of $72,220.00 must be denied.

Your interest in the exploration program of the Defense Minerals Exploration Administration and your willingness to participate therein are appreciated.

Sincerely yours,

Frank E. Johnson
ACTING Administrator

DENIED

MChing/db
9-23-53
cc to: Adm. Reading File
Operating Committee
Docket
Messrs: H.D.Keiser, Rm. 3641
A.P.Butler, Jr., Rm.3212, GSA
Ellis
Ching
DMEA Field Team, Region IV (2), with two enclosures each from USBM and USGS Commodity Members' comments, dated Sept. 10 and 15, 1953, respectively.

R.C.G. 9-25-53

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

September 22, 1953

SUMMARY OF PROPOSED PROJECT

Docket No. DMEA-3161
Applicant: Arlin Davidson, d/b/a Absoraka Rare Minerals Co., Box 157, Route 2, Sandy, Utah

Subject: Denial of application, without referral to Region.
Location of property: Johnson County, Wyoming -- Region IV
Amount of application: $72,220.00
Date of application: September 3, 1953

Outline of project: The applicant proposes to explore by by drilling, sinking, drifting, and trenching allanite bearing granite.

Commodity Members' Comments:

Bureau of Mines - E. J. Carlson, dated Sept. 10, 1953

"The mineral allanite has a specific gravity of 2.7 to 4.2, depending upon the amount of hydration. With this low and variable specific gravity, it would be very difficult to concentrate. The rare-earth oxide content of the mineral varies from about 12 percent to as high as 50 percent. No domestic processors of rare earths are reported to be interested in processing allanite, with a probable average rare-earth oxide content of 25 percent, considering that supplies are available of monazite and bastnaesite containing over 60 percent rare-earth oxides. Besides, allanite contains considerable iron and calcium which makes processing more costly.

"The thorium content, reported by the applicant, is 1 percent for the decomposed granite and almost 3 percent for the allanite. Domestic monazites, analyzed by our laboratories, run from 3.2 to over 9 percent thoria, and monazite can be readily concentrated and processed. For the above-mentioned reasons it is recommended that the application be denied -- unless the AEC expresses their interest in having thorium exploration work conducted."

Commodity Members' Comments (continued):

Geological Survey - Arthur P. Butler, Jr., dated September 15, 1953.

The mineral allanite for which the applicant proposes to explore is a rare earth and thorium bearing aluminum iron magnesium silicate. Thorium content ranges up to about 3 percent, rather less than that in most monazite. Because of the greater difficulty of using allanite rather than monazite as a source of thorium and rare earths, and the absence of established facilities for using allanite, Mr. Butler concurs with Mr. Carlson in recommending that this application be denied unless the U. S. Atomic Energy Commission expresses an interest to DMEA in having explored possible thorium resources of this type.

Rare & Misc. Metals Division - Michael Ching

Comments:

The subject application for aid in exploring for thorium must be appraised in the light of economic considerations and strategic requirements. The thorium is found principally in the mineral allanite and both Mr. E. J. Carlson and Mr. Arthur P. Butler, Jr. are agreed that it is more difficult to utilize allanite in comparison with monazite as a source of thorium and that allanite is not reported as being used commercially for the production of thorium.

In the area of strategic requirements the following quotation from a letter dated September 14, 1953, to the Lindsay Chemical Company from Mr. R. L. Faulkner, Acting Director, Division of Raw Materials, Atomic Energy Commission, is pertinent:

> "Procurement arrangements which we now have for thorium seem adequate to supply our foreseeable needs, and it does not appear that we should now arrange for additional supplies from new sources."

In view of the foregoing, it is recommended that the subject application be denied without referral to the Field Team.

Ernest Wm. Ellis

Ernest Wm. Ellis, Chief
Rare & Misc. Metals Division

STANDARD FORM NO. 64

9/17/53 gla

Office Memorandum • UNITED STATES GOVERNMENT

TO : E. Wm. Ellis, DMEA Member, Uranium Commodity Committee

DATE: September 15, 1953

FROM : Arthur P. Butler, Jr., USGS Member, Uranium Commodity Committee

SUBJECT: Application, DMEA Docket 3161 (thorium), Arlin Davidson, Absoraka Rare Minerals Co., applicant, Box 157, Route 2, Sandy Utah, Horn Venture 2, 3, and 4 Claims, sec. 31, T. 47 N., R. 85 W., and sec. 6, T. 46 N., R. 85 W., Johnson Co., Wyo.

The application for Government assistance to explore the property identified above has been reviewed and discussed with H. D. Keiser, Bureau of Mines member, Thorium Commodity Committee, and J. O. Hosted, Atomic Energy Commission.

The applicant proposes to explore by drilling, sinking, drifting, and trenching allanite bearing granite at a total proposed cost of $72,220.

The mineral allanite for which the applicant proposes to explore is a rare earth and thorium bearing aluminum iron magnesium silicate. Thorium content ranges up to about 3 percent, rather less than that in most monazite. E. J. Carlson, Bureau of Mines, has written a memorandum on this docket pointing out the difficulties of utilizing allanite in comparison with monazite as a source of thorium and rare earths and that allanite is not at present being used commercially as a source of these elements.

Recommendations

Because of the greater difficulty of using allanite rather than monazite as a source of thorium and rare earths, and the absence of established facilities for using allanite, I concur with Mr. Carlson in recommending that this application be denied unless the U. S. Atomic Energy Commission expresses an interest to DMEA in having explored possible thorium resources of this type.

Arthur P. Butler, Jr.

Copies to: E.W. Ellis (2)

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

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

Not to be filled in by applicant

Docket No. DMEA-3161
Metal or Mineral
Date Received 9-9-53
Estimated Cost
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Arlin Davidson dba
Absoraka Rare Minerals Co.
Box 157, Route 2.
Sandy, Utah.

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

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

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

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

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

(*b*) State any mine name by which the property is known. Horn Venture

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

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

(*e*) If you own the land, describe any liens or encumbrances on it ~~See exhibit "A".~~

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. Recorded at Johnson County Courthouse, Buffalo, Wyo., Official mining records, Book 67 on page 247.

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

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

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

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

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

16—66551-1

See paragraph 4 on enclosed sheet.

5. *The exploration project.*—(*a*) Sta[illegible]e mineral or minerals for which you wish t[illegible]plore Thorium

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

(*c*) The work will start within 15 days and be completed within 10 months from the date of an exploration project contract.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated 3RD DAY OF SEPTEMBER, 1953

Absoraka Rare Earths Co
(Applicant)

By Arlin Davidson
ARLIN DAVIDSON

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

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

ARLIN DAVIDSON dba
Absoraka Rare Earths Co.
Box 157, Route 2.
Sandy, Utah.

(Supplement to M P-103)

3. (a).
A tract of land 600 feet wide and 4500 feet long, being 300 feet on each side of a centerv line running N. 62 00' W. 200 feet; and S. 62 00' E. from point "A" which is located 40 feet east and 395 feet north from the south quarter corner of Section 31 Tp. 47 N. Rg. 83 W. 6th P.M., said point "A" being located in Lot 2 of Section 6, Township 46 N., Rg. 83 W. 6th P.M. This described parcel of ground consists of three mining claims which are connected, one to another and are known as Horn Venture No. 2., Horn Venture No. 3., and Horn Venture No. 4.

4. (a).
There has been no mining operations upon this ground.

Exploration work upon this ground consists of 2 shallow hand dug trenches and 4 bulldozer dug trenches across the face of the Allanite (Thorium) minerals. The trenches range from 2 feet to 8 ft in depth and all but one have intercepted the Allanite minerals. All such trenched are on or near point "A" in the above description, and thusly would be at the center of the NW end of the claims.

Such workings are included with the claims.

These exploration pits are accessible for examination purposes. A good ranch-type road goes right to them. This road is assessable the year round except during and immediately after a snow storm. Usually the months of March and April are not the best as far as weather goes, in this vicinity. This ranch type road is 15 miles in lenth after leaving the oiled highway above Buffalo.

(b).
There is no past or current production from these claims and any ore reserves are unknown. Such Allanite minerals as are exposed run from 1% to 3 1/2% Thorium.

(c).
This deposit occurs as an intrusive dike or as an area between two intrusive dikes, standing almost if not straight up and down and running in a Nothwesterly to Southeasterly direction. As this deposit has been harder than the surrounding ground ; it is now the top of a hogs bank, so typical of the Big Horns. The Allanite is not yet in a solid state but is mixed together with a yellow colored decomposed granite; this decomposed granite runs about 1% thorium while the Allanite itself runs almost three times as high. On the southwesterly side and immediately adjacent to it is a 5 ft. Fe dike and on the oposite side and again immediately adjacent to the Allanite is a titantium- iorn lead. The country rock on both sides is a Sanidine quartz

Arlin Davidson dba
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Box 157, Route 2.
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4. (c) cont.
Reason I wish to explore is to determine the depth of the deposit as well as to its lenth, to establish or disprove this property as to a source of thorium. Several Atomic Energy Engineers as well as Bureau of Mines men have examined the property. They have all reccomended that this exploratory aid be sought.

On the west end these claims join the old (patended property) Emerald Park Titantium mine. They are also paralell to and roughly a quarter mile south of the Ramsbottom Copper mine. About one half mile west is the Tungsten deposit (scheelite) which is located on Wyoming School ground. All of these deposits occur along the fault locally known as the horn (of Powder River).

(d)
This project is accessable the year round except during and immediately after a winter snow storm. The months of March and April are apt to be fairly stormy. The last three winters (they are usually open until toward spring) men have spent the winter on these claims; working on them and on the tungsten.

Supply and residence points are Buffalo, Wyoming, which is 30 miles away by road. Fifteen miles of this distance is an all year oiled road., 4 miles is an improved Forest Service graveled highway and the balance is the common Wyoming ranch-type of roads. They go right to the property. The shipping point would also be Buffalo, Wyoming.

(e)
Water is adjacent to these claims, both a small creek and there is a stream of water coming from the old Emerald Park tunnell.
Materials and supplies are available at Buffalo, or a few miles farther at Sheridan, Wyoming's third largest city.
Manpower and equipment is available for this project. Most of the equipment would be sent in from the mining regions of the west, perhaps Salt Lake City, Utah.
Power would be furnished by internal combustion engines. They are available.

5. (a)
In addition to thorium allanite is also of interest because of the other rare earths it contains.

(d)
The applicant has had years of mining and milling experience, most with gold rock, (Falls Creek Mining Co., Gold Producers Inc and the Lemhi Floatation Company, all in the Salmon, Idaho region. The applicant is a liscensed contractor in the state of Utah. During World War II the applicnt had charge of all Engineering heavy equipment with the First US Army in Europe where he was also an Engineer Unit Commander. With such a backgroung the applicant can successfully carry out the exploration project.

The applicant will take direct charge of all work on the exploration project.

Arlin Devidson dba
Absoraka Rare Earths Co.
Box 157, Route 2.
Sandy, Utah.

(Supplement to M F-103) page 3

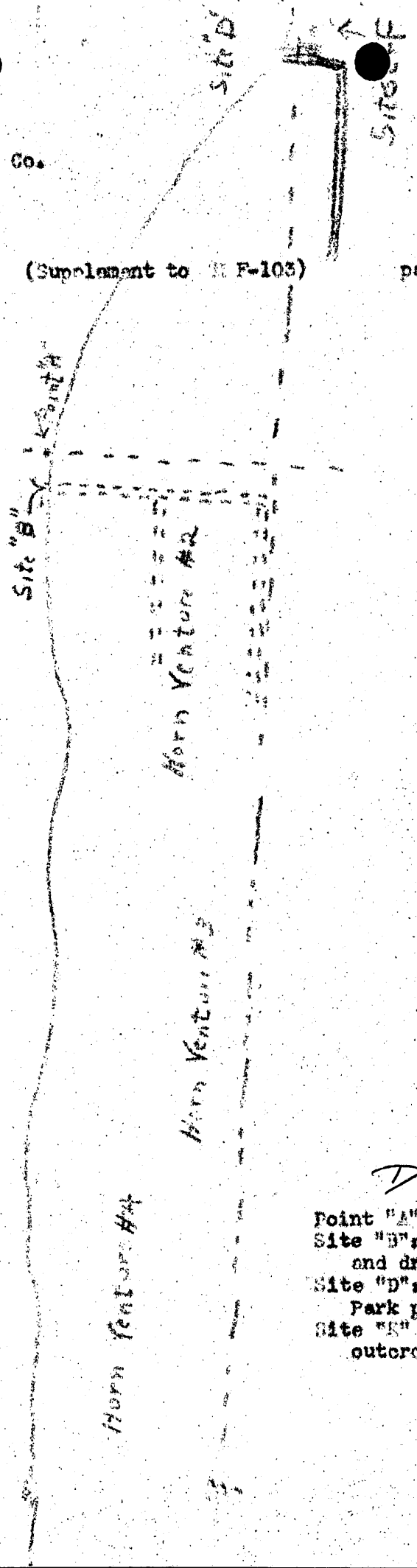
5. (b).

DMEA-3161

Point "A" as in legal description.
Site "B": Proposed location for shaft and drifts for exploratory purposes.
Site "C" Ramsbottom Copper mine.
Site "D" Shaft and tunnels on the Emerald Park titantium mine.
Site "E" & "F" are thorium outcropings on the Emerald Park property. The Emerald Park tunnel is about 100, ft off line of the thorium deposit.

Arlin Davidson dba
Absoraka Rare Minerals Co.
Box 157, Route 2.
Sandy, Utah.

(Supplement to R F-103) page 4.



DMEA-3161

Point "A" as on legal description.
Site "B": Proposed location for shaft and drifts for exploratory work.
Site "D": Shaft and tunnels on Emerald Park property.
Site "E" & "F": Other known thorium outcroppings.

Arlin Davidson dba
Absoraka Rare Earths Co.
Box 157, Route 2.
Sandy, Utah.

(Supplement to F-103) page 5

5. (b).

The proposed work of exploring this property would consist of:

1. 5,000 ft of core drilling to explore the thorium deposits at moderate depths from Point "A" on through the claims where that radio-activity or thorium bearing ores are known or found to exist. At this time, the places along the strike of the thorium bearing ores where it intended that this core drilling be done are not shown on the chart. It is felt that additional work with a scintillator can well be done before staking out core drill holes location. And again, it is felt that if advise along this line can be obtained from the Engineers of the Bureau of Mines or the Atomic Energy Commission, that such should be fully considered in view of experience in such matters. Otherwise the Applicant would stake the core drill hole locations from radio-activity and from the advise of his geologist and his engineer. Again it is felt that the exact locations of some of the holes could be better determined from the results obtained in some of the first core drill hol locations.

2. At Site "B", about 25 feet southeasterly from Point "A" of the description, it is proposed to sink a 200 ft shaft with drifts of a total of 300 ft in lenth on each of two levels; the 100 ft. level and the 200 ft. level. Site "B" is definetly on thorium bearing ores at present. The bottom of this 200 ft shaft would not be as low as the bottom of the nearby Emerald Park shaft but should be enough to thoroughly test the ores at depths up to this range.

3. To test all thorium be ring ores obtained, both in the laboratory and pilot plant to design a plant suitable for the economic concentration or extraction of the cont ined thorium, in order that it might be added to the nation al stockpile of this so vatally needed material.

6. (Estimate of Costs)

(a) Independent contracts

Core drilling .. AX size 5,000 lineal ft $6.50 per ft
total cost. ..... $ 32,500.00

(b) Labor, Supervision, Consultants;

2 miners	$18.00	per diem
2 muckers	15.00	do do
1 timberman	15.00	do do
1 Engineer	850.00	total
1 Geologist	850.00	total.

13,200.00 QP
~~16,200.00~~

(c) Operating materials and supplies.

(continued on next sheet).

Arlin Davidson dba
Absoraka Rare Earths Co.
Box 157, Route 2.
Sandy, Utah.

(Supplement to M P-103) page 6

6. (c). Operating materials and supplies con't.

Fuel	$3,000.00	$3,000.00	
Powder, fuse, caps etc.		3,000.00	
Replaceable drill bits		3,000.00	
Timber		1,000.00	
			$10,000.00

(d) Operating equipment:

To be purchased:

1	320 cu ft potable compressor	$2,500.00	
1	Air motored hoist	1,000.00	
1	shop truck with 20 ft bed	500.00	
1	Scintilator	650.00	
1	jackhamer, 1 liner with hoses	1,000.00	
3	mine cars	200.00	
	relaying rails	300.00	
	air pipe and reciever	500.00	
1	chain saw	350.00	
1	3/4 ton Willys truck	2,000.00	

To be rented

1	2-wheeled house trailer at $90.00 per month for 8 months	720.00	

To be furnished by applicant

1	Delco light plant	at $1.00 per [illegible]	10.00	
1	Comansco saw	20.00	200.00	
				$9,930.00

(e) Rehabilitation and repairs

Repairs to light plant and replacement of batteries.	$100.00	
		$100.00

(f) New installations none

(g) Miscellaneous

Accounting	$100.00	
Ins., pauroll taxes	1690.00	
Repairs in general	1000.00	
		$2,790.00

(h) Contingencies

	$2,000.00	
		$2,000.00

.....

Total $72,220.00

Arlin Davidson dba
Absorake Rare Earth s Co.
Box 157, Rt. 2.
Sandy, Utah.

(Supplement to M F-103) page 7

7. (b).

Applicant proposes to furnish his share of the proposed project in the following manner:

To furnish the timber	1,000.00
Rented equipment	240.00
Labor, 240 shifts at $18.00 per shift	4,320.00
Cash	1,662.00
total	$7,222.00

With the proviso included that in case I could not find it adviseable to work that many shift that the applicant could advance the equal amount of cash instead.

MINING LEASE

THIS AGREEMENT made and entered into this August 20, 1955, by and between [illegible] MINING COMPANY, a mining partnership composed of Orville T. Christensen, L. A. Halstead, and Vance E. Sackett, Post Office Address, Box 165, Thermopolis, Wyoming, Lessor, and ARTHUR LAWRENCE, of Sandy, Utah, Lessee, WITNESSETH:

WHEREAS the Lessor is the owner of certain unpatented mining claim or claims which are hereinafter described, and

WHEREAS the actual values of the earths and ores contained in said lands are of undetermined value at this time and they cannot be feasibly determined until additional work, both in the field and in the laboratory is accomplished, and

WHEREAS the values of the earths and ores contained in such mineralized state on such lands as far as known to the parties have not been and are not now in commercial production.

NOW THEREFORE in consideration of one dollar in hand paid and of the royalties, convenants and agreements hereinafter provided to be paid, kept and performed by the Lessee, the Lessor does hereby lease to the Lessee the following described property and premises, to wit:

> A tract of land 600 feet wide and 1500 feet long, being 300 feet on each side of a center line running N. 62°00' W. 200 feet; and S. 62°00' W. from the discovery shaft which is located 40 feet east and 395 feet north from the south quarter corner of Section 31 Tp. 47 N. Rg. 85 W. 6th P.M., said claim being located in Lot 2 of Section 6, Township 46 N., and in S½ of Section 31, Township 47 North, Range 85 West 6th P.M., said claim being known as the Horn Venture No. 2, and the Location Notice thereof is recorded in the official Mining Records of Johnson County, Wyoming in Book 67 at page 247.
> Also two additional claims lying southeasterly from the Horn Venture No. 2 Claim and which are known as the Horn Venture No. 5 and Horn Venture No. 6 Claims, which said claims have been located but have not yet been recorded.

for a term of six (6) years expiring August 20, 1961, unless sooner forfeited through violation of any covenant herein contained, provided that said term may be extended for an additional four (4) years if said mine is in actual operation at the termination of said initial term.

IN CONSIDERATION OF THE PREMISES AND AGREEMENTS HEREIN CONTAINED, IT IS MUTUALLY AGREED:

1. Lessee to the Lessor the above described Horn Venture No. 2 Claim, and also the Horn Venture No. 5 and No. 6 Claims, providing the Lessor is able to establish and acquire title to said two additional claims, the

Orlin Davidson dba Absaroka Rare Earths Co

Exhibit "A"

agreed purchase price being at the rate of fifty thousand dollars ($50,000.00) for each of said claims, all royalty which shall have been paid under the terms of this lease to apply on said purchase price.

2. To keep the premises free of lien except the U.S. Government liens for the development and testing of said property.

3. To defend the title to said mining property and assure the Lessee of peaceable possession thereof, and to do and perform all things necessary to establish and maintain said mining claims in legal conditions.

4. To furnish an abstract of title showing good and merchantable title to said mining property, in the event the same is purchased by the Lessee, and to convey the same to the purchaser by good and sufficient deed.

5. To cooperate with the Lessee and with the United States Government in any program or plan of development and to execute such papers or other instruments as may be necessary in connection therewith, and particularly to execute the "Owner's Consent to Mine", which said waivers are a part of this agreement.

IN CONSIDERATION OF THE FOREGOING THE LESSEE HEREBY AGREES:

1. To pay and deliver to said Lessor as royalty ten percent (10%) of the net value of all earths and ores extracted from said premises during the term of this lease. Net value means the proceeds of earth or ore sold less the costs of transportation from mine to smelter or sampler, and sampling and assaying charges. All such royalty shall be paid on a monthly basis and shall be paid on or before the 10th day of each month immediately following the month in which such earths or ores are delivered to the mill or refinery. It is anticipated that it may not be possible to ship earth or ore to the refinery during the winter months on account of road conditions but in event of such interruption of transportation that as soon as road conditions permit the Lessee will ship a part of said ore and ore to the mill or refinery.

2. To conduct, expeditiously, both by himself and from commercial sources and methods to find and arrive at a commercially economic method to extract and market earths and ores which are believed to exist on said premises and to develop such earths, ores and resources.

3. To take possession of said premises for testing, developing, exploring and mining, either with or without Government exploratory aid.

4. To apply for and if possible obtain a Governmental exploratory aid contract, and upon such approval, or if such approval is denied, to commence exploration and/or mining and to maintain minimum of 40 shifts per month or

450 shifts per year, all such work to be done in a good and workmanlike manner, and in any event such work shall commence not later than June 15, 1954. Provided that in case of severe winter and snow conditions which make it impossible or economically impracticable to operate said mine during the winter months that the Lessee may discontinue mining operations for such period but that in any event that the full number of shifts above provided shall be worked before the expiration of the anniversary date of said lease, herein August 25th of each year.

5. To timber the mine when necessary at his own expense.

6. To allow the Lessor or its agents access to said premises and any mine developed thereon for the purpose of inspection at all reasonable times, and to furnish duplicate settlement sheets or such other data as may be necessary or requested by the Lessor to ascertain the amount of earth, ores or minerals produced from said premises.

7. To keep the properties free from liens except the governmental lien which is made a part of this contract.

8. To pay, when due, all taxes lawfully assessed and levied under the laws of the State of Wyoming upon improvements and earth, ore or minerals produced from the leased premises hereunder.

GENERAL CONDITIONS:

1. This agreement and the conditions and stipulations herein contained shall extend to and bind and shall inure to the benefit of the heirs, administrators and assigns of the respective parties hereto, and it is expressly agreed that the same may be assigned or transferred by either party hereto.

2. That in case of the failure or refusal of the Lessee to do and perform any or all of the covenants herein contained for the Lessee to perform and such default shall continue for more than 30 days after the Lessee has been notified thereof in writing then the Lessor at its option may declare this contract void and thereupon re-enter and take possession of said property and premises, including any improvements which are situate thereon and which shall be deemed to be a part of the leased premises and thereupon the Lessee shall immediately surrender peaceable possession of said property and premises and shall execute and file for record a release and cancellation of this lease and should he fail to do so he shall be liable for any and all damages caused by his holding over and for all costs recovering

possession of said premises and of clearing said lease from record, including court costs and reasonable attorney fees. Provided, however, that in the event said lessors do not exercise as above provided prior to the expiration of the regular term and said lessee offers said property and premises for sale at any time prior to the expiration of said regular term then they shall first notify the lessee in writing of their intention to sell the same and of the price which they demand for said property or the price which has been offered to them by some bona fide prospective purchaser and which is acceptable to the lessors, and thereupon the lessee shall have the first right and option to purchase said property at such price so demanded or offered but that if they fail to send such price and terms within a period of ten (10) days after being notified by said the Lessors shall be free to sell said property.

WITNESS the hands of the parties the day and year first above written.

JOHNSON COUNTY

By Orville P. Christensen
M. R. Halstead
Vance E. Sackett

Executed in the presence of:

Joan F. Hayes Arlin Davidson

STATE OF UTAH }
County of Johnson } ss.

On this August 20, 1953, before me personally appeared Orville P. Christensen, Vance E. Sackett and M. R. Halstead, being the members of the partnership firm of Corn Venture Mining Company, and Arlin Davidson to me known to be the persons described in and who executed the foregoing instrument and acknowledged that they executed the same as their free act and deed.

Notary Public

My commission expires April 12, 1954.

MF-203

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of Wyoming, County of Johnson, described as follows:1/ That certain lode mining claim known as the Horn Venture No. 2 Claim, said claim being located in Lot 2 of Section 6, Tp. 46 N. and S½S½ of Section 31, Tp. 47 N.Rg.85 W.6th P.M. and the Location Notice thereof being recorded in Book 67 Mining Records page 247 of the official records of Johnson County, Wyoming. Also two additional claims (the Location Notices thereof not yet being recorded) lying southeasterly from the above claim and known as the Horn Venture No. 3 and No. 4 Claims.

which is the subject of a proposed exploration project contract, hereinafter called the "contract", between the United States of America, hereinafter called the "Government", and

2/ Arlin Davidson

hereinafter called the "Operator"; and

WHEREAS, under certain provisions of said contract which are set forth on the reverse side hereof, the Government is entitled to a percentage royalty on production and to certain other rights and equities which do or may conflict with or be adverse to the interest of the undersigned in said property;

NOW THEREFORE, the undersigned, in consideration of said contract and as an inducement to the Government to enter into same, undertakes and agrees as follows:

1. The Government's equity in and right to dismantle, sever, take possession of, and remove and dispose of facilities, buildings, fixtures, equipment, or other items as provided in the contract, or any amendment thereof, shall prevail over and be prior and superior to any conflicting or adverse rights of the undersigned, and the Government is authorized to enter upon the land for such purposes.

2. To secure the payment to the Government of the percentage royalty on production3/ provided for under the terms of said exploration project contract, or any amendment thereof which does not increase the maximum amount of the Government's claim here stated or alter the provisions for repayment, there is hereby granted to the Government a lien upon the land herein described and upon any production of minerals therefrom, until the royalty claim is fully paid in the amount of the Government's contribution, not in excess of 4/$ 65,000.00, or ten years have elapsed from the date of the contract.

3. The undersigned shall commit no act nor assert any claim that may contravene or conflict with the lien, claim, or rights of the Government under the provisions of said contract. This agreement shall be binding upon the heirs, executors, administrators, successors, and assigns of the undersigned.

Dated this 26th day of August, 195 8.

Orville P. Christensen [Seal]

M. R. Halstead [Seal]

Vance E. Lockhart [Seal]

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

2/ Insert the name of the Operator as it will appear in the exploration project contract.

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

4/ Insert the maximum amount of the Government's contribution.

RELEVANT CONTRACT PROVISIONS

Repayment by Operator. (a) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than six months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) per cent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) per cent of any such net amounts, plus one-half (½) per cent such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) per cent of such net amounts.

(For instance: the percentage royalty on a net amount of five dollars ($5.00) per ton, would be one and one-half (1½) per cent; on a net amount of ten dollars ($10.00) per ton, three and one-half (3½) per cent.)

(b) As here used, "net smelter returns", "net concentrator returns", and "other net amounts realized from the sale or other disposition", mean gross revenue from sales; or if not sold, the market value, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be gross income from mining operations for percentage depletion purposes in income tax determination.

(c) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(d) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

Title to and disposition of property. All facilities, buildings, fixtures, equipment, or other items costing more than $50.00 each, paid for or purchased with funds contributed jointly by the Operator and the Government, although title may be taken in the name of the Operator, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the completion of the work or the termination of the contract shall be disposed of promptly by the Operator for the joint account of the Government and the Operator, either by return to the vendor, by sale to others, or purchase by the Operator at a price at least as high as could otherwise be obtained, as may appear to be for the best interest of the Government, unless the Government, in writing, waives its interest in any such item. If necessary to accomplish such disposition, the Operator shall dismantle, sever from the land, and remove any such item, the cost thereof to be for the joint account of the parties in proportion to their respective interests. If the Operator, within 90 days after the receipt of written notice from the Government, fails, neglects, or refuses to dispose of such property, the Government may itself enter upon the land, take possession of, and remove and dispose of any such property as above provided.

9/11/53 gla

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
(Denver)
SEP 10 1953

September 10, 1953

Memorandum

To: Ernest Wm. Ellis, Chief, Rare and Misc. Metals Division, D. M. E. A., Room 4640

From: E. J. Carlson, Commodity-Industry Analyst, Rare and Precious Metals Branch

Subject: Docket No. DMEA-3161, application of Arlin Davidson, Absoraka Rare Minerals Co., Horn Venture Mine in Johnson County, Wyoming

The subject application, requesting funds to investigate an intrusive dike for thorium contained in the mineral allanite, has been received by this office.

The mineral allanite has a specific gravity of 2.7 to 4.2, depending upon the amount of hydration. With this low and variable specific gravity, it would be very difficult to concentrate. The rare-earth oxide content of the mineral varies from about 12 percent to as high as 50 percent. No domestic processors of rare earths are reported to be interested in processing allanite, with a probable average rare-earth oxide content of 25 percent, considering that supplies are available of monazite and bastnaesite containing over 60 percent rare-earth oxides. Besides, allanite contains considerable iron and calcium which makes processing more costly.

The thorium content, reported by the applicant, is 1 percent for the decomposed granite and almost 3 percent for the allanite. Domestic monazites, analyzed by our laboratories, run from 3.2 to over 9 percent thoria, and monazite can be readily concentrated and processed. For the above-mentioned reasons it is recommended that the application be denied -- unless the AEC expresses their interest in having thorium exploration work conducted.

E. J. Carlson

E. J. Carlson

EJC

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

September 10, 1953

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Signed

E. J. Carlson

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

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

Not to be filled in by applicant

Docket No. DMEA-3161
Metal or Mineral
Date Received 9-9-53
Estimated Cost
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Arlin Davidson dba
Absoraka Rare Minerals Co.
Box 157, Route 2.
Sandy, Utah.

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

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

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

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

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

(*b*) State any mine name by which the property is known. Horn Venture

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

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

(*e*) If you own the land, describe any liens or encumbrances on it See exhibit "A".

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. Recorded at Johnson County Courthouse, Buffalo, Wyo., Official mining records, Book 67 on page 247.

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

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

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

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

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

16—66551-1

See paragraph on enclosed sheet.

5. *The exploration project.*—(*a*) [redacted]e the mineral or minerals for which you wi[redacted] explore Thorium

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

(*c*) The work will start within 15 days and be completed within 10 months from the date of an exploration project contract.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated 3rd day of September, 1953

Absoraka Rare Earths Co.
(Applicant)

By Arlin Davidson
ARLIN DAVIDSON

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

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

ARLIN DAVIDSON dba
Absoraka Rare Earths Co.
Box 157, Route 2.
Sandy, Utah.

(Supplement to M F-103)

3. (a).
A tract of land 600 feet wide and 4500 feet long, being 300 feet on each side of a centerv line running N. 62 00' W. 200 feet; and S. 62 00' E. from point "A" which is located 40 feet east and 395 feet north from the south quarter corner of Section 31 Tp. 47 N. Rg. 83 W. 6th P.M., said point "A" being located in Lot 2 of Section 6, Township 46 N., Rg. 83 W. 6th P.M. This described parcel of ground consists of three mining claims which are connected, one to another and are known as Horn Venture No. 2., Horn Venture No. 3., and Horn Venture No. 4.

4. (a).
There has been no mining operations upon this ground.

Exploration work upon this ground consists of 2 shallow hand dug trenches and 4 bulldozer dug trenches across the face of the Allanite (Thorium) minerals. The trenches range from 2 feet to 8 ft in depth and all but one have intercepted the Allanite minerals. All such trenched are on or near point "A" in the above description, and thusly would be at the center of the NW end of the claims.

Such workings are included with the claims.

These exploration pits are accessible for examination purposes. A good ranch-type road goes right to them. This road is assessable the year round except during and immediately after a snow storm. Usually the months of March and April are not the best as far as weather goes, in this vicinity. This ranch type road is 15 miles in lenth after leaving the oiled highway above Buffalo.

(b).
There is no past or current production from these claims and any ore reserves are unknown. Such Allanite minerals as are exposed run from 1% to 3 1/2% Thorium.

(c).
This deposit occurs as an intrusive dike or as an area between two intrusive dikes, standing almost if not straight up and down and running in a Nothwesterly to Southeasterly direction. As this deposit has been harder than the surrounding ground ; it is now the top of a hogs back, so typical of the Big Horns. The Allanite is not yet in a solid state but is mixed together with a yellow colored decomposed granite; this decomposed granite runs about 1% thorium while the Allanite itself runs almost three times as high. On the southwesterly side and immediately adjacent to it is a 5 ft. Fe dike and on the opesite side and again immediately adjacent to the Allanite is a titantium- iorn lead. The country rock on both sides is a Sanidine quarts

Arlin Davidson dba
Absoraka Rare Earths Co.
Box 167, Route 2.
Sandy, Utah.

4. (c) cont.
Reason I wish to explore is to determine the depth of the deposit as well as to its lenth, to establish or disprove this property as to a source of thorium. Several Atomic Energy Engineers as well as Bureau of Mines men have examined the property. They have all reccomended that this exploratory aid be sought.

On the west end these claims join the old (patended property) Emerald Park Titantium mine. They are also paralell to and roughly a quarter mile south of the Remsbottom Copper mine. About one half mile west is the Tungsten deposit (scheelite) which is located on Wyoming School ground. All of these deposits occur along the fault locally known as the horn (of Powder River).

(d)
This project is accessable the year round except during and immediately after a winter snow storm. The months of March and April are apt to be fairly stormy. The last three winters (they are usually open until toward spring) men have spent the winter on these claims; working on them and on the tungsten.

Supply and residence points are Buffalo, Wyoming, which is 30 miles away by road. Fifteen miles of this distance is an all year oiled road., 4 miles is an improved Forest Service graveled highway and the balance is the common Wyoming ranch-type of roads. They go right to the property. The shipping point would also be Buffalo, Wyoming.

(e)
Water is adjacent to these claims, both a small creek and there is a stream of water coming from the old Emerald Park tunnell.
Materials and supplies are available at Buffalo, or a few miles farther at Sheridan, Wyoming's third largest city.
Manpower and equipment is available for this project. Most of the equipment would be sent in from the mining regions of the west, perhaps Salt Lake City, Utah.
Power would be furnished by internal combustion engines. They are available.

5. (a)
In addition to thorium allanite is also of interest because of the other rare earths it contains.

(d)
The applicant has had years of mining and milling experience, most with gold rock, (Falls Creek Mining Co., Gold Producers Inc and the Lemhi Floatation Company, all in the Salmon, Idaho region. The applicant is a liscensed contractor in the state of Utah. During World War II the applicant had charge of all Engineering heavy equipment with the First US Army in Europe where he was also an Engineer Unit Commander. With such a backgroung the applicant can successfully carry out the exploration project.

The applicant will take direct charge of all work on the exploration project.

Arlin Davidson dba
Absoreka Rare Earths Co.
Box 157, Route 2.
Sandy, Utah.

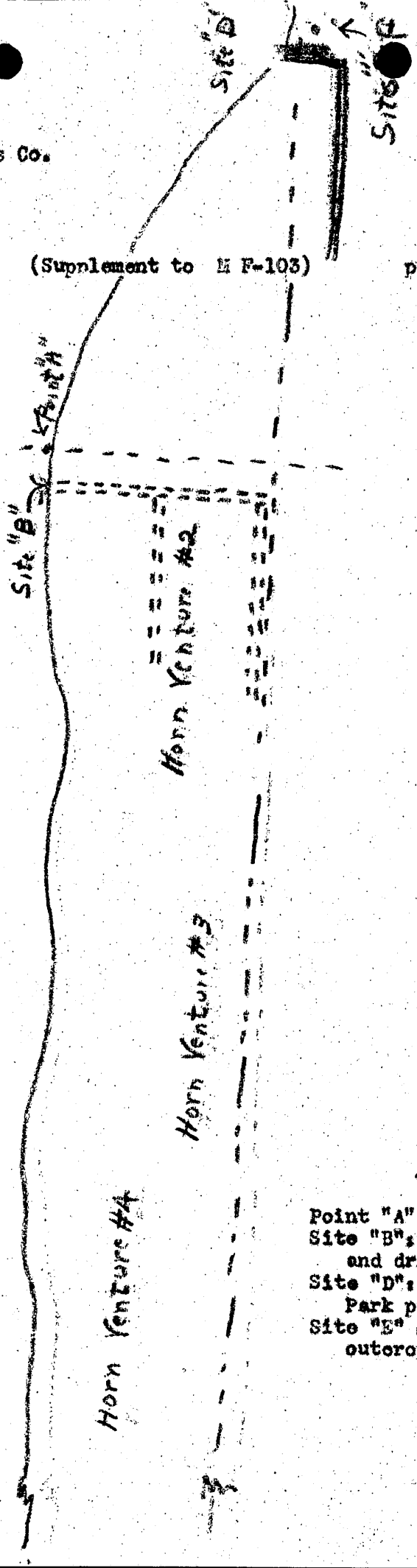
5. (b).

DMEA-3161

Point "A" as in legal description.
Site "B": Proposed location for shaft and drifts for exploratory purposes.
Site "C" Ramsbottom Copper mine.
Site "D" Shaft and tunnels on the Emerald Park titanium mine.
Site "E" & "F" are thorium outcropings on the Emerald Park property. The Emerald Park tunnel is about 100, ft off line of the thorium deposit.

Arlin Davidson dba
Absoraka Rare Minerals Co.
Box 157, Route 2.
Sandy, Utah.

(Supplement to M F-103) page 4.



DMEA-3161

Point "A" as on legal description.
Site "B": Proposed location for shaft and drifts for exploratory work.
Site "D": Shaft and tunnels on Emerald Park property.
Site "E" & "F": Other known thorium outcroppings.

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Box 157, Route 2.
Sandy, Utah.

5. (b).

The proposed work of exploring this property would consist of:

1. 5,000 ft of core drilling to explore the thorium deposits at moderate depths from Point "A" on through the three claims where that radio-activity or thorium bearing ores are known or found to exist. At this time, the places along the strike of the thorium bearing ores where it intended that this core drilling be done are not shown on the chart. It is felt that additional work with a scintillator can well be done before staking out core drill holes location. And again, it is felt that if advise along this line can be obtained from the Engineers of the Bureau of Mines or the Atomic Energy Commission, that such should be fully considered in view of experience in such matters. Otherwise the Applicant would stake the core drill hole locations from radio-activity and from the advise of his geologist and his engineer. Again it is felt that the exact locations of some of the holes could be better determined from the results obtained in some of the first core drill hol locations.

2. At Site "B", about 25 feet southeasterly from Point "A" of the description, it is proposed to sink a 200 ft shaft with drifts of a total of 300 ft in lenth on each of two levels; the 100 ft. level and the 200 ft. level. Site "B" is definetly on thorium bearing ores at present. The bottom of this 200 ft shaft would not be as low as the bottom of the nearby Emerald Park shaft but should be enough to thoroughly test the ores at depths up to this range.

3. To test all thorium bearing ores obtained, both in the laboratory and pilot plant to design a plant suitable for the economic concentration or extraction of the cont ined thorium, in order that it might be added to the nation al stockpile of this so vatally needed material.

6. (Estimate of Costs)

(a) Independent contracts

Core drilling .. AX size 5,000 lineal ft $6.50 per ft
total cost. ..... $ 32,500.00

(b) Labor, Supervision, Consultants;

2 miners	$18.00	per diem
2 muckers	15.00	do do
1 timberman	15.00	do do
1 Engineer	850.00	total
1 Geologist	850.00	total.

13,200.00 ~~16,200.00~~ ED

(c) Operating materials and supplies.

(continued on next sheet).

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Box 157, Route 2.
Sandy, Utah.

6. (c). Operating materials and supplies con't.

Fuel	$3,000.00	$3,000.00	
Powder, fuse, caps etc.		3,000.00	
Replaceable drill bits		3,000.00	
Timber		1,000.00	
			$10,000.00

(d) Operating equipment:

To be purchased:

1	320 cu ft potable compressor	$2,500.00
1	Air motored hoist	1,000.00
1	shop truck with 20 ft bed	500.00
1	Scintilator	650.00
1	jackhamer, 1 liner with hoses	1,000.00
3	mine cars	200.00
	relaying rails	300.00
	air pipe and reciever	500.00
1	chain saw	350.00
1	3/4 ton Willys truck	2,000.00

To be rented

1	2-wheeled house trailer at $90.00 per month for 8 months	720.00

To be furnished by applicant

1	Delco light plant	at $1.00 per M	10.00
1	Comansco saw	20.00	200.00

$9,930.00

(e) Rehabilitation and repairs

Repairs to light plant and replacement of batteries. $100.00

$100.00

(f) New installations none

(g) Miscellaneous

Accounting	$100.00
Ins., pauroll taxes	1690.00
Repairs in general	1000.00

$2,790.00

(h) Contingencies

$2,000.00

$2,000.00

Total $72,220.00

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(Supplement to M F-103) page 7

7. (b).

Applicant proposes to furnish his share of the proposed project in the following manner:

To furnish the timber	1,000.00
Rented equipment	240.00
Labor, 240 shifts at $18.00 per shift	4,320.00
Cash	1,662.00
total	$7,222.00

With the proviso included that in case I could not find it adviseable to work that many shift that the applicant could advance the equal amount of cash instead.

MINING LEASE

THIS AGREEMENT made and entered into this August 26, 1953, by and between HORN VENTURE MINING COMPANY, a mining partnership composed of Orville P. Christensen, M. R. Halstead, and Vance E. Sackett, Post Office Address, Box 165, Sheridan, Wyoming, Lessor, and ARLIN DAVIDSON, of Sandy, Utah, Lessee, WITNESSETH:

WHEREAS the Lessor is the owner of certain unpatented mining claim or claims which are hereinafter described, and

WHEREAS the actual values of the earths and ores contained in said lands are of undetermined value at this time and they cannot be feasibly determined until additional work, both in the field and in the laboratory is accomplished, and

WHEREAS the values of the earths and ores contained in such mineralized state on such lands as far as known to the parties have not been and are not now in commercial production.

NOW THEREFORE in consideration of one dollar in hand paid and of the royalties, convenants and agreements hereinafter provided to be paid, kept and performed by the Lessee, the Lessor does hereby lease to the Lessees the following described property and premises, towit:

> A tract of land 600 feet wide and 1500 feet long, being 300 feet on each side of a center line running N. 62°00' W. 200 feet; and S. 62°00' E. from the discovery shaft which is located 40 feet east and 395 feet north from the south quarter corner of Section 31 Tp. 47 N. Rg. 83 W. 6th P.M., said claim being located in Lot 2 of Section 6, Township 46 N., and in S½S½ of Section 31, Township 47 North, Range 83 West 6th P.M., said claim being known as the Horn Venture No. 2, and the Location Notice thereof is recorded in the official Mining Records of Johnson County, Wyoming in Book 67 at page 247.
> Also two additional claims lying southeasterly from the Horn Venture No. 2 Claim and which are known as the Horn Venture No. 3 and Horn Venture No. 4 Claims, which said claims have been located but have not yet been recorded.

for a term of six (6) years expiring August 26, 1959, unless sooner forfeited through violation of any covenant herein contained, provided that said term may be extended for an additional four (4) years if said mine is in actual operation at the termination of said initial term.

IN CONSIDERATION OF THE PREMISES AND OF THE COVENANTS AND AGREEMENTS HEREIN CONTAINED THE LESSOR AGREES:

1. To sell to the Lessee the above described Horn Venture No. 2 Claim, and also the Horn Venture No. 3 and No. 4 Claims, providing the Lessor is able to establish and acquire title to said tow additional claims, the

Arlin Davidson dba Absaroka Rare Earths Co

Exhibit "A"

agreed purchase price being at the rate of fifty thousand dollars ($50,000.00) for each of said claims, all royalty which shall have been paid under the terms of this lease to apply on said purchase price.

2. To keep the premises free of lien except the U.S. Government liens for the development and testing of said property.

3. To defend the title to said mining property and assure the Lessee of peaceable possession thereof, and to do and perform all things necessary to establish and maintain said mining claims in legal conditions.

4. To furnish an abstract of title showing good and merchantable title to said mining property, in the event the same is purchased by the Lessee, and to convey the same to the purchaser by good and sufficient deed.

5. To cooperate with the Lessee and with the United States Government in any program or plan of development and to execute such papers or other instruments as may be necessary in connection therewith, and partularly to execute the "Owner's Consent to Lien", which said waivers are a part of this agreement.

IN CONSIDERATION OF THE PREMISES THE LESSEE HEREBY AGREES:

1. To pay and deliver to said Lessor as royalty ten percent (10%) of the net value of all earths and ores extracted from said premises during the term of this lease. Net value means the proceeds of earth or ore sold less the costs of transportation from mine to smelter or sampler, and sampling and assaying charges. All such royalty shall be paid on a monthly basis and shall be paid on or before the 10th day of each month immediately following the month in which such earths or ores are delivered to the mill or refinery. It is anticipated that it may not be possible to ship earth or ore to the refinery during the winter months on account of road conditions but in event of such interruption of transportation that as soon as road conditions permit the Lessee will resume shipment of earth and ore to the mill or refinery.

2. To commence immediately, both by himself and from commercial sources and methods to find and arrive at a commercially economic method to extract and market earths and ores which are believed to exist on said premises and to develop such earths, ores and processes.

3. To take possession of said premises for testing, developing, exploring and mining, either with or without Government exploratory aid,

4. To apply for and if possible obtain a Governmental exploratory aid contract, and upon such approval, or if such approval is denied, to commence exploration and/or mining and to work a minimum of 40 shifts per month or

450 shifts per year, all such work to be done in a good and workmanlike manner, and in any event such work shall commence not later than June 15, 1954. Provided that in case of severe winter and snow conditions which make it impossible or economically impracticable to operate said mine during the winter months that the Lessee may discontinue mining operations for such period but that in any event that the full number of shifts above provided shall be worked before the expiration of the anniversary date of said lease, towit: August 26th of each year.

5. To timber the mine when necessary at his own expense.

6. To allow the Lessor or its agents access to said premises and any mine developed thereon for the purpose of inspection at all reasonable times, and to furnish duplicate settlement sheets or such other data as may be necessary or required by the Lessor to show and determine the amount of earth, ores or minerals produced from said premises.

7. To keep the properties free from liens except the Governmental lien which is made a part of this contract.

8. To pay, when due, all taxes lawfully assessed and levied under the laws of the State of Wyoming upon improvements and earth, ore or minerals produced from the leased premises hereunder.

GENERAL CONDITIONS

1. This agreement and the conditions and stipulations herein contained shall extend to and bind and shall inure to the benefit of the heirs, administrators and assigns of the respective parties hereto, and it is expressly agreed that the same may be assigned or transferred by either party hereto.

2. That in case of the failure or refusal of the Lessee to do and perform any or all of the covenants herein contained for the Lessee to perform and such default shall continue for more than 30 days after the Lessee has been notified thereof in writing then the Lessor at its option may declare this contract void and thereupon re-enter and take possession of said property and premises, including any improvements which are situate thereon and which shall be deemed to be a part of the leased premises and thereupon the Lessee shall immediately surrender peaceable possession of said property and premises and shall execute and file for record a release and cancellation of this lease and should he fail to do so he shall be liable for any and all damages caused by his holding over and for all costs recovering

possession of said premises and of clearing said lease from record, including court costs and reasonable attorney fees. Provided, however, that in the event said lease is terminated as above provided prior to the expiration of the regular term and should the Lessor offer said property and premises for sale at any time prior to the expiration of said regular term that they shall first notify the Lessee in writing of their intention to sell the same and of the price which they demand for said property or the price which has been offered by any bona fide prospective purchaser and which is acceptable to the Lessor, and thereupon the Lessee shall have the first right and refusal to purchase said property at such price so demanded or offered but that if they fail to meet such price and terms within a period of ten (10) days after being notified thereof the Lessors shall be free to sell said property.

WITNESS the hands of the parties the day and year first above written.

HORN VENTURE MINING COMPANY

By Orville P. Christensen
M. R. Halstead
Vance E. Sackett

Executed in the presence of:

Joan K. Herzog

Arlin Davidson

STATE OF WYOMING)
) ss.
County of Johnson)

On this August 26, 1953, before me personally appeared Orville P. Christensen, Vance E. Sackett and M. R. Halstead, being the members of the partnership firm of Horn Venture Mining Company, and Arlin Davidson to me known to be the persons described in and who executed the foregoing instrument and acknowledged that they executed the same as their free act and deed.

Notary Public

My commission expires April 12, 1954.

MF-203

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of Wyoming, County of Johnson, described as follows:1/ That certain lode mining claim known as the Horn Ventura No. 2 Claim, said claim being located in Lot 2 of Section 6, Tp. 49 N. and S½S of Section 31, Tp. 47 N., R. 83 W. 6th P.M., and the Location Notice thereof being recorded in Book 67 Mining Records page 247 of the official records of Johnson County, Wyoming. Also two additional claims (the Location Notices thereof not yet being recorded) lying southeasterly from the above claim and known as the Horn Ventura No. 3 and No. 4 Claims.

which is the subject of a proposed exploration project contract, hereinafter called the "contract", between the United States of America, hereinafter called the "Government", and

2/ Arlin Davidson

hereinafter called the "Operator"; and

WHEREAS, under certain provisions of said contract which are set forth on the reverse side hereof, the Government is entitled to a percentage royalty on production and to certain other rights and equities which do or may conflict with or be adverse to the interest of the undersigned in said property;

NOW THEREFORE, the undersigned, in consideration of said contract and as an inducement to the Government to enter into same, undertakes and agrees as follows:

1. The Government's equity in and right to dismantle, sever, take possession of, and remove and dispose of facilities, buildings, fixtures, equipment, or other items as provided in the contract, or any amendment thereof, shall prevail over and be prior and superior to any conflicting or adverse rights of the undersigned, and the Government is authorized to enter upon the land for such purposes.

2. To secure the payment to the Government of the percentage royalty on production3/ provided for under the terms of said exploration project contract, or any amendment thereof which does not increase the maximum amount of the Government's claim here stated or alter the provisions for repayment, there is hereby granted to the Government a lien upon the land herein described and upon any production of minerals therefrom, until the royalty claim is fully paid in the amount of the Government's contribution, not in excess of 4/$ 60,000.00, or ten years have elapsed from the date of the contract.

3. The undersigned shall commit no act nor assert any claim that may contravene or conflict with the lien, claim, or rights of the Government under the provisions of said contract. This agreement shall be binding upon the heirs, executors, administrators, successors, and assigns of the undersigned.

Dated this 26th day of August, 195 8.

Orville P. Christensen [Seal]

M. R. Halstead [Seal]

Vance E. Sackett [Seal]

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

2/ Insert the name of the Operator as it will appear in the exploration project contract.

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

4/ Insert the maximum amount of the Government's contribution.

RELEVANT CONTRACT PROVISIONS

Repayment by Operator. (a) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than six months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) per cent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) per cent of any such net amounts, plus one-half (½) per cent such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) per cent of such net amounts.

(For instance: the percentage royalty on a net amount of five dollars ($5.00) per ton, would be one and one-half (1½) per cent; on a net amount of ten dollars ($10.00) per ton, three and one-half (3½) per cent.)

(b) As here used, "net smelter returns", "net concentrator returns", and "other net amounts realized from the sale or other disposition", mean gross revenue from sales; or if not sold, the market value, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be gross income from mining operations for percentage depletion purposes in income tax determination.

(c) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(d) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

Title to and disposition of property. All facilities, buildings, fixtures, equipment, or other items costing more than $50.00 each, paid for or purchased with funds contributed jointly by the Operator and the Government, although title may be taken in the name of the Operator, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the completion of the work or the termination of the contract shall be disposed of promptly by the Operator for the joint account of the Government and the Operator, either by return to the vendor, by sale to others, or purchase by the Operator at a price at least as high as could otherwise be obtained, as may appear to be for the best interest of the Government, unless the Government, in writing, waives its interest in any such item. If necessary to accomplish such disposition, the Operator shall dismantle, sever from the land, and remove any such item, the cost thereof to be for the joint account of the parties in proportion to their respective interests. If the Operator, within 90 days after the receipt of written notice from the Government, fails, neglects, or refuses to dispose of such property, the Government may itself enter upon the land, take possession of, and remove and dispose of any such property as above provided.

Arlin Davidson dba
Absoraka Rare Minerals Company
Box 157, Route 2
Sandy, Utah

September 9, 1953
Subject: DMEA-3161
Re: Exploration Assistance
Horn Venture

Dear Mr. Davidson:

The receipt of your application dated September 3, 1953, for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-3161 and referred to the Rare and Miscellaneous Metals Division.

Kindly refer to DMEA-3161 in any future correspondence relating to your application.

Sincerely yours,

ROBERT E. ADAMS

Robert E. Adams
Chief, Operation's Control
and Statistics Division

Box 157, Route 2.
Sandy, Utah.
4, September, 1953.

Director
Defense Minerals Exploration Administration
Department of the Interior
Washinton 25, D.C.

Gentlemen:

Enclosed herewith is my application, in quadruplicate, for aid in an exploration project, pursuant to DMEA Order 1, under the defense production act of 1950, as amended.

Thank you.

Sincerely yours,

Arlin Davidson

Arlin Davidson dba

Absoraka Rare Minerals Co.

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

SEP 8-1953

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

Not to be filled in by applicant

Docket No. DMEA-3161
Metal or Mineral
Date Received 9-9-53
Estimated Cost
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Arlin Davidson dba
Absoraka Rare Minerals Co.
Box 157, Route 2.
Sandy, Utah.

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

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

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

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

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

(*b*) State any mine name by which the property is known. Horn Venture

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

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

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

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. Recorded at Johnson County Courthouse, Buffalo, Wyo., Official mining records, Book 67 on page 247.

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

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

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

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

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

16—66551-1

See paragraph 4 on enclosed sheet.

5. *The exploration project.*—State the mineral or minerals for which you wish to explore Thorium.

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

(*c*) The work will start within 15 days and be completed within 10 months from the date of an exploration project contract.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated 3rd Day of September, 1953

Absoraka Rare Earths Co.
(Applicant)

By Arlin Davidson
ARLIN DAVIDSON

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

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

ARLIN DAVIDSON dba
Absoraka Rare Earths Co.
Box 157, Route 2.
Sandy, Utah.

(Supplement to M F-103)

3. (a).
A tract of land 600 feet wide and 4500 feet long, being 300 feet on each side of a centerv line running N. 62 00' W. 200 feet; and S. 62 00' E. from point "A" which is located 40 feet east and 395 feet north from the south quarter corner of Section 31 Tp. 47 N. Rg. 83 W. 6th P.M., said point "A" being located in Lot 2 of Section 6, township 46 N., Rg. 83 W. 6th P.M. This described parcel of ground consists of three mining claims which are connected, one to another and are known as Horn Venture No. 2., Horn Venture No. 3., and Horn Venture No. 4.

4. (a).
There has been no mining operations upon this ground.

Exploration work upon this ground consists of 2 shallow hand dug trenches and 4 bulldozer dug trenches across the face of the Allanite (Thorium) minerals. The trenches range from 2 feet to 8 ft in depth and all but one have intercepted the Allanite minerals. All such trenched are on or near point "A" in the above description, and thusly would be at the center of the NW end of the claims.

Such workings are included with the claims.

These exploration pits are accessible for examination purposes. A good ranch-type road goes right to them. This road is assessable the year round except during and immediately after a snow storm. Usually the months of March and April are not the best as far as weather goes, in this vicinity. This ranch type road is 15 miles in lenth after leaving the oiled highway above Buffalo.

(b).
There is no past or current production from these claims and any ore reserves are unknown. Such Allanite minerals as are exposed run from 1% to 3 1/2% Thorium.

(c).
This deposit occurs as an intrusive dike or as an area between two intrusive dikes, standing almost if not straight up and down and running in a Nothwesterly to Southeasterly direction. As this deposit has been harder than the surrounding ground ; it is now the top of a hogs back, so typical of the Big Horns. The Allanite is not yet in a solid state but is mixed together with a yellow colored decomposed granite; this decomposed granite runs about 1% thorium while the Allanite itself runs almost three times as high. On the southwesterly side and immediately adjacent to it is a 5 ft. Fe dike and on the oposite side and again immediately adjacent to the Allanite is a titantiun- iorn lead. The country rock on both sides is a Sanidine quartz

Arlin Davidson dba
Absoraka Rare Earths Co.
Box 157, Route 2.
Sandy, Utah.

4. (c) cont.

Reason I wish to explore is to determine the depth of the deposit as well as to its lenth, to establish or disprove this property as to a source of thorium. Several Atomic Energy Engineers as well as Bureau of Mines men have examined the property. They have all reccomended that this exploratory aid be sought.

On the west end these claims join the old (patended property) Emerald Park Titantium mine. They are also paralell to and roughly a quarter mile south of the Ramsbottom Copper mine. About one half mile west is the Tungsten deposit (scheelite) which is located on Wyoming School ground. All of these deposits occur along the fault locally known as the horn (of Powder River).

(d)

This project is accessable the year round except during and immediately after a winter snow storm. The months of March and April are apt to be fairly stormy. The last three winters (they are usually open until toward spring) men have spent the winter on these claims; working on them and on the tungsten.

Supply and residence points are Buffalo, Wyoming, which is 30 miles away by road. Fifteen miles of this distance is an all year oiled road., 4 miles is an improved Forest Service graveled highway and the balance is the common Wyoming ranch-type of roads. They go right to the property. The shipping point would also be Buffalo, Wyoming.

(e)

Water is adjacent to these claims, both a small creek and there is a stream of water coming from the old Emerald Park tunnell.

Materials and supplies are available at Buffalo, or a few miles farther at Sheridan, Wyoming's third largest city.

Manpower and equipment is available for this project. Most of the equipment would be sent in from the mining regions of the west, perhaps Salt Lake City, Utah.

Power would be furnished by internal combustion engines. They are available.

5. (a)

In addition to thorium allanite is also of interest because of the other rare earths it contains.

(d)

The applicant has had years of mining and milling experience, most with gold rock, (Falls Creek Mining Co., Gold Producers Inc and the Lemhi Floatation Company, all in the Salmon, Idaho region. The applicant is a liscensed contractor in the state of Utah. During World War 11 the applicnt had charge of all Engineering heavy equipment with the First US Army in Europe where he was also an Engineer Unit Commander. With such a backgroung the applicant can successfully carry out the exploration project.

The applicant will take direct charge of all work on the exploration project.

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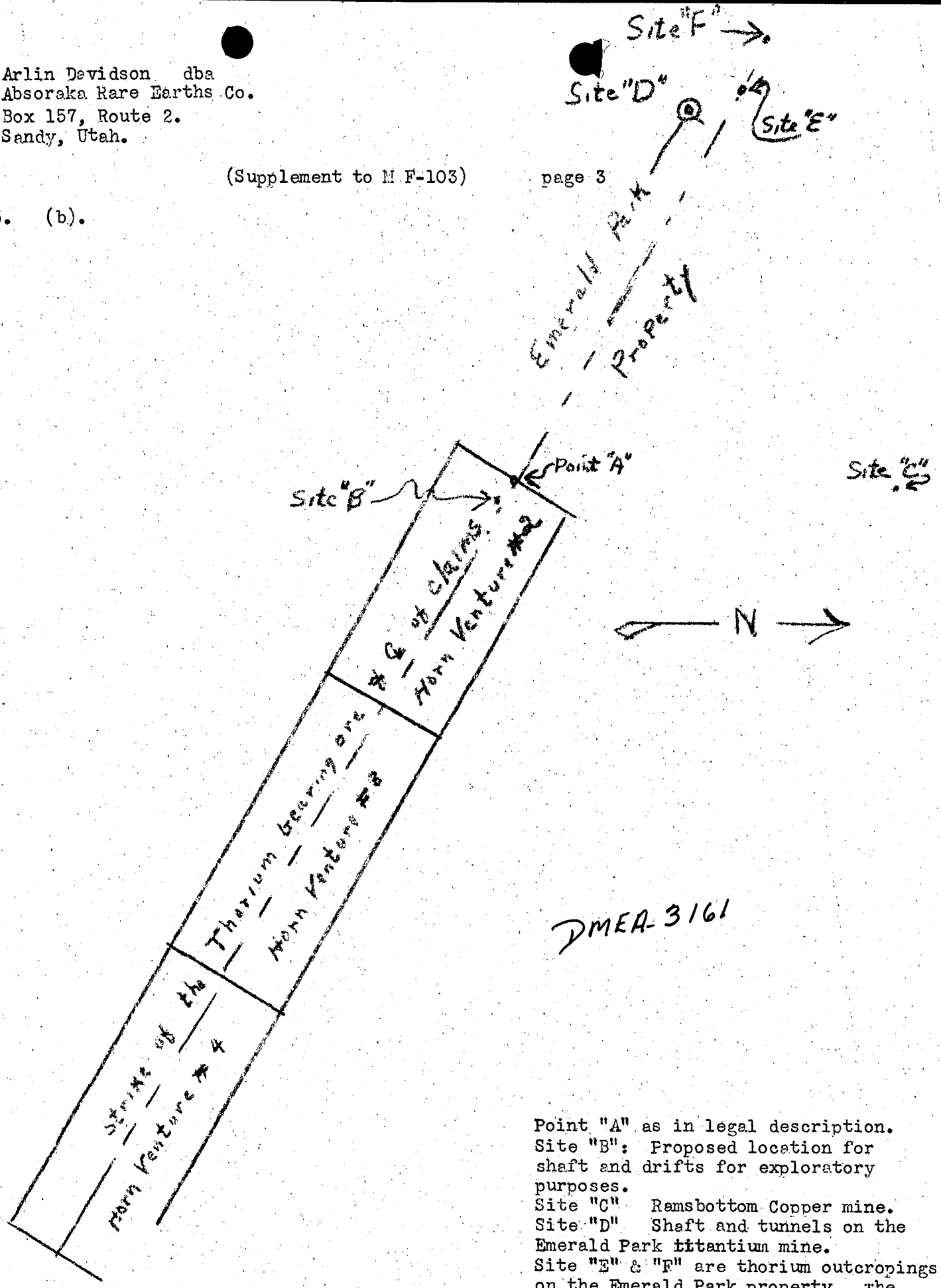
Box 157, Route 2.
Sandy, Utah.

5. (b).



Point "A" as in legal description.
Site "B": Proposed location for shaft and drifts for exploratory purposes.
Site "C" Ramsbottom Copper mine.
Site "D" Shaft and tunnels on the Emerald Park ~~t~~titantium mine.
Site "E" & "F" are thorium outcropings on the Emerald Park property. The Emerald Park tunnel is about 100, ft off line of the thorium deposit.

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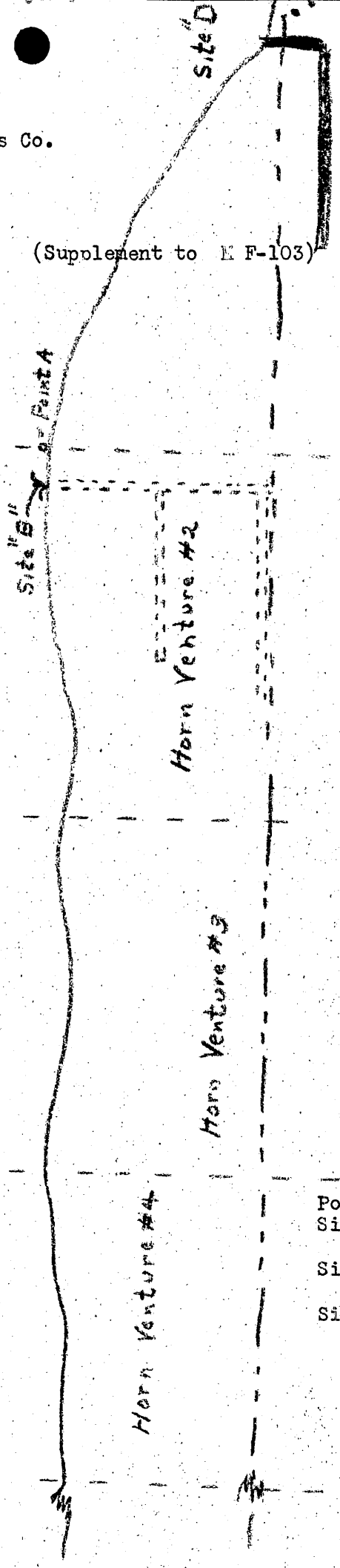

DMEA-3161

Point "A" as on legal description.
Site "B": Proposed location for shaft and drifts for exploratory work.
Site "D": Shaft and tunnels on Emerald Park property.
Site "E" & "F": Other known thorium outcroppings.

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5. (b).

The proposed work of exploring this property would consist of:

1. 5,000 ft of core drilling to explore the thorium deposits at moderate depths fron Point "A" on through the three claims where that radio-activity or thorium bearing ores are known or found to exist. At this time, the places along the strike of the thorium bearing ores where it intended that this core drilling be done are not shown on the chart. It is felt that additional work with a scintillator can well be done before stakeing out core drill holes location. And again, it is felt that if advise along this line can be obtained from the Engineers of the Bureau of Mines or the Atomic Energy Commission, that such should be fully considered in view of experience in such matters. Otherwise the Applicant would stake the core drill hole locations from radio-activity and from the advise of his geologist and his engineer. Again it is felt that the exact locations of some of the holes could be better determined from the results obtained in some of the first core drill hol locations.

2. At Site "B", about 25 feet southeasterly from Point "A" of the description, it is proposed to sink a 200 ft shaft with drifts of a total of 300 ft in lenth on each of two levels; the 100 ft. level and the 200 ft. level. Site "B" is definetly on thorium bearing ores at present. The bottom of this 200 ft shaft would not be as low as the bottom of the nearby Emerald Park shaft but should be enough to thoroughly test the ores at depths up to this range.

3. To test all thorium bearing ores obtained, both in the laboratory and pilot plant to design a plant suitable for the economic concentration or extraction of the contained thorium, in order that it might be added to the national stockpile of this so vatally needed material.

6. (Estimate of Costs)

(a) Independent contracts

Core drilling .. AX size	5,000 lineal ft	$6.50 per ft	
	total cost.		$ 32,500.00

(b) Labor, Supervision, Consultants;

2 miners	$18.00	per diem
2 muckers	15.00	do do
1 timberman	15.00	do do
1 Engineer	850.00	total
1 Geologist	850.00	total.

13,200.00 ~~16,200.00~~ — OD

(c) Operating materials and supplies.

(continued on next sheet).

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(Supplement to M F-103) page 6

6. (c). Operating materials and supplies con't.

Fuel	$3,000.00	$3,000.00	
Powder, fuse, caps etc.		3,000.00	
Replaceable drill bits		3,000.00	
Timber		1,000.00	
			$10,000.00

(d) Operating equipment:

To be purchased:

1	320 cu ft potable compressor	$2,500.00
1	Air motored hoist	1,000.00
1	shop truck with 20 ft bed	500.00
1	Scintilator	650.00
1	jackhamer, 1 liner with hoses	1,000.00
3	mine cars	200.00
	relaying rails	300.00
	air pipe and reciever	500.00
1	chain saw	350.00
1	3/4 ton Willys truck	2,000.00

To be rented

1	2-wheeled house trailer at $90.00 per month for 8 months	720.00

To be furnished by applicant

1	Delco light plant	at $1.00 per M	10.00
1	Comansco saw	20.00	200. 00
			$9,930.00

(e) Rehabilitation and repairs

Repairs to light plant and replacement of batteries.	$100.00	$100.00

(f) New installations none

(g) Miscellaneous

Accounting	$100.00	
Ins., pauroll taxes	1690.00	
Repairs in general	1000.00	
		$2,790.00

(h) Contingencies

	$2,000.00	$2,000.00

Total $72,220.00

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7. (b).

Applicant proposes to furnish his share of the proposed project in the following manner:

To furnish the timber	1,000.00
Rented equipment	240.00
Labor, 240 shifts at $18.00 per shift	4,320.00
Cash	1,662.00
total	$7,222.00

With the proviso included that in case I could not find it adviseable to work that many shift that the applicant could advance the equal amount of cash instead.

MINING LEASE

THIS AGREEMENT made and entered into this August 26, 1953, by and between HORN VENTURE MINING COMPANY, a mining partnership composed of Orville P. Christensen, M. R. Halstead, and Vance E. Sackett, Post Office Address, Box 165, Sheridan, Wyoming, Lessor, and ARLIN DAVIDSON, of Sandy, Utah, Lessee, WITNESSETH:

Arlin Davidson dba Alberoke Rare Earths Co

WHEREAS the Lessor is the owner of certain unpatented mining claim or claims which are hereinafter described, and

WHEREAS the actual values of the earths and ores contained in said lands are of undetermined value at this time and they cannot be feasibly determined until additional work, both in the field and in the laboratory is accomplished, and

WHEREAS the values of the earths and ores contained in such mineralized state on such lands as far as known to the parties have not been and are not now in commercial production.

NOW THEREFORE in consideration of one dollar in hand paid and of the royalties, convenants and agreements hereinafter provided to be paid, kept and performed by the Lessee, the Lessor does hereby lease to the Lessees the following described property and premises, towit:

> A tract of land 600 feet wide and 1500 feet long, being 300 feet on each side of a center line running N. 62°00' W. 200 feet; and S. 62°00' E. from the discovery shaft which is located 40 feet east and 395 feet north from the south quarter corner of Section 31 Tp. 47 N. Rg. 83 W. 6th P.M., said claim being located in Lot 2 of Section 6, Township 46 N., and in S½S½ of Section 31, Township 47 North, Range 83 West 6th P.M., said claim being known as the Horn Venture No. 2, and the Location Notice thereof is recorded in the official Mining Records of Johnson County, Wyoming in Book 67 at page 247.
> Also two additional claims lying southeasterly from the Horn Venture No. 2 Claim and which are known as the Horn Venture No. 3 and Horn Venture No. 4 Claims, which said claims have been located but have not yet been recorded.

for a term of six (6) years expiring August 26, 1959, unless sooner forfeited through violation of any covenant herein contained, provided that said term may be extended for an additional four (4) years if said mine is in actual operation at the termination of said initial term.

Exhibit "A"

IN CONSIDERATION OF THE PREMISES AND OF THE COVENANTS AND AGREEMENTS HEREIN CONTAINED THE LESSOR AGREES:

1. To sell to the Lessee the above described Horn Venture No. 2 Claim, and also the Horn Venture No. 3 and No. 4 Claims, providing the Lessor is able to establish and acquire title to said tow additional claims, the

agreed purchase price being at the rate of fifty thousand dollars ($50,000.00) for each of said claims, all royalty which shall have been paid under the terms of this lease to apply on said purchase price.

2. To keep the premises free of lien except the U.S. Government liens for the development and testing of said property.

3. To defend the title to said mining property and assure the Lessee of peaceable possession thereof, and to do and perform all things necessary to establish and maintain said mining claims in legal conditions.

4. To furnish an abstract of title showing good and merchantable title to said mining property, in the event the same is purchased by the Lessee, and to convey the same to the purchaser by good and sufficient deed.

5. To cooperate with the Lessee and with the United States Government in any program or plan of development and to execute such papers or other instruments as may be necessary in connection therewith, and partularly to execute the "Owner's Consent to Lien", which said waivers are a part of this agreement.

IN CONSIDERATION OF THE PREMISES THE LESSEE HEREBY AGREES:

1. To pay and deliver to said Lessor as royalty ten percent (10%) of the net value of all earths and ores extracted from said premises during the term of this lease. Net value means the proceeds of earth or ore sold less the costs of transportation from mine to smelter or sampler, and sampling and assaying charges. All such royalty shall be paid on a monthly basis and shall be paid on or before the 10th day of each month immediately following the month in which such earths or ores are delivered to the mill or refinery. It is anticipated that it may not be possible to ship earth or ore to the refinery during the winter months on account of road conditions but in event of such interruption of transportation that as soon as road conditions permit the Lessee will resume shipment of earth and ore to the mill or refinery.

2. To commence immediately, both by himself and from commercial sources and methods to find and arrive at a commercially economic method to extract and market earths and ores which are believed to exist on said premises and to develop such earths, ores and processes.

3. To take possession of said premises for testing, developing, exploring and mining, either with or without Government exploratory aid,

4. To apply for and if possible obtain a Governmental exploratory aid contract, and upon such approval, or if such approval is denied, to commence exploration and/or mining and to work a minimum of 40 shifts per month or

450 shifts per year, all such work to be done in a good and workmanlike manner, and in any event such work shall commence not later than June 15, 1954. Provided that in case of severe winter and snow conditions which make it impossible or economically impracticable to operate said mine during the winter months that the Lessee may discontinue mining operations for such period but that in any event that the full number of shifts above provided shall be worked before the expiration of the anniversary date of said lease, towit: August 26th of each year.

5. To timber the mine when necessary at his own expense.

6. To allow the Lessor or its agents access to said premises and any mine developed thereon for the purpose of inspection at all reasonable times, and to furnish duplicate settlement sheets or such other data as may be necessary or required by the Lessor to show and determine the amount of earth, ores or minerals produced from said premises.

7. To keep the properties free from liens except the Governmental lien which is made a part of this contract.

8. To pay, when due, all taxes lawfully assessed and levied under the laws of the State of Wyoming upon improvements and earth, ore or minerals produced from the leased premises hereunder.

GENERAL CONDITIONS

1. This agreement and the conditions and stipulations herein contained shall extend to and bind and shall inure to the benefit of the heirs, administrators and assigns of the respective parties hereto, and it is expressly agreed that the same may be assigned or transferred by either party hereto.

2. That in case of the failure or refusal of the Lessee to do and perform any or all of the covenants herein contained for the Lessee to perform and such default shall continue for more than 30 days after the Lessee has been notified thereof in writing then the Lessor at its option may declare this contract void and thereupon re-enter and take possession of said property and premises, including any improvements which are situate thereon and which shall be deemen to be a part of the leased premises and thereupon the Lessee shall immediately surrender peaceable possession of said property and premises and shall execute and file for record a release and cancellation of this lease and should he fail to do so he shall be liable for any and all damages caused by his holding over and for all costs recovering

possession of said premises and of clearing said lease from record, including court costs and reasonable attorney fees. Provided, however, that in the event said lease is terminated as above provided prior to the expiration of the regular term and should the Lessor offer said property and premises for sale at any time prior to the expiration of said regular term that they shall first notify the Lessee in writing of their intention to sell the same and of the price which they demand for said property or the price which has been offered by any bona fide prospective purchaser and which is acceptable to the Lessor, and thereupon the Lessee shall have the first right and refusal to purchase said property at such price so demanded or offered but that if they fail to meet such price and terms within a period of ten (10) days after being notified thereof the Lessers shall be free to sell said property.

WITNESS the hands of the parties the day and year first above written.

HORN VENTURE MININ COMPANY

By Orville P. Christensen

M. R. Halstead

Vance E. Sackett

Executed in the presence of:

Joan K. Herzog

Arlin Davidson

STATE OF WYOMING)
) ss.
County of Johnson)

On this August 26, 1953, before me personally appeared Orville P. Christensen, Vance E. Sackett and M. R. Halstead, being the members of the partnership firm of Horn Venture Mining Company, and Arlin Davidson to me known to be the persons described in and who executed the foregoing instrument and acknowledged that they executed the same as their free act and deed.

William C. Hassan
Notary Public

My commission expires April 12, 1954.

MF-203

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of Wyoming, County of Johnson, described as follows:1/ That certain lode mining claim known as the Horn Venture No. 2 Claim, said claim being located in Lot 2 of Section 6, Tp. 46 N. and S½S½ of Section 31, Tp. 47 N.Rg.83 W.6th P.M, and the Location Notice thereof being recorded in Book 67 Mining Records page 247 of the official records of Johnson County,Wyoming. Also two additional claims (the Location Notices thereof not yet being recorded) ~~lying southeasterly from the above claim and known as the Horn Venture No. 3~~ and No. 4 Claims.

which is the subject of a proposed exploration project contract, hereinafter called the "contract", between the United States of America, hereinafter called the "Government", and

2/ Arlin Davidson

hereinafter called the "Operator"; and

WHEREAS, under certain provisions of said contract which are set forth on the reverse side hereof, the Government is entitled to a percentage royalty on production and to certain other rights and equities which do or may conflict with or be adverse to the interest of the undersigned in said property;

NOW THEREFORE, the undersigned, in consideration of said contract and as an inducement to the Government to enter into same, undertakes and agrees as follows:

1. The Government's equity in and right to dismantle, sever, take possession of, and remove and dispose of facilities, buildings, fixtures, equipment, or other items as provided in the contract, or any amendment thereof, shall prevail over and be prior and superior to any conflicting or adverse rights of the undersigned, and the Government is authorized to enter upon the land for such purposes.

2. To secure the payment to the Government of the percentage royalty on production3/ provided for under the terms of said exploration project contract, or any amendment thereof which does not increase the maximum amount of the Government's claim here stated or alter the provisions for repayment, there is hereby granted to the Government a lien upon the land herein described and upon any production of minerals therefrom, until the royalty claim is fully paid in the amount of the Government's contribution, not in excess of 4/$ 65,000.00, or ten years have elapsed from the date of the contract.

3. The undersigned shall commit no act nor assert any claim that may contravene or conflict with the lien, claim, or rights of the Government under the provisions of said contract. This agreement shall be binding upon the heirs, executors, administrators, successors, and assigns of the undersigned.

Dated this 26th day of August, 1953.

Orville P. Christensen [Seal]

M. R. Halstead [Seal]

Vance E. Sackett [Seal]

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

2/ Insert the name of the Operator as it will appear in the exploration project contract.

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

4/ Insert the maximum amount of the Government's contribution.

RELEVANT CONTRACT PROVISIONS

Repayment by Operator. (a) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than six months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) per cent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) per cent of any such net amounts, plus one-half (½) per cent such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) per cent of such net amounts.

(For instance: the percentage royalty on a net amount of five dollars ($5.00) per ton, would be one and one-half (1½) per cent; on a net amount of ten dollars ($10.00) per ton, three and one-half (3½) per cent.)

(b) As here used, "net smelter returns", "net concentrator returns", and "other net amounts realized from the sale or other disposition", mean gross revenue from sales; or if not sold, the market value, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be gross income from mining operations for percentage depletion purposes in income tax determination.

(c) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(d) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

Title to and disposition of property. All facilities, buildings, fixtures, equipment, or other items costing more than $50.00 each, paid for or purchased with funds contributed jointly by the Operator and the Government, although title may be taken in the name of the Operator, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the completion of the work or the termination of the contract shall be disposed of promptly by the Operator for the joint account of the Government and the Operator, either by return to the vendor, by sale to others, or purchase by the Operator at a price at least as high as could otherwise be obtained, as may appear to be for the best interest of the Government, unless the Government, in writing, waives its interest in any such item. If necessary to accomplish such disposition, the Operator shall dismantle, sever from the land, and remove any such item, the cost thereof to be for the joint account of the parties in proportion to their respective interests. If the Operator, within 90 days after the receipt of written notice from the Government, fails, neglects, or refuses to dispose of such property, the Government may itself enter upon the land, take possession of, and remove and dispose of any such property as above provided.